Post-2015 Data Test
country level experiences

Measuring for Monitoring: The State of Data for SDGs in Bangladesh

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Acronyms and Abbreviations

BANBEIS	Bangladesh Bureau of Educational Information and Statistics
BBS	Bangladesh Bureau of Statistics
BDHS	Bangladesh Demographic and Health Survey
CPD	Centre for Policy Dialogue
CO_2	carbon dioxide
CSOs	civil society organisations
DAC	Development Assistance Committee
GoB	Government of Bangladesh
HIES	Household Income and Expenditure Survey
HIV/AIDS	human immunodeficiency virus/acquired immune deficiency syndrome
ICT	information and communication technologies
KIIs	key informant interviews
LDCs	least developed countries
LFS	Labour Force Survey
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
NIPORT	National Institute of Population Research and Training
NPSIA	Norman Paterson School of International Affairs
NSDS	National Strategy for the Development of Statistics
NSO	national statistics office
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
PPP	purchasing power parity
SVRS	Sample Vital Registration System
TVET	Technical Vocational Education and Training
UN	United Nations
WDI	World Development Indicators

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Report Highlights

In the context of global efforts to identify the post-2015 sustainable development agenda, various stakeholders, including the Government of Bangladesh, development partners, non-governmental organisations and civil society organisations, among others, have highlighted the issue of data. Stakeholders agree that more and better data are key to measuring progress and it is important to ensure upfront that adequate preparations are made to generate data for post-2015 in both developed and developing countries. Indeed, to support a goal-based, universal and country-relevant post-2015 agenda, the United Nations Secretary-General's High-Level Panel of Eminent Persons on the Post-2015 Development Agenda called for a "data revolution" in 2013. Despite the success of the Millennium Development Goals (MDGs) in uniting the international community around a set of prioritised global agendas for development, the MDGs have been criticised for not being adequately embedded in national policy processes. Further, the MDGs have been constrained by inadequate data and information, which have made assessing progress difficult. Consequently, transparency and accountability have been undermined.

Taking into account the demand-side needs and supply-side possibilities of a data revolution, an initiative titled "The Post-2015 Data Test: Unpacking the Data Revolution at the Country Level" was launched by Bangladesh's Centre for Policy Dialogue (CPD) and Canada's Norman Paterson School of International Affairs (NPSIA) in association with Southern Voice on Post-MDG International Development Goals. This report, the Bangladesh case study, is part of seven country studies under the initiative. It examines and recommends national-level post-2015 priorities for Bangladesh and identifies challenges associated with measuring the post-2015 agenda in Bangladesh, focusing on eight candidate goal areas: poverty, education, employment and inclusive growth, energy and infrastructure, environmental sustainability and disaster resilience, governance, global partnership for sustainable development, and health.

The report intends to benefit policy-makers and other stakeholders including academics, civil society actors and development partners by offering a deeper understanding of the state of data for measuring Bangladesh's progress on the post-2015 agenda. The findings of the report will enable concerned stakeholders to take corrective measures, undertake new initiatives to address data deficits and take steps to generate new data in view of the post-2015 agenda. The report will also be helpful to global actors by offering insights into data situations in low-income countries and outlining technical and financial support measures to help equip these countries to measure progress on and monitor implementation of the post-2015 agenda.

The Bangladesh case study presents an overall assessment of existing statistical capacity in Bangladesh in view of emerging demands in connection with the post-2015 agenda. The study examines data adequacy for measuring post-2015 progress and identifies key opportunities and challenges at the country level to improve data availability, access, timeliness and quality. The feasibility of a selected set of candidate post-2015 targets and indicators is also assessed.

The Bangladesh case study's key findings are:

- Bangladesh has seen gradual improvements in data production, dissemination and use with regard to development issues over the last 10 years.

- The global ambition towards a data revolution has begun to gain ground in Bangladesh. Relevant stakeholders are becoming increasingly aware of emerging data demands.

- Although data availability has improved in Bangladesh, data are currently not readily available for a number of candidate indicators. For instance, needed statistics that are not currently reported in Bangladesh can be estimated or calculated for 42 indicators (out of 120 candidate indicators examined in this study) from existing administrative information and available surveys. Data for several important indicators are unavailable at the level of disaggregation needed.

- The dearth of data will likely make it difficult to establish a baseline for measuring progress on the post-2015 agenda in Bangladesh. Without baseline data it will be difficult for Bangladesh to establish measurable post-2015 targets.

- Available data in Bangladesh are of variable quality. They often suffer from a lack of accuracy and reliability, timeliness and punctuality, accessibility and clarity, and coherence and comparability. There is a need to improve overall data quality. This is particularly true for a number of goal areas, including energy and infrastructure, environmental sustainability and disaster resilience, governance, and global partnership for sustainable development.

- Issues relating to the accessibility and affordability of data need to be urgently addressed. In connection to this, the dissemination of disaggregated and unit-level data should be promoted at a minimum cost. Promoting data dissemination digitally and in user-friendly formats (e.g., spreadsheets) and establishing interactive websites for data should be a priority.

- Global minimum standards for a number of key areas, such as ending extreme poverty by 2030, will be difficult to attain in Bangladesh unless a host of measures are put in place. These measures will require significant resource allocation.

- Although certain efforts have sought to reform the statistical system in Bangladesh, they are inadequate to meet the growing demands for more and better data. For example, Bangladesh is currently implementing a National Strategy for the Development of Statistics for the 2013–23 period. Progress on data improvement activities has not been satisfactory because a number of actions planned as part of the strategy have not been implemented within the stipulated timeframe.

- Expectations for the data revolution vary from stakeholder to stakeholder in Bangladesh. Coordination and cooperation among stakeholders will need to be significantly improved to align expectations. The demands for more frequent, timely, disaggregated, quality data from policy-makers and non-governmental actors need to be recognised by data producers.

- The potential roles of the private sector and modern technology in the data revolution in Bangladesh have yet to be adequately appreciated. A big push is required for the advantages of information and communication technologies to be recognised and leveraged.

Beyond these key findings, the study highlights data challenges for Bangladesh. These include:

- weak infrastructure;
- lack of human resources;
- outdated and inadequate legislation;
- insufficient financial resources;
- inadequate documentation (e.g., metadata, survey methodology);
- duplication of sources;
- poor access to data producers;
- poor coordination among data users, producers and other stakeholders;

- inadequate commitment to quality data production from development partners;
- lack of awareness about importance of statistics among policy designers and decision makers;
- absence of data dissemination policy;
- storage of data not being digitized;
- lack of coherent approach towards validation of unofficial data; and
- absence of transparency and quality control efforts.

Addressing this long list of challenges will not be easy for a country such as Bangladesh and these challenges cannot be solved in a short span of time. There is a need to urgently design an agenda for action to address these challenges. Such an agenda should be informed by key considerations about data production, data availability and access, and capacity and coordination.

Data Production

There is a need to standardise and bring coherence to relevant concepts and definitions of variables through consultations among major stakeholders. New surveys will be needed to generate data on various important indicators. This is particularly true for indicators related to governance and institutional strengthening. There is a need to consolidate existing surveys and data collection procedures. In many cases, surveys should be conducted more frequently, which may require increasing financial, technical, logistical resources and improving human resources. As demands for disaggregated data (e.g., spatial, gender, age-group, ethnicity) grow, data producers should take the necessary steps to address emerging needs by including disaggregated data on their agendas. Concerted efforts need to be taken to enhance the quality of data generated through the use of modern technology. While they are concerned with data related to measuring progress on the post-2015 agenda, policy-makers are also interested in understanding the key factors that influence the attainment of better results, so it will be necessary to generate data that not only monitor post-2015 development outcomes but also the variables that impact them.

Data Availability and Access

Data should be made available in a timely manner to facilitate real-time decision making. Raising administrative efficacy and increasing the use of technology can contribute towards this. Ensuring transparency in data production and access for data users should be a core dimension of the data revolution in Bangladesh. In connection to this, the development of a data dissemination plan and updated legislation are required.

Capacity and Coordination

Adequate funding for strengthening institutional capacity and undertaking new activities needs to be ensured. Together with the Government of Bangladesh, development partners need to address this issue upfront in their planning. Coordination among data producers and data users should be strengthened to harness existing capacities in the private sector. Institutional capacity needs to be enhanced, keeping medium-term needs associated with the post-2015 agenda in the purview. Above all, the data revolution in the context of the post-2015 agenda requires a new set of institutional arrangements. In September 2015, the Ministry of Foreign Affairs will represent the Government of Bangladesh at the United Nations summit where the post-2015 agenda will be finalised. The General Economics Division of the Planning Commission is expected to play a key role in planning and coordinating the subsequent implementation process. The Bangladesh Bureau of Statistics will play a central role in generating data to track development progress. Local Consultative Groups may coordinate development partners' initiatives, while the Ministry of Finance, including its Economic Relations Division, ought to coordinate financing needs. Civil society organisations and other

stakeholder groups will be both generators and users of key data. Analysts, experts and researchers will use relevant data to measure and assess progress. A comprehensive plan on data that articulates concrete tasks for specific institutions and stakeholders will need to be designed. Only such a plan will enable a data revolution to occur in Bangladesh.

Introduction

In the context of global efforts to identify the post-2015 sustainable development agenda, the need for a data revolution has been highlighted by various stakeholders. They agree that more and better data are key to measuring progress and it is important to ensure upfront that adequate preparations are made to generate data for post-2015 in both developed and developing countries. Indeed, to support a goal-based, universal and country-relevant post-2015 agenda, the United Nations (UN) Secretary-General's High-Level Panel of Eminent Persons on the Post-2015 Development Agenda called for a "data revolution" in 2013 (see HLP 2013). Despite the success of the Millennium Development Goals (MDGs) in uniting the international community around a set of prioritised global agendas for development, the MDGs have been criticised for not being adequately embedded in national policy processes. Further, the MDGs have been constrained by inadequate data and information, which have made assessing progress difficult. Consequently, transparency and accountability have been undermined. Against this backdrop, the availability of quality data has emerged as a key concern (Bhattacharya et al. 2013).

The need to spark a data revolution is motivated and primarily informed by four factors: (i) lack of data did not permit the establishment of reference indicators for a number of MDGs, (ii) inadequacy and paucity of data did not allow real-time measurement of progress with respect to a number of MDG targets and indicators, (iii) a number of MDG indicators did not have quantifiable targets in absence of the required data and (iv) the post-2015 agenda will embrace many "soft issues" such as governance, which will necessitate formulating and generating new data and information matrices. Given the availability of new techniques and tools for generating and mobilising information (e.g., the Global Positioning System, better known as GPS), it is both desirable and feasible to design the post-2015 agenda by keeping emerging opportunities related to modern technology in the purview. In addition to first proposing and explaining the concept of the "data revolution," the High-Level Panel expressed the hope that it would enable governments and policy-makers to better track progress on the post-2015 agenda and articulated that the objective should be to equip relevant stakeholders with the data and information they needed to establish appropriate benchmarks and demand more from their governments with regard to monitoring progress on the agenda.

Taking into account the evolving demand-side needs and supply-side possibilities of the data revolution, the initiative titled "The Post-2015 Data Test: Unpacking the Data Revolution at the Country Level" was launched by Bangladesh's Centre for Policy Dialogue (CPD) and Canada's Norman Paterson School of International Affairs (NPSIA) in association with Southern Voice on Post-MDG International Development Goals. The initiative set out the following objectives:

- Examine how a universal, country relevant post-2015 agenda can be applied to a select number of low, middle and high-income countries.
- Assess the adequacy of data available for measuring post-2015 progress at the country level in a select number of countries.
- Identify opportunities and challenges that may arise from the implementation of a universal, country-relevant post-2015 framework.
- Enhance the capacity of Southern think tanks to contribute to global policy processes geared towards shaping the post-2015 agenda, and ensuring that global-level decision making, particularly on the "data revolution," is informed by country-level contexts and realities.

As part of the Post-2015 Data Test initiative, seven country studies – Bangladesh, Canada, Peru, Senegal, Sierra Leone, Tanzania and Turkey – are being conducted. In selecting these countries, diversity in terms of income level, rate of economic growth, region, demographic factors,

climate/environmental factors, geographic factors, political stability and statistical capacity were kept in perspective. The country studies examine national-level priorities and measurement challenges for seven goal areas that that touch on roughly 12 of the 17 SDGs included in the post-2015 agenda, namely poverty, education, employment and inclusive growth, energy and infrastructure, environmental sustainability and disaster resilience, governance, and global partnership for sustainable development.[1] It may be mentioned in this connection that the Bangladesh study has included an additional goal area concerning health issues. This is done in view of health being a key policy priority in Bangladesh and in appreciation of the emphasis put on health issues in the course of stakeholder consultations.

This report presents the findings of the Bangladesh case study. To service the objectives of the initiative, the study addresses the following research questions in the particular context of Bangladesh:

- How appropriate or feasible are the candidate goals, targets, indicators and baselines at the country level?
- What is the adequacy of data, including disaggregated data, for measuring post-2015 progress across a select set of goals at the country level? In the absence of required data, can proxy indicators be used?
- What are the implications of data adequacy for setting the baseline that is used in the post-2015 framework?
- How feasible and relevant are select candidate “zero” or “global minimum standard” targets at the country level?
- 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?
- Where improvements in data quality, accessibility and transparency have been made, what have been the drivers? Where gaps exist, why?
- What expectations do different stakeholders have for a data revolution? What are the likely opportunities and constraints?

Brief Overview of Current Context

The Millennium Declaration, based on the fundamental values of freedom, equality, solidarity, respect for nature, and shared responsibility, was adopted by the UN General Assembly in 2000. The consequent MDGs have provided an inspiring vision underpinned by time-bound milestones for global and national development efforts with the target date of 2015 (UNTT 2012). By setting out ambitions to address poverty and put human progress at the forefront of development agendas, the MDGs have no doubt made a historic contribution to human development. It is thus unsurprising that MDG issues still resonate as the essential building blocks of human development, as indicated by consultations around the world (UNDG 2013).

The MDGs focus on a limited set of concrete, simple, realistic and achievable human development goals and targets to help stimulate development efforts, set global and national priorities, and focus action at all levels by mobilising a vast array of political, financial, technical and human resources for development. Important progress, particularly on the goal of eradicating extreme poverty, has been made in the majority of countries, including Bangladesh. Statistics suggest that fewer children are dying, fewer children are underweight, fewer people are contracting HIV (although the prevalence of

[1] The goals examined for this study were determined well in advance of the proposal for the SDGs released by the Open Working Group on Sustainable Development Goals (see Bhattacharya et al. 2015 for details). An examination of the final set of SDGs, which states will adopt 25-27 September 2015 shows that the seven goal areas included in the methodology for this study reflect the bulk of the areas covered by the SDGs.

HIV/AIDS is still high in some African countries) and fewer women die in childbirth each year across the world (UNCT 2013).

Notably, these trends have been uneven within and across countries and regions. For example, the total number of people living on less than US$1.25 (purchasing power parity [PPP]) per day decreased from approximately 1.9 billion in 1990 to 1.0 billion by 2011 (World Bank 2014a). However, the reduction was overwhelmingly concentrated in China, with the number of poor people increasing in sub-Saharan Africa (UNTT 2012). The geography of poverty has experienced a notable shift – three-quarters of the world's poor now live in middle-income countries.

In Bangladesh, moderate progress has been made on the MDGs, particularly on the poverty-related indicators of MDG 1 (eradicate extreme poverty and hunger), MDG 4 (reduce child mortality), and MDG 6 (combat HIV/AIDS, malaria and other major diseases), and democratic governance in general. The proportion of the population below US$1.25 (PPP) per day decreased from 70.2 percent in 1992 to 43.3 percent in 2010 (World Bank 2014b). Strikingly, gender parity has been achieved not only at the primary education level, but also at the secondary level. Moreover, women outnumber men at the tertiary level. On the demographic front, life expectancy at birth increased from 67.2 years in 2009 to 70.4 in 2013 (BBS 2015), with females having a slightly higher life expectancy. Maternal mortality rates have fallen markedly. Housing conditions have significantly improved since the proportion of solid constructed homes has increased, average household size (number of permanent tenants live in a house) has declined, and sanitation and access to drinking water have experienced notable improvements, particularly in rural areas.

Nonetheless, major challenges remain for Bangladesh, especially with regard to the hunger-related indicators of MDG 1 (eradicate extreme poverty and hunger), MDG 5 (improve maternal health), MDG 7 (ensure environmental sustainability), which is fully off track and is unlikely to be met, and tackling growing geographical, gender-based and group-based inequalities (UNCT 2013).

It will be important to track progress on the post-2015 agenda in a reliable, timely and comparable manner. Serious data limitations have constrained the measurement of progress on many MDG indicators and cross-country comparisons. The current state of data availability and accessibility at the national and global levels leaves much to be desired, both in terms of data quality and the scope of required information. In many developing countries, household income and consumption data are either unavailable or incommensurate with the needs of reliable and timely monitoring of the dynamics of poverty and inequality, especially for the purposes of time series analysis and international comparisons. Additionally, available data often cannot be used to measure the inter-linkages of poverty with issues measured by other surveys, such as health, population, sustainable development, employment and hunger (UNTT 2013). Compounding this problem, there is a serious scarcity of quantitative data for measuring governance-related indicators – corruption, perception, press freedom, gender empowerment and human rights – due to their not readily quantifiable and abstract nature.

Francesca Perucci (2011) identified several challenges related to the availability of data for the UN Inter-Agency and Expert Group on MDG Indicators. These include: "the burden on some countries of data monitoring and reporting; the availability and unreliability of data collected; inconsistencies between data required for global aggregation and what is available at the country level; a lack of international standards; the failure to adopt existing international standards at the national level; a lack of national capacity; and disagreement on the baseline year" (Carin and Bates-Eamer 2012). As is the case, a country's national statistics office (NSO) needs to act as the core entity responsible for data generation and dissemination. But NSOs in developing countries and least developed countries (LDCs), such as Bangladesh, lack infrastructural capacity and management skills for generating needs-based data to monitor progress against relevant indicators. In some instances, private sector

entities also generate data that measure progress against some indicators, but these data lack authorisation, validation and authentication from NSOs due to non-compliance with quality assurance and statistical procedures followed for data collection.

There is a need to recognise that advances in information and communication technologies (ICT) (e.g., internet and mobile technologies) are creating new opportunities to upgrade and complement traditional data collection methods. Taking advantage of these opportunities could significantly reduce transactions costs and increase efficiency in data collection (UNCT 2013). New avenues for data generation could involve interactive forms of data collection and feedback mechanisms such as "crowdsourcing."

Bangladesh's Engagement in the Post-2015 Process

Bangladesh has been moderately engaged in the post-2015 process. National consultations on post-2015 provided major stakeholders with an opportunity to reflect on Bangladesh's rich experience in MDG implementation and articulate their preferences for the post-2015 agenda. Through these efforts, Bangladesh highlighted its perspective and was able to contribute to the global discourse on post-2015 goals, targets and indicators. In Bangladesh, the national discourse on post-2015 goals began in earnest in 2012 prior to the historic UN Conference on Trade and Development widely known as Rio+20 in June of that year. The Government of Bangladesh (GoB) organised two high-level consultations in February and May 2012 where leading policy-makers, experts, private sector and civil society organisation (CSO) representatives, development partners and UN Country Team members were invited to contribute (UNCT 2013). Priority was given to the issues of inclusiveness and participation in these consultations.

The GoB held an inter-governmental side event with the Government of Vietnam at Rio+20 to showcase the advantages of a green economy and present it as a win-win opportunity for the two developing countries. A separate Bangladeshi CSO side event on the topic of a green economy was also organised at Rio+20. A number of other events were organised during the post-Rio+20 period. For instance, the GoB held a two-day conference on people's empowerment and development in August 2012. The government then conducted the first post-2015 National Expert Level Consultation Conference in November 2012, which brought the national consultation process on the post-2015 agenda to the forefront of national discourse (UNCT 2013). The conference was aimed at identifying the gaps and challenges in relation to sustainable development and generating ideas on post-2015 goals, targets and indicators.

Apart from these events, the GoB organised nine regional- and district-level consultation meetings between November 2012 and April 2013 to ensure the robustness of the final post-2015 report that it would submit to the UN (see UNCT 2013). The consultation process ended in June 2013 with the holding of the National Level Conference, where a post-2015 framework proposed by Bangladesh was given final approval (UNCT 2013). In various combinations and partnerships, civil society actors organised a number of events and discussions to highlight their priorities and influence the process of government-initiated agenda building. The document prepared as part of this process proposed 11 candidate goals concerning development issues including human potential, poverty and inequality, food security and nutrition, health and family planning, gender equality, quality education and skills, employment and worker rights, good governance, sustainable production and consumption, environmental sustainability and disaster management, and international cooperation and partnership.

Outline of the Report

Following this introduction, the Bangladesh case study is made up of four core sections. The second section summarises the Bangladesh research team's research methodology. The following section

identifies candidate targets and indicators for measuring progress on post-2015 in Bangladesh that reflect Bangladesh's contemporary context and priorities. The state of data for measuring progress on post-2015 in the country is discussed across the fourth section. The fifth section deals with the political economy dimensions of the data revolution in Bangladesh by highlighting data gaps, areas for improvement and the data availability–transparency–accountability nexus. The study concludes by summarising key findings, offering reflections on the challenges for Bangladesh in implementing the post-2015 agenda based on these findings, and outlining the findings' implications for ongoing global processes.

Research Process

Key Activities Undertaken

The research for the Bangladesh case study went through a number of stages guided by the *Methodology and Implementation Guide* for the Post-2015 Data Test initiative developed by The North-South Institute,[2] CPD and Southern Voice (see Bhattacharya, Higgins and Kindornay 2014). The selection of candidate goal areas, targets and indicators to be examined by all research teams under the initiative was conducted through a robust consultative process.

To identify post-2015 development priorities for Bangladesh, the Bangladesh research team[3] first organised an inception workshop, which brought together 75 participants from a wide range of relevant stakeholders in the public sector, academia, civil society, the donor community and international organisations who have dealt with data-related issues.[4] The workshop's aims were to: (i) provide information about the design of the initiative and collect feedback with regard to the refinement of its proposed objectives, methodology, implementation and outreach plans, (ii) test the appropriateness of the preselected goals, targets and indicators at the country level and (iii) develop a sound understanding of the state of data availability and accessibility.

A comprehensive list of candidate targets and indicators for Bangladesh was presented at the workshop for participants' consideration. The list comprised 89 targets and 357 indicators under five broad themes (see Table 1). These targets and indicators were compiled by the Bangladesh research team by reviewing various global, regional and national policy documents, research reports and academic literature.[5] Five broad themes were identified to keep the number of workshop working groups at a manageable level. The research team sought expert opinion, critical appreciation, validation and suggestions from participants organised into five working groups. Having scrutinised the targets and indicators, participants suggested that a number of them be dropped and proposed new targets and indicators for inclusion.

Table 1. Candidate targets and indicators under broad themes

Broad theme	Number of targets	Number of indicators
Poverty, inequality, food security and employment	23	102
Health, education and gender	17	68
Environment, sustainable energy and water/sanitation	21	96
Governance and peace/security	14	53
Global partnership	24	38

Participants' perspectives on the following questions were sought during the workshop:

- What is the data availability situation with regard to the indicators?
- What would be the major challenges in generating data for the indicators?
- With regard to the data revolution, what are your views on the following debates:
    - Magnitude of the funding required for undertaking various initiatives relating to the data revolution
    - Need for coordination among stakeholders

[2] The initiative originally included The North-South Institute as a partner but the closure of the institute in October 2014 led to NPSIA joining the partnership.
[3] For details on the research team, see Annex 1.
[4] A list of the participants is presented in Annex 2.
[5] See Annex 3 for the complete list.

    - Opportunities for public-private partnership on the data revolution
- What capacity-building initiatives (for data producers, analysts, policy-makers) would be required in view of the data revolution?
- What are innovative ways of producing data (including use of ICT and modern technology)?
- What are the main challenges in making data easily and widely accessible?

The inception workshop involved detailed discussions that elicited many insights from participants.[6] Following this event, the research team finalised the set of candidate targets and indicators for Bangladesh by taking into account participants' views and the scope of the overall initiative.[7] The team then conducted desk reviews and literature reviews to examine data availability, sources, adequacy and quality.[8] Various challenges were identified and possible policy recommendations were discussed. The team also conducted key informant interviews (KIIs) with relevant experts and stakeholders at the country and global levels in order to assess perceptions about data gaps, challenges associated with a universal, country-relevant framework, and expectations for the data revolution. In conjunction with KIIs, the team carried out focus group discussions at the country level. A total of eight KIIs were conducted (see Table 2 for a breakdown). At the country level, key informants included officials from national statistical authorities and a private data producer. At the global level, a representative of a UN agency was included.

Table 2. Number of KIIs conducted, by type of organisation

Name of organisation	Type of organisation	Number of KIIs
Bangladesh Bureau of Statistics (BBS)	NSO	2
Bangladesh Bureau of Educational Information and Statistics (BANBEIS)	Government department	1
Department of Environment of the Ministry of Environment and Forests	Government department	1
Directorate of Primary Education of the Ministry of Primary and Mass Education	Government agency	1
General Economics Division of the Planning Commission	Policy planner	1
Mitra Associates	Private sector data producer	1
UN Development Programme	Development partner	1

Taking into account that the Bangladesh Bureau of Statistics (BBS), Bangladesh's NSO, is expected to generate most of the required data, an in-depth focus group discussion was conducted with senior BBS officials. The research team also reviewed both national and international statistical sources, policy documents and relevant literature. These inputs were used to identify key issues and gain knowledge about the perspectives of a broad range of stakeholders for validation of the preliminary findings.

As the preliminary findings of the Bangladesh case study were being prepared, a validation workshop was organised in Dhaka by CPD. The objective of the workshop was to share preliminary findings and gain further feedback from experts.[9] Data producers, policy-makers, academics and development partners took part in the event. The research team presented the preliminary findings and experts shared their comments and views on the study findings. The team was then prepared to begin finalising the case study.

[6] The *Bangladesh Workshop Report* is available at http://www.post2015datatest.com/wp-content/uploads/2014/07/Bangladesh-Inception-Workshop-Report.pdf
[7] The final set of candidate targets and indicators (including their definitions) is presented in Annex 4.
[8] A list of key documents and resources consulted for testing data availability and adequacy in the context of Bangladesh is presented in Annex 5.
[9] List of participants of the workshop is presented in Annex 6.

Lessons Learned

Several key lessons were learned in the course of conducting the Bangladesh case study:

- The post-2015 agenda has traction in Bangladesh.
    - The emergence of the post-2015 agenda has generated interest and enthusiasm among various groups of stakeholders working on development issues in Bangladesh. In general, stakeholders were optimistic about the post-2015 process and saw it as an opportunity to shape Bangladesh's development process.
    - They indicated that there is a need for an overarching theme for the post-2015 agenda, like how the theme for the MDGs is poverty alleviation.

- Ensuring an inclusive though manageable post-2015 agenda will be difficult, but is recognised as important.
    - While selecting candidate targets and indicators, stakeholders agreed that the scope of the post-2015 agenda needs to be broader than that of the MDGs. They invested significant efforts to showcase their respective priority areas and had a keen interest in the inclusion of those areas in the Bangladesh case study. Thus, the final set of targets and indicators turned out to be large.
    - While commenting on indicators, stakeholders understood that they need to be kept to a manageable number.

- Data production requires attention.
    - There was a general consensus among stakeholders that the BBS needs to assume the core responsibility for producing official national statistics and coordinate with other data producers to generate the needed information.
    - Maintaining timeliness in data production was identified as a major challenge for Bangladesh.
    - Producing data at disaggregated levels has also been a major challenge. Stakeholders appeared to be divided with regard to the required levels of disaggregation. Data producers urged to keep requirements minimal.
    - Enhancing capacity for data generation through financing, technology, logistics and human capital was identified as another major challenge. Many stakeholders were unsure and sometimes skeptical about the use of alternative technologies in producing credible data.

- Data analysts demand better access to data in order to make their own contributions to monitoring and understanding the development progress.
    - In general, data analysts faced significant difficulties in accessing data, particularly micro-level data.
    - While data producers were only concerned with monitoring data, data analysts demanded reliable and relevant data that could be used to undertake further analysis.

Post-2015 Priorities for Bangladesh

Overview of Existing National Priorities

The post-2015 agenda is an opportunity to stimulate an effective response to pressing issues such as poverty, inequality, employment and inclusive growth, child nutrition, maternal health, education, energy, the environment and governance. As countries move forward with defining new development goals and targets for the post-2015 agenda, it is important to build on MDG milestones and achievements and address gaps that remain unresolved.

As mentioned, Bangladesh has performed remarkably well in attaining many of the MDGs, particularly in the area of poverty reduction as it is on track to achieve the target of halving extreme poverty by the end of 2015.[10] The country has also made notable progress in the areas of achieving gender parity in education, reducing maternal and child mortality and combating HIV/AIDS and other major diseases. Despite this progress, Bangladesh needs to address many remaining challenges, such as growing income disparity, which alienates a large segment of the population (women and ethnic minorities, for example, are particularly affected), persistent undernourishment of mothers and children, which has negative inter-generational consequences, and difficulties in attaining safe and unadulterated food, which has emerged as a new challenge to achieving sustainable economic progress.

With regard to educational goals, Bangladesh has performed well, especially in achieving gender parity at the primary school level. However, the dropout rate remains high, learning outcomes are not up to the mark and the transition rate to the secondary level has remained below expectations. Skills acquired through education remain weak and in many cases they are disconnected from emerging market demands. Although Bangladesh has made commendable progress in empowering women, more must be done to ensure that women and men have equal opportunities and access in economic and social arenas. Significant progress has also been achieved in the health sector, but Bangladesh is far from ensuring basic health rights for all. Poor and senior citizens of the country need special attention. More public investment and outreach services are needed on an urgent basis, as health is a key foundation of human capital formation in developing countries.

Addressing the need to improve access to modern technology, particularly ICT, has been impressive over the last decade. Bangladesh has promoted and improved access to modern technology through various policies. Improving public policies and regulations and providing the public with greater access to the digital economy and ICT could become important ways to promote development. Good governance plays a key role in successfully implementing development goals at the national and global levels. Respect for human, social, economic and political rights are prerequisites for creating a level playing field for various segments of the population so that they can harness their full human potential. One of the notable gaps in the MDGs has been the lack of goals and targets on governance or institutions that can support the process of sustainable development. Going forward, environmental issues deserve much more attention as well. As one of the most climate-vulnerable countries, Bangladesh must mobilise domestic resources and garner support from the international community to encourage stakeholders to perform their responsibilities in light of the principle of common but differentiated responsibilities.

[10] This is in accordance with the indicator based on the national poverty line of Bangladesh. However, when measured in terms of income level of $1.25 PPP per day, Bangladesh may not be able to reach the target.

Selected Targets and Indicators

The Bangladesh case study includes a goal area relating to health in addition to the seven goal areas identified under the Post-2015 Data Test initiative. Table 3 shows the numbers of targets and indicators examined in this study for each of the goal areas. A total of 20 targets and 45 indicators under the initiative's seven goal areas are to be examined across the seven country studies. These are referred to as global targets and indicators. For Bangladesh, an additional 28 targets and 75 indicators were identified (these numbers include the targets and indicators under the additional goal area of health) through the extensive public consultations and review process outlined above.

Table 3. Set of candidate targets and indicators for the Bangladesh case study

Goal area	All countries		Bangladesh	
	Number of targets	Number of indicators	Number of targets	Number of indicators
1. End poverty	3	5	3	9
2. Ensure quality education for all	2	5	1	5
3. Create jobs, sustainable livelihoods and inclusive growth for all	3	7	5	11
4. Ensure sustainable energy and develop infrastructure for all	2	8	1	3
5. Establish a sustainable, healthy and resilient environment for all	3	5	3	16
6. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	5	9	5	10
7. Establish a global partnership for sustainable development	2	6	6	12
8. Ensure primary health services for all	n/a	n/a	4	9
Total	**20**	**45**	**28**	**75**

Note: n/a stands for not available.

End Poverty

Progress and Priorities

Alleviating poverty and boosting inclusive growth remain the key priorities in Bangladesh's national development agenda. With regard to MDG 1 (eradicate extreme poverty and hunger), the country's progress has been quite impressive. Bangladesh has halved the proportion of its population living below the national poverty line. That proportion fell from 56.7 percent in 1991–92 to 31.5 percent in 2010.[11] The latest estimate from 2013 suggests that the proportion fell to 26.5 percent, which surpasses the target of 27.8 percent for 2015. Notably, the rate of poverty reduction was faster in the last decade compared to prior decades. Bangladesh has been able to maintain steady economic growth in recent years. It is likely that poverty alleviation and inclusive growth will be separate areas of focus in the post-2015 agenda. Targets relating to poverty, hunger and nutrition will likely be standalone targets, with separate targets relating to economic growth and reducing inequality. Targets relating to inclusive growth should involve increased employment opportunities, reduced disparity and better living standards.

In the MDGs, poverty, inclusive growth and hunger (including nutrition) were considered to be part of the same goal, MDG 1. Bangladesh met one of the indicators of target 1 by reducing the poverty gap ratio to 6.5 in 2010, with the target for 2015 being 8.0 (GED 2014). Estimates from the Household Income and Expenditure Survey (HIES) suggest that the target of halving the proportion of the population living below the upper poverty line[12] at the national level was achieved in 2012. Still, Bangladesh needs to work toward reducing the proportion of its population living on less than US$1.25 (PPP) per day, which is a comparable global benchmark.[13] As of 2010, around 43.3 percent of the population remained below that benchmark, with the target for 2015 being 35.1 percent. Moreover, the gap between the US$1.25 (PPP) and US$2 (PPP) per day benchmarks is increasing, indicating rising inequality. The difference between the head count ratios of US$1.25 (PPP) and US$2 (PPP) per day was 25.3 percent, 29.2 percent and 32.5 percent in 2000, 2005 and 2010, respectively. Hence, although more people are moving out of a certain level of poverty (i.e., the US$1.25 (PPP) per day line), the most marginalised segments of the population remain within the proximity of extreme poverty. These vulnerable people are susceptible to falling below the poverty line as a consequence of any sudden shock.

While Bangladesh may be on track to achieve the MDG target of halving poverty by the end of 2015, there is a flip side to this progress. Income distribution has tended to be asymmetrical, with the Gini coefficient increasing from 0.39 in the early 1990s to 0.45 in 2000 to 0.47 in 2005, indicating a growing income gap between the rich and the poor. A marginal improvement was observed in 2010 when HIES data indicated that the Gini coefficient decreased to 0.46.

Another shift to consider is the changing geography of poverty in Bangladesh. An east-west divide is evident in the country, with HIES data indicating that pockets of poverty have shifted between the two regions from east zone to west zone. A similar trend is also apparent with regard to the rural-urban divide. Rural poverty and poverty in urban and peri-urban slums have different dimensions and separate policy interventions are required to address them.[14] In Bangladesh, the HIES produces

[11] The latest official data from 2010 show that the incidence of extreme poverty has declined at an annual rate of 2.47 percent during the 1992–2010 period. The MDG target is to maintain a declining annual rate of 2.12 percent for the entire 1992–2015 period (BBS 2011).
[12] There were 16 upper poverty lines (and 16 corresponding lower poverty lines) in Bangladesh, one for each stratum.
[13] It should be noted that before the revision of MDG indicators in 2007, people living below US$1 (PPP) per day in terms of income level or consumption were considered to be extremely poor.
[14] Clear definitions of urban and rural demarcation need to be established in Bangladesh.

disaggregated data for 16 strata comprising rural, urban and other urban classifications for all divisions. The BBS produced poverty estimates at a more disaggregated geo-political level (i.e., sub-district or upazilla level) by integrating HIES data with the population census sampling frame. Information and estimates regarding the nature and dimensions of poverty have made one point clear: there is an acute need for more nationally produced credible poverty numbers that can be used in aggregate global poverty estimates. This is critically important from the perspective of addressing the "leave no one behind" principle for the post-2015 period.

Attaining targets relating to food security and nutritional well-being remains a major challenge in Bangladesh. All indicators on hunger and nutrition require special attention.[15] This is due to the under-achievement of targets by groups in the population that require special attention, such as households headed by single women, disadvantaged youth and working children, physically challenged people and others. The lack of significant advancements by ethnic minorities with regard to nutrition also remains a concern.

Country-Level Post-2015 Targets and Indicators

The post-2015 agenda will likely seek the more ambitious target of ending extreme poverty. The suggested indicator for monitoring this target is the proportion of world population below US$1.25 (PPP) per day. The aim in this regard is for this proportion to fall to zero by 2030, which makes it a global minimum standard. For Bangladesh, it will be highly challenging to achieve this target within the timeline. As mentioned, around 43.3 percent of Bangladesh's population lived below US$1.25 (PPP) per day in 2010. Still, attempting to end national extreme poverty is a worthwhile endeavour.

The GoB proposed to the UN that a separate goal on food security and nutrition could improve focus and thus help countries tackle related problems. Here, however, poverty, hunger and nutrition are addressed under the same goal area to ensure consistency across country studies under the Post-2015 Data Test initiative.

Taking into account Bangladesh's context and priorities, various national targets and indicators have been proposed for measuring progress on post-2015. A total of 14 indicators (including the five global indicators) have been suggested to monitor targets on ending extreme poverty, reducing poverty according to the national upper poverty line and reducing hunger by 2030. These indicators involve the national extreme poverty line, squared poverty gap ratio, multidimensional poverty index and wasting (see Table 4). Notably, Bangladesh has identified covering more people under social protection measures as a national priority. Such measures would help ensure adequate nutrition for the groups that receive coverage, such as the poor and vulnerable who need it most. To monitor a national target on social protection measures, indicators relating to nutrition, food production and pregnant women have been suggested. To ensure that the needs of marginalised people can be addressed, appropriate disaggregation of these indicators is recommended.

[15] Although Bangladesh is on track to meet the target on the prevalence of underweight children under five years of age (targeted to fall to 33 percent by the end of 2015 from 66 percent in 1990, prevalence stood at 36.4 percent in 2011), the target is set on the high side. The percentage of underweight children of that age group should drop at a faster rate.

Table 4. End poverty: Targets and indicators Target	Indicator
Global	
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 the nationally-defined poverty line
Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %
National	
End extreme income poverty	Proportion of population below national extreme poverty line
Reduce poverty	Reduce severity index (squared poverty gap ratio)
	Percentage of population living in poverty according to the multidimensional poverty index
Reduce the proportion of people who suffer from hunger	Proportion of children under 5 years of age with low weight-for-height (wasting)
Cover x% of poor and vulnerable people with social protection measures	Percentage of poor and vulnerable people under social protection measures
End hunger and protect the right of all to have access to sufficient, safe, affordable and nutritious food	Proportion of people (by sex and age) consuming less than 2,122 kilocalories per day
	Proportion of people (by sex and age) consuming less than 1,805 kilocalories per day
	Per capita production of cereal
Improve nutritional status of pregnant women, lactating mothers and their newborns	Coverage of iron-folic acid supplements for pregnant women, %

Ensure Quality Education for All

Progress and Priorities

Primary education enrolment is one development area in which Bangladesh has achieved commendable progress. Gender parity with regard to the net enrolment rate for primary education has almost been attained.[16] Gender parity has been achieved at the secondary level. Despite significant improvements in reducing the dropout rate at the secondary level since 1990, further efforts are needed. Meanwhile, initiatives have been undertaken to introduce pre-primary education and implement various quality-enhancement measures in primary education. The National Education Policy of 2010 mandates that "education for all children" is a fundamental right. The GoB has adopted a resolution to extend the length of primary schooling to the eighth grade (the previous length of primary schooling was to the fifth grade). These initiatives are indeed welcome.

Since 2011, the GoB has been implementing the third phase of the five-year Primary Education Development Programme, which is one of the largest development programmes in terms of project size. This US$2.8 billion programme has received some assistance from development partners.[17] The government has also introduced the primary education stipend programme, school feeding programme, secondary education quality and access enhancement project, various ICT initiatives for schools and several Technical and Vocational Education and Training (TVET) programmes, among others. Besides the government's initiatives, many donor-supported non-governmental organisation activities have extended non-formal education opportunities to marginalised groups. Various research initiatives have been undertaken regarding the expansion of education at different levels.

Bangladesh faces challenges in attaining targets linked to primary education completion rate, youth literacy rate and adult literacy rate. A large percentage of children suffering from autism spectrum disorders remain excluded from the country's education system. The quality of education has been a major challenge at all tiers of the education system. Experts have called for better mechanisms to measure the quality of both students and teachers. Grading policy needs to be updated to stay on par with relevant global standards.

Country-Level Post-2015 Targets and Indicators

The post-2015 agenda ought to include improving the quality of basic education. Bangladesh has a special interest in this. Notably, the GoB has proposed that "gender," which is key to addressing many development challenges, be considered in a separate goal. This proposal is driven by Bangladesh's success in promoting gender equality in major areas such as education.[18]

Two global targets and five global indicators were selected for the Bangladesh case study. They cover full access to early childhood and primary education, education quality and increasing enrolment in TVET (see Table 5). For the indicators, benchmarking and generation of data could involve significant challenges. A module could be added to existing surveys to generate the required data. However, the conceptualisation of the meaning of "quality" needs to be aligned with relevant global measures to

[16] According to data from the Directorate of Primary Education for 2011, the net enrolment rate was 98.7 percent, with girls' enrolment being 99.4 percent and boys' enrolment being 97.2 percent (DPE 2011).
[17] Development partners including the Asian Development Bank, United Kingdom's Department for International Development, European Union, Japan International Cooperation Agency, United Nations Children's Fund and World Bank have provided financial support worth about US$423 million.
[18] Although success has been limited in the areas of governance (participation of female representatives at the national and local levels) and economic development (wage disparity between male and female labour), the country has made achieving gender equality and women's empowerment in these areas a priority.

ensure conformity and comparability. For Bangladesh, five additional indicators have been proposed and one additional target on promoting quality research has been suggested. These indicators were selected to focus attention on and monitor the dropout rate at the secondary level as well as financing for TVET and research programmes. Teacher-student ratio by level of education was selected to monitor the quality of education. These indicators are aligned with the GoB's plans and priorities for education.

Table 5. Ensure quality education for all: Targets and indicators Target	Indicator
Global	
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 (TVET) institution
National	
Ensure all children have access to early childhood and quality primary and secondary education	Dropout rate at secondary level, %
	Teacher-student ratio by level of education
Increase the number of adults with skills, including technical and vocational skills	Percentage of education budget for Technical and Vocational Education and Training
Promote quality research (for knowledge creation/innovation)	Proportion of budget allocated to research and innovation
	Number of research findings/innovations patented

Create Jobs, Sustainable Livelihoods and Inclusive Growth for All

Progress and Priorities

Creating jobs and supporting sustainable livelihoods is central to the development process. How marginalised groups, youth and children benefit (or are exploited) through economic growth processes is also important. Although Bangladesh maintained consistent economic growth measured in terms of gross domestic product (GDP) over the 2000–10 period, averaging over 6 percent, and accelerated the rate of growth by one percentage point compared to the preceding decades, income inequality in Bangladesh remains persistently high. Growth has been achieved, but serious concerns remain in terms of creating decent jobs and facilitating necessary structural changes in the economy.

According to the 2010 HIES, inequality marginally decreased between 2005 and 2010. At the national level, the Gini coefficient of consumption expenditure decreased from 0.332 in 2005 to 0.321 in 2010 . The Gini coefficient of income decreased from 0.467 in 2005 to 0.458 in 2010. The share of top 5 percent earners in total income declined from 26.9 percent in 2005 to 24.6 percent in 2010. Indeed, income inequality in urban regions has decreased significantly during the period. However, the share of income of the lowest three deciles[19] remained largely stagnant – it marginally fell from 9.4 percent in 2005 to 9.3 percent in 2010. This indicates that the income share of the most marginalised segment of the population did not change significantly during the period.

Unemployment remains an acute problem in Bangladesh's labour-intensive industrial and agricultural sectors. Youth aged 15–24 years constitute 9 percent of Bangladesh's population and 23 percent of the labour force. This group is most vulnerable to unemployment and underemployment. Informal economic activities have been on the rise in recent years, with large participation by this group. According to the latest Labour Force Survey (LFS) data, approximately seven informal jobs were created for every formal job in 2010. The ratio was only 3.7:1 in 2006. For women, the situation appears to be worse. One reason for this is that it is common for women in rural areas to take responsibility for domestic household activities. The aforementioned ratio was 6.1:1 in 2006 and 11.5:1 in 2010 for women. During the 2006–10 period, the number of employed individuals in the formal sector decreased by 3.4 million in absolute terms, while the number of people in the informal sector increased by 10.1 million. Wage discrimination is also common among ethnic minorities.

Efforts to create decent jobs have been constrained by the prevalence of the informal sector. On a positive note, a number of national and international initiatives are being put in place to improve working conditions in Bangladesh. Following the Rana Plaza tragedy of April 2013, workers' rights and workplace safety issues have gained prominence in public discourse. Alliances of apparel buyers, such as the Bangladesh Accord Group created by retailers from the European Union and the Alliance of North American buyers (widely known as the Accord and Alliance), and the International Labour Organization have implemented initiatives to improve workplace safety. Labour rights were improved through the amended Labour Law of 2013 and certain policy instruments. The key policy document for safeguarding the interests of children is the Child Policy of 2010, which endorsed the right to equal wage for equal work and ensures the fundamental rights of working children. However, full implementation of policies has remained a major challenge.

[19] The lowest three deciles are considered as a measure to evaluate the condition of the poorest segment of the population. As mentioned earlier, 31.5 percent of Bangladesh's population lived below the national poverty line in 2010.

Country-Level Post-2015 Targets and Indicators

For this multidimensional goal area, three global targets are being examined across the country studies: achieve full and productive employment for all, ensure equal pay at work, and support inclusive growth and reduce inequality (see Table 6). Seven indicators were selected to monitor the targets including labour force participation rate, Gini coefficient, Palma ratio and gross fixed capital formation (as a percentage of GDP). At the national level, five targets and 11 indicators have been proposed. The targets for Bangladesh are in the areas of child labour, youth employment, women's empowerment, workplace safety and enabling business. Notably, three additional indicators have been proposed to monitor the target on full and productive employment in Bangladesh.

Challenges remain with respect to the indicators. The first challenge relates to regular and timely data generation. The data source for many of the indicators under this goal area is the LFS, which is one of the BBS's major surveys. It is conducted every three to four years, but there is a need to undertake this survey and others more frequently. The BBS is undertaking new initiatives to address this felt need. The timely dissemination of results also deserves attention. The second challenge concerns the measurement of some indicators, such as time-related underemployment. Third, some indicators may suffer from lack of benchmark data (e.g., number of new jobs created by sector). Fourth, for some indicators, the existing surveys may not be adequate (e.g., mean nominal monthly earnings of employees).

Table 6. Create jobs, sustainable livelihoods and inclusive growth for all: Targets and indicators

Target	Indicator
Global	
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	Gini coefficient
	Palma ratio
	Growth rate of income of the bottom 40%
	Gross fixed capital formation (% of GDP)
National	
Achieve full and productive employment for all, including women and young people	Proportion of own-account and contributing family workers in total employment
	GDP per person engaged (or labour productivity)
	% of formal employment as a share of total employment by sex and type
Reduce child labour and eliminate worst forms of child labour	Number of children removed from child labour
Reduce vulnerability of workers and ensure their rights and safety	Incidence of occupational injury among industrial workers (%)
Decrease the number of young people not in education, employment or training by x%	% of skilled youth employed (gender disaggregated)
	% of youth employed
Increase new start-ups by x and value addition in new products by y through creating an enabling business environment and boosting entrepreneurship	Number of new jobs created (by sector)
Eliminate discrimination against women in political, economic and public life	Labour force participation rate of women compared to men
	Average number of hours per week of unpaid domestic work (by sex)
	Proportion of women-owned or managed businesses

Ensure Sustainable Energy and Develop Infrastructure for All

Progress and Priorities

The cross-cutting development agenda on energy and infrastructure issues was not adequately defined in the MDGs. Rising concerns about sustainable development and the environment, growing demands for energy and increasing resource scarcity have made energy and infrastructure major points of discussion in negotiations on the post-2015 agenda. While there were no MDGs on energy and infrastructure, both are critically important as prerequisites for economic growth, poverty alleviation and social development. Poverty and energy deficiency go hand in hand. Energy expenses account for a significant proportion of household incomes in many developing countries. People in many low-income countries often suffer from lack of energy.

The GoB has committed to providing affordable and reliable electricity to all by 2021. As of 2012, about 53 percent of Bangladesh's population had energy coverage. Per capita generation of electricity was approximately 272 kilowatt-hours that same year, which is low even by South Asian standards. To fulfil the aforementioned commitment, significantly enhancing supply-side capacity of the power sector, including primary energy for power production, is required. New transmission lines will also need to be established. Remote areas currently do not have access to uninterrupted electricity and often do not have access to any electricity at all. Improved, cost-effective and efficient generation, transmission and distribution of electricity will be a major challenge for Bangladesh in the coming decade.

Better access to energy is a necessary condition for rapid urbanisation and industrial growth. Natural gas is the primary source of energy used by the commercial sector in Bangladesh. Natural gas is also the main energy source in the industrial sector, but there is significant unmet demand. The use of compressed natural gas is on the rise as fuel for passenger and freight transport. Gas demand is estimated to reach 5.6 billion cubic feet by 2025, a figure that current reserves will not be able to meet. More than US$9 billion of investment will be required for exploration, development and expansion of the transmission network by 2025. Supplementary sources of energy are imported liquid fuel and coal. About 3.3 billion tonnes of high-quality coal reserves have been discovered in Bangladesh, but environmental concerns have until now deferred mining. Currently only one coal mine using the closed pit method is operational.

The use of renewable energy is negligible in Bangladesh. The GoB has taken several steps to address the issue. With the Sustainable and Renewable Energy Development Authority Act of 2012, the government committed to establishing a renewable and clean energy promotion institution. The idea is to facilitate both public- and private-sector investment in conventional and non-conventional energy projects to develop indigenous energy resources. There are also plans to scale up existing renewable energy-based electricity production to achieve the goal of energy-efficient power for all.

Regarding use of ICT, no target-based ICT indicator was used during MDG implementation despite one MDG target mentioning "making available the benefits of ICT." Over the last decade, some progress has been made in terms of introducing the use of ICT in Bangladesh. According to data from the Bangladesh Telecommunication Regulatory Commission, about 7.5 percent of people had a land telephone connection in 2012, an increase from 3.8 percent in 2000. The cellular phone penetration was 64.6 percent in 2012, whereas the corresponding figure was only 0.2 in 2000. The use of the internet also expanded over the last decade. In 2012, the number of internet users was approximately 20.5 per 100 people, an increase from only 0.1 in 2002 (GED 2014).

Country-Level Post-2015 Targets and Indicators

Two proposed global targets for energy and infrastructure focus on ensuring access to improved and efficient energy sources, including renewable energy, as well as developed infrastructure and ICT (see Table 7). Eight indicators were selected to monitor progress on these targets. Data generation for certain indicators will require new modules or surveys (e.g., "% of the population with access to an all-season road," "rate of improvement in energy intensity," "share of the population with access to modern cooking solutions (%)," etc.).

Table 7. Ensure sustainable energy and develop infrastructure for all: Targets and indicators

Target	Indicator
Global	
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
National	
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	% of households with access to electricity (rural/urban)
	Per capita consumption of electricity
Increase use of energy-efficient transport and infrastructure	% using railway as mode of transport (passenger/freight)

At the country level, two additional targets have been proposed for Bangladesh – "ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy" and "increase use of energy-efficient transport and infrastructure." Notably, the GoB proposed to the UN a separate goal for the post-2015 agenda that addresses sustainable production, consumption and use of resources. The proposal called for energy-efficient use of resources for infrastructure development and increased use of an energy-efficient transport system. It was suggested that the 3R approach – reduce, reuse and recycle – be encouraged for sustainable and energy-friendly production in the industrial sector.

For Bangladesh, more basic indicators are needed. Hence, indicators on electricity coverage for households in rural and urban areas and per capita consumption of electricity have been suggested for monitoring progress on energy access. For infrastructure and transport development, the indicator that has been suggested is the share of passenger and freight transportation using railways a mode of transport.

The reasoning behind the selection of these global and national targets and indicators is to stay focused on basic data relating to energy efficiency, electricity access, access to ICT and physical infrastructure. Such data are essential for measuring the degree of physical preparedness for the economic and industrial development of a country. The Bangladesh Telecommunication Regulatory Commission provides data for ICT indicators, while the Bangladesh Power Development Board could be a potential source for energy-related indicators. The Bangladesh Bank – the country's central bank – could provide data for the "% of adults with an account at a formal financial institution" indicator. However, all these data are used for administrative purposes. Indeed, administrative entities will be key sources of data for post-2015 alongside survey-based sources. National surveys are a potential

source of infrastructure-related data. Some global databases, such as the World Bank's World Development Indicators (WDI), also provide data and information for indicators relating to physical infrastructure. Timeliness, relevance and adequacy of data will be challenges for many of the indicators.

Establish a Sustainable, Healthy and Resilient Environment for All

Progress and Priorities

Bangladesh's geographical location on the Indian Ocean and the large size of the Ganges Delta makes the country highly vulnerable to natural disasters and climate change. It suffers from recurring setbacks arising from natural disasters such as flooding and millions of people remain susceptible to related risks. However, in terms of disaster risk management, Bangladesh is a global role model. Over the years, the GoB has invested over US$10 billion to moderate the impacts of natural shocks. This investment has been utilised to establish flood management schemes, coastal polders and cyclone shelters and engage in disaster preparedness activities. The Cyclone Preparedness Programme, a joint programme of the GoB and the Bangladesh Red Crescent Society, has emerged as a robust early warning system for the coastal population.

On the other hand, Bangladesh's record as regards building a green belt on the coast has not been very good. According to data for 2012 from the Forest Department of the Ministry of Environment and Forests, about 2.53 million hectares, or 19.4 percent, of land in Bangladesh was covered by trees. The relevant MDG target is 20 percent to be achieved by the end of 2015. However, the density of tree cover is only about 10 percent, with the target level being 70 percent and above. Bangladesh urgently needs to expand tree cover to attain the MDG target. Although globally carbon dioxide (CO_2) emissions are steadily increasing over time, Bangladesh is not a large CO_2 emitting country. In 2007, emissions totalled approximately 0.30 tonnes per capita. They are expected to remain below the 0.38 tonnes per capita threshold in 2015.

Regarding access to safe drinking water and sanitation for all, the world is on track to achieve the MDG target. However, progress in this area has been uneven across countries. Many parts of the world have serious problems with water quality because of pollution and surface and groundwater contamination. Progress on access to safe drinking water for all has proved to be a challenge for Bangladesh. In 2009, 97.8 percent of the population had access to an improved source of drinking water if arsenic contamination is not considered, but the figure falls to 86 percent if adjusted for arsenic contamination. As is known, arsenic contamination and salinity intrusion disproportionately affect the poor. Approximately 63.5 percent of the population had access to improved sanitation in 2010.

The GoB adopted the National Sustainable Development Strategy for the 2011–21 period, which identified five strategic priority areas and three cross-cutting issues for Bangladesh's sustainable development. The strategic priority areas include sustained economic growth, development of priority sectors, urban development, social security and protection, and environment, natural resources and disaster management. The three cross-cutting issues are disaster risk reduction and climate, good governance and gender. The Sustainable Development Monitoring Council was formed to monitor and evaluate the progress on the strategy's implementation. The strategy is in line with the government's other planning documents and programmes, most notably the Sixth Five Year Plan (FY 2011-FY 2015) and Perspective Plan of Bangladesh 2010-2021.

Country-Level Post-2015 Targets and Indicators

Three global targets were selected for the Bangladesh case study (see Table 8). They focus on reducing human vulnerability to natural disasters, safeguarding ecosystems by protecting forest areas and publishing governments' and corporations' economic, social and environmental accounts. These targets have five indicators. For Bangladesh, an additional five indicators have been proposed for the same three targets.

Table 8. Establish a sustainable, healthy and resilient environment for all: Targets and indicators

Target	Indicator
Global	
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[20]
	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting[21]
National	
Build resilience and reduce deaths from natural hazards	Proportion of disaster-related economic loss (% of GDP)
	Percentage of national budget/resources committed to disaster risk reduction and climate change adaptation across sectors
	% of reduction in natural and human-induced disaster mortality
Safeguard ecosystems and biodiversity	Proportion of fish stocks within safe biological limits
Publish and use economic, social and environmental accounts in all governments and companies	Proportion of government departments and large companies (capitalisation above US$100 million equivalent) publishing economic, social and environmental accounts
Ensure sustainability in production, consumption and use of resources	Consumption of ozone-depleting chlorofluorocarbons (metric tonnes per capita)
	Greenhouse gas emissions (per capita and per US$1 GDP [PPP])
	CO_2 emissions per capita, per US$1 GDP and total
	% change in particulate concentration in urban air
Provide universal access to safe drinking water at home, and in schools, health centres and refugee camps	% of urban population using basic drinking water
	% of urban population using basic sanitation services
Reduce the vulnerability and exposure of local communities to disasters	% of area covered by early warning system
	% of earthquake-resilient buildings and infrastructure
	% of area covered by community-based disaster risk management
	% of population below a particular flood line (100-year flood, 10 years)
	% of industrial sector with water management

[20] 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).

[21] This is primarily a "yes-no" indicator and has binary variables that can only have two possible values.

An additional three targets with 11 corresponding indicators have also been proposed. The targets cover eco-friendly production and consumption, access to safe drinking water and sanitation and reduction of community vulnerabilities to disasters. Some of the proposed indicators are aligned with the MDGs. Certain indicators have data adequacy problems that need to be addressed.

In its post-2015 report to the UN, the GoB called for integrating disaster risk reduction and climate change adaptation into the core components of sustainable development. Increased use of community-based surveillance mechanisms and increased regional and global cooperation were also sought for combating natural disasters and managing post-disaster situations. Some environment-related MDG indicators are not directly relevant to Bangladesh, but the GoB needs to track progress made by rest of the world given that Bangladesh is one of the countries that are most vulnerable to natural disasters and climate change. The GoB needs to take into consideration that timely and reliable data generation for many environment-related indicators requires technical knowledge and is rather costly. It should negotiate for sufficient technical and financial assistance to adapt to and address emerging scenarios.

Establish Open, Accountable, Inclusive and Effective Institutions, Rule of Law and a Peaceful and Inclusive Society

Progress and Priorities

A goal area that addressed the accountability and transparency of government entities as well as establishing the rule of law was absent in the MDGs. Such a goal area, the choice of targets and indicators, and monitoring by relevant stakeholders (i.e., NSOs, non-governmental organisations and other actors) are critically important for Bangladesh. Discussions under the post-2015 process have assessed the importance of functional institutions and their prospects for advancing the post-2015 agenda. Many participants have argued that lack of institutional capacity severely constrained the achievements of the MDGs. More specifically, the implementation of development policies can be constrained if institutions lack the capacity to perform their roles. Lack of transparency and ineffective accountability within institutions and inefficient rule of law in general may undermine the rights of marginalised segments of a population and limit their access to valuable resources and opportunities. Moving forward, there is a need to build capacity within institutions and ensure the availability of adequately trained and equipped government officials. It is generally acknowledged that even a transparent and accountable government would struggle to carry out its responsibilities without an effective, efficient bureaucracy.

Country-Level Post-2015 Targets and Indicators

The five global targets selected under this goal area have nine associated indicators (see Table 9). The targets were selected with preserving the fundamental rights of all citizens in mind. They involve ensuring citizens' eligibility to get national identity documents, maintaining the rule of law and access to justice for all, and improving and enhancing the personal safety of citizens, particularly groups with special needs.

The GoB proposed to the UN two separate targets – establishing human rights and ensuring good governance – and over 40 possible indicators under this goal area for the post-2015 agenda. For the Bangladesh case study, an additional five targets and 11 indicators have been proposed. The targets focus on increasing civic engagement at all levels, the public's right to information, transparency and accountability of public and private institutions, ensuring access to judicial institutions and strengthening the capacity of law enforcement agencies. Only a few of the associated indicators have readily available official data. There is a need to improve data availability in order to track progress on this goal area.

Table 9. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators	
Target	**Indicator**
Global	
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 tax payers who submit their taxes
National	
Reduce bribery and corruption in all forms	Perception of corruption in political, judicial and law enforcement institutions
	Public perception of corruption in public administration
Increase public participation in political processes and civic engagement at all levels	Number of ministry oversight hearings held by parliamentary committees
	Number of stakeholder consultation meetings held by ministries/local governments
	Percentage of budget allocations directly benefiting the poor and disadvantaged groups such as women, ethnic minorities and the disabled
	Number of CSOs that have officially participated and expressed their views in the process of developing and approving the national budget
Guarantee the public's right to information and access to government data	Number of government entities that regularly place reports on their budgets and expenditure on their websites
Improve transparency and strengthen accountability and integrity of public and private institutions	Percentage of queries attended to by government entities under the Right to Information Act
Ensure justice institutions are accessible, independent, well-resourced and respect due-process rights	Number of prosecutions by the Anti Corruption Commission in one year
Enhance the capacity, professionalism and accountability of the security forces, police and judiciary	Increase in overall Rule of Law Index score

Establish a Global Partnership for Sustainable Development

Progress and Priorities

The experience with MDG 8 (develop a global partnership for development) shows that not including quantitative targets under a goal area makes progress inherently unclear. Only one indicator (proportion of bilateral ODA [official development assistance] of OECD/DAC [Organisation for Economic Co-operation and Development/Development Assistance Committee] donors that is untied, %) is quantitative. According to data from the Economic Relations Division of the Ministry of Finance, Bangladesh received 100 percent untied ODA from OECD/DAC countries in 2011. However, the proportion of aid disbursement to Bangladesh declined from 5.6 percent of Bangladesh's GDP in 1990–91 to 1.6 percent of GDP in 2010–11. Out of 34 OECD countries, nine provided approximately US$364 million in ODA to Bangladesh in 2010–11, which was about one-fifth of total ODA received by the country during that period. Only five OECD countries – Denmark, Luxembourg, Norway, Sweden and the United Kingdom – have fulfilled their commitments to disburse 0.7 percent or more of their respective GNI as ODA to developing countries (ERD 2011). Progress is evidently ambiguous.

Global partnership for sustainable development is an overarching goal area that involves both developing and developed country perspectives. This partnership needs to be inclusive, with leadership coming from governments. One challenge for LDCs such as Bangladesh relates to sources of development finance. Against the backdrop of declining aid disbursements, there is a growing realisation that developing countries must explore what options they have to enhance development financing, including domestic resource mobilisation. They are expected to strengthen their financial institutions and should source at least a part of their own development financing in line with their needs and priorities. Enhancing allocative and implementation efficiency has also been called for. On the other hand, developing countries could also benefit from exploring the potential of South-South cooperation and operationalising the scope for such cooperation. Leveraging South-South cooperation to better use North-South support is an emerging area of interest. Other than financing, some technical knowledge and capacity-building efforts should be in place to strengthen the prospects of developing countries. While the expectations for global partnership under the MDGs remain unmet, there is an opportunity to correct this with the post-2015 agenda. In terms of the environment, developing and developed countries have the responsibility to tackle problems caused by development practices through concerted efforts. The GoB will need to consider these developments and outline strategies accordingly.

Country-level Post-2015 Targets and Indicators

Two global targets and six associated indicators were selected under this goal area (see Table 10). The targets involve creating an enabling environment for global cooperation and extending financing to enhance productive capacity in low- and middle-income countries. The indicators are holistic in nature and in some cases focus not on specific countries but rather a country group. As a LDC, Bangladesh is considered an aid recipient. For the Bangladesh case study, an additional six targets and 12 indicators have been proposed. They relate to aid, trade facilitation and combating illicit financial flows.

Table 10. Establish a global partnership for sustainable development: Targets and indicators	
Target	**Indicator**
Global	
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
National	
Promote an open, rule-based, predictable, accountable and non-discriminatory trading system	Average tariffs imposed by developed countries on agricultural products, textiles and clothing from developing countries
	Percentage of trade to GDP
Implement reforms to ensure stability and transparency of the international financial system and encourage stable, long-term private foreign investment	Share of non-performing loans in banking system's total loan portfolio
	Foreign direct investment to total investment ratio and foreign direct investment to GDP
Developed countries that have not done so should make concrete efforts towards the target of 0.7% of gross national income as ODA to developing countries and 0.15–0.20% of gross national income as ODA to LDCs; other countries should move towards voluntary targets for complementary financial assistance	% of gross national income to ODA
Enhance global collaboration for mobilisation of resources	Percentage of ODA received by developing countries from OECD/DAC countries
	Percentage of ODA received by LDCs from OECD/DAC countries
Reduce illicit financial flows and tax evasion and increase stolen-asset recovery by $x	Illicit financial flows as a share of GDP
Strengthen partnership in addressing challenges to humanity including human and drug trafficking, money laundering, and prevention of and action against extremism and terrorism	Number of human-trafficking cases detected, prevented and prosecuted (disaggregated by sex, age and ethnicity)
	Basel Anti-Money Laundering Index
	Percentage of intra-regional trade to GDP
	Number of signed treaties involving an integrated transport network for intra- and inter-regional cooperation on trade facilitation

Ensure Primary Health Services for All

Progress and Priorities

Primary health services is an area in which Bangladesh has made remarkable progress, particularly with regard to reducing under-five and infant mortality rates. Worldwide, the number of deaths of children under five years of age declined from 12.4 million in 1990 to 8.1 million in 2009, equivalent to nearly 12,000 fewer children dying each day. Special efforts in South Asia, sub-Saharan Africa and Oceania would contribute to the achievement of MDG 4 (reduce child mortality). According to the Sample Vital Registration System (SVRS) report for 2011, the under-five mortality rate in Bangladesh fell to 44 per 1,000 live births from 146 per 1,000 live births in 1990–91.[22] These statistics indicate that Bangladesh has contributed significantly to reducing child mortality in the South Asian region. Achievements in combating HIV/AIDS, malaria and other diseases has also been encouraging, with deaths caused by HIV/AIDS, malaria and tuberculosis having been reduced significantly worldwide. Bangladesh is on track to meet MDG 6 (combat HIV/AIDS, malaria and other diseases). Other health-related targets have either been met by Bangladesh or the country is on track to meet them by the end of 2015, but one area that requires special attention is antenatal and reproductive health care.

Improved national strategies and increased financial support from development partners have contributed to faster progress towards meeting health-related MDGs in many countries, including Bangladesh. In Bangladesh, the Health, Population and Nutrition Sector Development Program (2011–16) is being implemented by the Ministry of Health and Family Welfare, Directorate General of Health Services, Directorate General of Family Planning and other entities through 32 operational plans. About 60 percent of the total programme cost is financed by development partners. The World Bank and Japan International Cooperation Agency are providing credit and grants, while other development partners (the United Kingdom's Department for International Development, Swedish International Development Cooperation Agency, United States Agency for International Development, Foreign Affairs, Trade and Development Canada, European Commission, Australian Department of Foreign Affairs and Trade, KfW, World Health Organization, UN Children's Fund, UN Population Fund, German International Cooperation (GIZ), Joint UN Programme on HIV/AIDS, Global Fund to Fight AIDS, Tuberculosis and Malaria, and Gavi, among others) are providing grants. The GoB's plans, strategies and timely efforts have played a major role in achieving the relevant targets.

Country-Level Post-2015 Targets and Indicators

A health-related goal area was not selected to be part of the Post-2015 Data Test. In line with Bangladesh's interests, the goal area "ensure primary health services for all" was added to the Bangladesh case study. The data situation for this goal area is better relative to others. Five targets and nine indicators have been proposed for the Bangladesh case study (see Table 11). Many of the indicators are derived from MDG indicators. For a more in-depth assessment, some indicators are disaggregated by rural, urban, gender and wealth quintile dimensions. Available surveys generate much of the data required to measure these indicators. They include the BBS's Bangladesh Demographic and Health Survey (BDHS), Multiple Indicator Cluster Survey (MICS) and SVRS, as well as the Bangladesh Maternal Mortality and Health Care Survey of the National Institute of Population Research and Training (NIPORT). However, harmonisation of data and coordination among data producers is needed to produce reliable information. Private-public partnership could be encouraged to address the remaining data gaps. Notably, data privacy, especially in the health sector, has remained a major concern.

[22] To achieve the target, Bangladesh needed to drop the rate by two-thirds to 48 per 1,000 live births.

Table 11. Ensure primary health services for all: Targets and indicators	
Targets	**Indicators**
National	
End/reduce preventable infant and under-5 deaths	Infant mortality ratio (per 100,000 live births) (rural/urban by gender and wealth quintile)
	Under-5 child mortality rate (per 1,000 live births) (rural/urban by gender and wealth quintile)
Decrease the maternal mortality ratio to no more than x per 100,000 live births	Maternal mortality ratio (per 100,000 live births) (rural/urban by gender and wealth quintile)
Ensure universal sexual and reproductive health and rights	Percentage of births attended by skilled health personnel
Ensure universal sexual and reproductive health and rights	Percentage of use of contraceptive methods
	Percentage of unmet need for family planning
	Percentage of one-time antenatal care
	Total fertility rate
Ensure basic health services for all	Doctor, nurse and paramedics-population ratio (rural/urban)

Overview of the National Statistical System in Bangladesh

Current State of the National Statistical System in the Context of the MDGs

In Bangladesh, data on development progress mainly originate from three national censuses, five regular surveys, several irregular (ad hoc) surveys and administrative records (BBS 2013). A large part of the data and information on indicators related to measuring progress towards MDG attainment is collected through these means. Over time, the quality of data for MDG indicators has improved significantly. In general, data are available for MDG indicators on poverty (extreme poverty, poverty gap), hunger (dietary consumption, child nutrition), employment (decent work for all), education (primary education, literacy rate), gender equality (gender parity, women's empowerment) and health (child mortality, maternal health, HIV/AIDS). However, relevant surveys are only conducted periodically and data availability at disaggregated levels (e.g., age, sex, ethnicity, sub-region, income) is poor.

With regard to post-2015 data requirements, Bangladesh will need to undertake serious efforts to address emerging demands. This is particularly true for the goal areas on governance, environmental sustainability and global partnership. The BBS conducts very few regular surveys and the data generated by other government entities are often found to be inadequate in terms of procedures, methodology, timeliness, coverage and quality. Often data are not reliable, representative or comparable.

Data Producers, Data Users and Funders of Data Collection

As Bangladesh's NSO, the BBS produces the majority of available data on development issues. It conducts a number of sample surveys each year either as a regular activity or on an ad hoc basis. The regular monthly/quarterly/annual surveys are the Agriculture Crop Production Survey, SVRS, Price and Wage Rate Survey, Local Government Budget Collection Survey and Survey of Current Industrial Production (BBS 2013). The BBS regularly conducts some important sample surveys at larger intervals. These surveys include the HIES every five years, the LFS every three years, the MICS every three years and the Survey of Manufacturing Industries every two or three years. Some surveys are conducted as needed. The National Child Labour Survey, for instance, was conducted in 2011 after an interval of eight years. The BBS also carries out some ad hoc or standalone sample surveys, such as the Child and Mother Nutrition Survey, Health and Morbidity Status Survey and Literacy Assessment Survey.

A number of other government entities collect data on a wide range of topics. Often these data are generated to serve an entity's specific data requirements. For example, the Bangladesh Bank compiles data on macroeconomic indicators in order to conduct monetary policy. The National Board of Revenue of the Ministry of Finance keeps records of data on revenue collection. The Directorate General of Health Services and NIPORT regularly generate data on selected health indicators, while BANBEIS and the Directorate of Primary Education report data on education-related indicators. These entities publish some of their data, while access to other data requires data users to follow certain administrative processes, which limit data accessibility. Often data on a single variable may be generated by more than one entity or through multiple surveys. This often yields results with discrepancies, which can be misleading in some instances.

Besides government entities, academics and the research community, CSOs and development partners produce data on development issues in line with their own data requirements. In some

cases, government entities may build partnerships with private sector actors or assign them to collect data or conduct surveys. For the BDHS, a private partner, Mitra Associates, has been given the responsibility to collect data, while the survey is published by NIPORT.

Many of the aforementioned surveys are conducted using the GoB's own financial and technical resources. A number of surveys are either partially or fully supported (either financially or technically or both) by development partners, including multilateral institutions (e.g., the World Bank, Asian Development Bank and UN agencies). Government entities often receive technical support from development partners to undertake certain surveys.[23]

Various stakeholders are users of development data. They include government entities, policy-makers, academics, the research community, CSOs, development partners, the private sector, journalists and students. Government entities and policy-makers use statistical information for shaping strategies and regular reporting. In Bangladesh, the research community and CSOs make use of official data for research and advocacy purposes. Notably, the use of statistics by journalists has been expanding.

Historic Improvements to the National Statistical System

Bangladesh's national statistical system has gone through several reforms in recent years. Concerted efforts have been made to make additional data available on more indicators. There have been various improvements since the inception of the MDGs. In order to produce reports on Bangladesh's progress towards MDG attainment, new surveys and initiatives on data production were established and existing surveys were conducted with more regularity. A number of programmes to improve data-related capacity were introduced. Improvements in data availability, quality assurance and the timeliness and accessibility of data have been seen. Efforts have also been made to improve dissemination of data through the use of ICT. Development partners have supported the GoB to make data more open and accessible over the last decade. However, in spite of the progress made, there is an urgent need to strengthen institutions and improve the quality of data in order to meet post-2015 demands.

Among Bangladesh's data producers, the BBS is the best equipped and most capable. The BBS collaborates with other data producers, including the Bangladesh Institute of Development Studies, Bangladesh Bank, National Board of Revenue, Bangladesh Space Research and Remote Sensing Organization, Department of Agricultural Extension, Export Promotion Bureau of the Ministry of Commerce, Ministry of Health and Family Welfare, Ministry of Education, Ministry of Agriculture, Ministry of Finance and NIPORT. Collaboration on data production includes activities such as methodological design, sample design, design of questionnaires, data collection, data processing, report writing and data dissemination. However, collaboration with key government entities such as the Department of Environment, Directorate of Primary Education, Department of Disaster Management of the Ministry of Disaster Management and Relief, and Forest Department of the Ministry of Environment and Forests needs to be more regular and further strengthened.

The BBS has taken initiative to sign formal data exchange protocols with certain local, regional and international organisations and development partners. The BBS also maintains geographic information systems for producing data and making better use of digital mapping (BBS 2013). Geographic information systems provide statistical data with a geographic dimension, in turn providing better services to policy-makers and investors. Procedures are also in place to protect data confidentiality.

[23] For example, the recent Population Census was supported by the European Union, UN Population Fund, United States Agency for International Development and United States Census Bureau. Technical and financial support for the HIES has been provided by the World Bank.

Recently, the BBS prepared a National Strategy for the Development of Statistics (NSDS) for Bangladesh covering the 2013–23 period. The exercise was funded by the World Bank's Trust Fund. The strategy identifies a number of time-bound actions.[24] Proper implementation of the NSDS will hopefully lead to better statistical operations and more effective collaboration between data producers and data users. Unfortunately, several activities that were planned under the strategy have been lagging behind schedule. Also, the strategy may need to be revisited and revised in view of post-2015 demands.

Besides the BBS, a number of other government entities are undertaking various activities to improve their respective statistical systems. The Bangladesh Bank recently released time series data on several macroeconomic indicators. The Ministry of Finance provides long-term annual data on several other macroeconomic indicators through its regular publications. For other entities, comprehensive plans for making their statistical systems more efficient are not in place. At the same time, there are no concrete initiatives on the parts of private data producers.

Initiatives on Data Dissemination

Data dissemination by the BBS is done through publications in hard copy (reports, press releases, etc.), CD and DVD, and the BBS website (BBS 2013). Printed publications are available at two sales centres in Dhaka that are open to the public. The most important publications published regularly by the BBS include the *Statistical Yearbook*, *Statistical Pocketbook*, *Monthly Statistical Bulletin*, *Yearbook of Agricultural Statistics*, *National Accounts Statistics* and *Foreign Trade Statistics*. The microdata of a number of BBS-conducted surveys are available in electronic format for sale to the public, though at very high cost.

An interactive website is one of the most important means of data dissemination. The BBS website has a storage capacity of three terabytes (BBS 2013), but it is arguably not interactive enough when compared to global standards. Data and information relating to a wide range of indicators as well as electronic versions of several reports are disseminated through it. Notably, the website provides metadata for many but not all indicators. Information on how data are collected and compiled for most indicators is only provided in printed publications. In some cases, however, the processes are not adequately clarified and interpretation is difficult.

Among other major data producers, BANBEIS annually publishes the *Bangladesh Educational Statistics* and *Statistical Pocketbook* in hard copy. BANBIES has a moderately developed website, where it publishes its annual statistics and time series data. In general, the website does not provide access to metadata. Currently, BANBEIS does not have a comprehensive strategy on data dissemination.

Other government entities that provide data for MDG indicators also do not have clear data dissemination strategies. Despite websites not being interactive and user-friendly in most cases, the frequency of the publication of data and statistics online has been on the rise over the last decade. However, such published data are often inadequate in view of emerging needs. Also, data are often published in formats that are not user-friendly, which undermines dissemination. Data are typically disseminated through publications in hard copy, with electronic versions mainly being in PDF format, which is not user-friendly. Other than a few exceptions, data are generally not available in Microsoft Excel, Stata or Statistical Package for the Social Sciences formats. With the enactment of the Right to Information Act in 2009, people can go to public offices and file information requests, but this has yet to become common practice.

[24] For details, see BBS (2013).

Data for Measuring Progress on Post-2015 in Bangladesh

Data Adequacy and Baseline

Current Data Availability Situation for Monitoring Progress on the MDGs

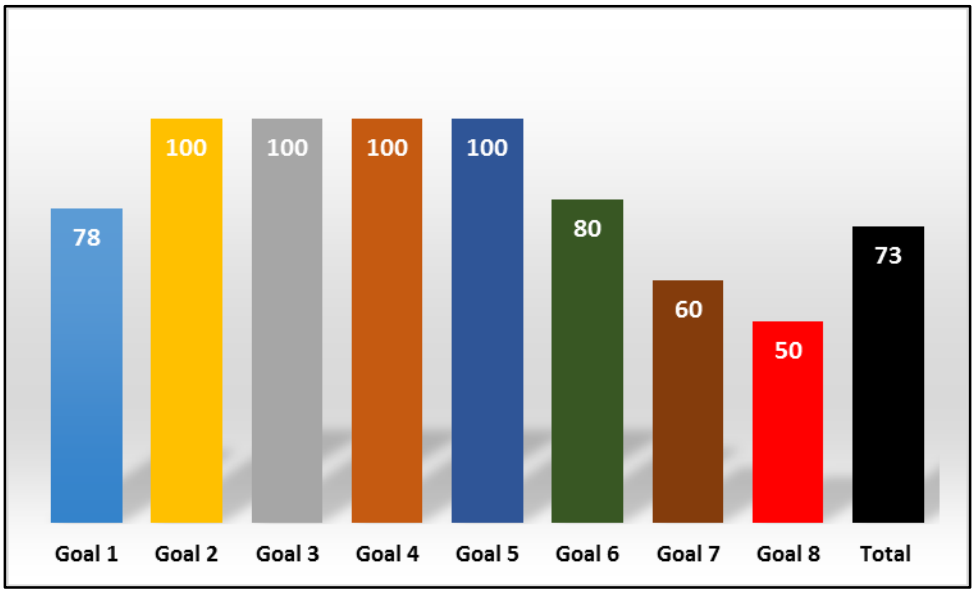
The data availability situation across MDG indicators is satisfactory in Bangladesh. As the MDGs approach their target date, there remains a significant lack of either raw data or updated data for various indicators. Table 12 shows Bangladesh's current data availability situation across MDG indicators. Data availability is adequate for MDG 2 (achieve universal primary education), MDG 3 (promote gender equality and empower women), MDG 4 (reduce child mortality) and MDG 5 (improve maternal health).

Table 12. Data availability across MDG indicators

MDGs	Number of indicators for which data are available	Total number of indicators
1. Eradicate extreme poverty and hunger	7	9
2. Achieve universal primary education	3	3
3. Promote gender equality and empower women	3	3
4. Reduce child mortality	3	3
5. Improve maternal health	6	6
6. Combat HIV/AIDS, malaria and other diseases	8	10
7. Ensure environmental sustainability	6	10
8. Develop a global partnership for development	8	16
Total	**44**	**60**

Out of the total 60 indicators for the eight MDGs and associated 21 targets (UNSD 2008), data are available for 44 indicators (73 percent of the total) (see Figure 1). Partially available data, which refers to data that may not be available at disaggregated levels or updated regularly, are considered to be available in this context. The availability of data is good – data are available for 80 percent of indicators – for MDG 1 (eradicate extreme poverty and hunger) and MDG 6 (combat HIV/AIDS, malaria and other diseases). On the other hand, the data availability situation for MDG 7 (ensure environmental sustainability) and MDG 8 (develop a global partnership for development) is unsatisfactory, with data being available for only 60 percent and 50 percent of indicators, respectively. Inadequate data production for MDG 8 at the national level may be due to the fact that MDG 8 is a global goal for which data has not been systematically collected at the national level. Data for many of the indicators associated with these two goals are either not available or not readily available.

Figure 1. Data availability (% of total) across MDG indicators



Note: Goal 1 is eradicate extreme poverty and hunger, Goal 2 is achieve universal primary education, Goal 3 is promote gender equality and empower women, Goal 4 is reduce child mortality, Goal 5 is improve maternal health, Goal 6 is combat HIV/AIDS, malaria and other diseases, Goal 7 is ensure environmental sustainability and Goal 8 is develop a global partnership for development.

Data Availability Across Global and Country-Level Post-2015 Indicators

A data-mapping exercise was undertaken to assess the availability of data as regards the post-2015 indicators selected for the Bangladesh case study. Table 13 provides an overview of the data availability situation in Bangladesh. Among the 45 global indicators examined in all seven country studies under the Post-2015 Data Test initiative, data for 38 indicators (84.4 percent) were available for Bangladesh. Additionally, out of 75 country-level indicators that have been proposed, data are available for a total of 72 indicators (96 percent). In aggregate, data are available for 110 of the 120 selected indicators (91.7 percent).[25] Overall, the data availability situation across post-2015 indicators is very satisfactory in Bangladesh.[26] However, it should be noted that data for a significant proportion of indicators may not be readily available. Indeed, out of the 110 indicators for which data are considered available, data for 42 indicators will need to be produced from existing information. For some indicators, data need to be produced from information collected for administrative purposes, while for others data need to calculated or estimated from existing survey data. Hence, more efforts will be required to make these data available in a user-friendly format. Moreover, data should be made available at disaggregated levels for many post-2015 indicators.

[25] Partially available data (data that may not be available at disaggregated levels or updated regularly) and data not published officially (but can be generated without any additional survey) are considered to be available here.
[26] The data availability situation for all indicators is presented in Annex 7.

Table 13. Data availability across post-2015 indicators						
Goal areas	**Examined by all country studies**		**Bangladesh case study**		**Total**	
	Number of indicators for which data are available	**Total number of indicators**	**Number of indicators for which data are available**	**Total number of indicators**	**Number of indicators for which data are available**	**Total number of indicators**
1. End poverty	5	5	9	9	14	14
2. Ensure quality education for all	5	5	5	5	10	10
3. Create jobs, sustainable livelihoods and inclusive growth for all	6	7	10	11	16	18
4. Ensure sustainable energy and develop infrastructure for all	5	8	3	3	8	11
5. Establish a sustainable, healthy and resilient environment for all	4	5	15	16	19	21
6. Establish open, accountable, inclusive and effect institutions, rule of law and a peaceful and inclusive society	7	9	9	10	16	19
7. Establish a global partnership for sustainable development	6	6	12	12	18	18
8. Ensure primary health services for all	0	0	9	9	9	9
Total	**38**	**45**	**72**	**75**	**110**	**120**

In Bangladesh, data are most available for the goal areas concering poverty, education, global partnership, and health and sanitation (see Figures 2 and 3).[27] For other goal areas, the percentage of indicators for which data are available is below 100 percent. The scarcity of data for governance-related indicators is perhaps understandable since the associated goal area deals mainly with soft issues. However, data may be generated for some of the indicators very easily by taking appropriate administrative steps. For example, administrative data recorded by the Ministry of Law, Justice and Parliamentary Affairs, the Local Government Division of the Ministry of Local Government, Rural Development and Co-operatives and the Election Commission can easily generate data for "Proportion of seats held by women and minorities in national- or local-level government." For other indicators, new surveys may need to be conducted. A major concern in the context of data availability is generating data at the needed level of disaggregation. To provide robust data at disaggregated levels, the scope of current surveys may need to be broadened.

[27] It should be noted that the choice of indicators may have influenced these results. The data availability situation could be different when official candidate indicators are finalised by the UN.

Figure 2. Data availability (% of all indicators) at the global level by goal area

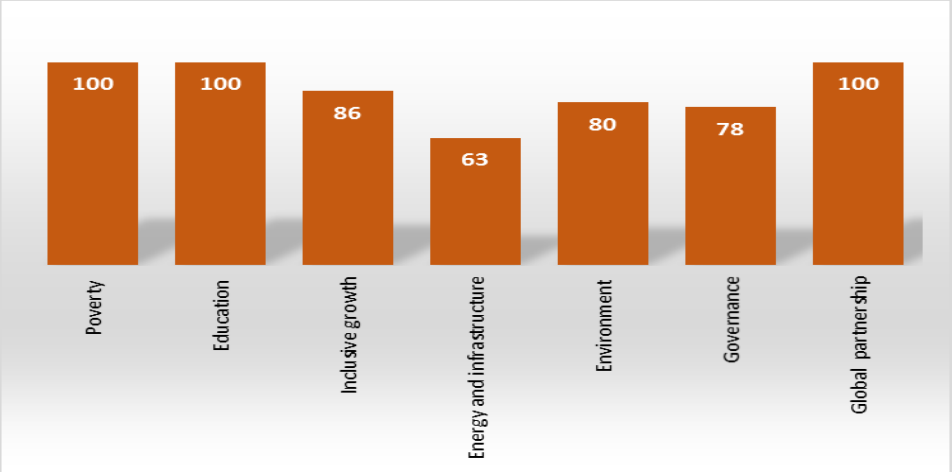
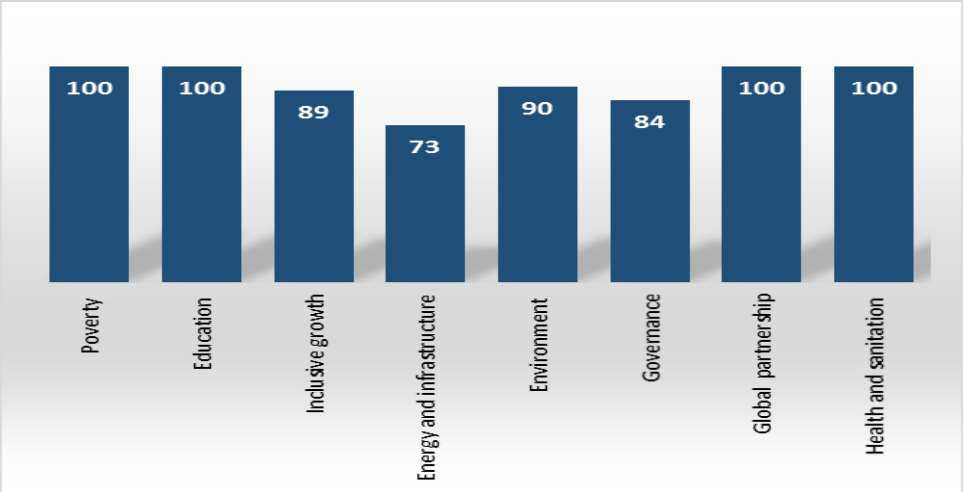


Figure 3. Data availability (% of all indicators) at the national level by goal area



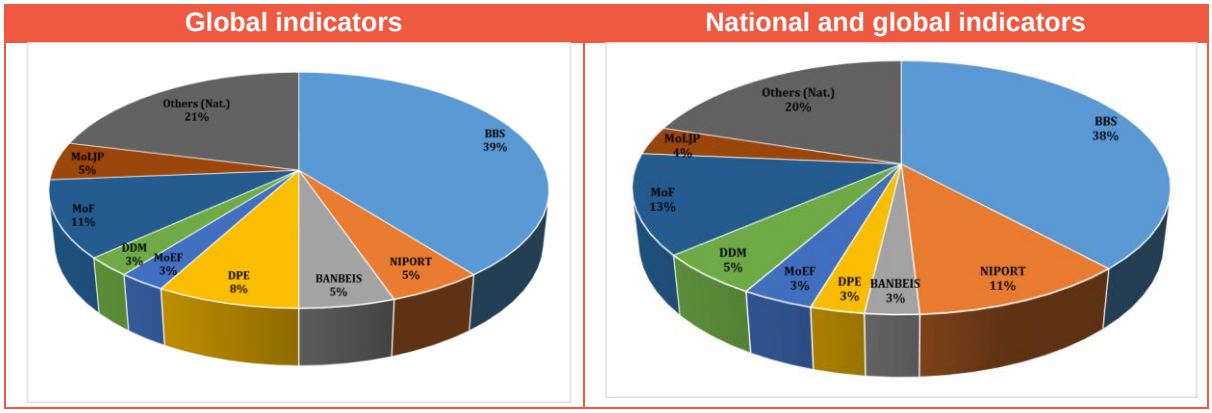
Sources of Data

Data for monitoring progress on development indicators can be obtained from various national and global sources. Six major national sources of data for a variety of indicators were identified during the data-mapping exercise for this study. Brief descriptions of these sources are presented in Table 14 below.

Table 14. Major national sources of data					
Survey	**Latest issue available**	**Year started**	**Year of upcoming issue**	**Description**	**Publisher and frequency of publication**
Household Income and Expenditure Survey (HIES)	2010 (15th round)	1973–74	2015	National survey conducted by the BBS. Household income and consumption data by income group are collected at the district level.	Published by the BBS at regular intervals of five years. There is a plan to conduct the survey every three years.
Labour Force Survey (LFS)	2010 (11th round)	1980	2013	One of the locally funded national surveys of the BBS. The LFS provides information on the labour force and employment situation.	Published by the BBS at regular intervals of three years. An annual publication is currently being planned.
Bangladesh Demographic and Health Survey (BDHS)	2011 (6th round)	1993–94	2014	National survey conducted by Mitra Associates (a private consultancy) in association with NIPORT under the Ministry of Health and Family Welfare as part of a global survey. The 2011 BDHS had 18,000 nationally representative sampling households chosen from the 2011 population census sampling frame. The private sector is involved in data collection and responsible for data mining.	Published by NIPORT at a regular interval of three years.
Multiple Indicator Cluster Survey (MICS)	2012–13 (11th round)	1993	Not declared	Survey conducted by the BBS. The preliminary findings of the 2013 MICS were published recently. The survey receives financial assistance from the UN Children's Foundation.	Published by the BBS at a regular interval of three years.
Sample Vital Registration System (SVRS)	2013	1980	2014	One of the oldest annual surveys conducted by the BBS. The survey provides estimated updates of population census data.	Published by the BBS at a regular interval of one year.
Annual Primary School Census	2012 (7th round)	2006	2013	An annual publication of the Directorate of Primary Education under the Primary Education Development Programme, the largest education sector development programme. The Ministry of Primary and Mass Education conducts different surveys under the programme throughout the year and compiles information in this publication.	Published by the Ministry of Primary and Mass Education at a regular interval of one year.

Figure 4 shows the distribution of data for global indicators and indicators selected for the Bangladesh case study by national data producer.[28] As expected, the BBS is the leading data producer, generating about 40 percent of all available data for the candidate indicators. NIPORT contributes as the core national source for health sector data, while the Ministry of Finance is responsible for many of the global partnership data. These two entities produce 16 percent of available data for global indicators and 24 percent of available data for national indicators. The combined efforts of the Bangladesh Bureau of Educational Information and Statistics (BANBEIS) and Directorate of Primary Education produce data for education sector indicators. The other leading data producers in Bangladesh are the Ministry of Law, Justice and Parliamentary Affairs, Ministry of Environment and Forests and Department of Disaster Management of the Ministry of Disaster Management and Relief.[29]

Figure 4. Distribution of data for global and national indicators by national data producer

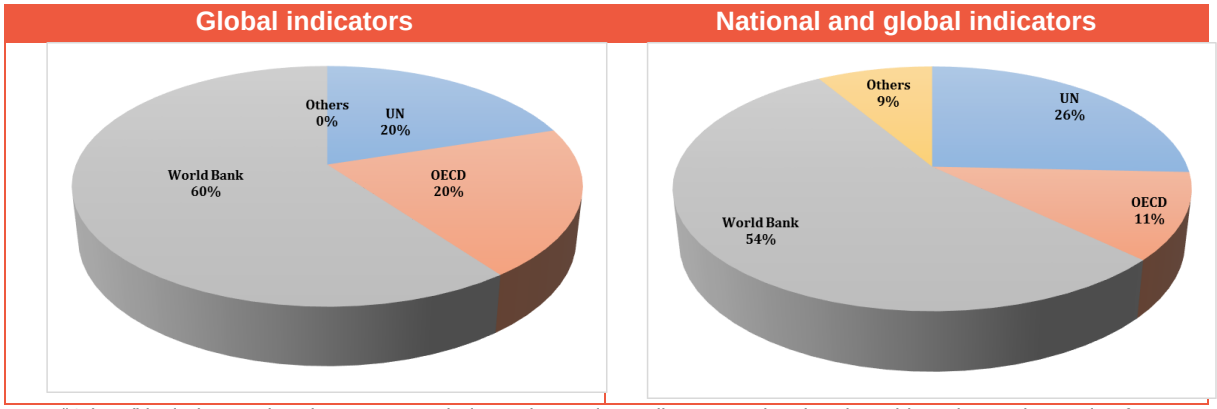


Note: "DPE" refers to Directorate of Primary Education, "MoEF" refers to Ministry of Environment and Forests, "DDM" refers to Department of Disaster Management, "MoF" refers to Ministry of Finance, "MoLJP" refers to Ministry of Law, Justice and Parliamentary Affairs, and "Others" include the Anti Corruption Commission, Bangladesh Bank, Bangladesh Telecommunication Regulatory Commission, Bangladesh Telecommunications Company Limited, Bangladesh Power Development Board, Information Commission, Institute of Public Health Nutrition, Local Government Division of the Ministry of Local Government, Rural Development and Co-operatives, Ministry of Commerce, Ministry of Home Affairs, Ministry of Health and Family Welfare, Ministry of Information, National Identity Wing of the Election Commission, and Transparency International Bangladesh.

Among international data producers, the World Bank is the lead producer of data that are relevant to Bangladesh (see Figure 5). The World Bank alone provides about 60 percent of data for the candidate global indicators for which international data sources are available. As regards national-level indicators, data for a larger share of indicators were available from the UN and other international sources.

[28] For this analysis, only indicators for which data are currently available have been considered.
[29] For details, see Annex 7.

Figure 5. Distribution of data for global and national indicators by international data producer



Note: "Others" include Basel Anti-Money Laundering Index, Helen Keller International and World Justice Project Rule of Law Index.

Potential Data Producers and Sources for Needed Data

This study has also identified some data producers and sources that could generate data for candidate global and national indicators that are currently not available or not readily available. It appears that the BBS may need to take significant responsibility for producing needed data for the indicators of interest. Not many new surveys or additional modules would be required to produce the data and the BBS could generate such information with minimal additional efforts and recognise the data as official. The BBS-conducted surveys (e.g., HIES, LFS, SVRS, MICS) and information managed by relevant government entities could meet the additional data requirements. Table 15 provides a list of data producers and sources that may address existing data gaps in each goal area.

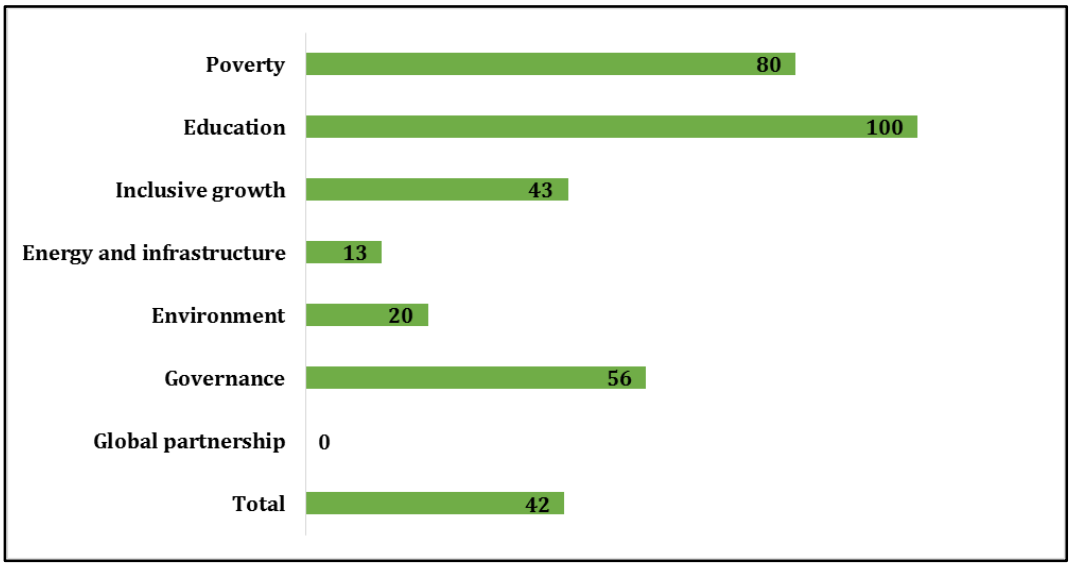
Table 15. Data producers and sources that could generate needed data		
Goal area	**Potential data producer or source**	**New survey/additional module required**
1. End poverty		
	BBS (HIES, Child and Mother Nutrition Survey), Institute of Public Health Nutrition, Helen Keller International	Not required
2. Ensure quality education for all		
	Ministry of Finance	Not required
3. Create jobs, sustainable livelihoods and inclusive growth for all		
	BBS (LFS, HIES, MICS)	BBS (LFS)
4. Ensure sustainable energy and develop infrastructure for all		
	Bangladesh Telecommunications Company Limited, Bangladesh Power Development Board, BBS	BBS, Bangladesh Power Development Board
5. Establish a sustainable, healthy and resilient environment for all		
	Department of Disaster Management of the Ministry of Disaster Management and Relief, National Board of Revenue of the Ministry of Finance, Ministry of Finance, Ministry of Information	Department of Fisheries of the Ministry of Fisheries and Livestock, Department of Environment of the Ministry of Environment and Forests
6. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society		
	Anti Corruption Commission, BBS, Information Commission, Local Government Division of the Ministry of Local Development, Rural Development and Co-operatives, National Identity Wing of the Election Commission, Ministry of Law, Justice and Parliamentary Affairs, Transparency International Bangladesh, World Justice Project Rule of Law Index	BBS, Ministry of Law, Justice and Parliamentary Affairs, Local Government Division of the Ministry of Local Development, Rural Development and Co-operatives, Election Commission, Ministry of Home Affairs, Transparency International Bangladesh, National Board of Revenue of the Ministry of Finance
7. Establish a global partnership for sustainable development		
	Bangladesh Bank, Export Promotion Bureau of the Ministry of Commerce, Economic Relations Division of the Ministry of Finance, Ministry of Road Transport and Bridges, Ministry of Home Affairs, Ministry of Law, Justice and Parliamentary Affairs, OECD, UN Conference on Trade and Development, World Trade Organization	Not required
8. Ensure primary health services for all		
	Not needed	Not required

In addition to the BBS, different entities under the Ministry of Finance could emerge as important sources of new data, particularly for indicators concerning the goal area on global partnership. International data producers could contribute by generating data in the same area. Notably, governance-related data can be produced from a variety of public and private sources.

Baseline Data Availability

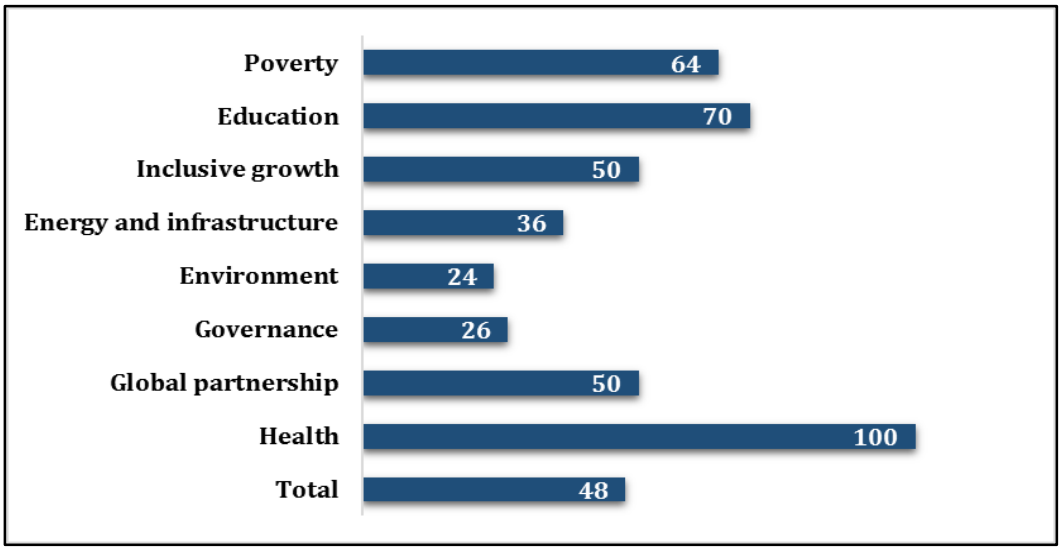
One of the major constraints to measuring progress on the MDGs has been lack of data for the baseline year to serve as reference points for tracking progress. For the Bangladesh case study, 2010 is proposed as the potential baseline year. The baseline data availability exercise has been carried out only with respect to indicators for which data are readily available. Out of 45 global indicators under seven goal areas, all required data for the baseline year of 2010 were found to be available only in the area of education (see Figure 6). The data situation is satisfactory for the goal area on poverty, for which data are available for 80 percent of indicators. No baseline data are available for the goal area on global partnership. Notably, baseline data are more available for the goal area on governance.

Figure 6. Baseline data availability (%) across global indicators



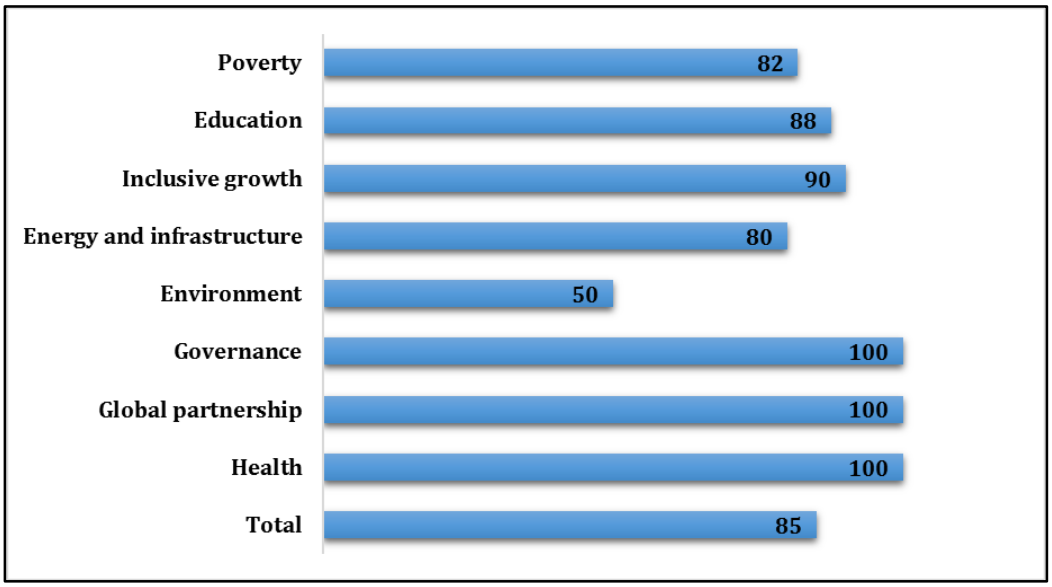
Out of the total 120 indicators selected as national priorities for Bangladesh (that includes 45 global indicators), 57 indicators (or 48 percent) have baseline data available for the year 2010 (see Figure 7). Data in the area of health satisfy the requirements for all associated indicators. However, for the 45 global indicators, baseline data are available for only 20 indicators (44 percent). Based on this analysis, tracking Bangladesh's progress on the post-2015 agenda will likely be constrained by lack of baseline data in the areas of environment and governance. Baseline data for these two goal area are available for only 24 percent and 26 percent of indicators, respectively.

Figure 7. Baseline data availability (%) across national indicators



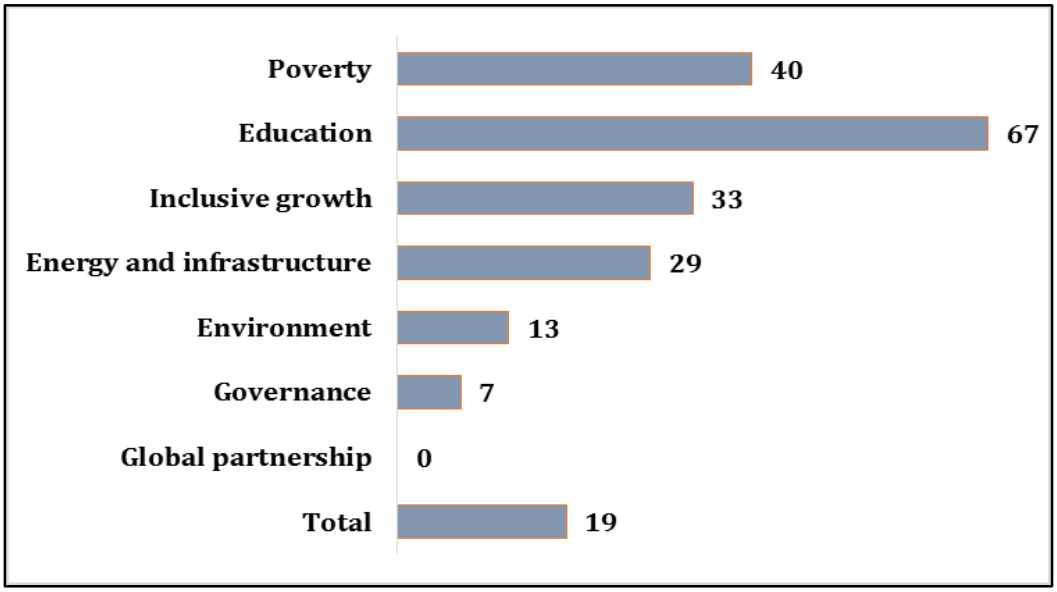
If only the 68 indicators (out of the 120 indicators examined in the Bangladesh case study) for which data were found to be readily available are considered, baseline data are readily available for 57 indicators (85 percent) (see Figure 8). Indeed, except for the goal area on environment, baseline data availability is satisfactory.

Figure 8. Baseline data availability (%) across indicators for which data are readily available



Meanwhile, out of the 63 indicators for which baseline data are not readily available, baseline data can be estimated in the case of 12 indicators (19 percent) from existing information (see Figure 9). Thus, adding this total with total number of indicators for which data are readily available, baseline data in Bangladesh will be available for approximately 58 percent of 120 candidate indicators.

Figure 9. Indicators for which baseline data are not readily available but which could be estimated



Data Quality

A data quality assessment framework used by all research teams under the Post-2015 Data Test is available in Annex 8 (see also Bhattacharya, Higgins and Kindornay 2014). It builds on four global and regional quality assurance frameworks: the Generic National Quality Assurance Framework Template, European Statistics Code of Practice, International Monetary Fund's Data Quality Assessment Framework and Code of Good Practice in Statistics for Latin America and the Caribbean. The five principal criteria for examining data quality are (i) relevance, (ii) accuracy and reliability, (iii) timeliness and punctuality, (iv) accessibility and clarity, and (v) coherence and comparability.

The Bangladesh research team applied the data quality assessment framework to the 45 global indicators. Table 16 shows scoring for each criterion for the seven goal areas. The assessment was conducted on a scale from 1 to 5, with 1 indicating that a goal area does not meet any of the criteria set for the sub-components of quality assessment[30] and 5 indicating that the goal area meets all of the criteria sub-components. Any number between 1 and 5 indicates an intermediate scenario to varying degrees. Numbers in parentheses denote the total number of sub-components for each criterion on the basis of which they were scored.

[30] The list of sub-components is found in Annex 8.

Table 16. Data quality assessment for indicators, by goal area					
Goal areas	**Relevance (13)**	**Accuracy and reliability (16)**	**Timeliness and punctuality (11)**	**Accessibility and clarity (22)**	**Coherence and comparability (13)**
1. End poverty					
	4	4	4	4	4
2. Ensure quality education for all					
	4	4	4	4	4
3. Create jobs, sustainable livelihoods and inclusive growth for all					
	4	4	4	4	4
4. Ensure sustainable energy and develop infrastructure for all					
	2	2	2	2	2
5. Establish a sustainable, healthy and resilient environment for all					
	2	2	2	2	2
6. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society					
	2	2	2	2	2
7. Establish a global partnership for sustainable development					
	4	4	4	4	4

For goal area 1 (end poverty), data are reckoned to be of above average for all the quality indicators such as relevance, accuracy and reliability, coherence and comparability, timeliness and punctuality as well as accessibility and clarity of data (all scoring 4 out of 5). The same results were noticed for goal area 2 (ensure quality education for all), goal 3 (create jobs, sustainable livelihoods and inclusive growth for all) and goal area 7 (establish a global partnership for sustainable development). Assessment results are dismal for three goal areas: goal area 4 (ensure sustainable energy and develop infrastructure for all), goal area 5 (establish a sustainable, healthy and resilient environment for all) and goal area 6 (establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society). Data quality as regards indicators for goal area 8 (ensure primary health services for all), which has been exclusively proposed for Bangladesh, was found to be high thanks to good accessibility, timeliness, reliability and comparability.

In the process of conducting this assessment, the reasons behind low scores for goal areas 4, 5 and 6 were identified. These include:

- absence of required policies for data collection
- inadequate procedures followed to coordinate statistical information
- irregular programme reviews
- lack of availability of metadata
- non-existence of agreements with data users on data content and priorities
- absence of procedures to track user needs and uses of statistics
- no regular follow-ups with data users
- no post-collection evaluations to compare data outcomes with user needs
- lack of systematic comparison of data and results with data and results from other existing sources to ensure validity
- lack of transparent and standard procedures for revising data and inadequate public access to data revision policies
- non-existence of procedures on consulting users about the periodicity of statistics

- lack of data dissemination strategy and policy, including clear pricing policy governing data dissemination
- lack of easily navigable website that allows users to access data and metadata and facilitates self-tabulation in a variety of formats
- inadequate procedure to address deficits in order to align with international standards, guidelines or good practices
- no clear explanations and reconciliation provided to improve understanding and appreciation of methodological changes or differences
- no explanations provided for deviations from international and national standards

This assessment led to the consideration of a few key issues going forward. In certain areas, such as making metadata available and making data available online and in other soft formats such as CD and DVD, improvements can be made with few financial and human resources. Adequate investment will be needed to strengthen the national statistical system in a sustainable manner over the medium to long term. This should be done by giving special priority to areas in which data adequacy is a major concern, such as environment, energy, governance and global partnership. Investment will be required to make more effective use of ICT to improve the quality (accuracy, reliability, comparability) of published statistics and increase data efficiency by reducing costs and the time taken to complete tasks.

Feasibility of Global Minimum Targets

The post-2015 agenda is expected to set more ambitious targets than the MDGs. Seven candidate "global minimum" targets were selected under the Post-2015 Data Test to be assessed across all countries. Each country will be expected to meet global minimum standards by 2030, while the international community must commit to do everything possible to help each country reach threshold levels. These are:

- End extreme income poverty
- Ensure all children have access to early childhood and quality primary and secondary education
- Ensure full access to developed infrastructure and communication technology
- Provide free and universal legal identity, such as birth registrations
- Ensure equal pay for equal work
- Publish and use economic, social and environmental accounts in all governments and companies
- Create an enabling environment for sustainable development

To examine the feasibility of these targets, a forecasting exercise was undertaken according to the *Methodology and Implementation Guide* for the Post-2015 Data Test (see Bhattacharya, Higgins and Kindornay 2014). It was assumed that progress on these indicators has been linear over a long period of time (from 1990–91 to the latest year for which data are available) and there will be no acceleration of progress. Progress on the aforementioned seven targets, representing the seven goal areas considered by the Post-2015 Data Test, is measured by fifteen indicators. In the case of Bangladesh, data for only six indicators are available for four targets. Table 17 presents the summary results of the exercise. The assessment suggests that two of the examined targets – ensure all children have access to early childhood and quality primary and secondary education and provide free and universal legal identity, such as birth registrations – may be considered feasible global minimum targets in Bangladesh's context. The attainment of two other targets – end extreme income poverty and ensure full access to developed infrastructure and communication technology – is likely not feasible.

Table 17. Assessment of global minimum targets					
Target	**Indicator**	**Source**	**Base year (1990–91)**	**Current status**	**Comments**
End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	World Bank	70.22% (1992)	43.25% (2010)	May not be attainable
Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	BBS (SVRS, MICS)	52.80% (total) (2005)	79.50% (total) (2013)	May be attainable
	% of girls and boys who complete secondary school	BANBEIS	17.16% (total), 20.27% (boys), 13.98% (girls) (2001)	55.35% (total), 65.10% (boys), 47.64% (girls) (2012)	May be attainable
	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Directorate of Primary Education (Annual Primary School Census)	44.19% (total), 47.19% (boys), 41.19% (girls) (2002)	97.35% (total), 97.51% (boys), 97.19% (girls) (2012)	May be attainable
Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	World Bank	0.01 (1997)	63 (2012)	May not be attainable
Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	BBS (MICS)	9.80% (2006)	37% (2013)	May be attainable

The candidate targets and indicators for which data are not available are presented in Table 18.

Table 18. List of global minimum targets and indicators for which data are not available

Target	Indicator	Comments
Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Data not readily available
Ensure full access to developed infrastructure and communication technology	% of the population with access to an all-season road	Data not available
	% of adults with an account at a formal financial institution	Data not readily available
	# of hours per day households have access to electricity on average	Data not available
	Share of the population with access to modern cooking solutions (%)	Data not available
Provide free and universal legal identity, such as birth registrations	Proportion of adults with a basic legal identity document	Data not available
Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting	Data not available
	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	Data not available
Create an enabling environment for sustainable development	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and preventing money laundering	Data not available

Political Economy of the Data Revolution

Understanding Drivers of Data Gaps and Improvements

Political Barriers

The entities involved in generating data and statistics in Bangladesh face various political and administrative barriers that reduce their reliability, efficiency and effectiveness. As is the case in many other LDCs, government entities in Bangladesh are generally constrained by budget, volatility in budgetary allocations and lack of autonomy. These factors leave them vulnerable in the face of pressure from political and other interest groups. Generally, areas of concern include inadequate documentation of methods, weak infrastructure, inadequate human resources, problems related to data dissemination including the duplication of efforts, inadequate metadata and poor data accessibility, management problems, limited training capacity, poor ICT infrastructure and inadequate coordination. The effectiveness of NSOs in particular is constrained by outdated and inadequate legislation, lack of a strong legal mandate (which often curbs independence), lack of awareness of the importance of statistics among policy-makers, lack of cooperation between the producers and users of data, negligence in following modern and scientific methods in data collection, and the non-adoption of international guidelines related to classification, definitions and statistical standards, which results in the production of data that are not comparable to those of other countries.

In addition, the absence of dedicated statistical offices under different government ministries, project-based surveys rather than regular user needs–based surveys and a lack of open access to data are obstacles to the data revolution in Bangladesh. Even the most accurate data are of only limited use if they are not available to governments, policy-makers, researchers, CSOs and others in a usable format. In Bangladesh, it has been observed that the BBS and other government entities have been hesitant to publish their data. They 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 methods. Maintaining confidentiality and avoiding the misuse of data are two other commonly cited reasons in this context. Such predicaments are critical because more open data are required to inform and/or improve policies and hold governments and development partners accountable.

Changes to Current Data Collection Practices

As mentioned, the BBS is the key entity vested with the responsibility of collecting major statistical data in Bangladesh. It collects data following the Statistical Act of 2013 and generally follows adequate statistical procedures during data collection processes. It conducts large-scale surveys such as the HIES every five years, the LFS and MICS every three years and the Population Census every 10 years. Data are not updated during interim periods. In view of this, the General Economics Division of the Planning Commission recently put forward a proposal to the BBS to shorten the intervals between survey periods and/or use proxy estimation to enable the updating of data on a continuing basis.

Besides major surveys conducted by the BBS, a large part of survey data are collected by government entities in the process of complying with project requirements. Certain entities have their own statistical departments that collect data following their own methodologies and with their own resources. For example, in the case of the Annual Primary School Census of the Directorate of Primary Education, the data collection process follows adequate statistical procedures, using structured questionnaires and applying the Education Management Information System code of the Information Management Division of the Directorate of Primary Education. Data collectors (mainly headmasters of every school) are trained and well-educated on the data that they are collecting. This

is not the case for many other data producers. Moreover, there is a lack of coordination among data collectors – they generally do not follow an integrated methodology for data collection. This constrains horizontal (among entities in a similar area), vertical (inter-temporal) and cross-country comparability.

To address these issues and develop an integrated strategy, the Partnership in Statistics for Development in the 21st Century (widely known as PARIS21) developed the concept of the NSDS in 2004. In line with this, the High-Level Panel proposed the data revolution to promote open accessibility of data and ensure increased support for statistical systems. In this context, a number of concerns persist in Bangladesh: promoting statistical literacy, strengthening relations with the media, ensuring strong and sustained political support and keeping the commitment of the national statistical system to meet international standards and follow results-based monitoring principles (BBS 2013). As noted above, Bangladesh recently prepared its NSDS, keeping focus on the needs of users of official statistics, promoting more effective information dissemination and strengthening statistical services to meet the needs of a rapidly developing nation. In effect, the aim is to ensure that the national statistical system provides comprehensive and coherent statistical figures while making efficient and effective use of public resources.

In order to avoid duplication of data and ensure the optimal use of public resources, various strategic actions to be implemented by 2023 were proposed under the NSDS. It is expected that these strategies will set standards related to openness and accessibility, confidentiality, sound methods of data collection, assured quality, integrity, impartiality and objectivity, and meeting user needs (BBS 2013). The key strategic actions include:

- Developing a common code of practice for all data producers in line with the Fundamental Principles of Official Statistics.
- Establishing statistical cells in 18 government ministries/agencies during the implementation period of the NSDS. This process should gradually be replicated in other ministries/agencies that are currently out of the scope of the NSDS but significant in terms of data production. Statisticians will be posted/placed at existing planning and statistical wings/branches/cells.
- Providing necessary guidance and support to other entities during their data collection periods in terms of concepts, definitions and methodologies according to the Statistical Act of 2013.
- Enhancing the application of technology during data collection.

If these strategic actions are fully implemented, they will bring about significant changes in data collection practices. The implementation of the NSDS remains a major challenge due to the lack of adequately qualified and skilled human resources. Indeed, a number of proposed actions have already missed their respective deadlines. Moreover, potential data producers that are expected to be involved in measuring Bangladesh's progress on the post-2015 agenda have not been included in the strategic plan. It is thus important that the NSDS is revised according to the emerging demands for an inclusive data revolution following the finalisation of the post-2015 agenda.

Validation of Unofficial Data

The private sector and CSOs have been getting increasingly involved in data generation. Their unofficial data could serve to inform on the progress made on national and global fronts. The advancement of technology, developments in marketing and the growth of social media in Bangladesh offer opportunities to increase the use of private data in national and global contexts. Still, whether or not data generated by the private sector can be integrated with national data is something that needs to be addressed.

Progress on governance-related targets, which are often abstract or intangible in nature, could be measured using available national and international private sector data. In Bangladesh, many private

data producers produce statistics using their own statistical methodologies. In most cases, irrespective of academia or industry, rigorous methodologies are not followed. The sample sizes of surveys are generally small, which reduces representativeness, and the quality of data is often compromised. Hence, there is a need to develop public-private partnership to address data gaps. A good example of such partnership that could serve as a reference point is the public-private partnership that produces the BDHS.[31] Data from the BDHS are frequently used by policy-makers and researchers to monitor health indicators.

A coherent approach to the validation of unofficial data is currently required. In connection with this, stakeholders in Bangladesh have recognised the need for better coordination between government and non-government actors in ensuring the soundness of data collection methodologies and reliability of statistics. The Statistical Act of 2013 is the guideline for national data producers and the private sector with respect to data validation. But neither the BBS nor private data producers have taken the required initial steps in the validation procedure, which has restricted the use of private sector data. The BBS needs to play a more proactive role in this respect by working closely with private data producers.

Resources

Data producers need to ensure that the resources determining their capacity are used effectively. Capacity is often constrained by financial and human resources. In recent years, thanks to the GoB's own resource allocation and support from development partners, the BBS has been receiving more financial resources to conduct surveys and build needed capacity. In general, public resources are limited in Bangladesh and consequently the selection and prioritisation of which data are to be generated is an issue. The Medium-Term Budgetary Framework and Annual Development Program have been the leading financial resource channels for achieving the MDGs (BBS 2013). Data producers are currently facing considerable challenges in the production of demand-driven data and implementation of statistical programmes due to the shortage of skilled human resources, not to mention the inadequate allocation of financial resources.

Improvement in the quality of statistics will depend significantly on the enhancement of the skills, competency, effectiveness and productivity of data producers' workforces. All data producers – the BBS in particular – will face a number of challenges with regard to monitoring the post-2015 agenda. A major challenge is the recruitment and retention of skilled, experienced workers. In Bangladesh, the number of workers with good quantitative skills remains inadequate, which is likely to be the case for the foreseeable future in the absence of dedicated efforts to upgrade skills. It will thus be important to ensure effective use of the available pool of skilled statisticians and that there is a system in place to incentivise human resources, skills upgradation and regular training. In this respect, the NSDS recommended the following actions to ensure the best use of available resources:

- Ensure accurate and timely data collection and increase the application of technology. Enumerators (two in each union[32]) can be provided with tablet computers, which could be used for surveys and censuses and would make data collection more cost-effective.
- Form a voluntary working group at the union level that includes students from schools who can maintain coordination with the BBS regarding statistical information and services.
- Provide better training and coordinate the planning of field work to ensure the effective use of human resources.
- Replace face-to-face interviews with electronic methods (e.g., employing the internet to conduct enterprise-based surveys).

[31] As mentioned, Mitra Associates is a leading private consultancy in Bangladesh that has been conducting the BDHS in association with NIPORT under the Ministry of Health and Family Welfare since the 1990s.
[32] A union is the smallest rural administrative local government unit in Bangladesh.

These recommendations are important for raising the capacity of statistical offices at the local level. However, a target-oriented action plan needs to be established to implement them. Targeted efforts should be undertaken to recruit qualified and capable workers to meet growing demands for data. Currently, there is no comprehensive strategy to address data producers' challenges relating to human resources management. A comprehensive human resource policy framework should be established to ensure the availability of qualified workers with adequate opportunities for professional training, improved salaries and timely promotion.

Role of Technology

A modern statistical system requires strong ICT infrastructure. The state of such infrastructure can significantly impact data quality. Unfortunately, the ICT infrastructure available to the BBS and other data producers in Bangladesh is not up to the expected level due to resource constraints and the shortage of technical knowledge. Although the BBS's head office is equipped with modern technology including computers, statistical software and geographic information systems, field offices – both regional and upazilla statistical offices – are lagging far behind. This problem was pointed out repeatedly during the consultation process for the NSDS. On a positive note, as mentioned, the BBS recently signed formal data exchange protocols with local, regional and international organisations, maintains geographic information systems and promotes use of modern technology through its use of digital mapping (BBS 2013). However, significant investment is required to improve data production, data processing and the publishing of outputs. With well-directed efforts, tangible improvements are possible at all stages of the statistical process – from the management of data collection in the field to data capture, storage, processing, analysis, dissemination, documentation and archiving. Efforts should include developing strong ICT infrastructure at national and regional levels. Key strategic actions have been identified under the current strategy of enhancing the GoB's data generation capacity. The actions concern software, infrastructure and human resource development:

- Facilitating the efficiency of the GoB by establishing a National Data Resource Centre.
- Promoting interaction among government entities, districts and upazillas through the development of secure and strong ICT infrastructure.
- Developing Automated Data Capturing Templates for all surveys and censuses in user-friendly formats to collect data in a timely and cost-effective manner.
- Acquiring high-performance servers for the BBS's head office and upazilla, district and division offices to improve data processing and storage.
- Building an automated data management system.
- Establishing a cloud computing system (the integration of many servers) to support work on many computers at the same time using the same software – Microsoft Excel, Stata, Statistical Package for the Social Sciences, etc.
- Gradually developing paperless mechanisms.

It is indeed important to implement these actions on an urgent basis. However, much will depend on the institutional capacity of the implementing entities.

Data Availability–Transparency–Accountability Nexus

Funders of Data Collection

Besides the GoB, a number of development partners (e.g., the Asian Development Bank, United Kingdom's Department for International Development, European Union, Japan International Cooperation Agency, UN Population Fund, UN Children's Fund and World Bank) have been providing financial assistance to Bangladesh to conduct key surveys and censuses in the country. Funders routinely allocate funds for micro survey field work and impact evaluations. However, instead of paying salaries, they are keen to finance per diems, computers and field work for specific surveys. Data producers in LDCs such as Bangladesh are often kept busy chasing donor-funded per diems via workshop attendance, training, survey field work and project proposal development, which can enhance workers' take-home pay. As a result, the development of institutions and statistical systems remains weak. There is evidently a lack of incentives to improve national statistical capacity or prioritise national data building blocks, leaving vital data uncollected for years (Glassman 2014).

The size, scope and frequency of data collection activities are affected by trade-offs due to the differential needs of governments and funders of data collection. This leads to three choices: (i) small sample, technically sophisticated, possibly multi-sector surveys or either large sample surveys or administrative data sets that provide regional or district-level statistics, (ii) infrequent surveys designed to facilitate sophisticated research or surveys with relatively fewer key indicators conducted with higher frequency, and (iii) surveys designed for comparisons with other countries or surveys designed for comparison across time within a single country (Sandefur and Glassman 2014).

In many cases, international funders are bound by their mandates to work exclusively with national governments as their clients, which shapes their demands. In connection with this, there may be spillover impacts that are relevant for Bangladesh. Sometimes funders prefer statistics based on standardised methodologies and questionnaire formats because of their concern with international comparability (Sandefur and Glassman 2014). More often than not, this concern is at odds with comparison of statistics over time within a single country. The key implication of funders' concern with international comparability is that they are relatively less concerned with sub-national comparisons within a country, which is reflected in the choice of indicators in surveys such as the BDHS and MICS. Moreover, funders have an interest in particular statistical products given their higher analytical capacity and technical expertise. Their human resources allow them to track and analyse a wide range of quantitative indicators and sub-components. Thus, they generally demand detailed data from surveys and prefer questionnaires that are lengthy and comprehensive rather than short and quick. This demand presents a direct budgetary trade-off between depth in topic coverage and breadth of sample coverage (Sandefur and Glassman 2014). Extended surveys with smaller samples that track a wide range of indicators at the national level tend to be favoured over large sample surveys that might provide disaggregated data at the regional or district levels. Surveys on household income and expenditure, health, employment and other key indicators are typically undertaken every several years, often with considerable lags between data collection and the publication of statistics.

Funders will need to support and interact with national statistical systems differently if the quality of needed data is to be significantly improved. They should put more emphasis on prioritising core statistical products and supporting NSOs in ways that empower them institutionally and enable them to recruit and retain qualified workers. Such recommendations do not indicate that special surveys and evaluations should be abandoned, but rather aim to ensure that core statistical products are not forgotten in the statistical process.

Availability and Accessibility of Officially Produced Data

As mentioned, overall data availability across candidate post-2015 indicators is very satisfactory in Bangladesh. Core data producers such as the BBS, BANBEIS and administrative bodies like the Directorate of Primary Education publish reports on an annual basis. Thus, the availability of data on household income and expenditure, education and health indicators is satisfactory. To analyse other concerns of developmental importance, adequate data for a significant proportion of indicators are not readily available in a user-friendly format. Moreover, data should be made available at disaggregated levels for many indicators. Notably, data on governance are the most lacking. The BBS's lack of capacity to collect adequate governance-related data is an enduring problem. At the same time, it should be recognised that the generation of such data is not easy in the context of Bangladesh. Furthermore, a large proportion of officially produced data in the country is not comparable with international data and statistics. The BBS needs to assume the core responsibility for producing official national statistics that will be needed to monitor progress on the post-2015 agenda. As the country's main data producer, the BBS needs to also take responsibility for coordinating with entities such as BANBEIS, the Bangladesh Bank, the Export Promotion Bureau of the Ministry of Commerce, NIPORT and others to produce high-quality, comparable data.

Data need to be accessible and usable by all stakeholders to monitor post-2015 progress. The full range of metadata – concepts, definitions, classifications, methodologies, data sources, accuracy and so on – need to be properly documented and made accessible. In some cases, the data accessibility situation in Bangladesh leaves much to be desired. Academics, researchers and students often find it difficult to access data due to different administrative bottlenecks and encounter difficulties when contacting the responsible authorities to access data. Government entities generally do not have appropriate data dissemination policies. Thus, stakeholders cannot get a clear idea about the availability of certain datasets. In addition, there is no coherent strategy for releasing data, metadata and microdata, with electronic dissemination of data being very poor. The BBS aside, most national data producers do not have navigable websites that allow users to access data and metadata and facilitate self-tabulation in a variety of user-friendly formats. Notably, no periodic consultations take place between the producers and users of data to ensure whether dissemination formats satisfy user needs.

It should be recognised that a number of initiatives have been recently put in place to improve data on a number of dimensions. These include:

- The Statistical Act of 2013.
- The NSDS for Bangladesh for the 2013–23 period.
- ICT Training and Research Centres with labs are being established in all upazillas.
- Geographic information systems are being used more frequently.
- The proposal to establish statistical cells in 18 ministries in two phases (see BBS 2013). The major shortcoming of this proposal is that the Ministry of Home Affairs and Ministry of Law, Justice and Parliamentary Affairs, which are potential sources for governance-related data, were not included among these 18 ministries.
- Research and development wings are being established within government entities to follow up on and evaluate the various statistical processes and sub-processes.
- A data quality assurance framework was to be developed by 2014 following the Generic National Quality Assurance Framework Template and the national statistical system is to be assessed against this framework every three years.
- A common code of practice to be followed by all data producers is to be developed and legally enforced.
- The National Population Register is expected to be implemented in 2016.

- A database on the poor segments of the population and social safety net coverage is to be established by 2017.
- The coverage of the BBS's offices at the district and upazilla levels is to be increased.

If fully implemented, these initiatives are expected to be useful, but more efforts will be required to meet emerging needs. The BBS is planning to provide on-site microdata access to interested researchers, which is a positive step. Taking into consideration development partners' recommendations, Annual Primary School Census data will be regularly updated on the Directorate of Primary Education website to improve data accessibility. There is a need to capitalise on these initiatives and continue such efforts with an aim to cater to stakeholders' expectations for the data revolution.

Expectations of Different Stakeholders for the Data Revolution

Stakeholder groups have their own understandings, expectations, agendas and roles as regards the data revolution. Stakeholders cited common expectations during the Bangladesh inception and validation workshops and KIIs.

Data Producers

Data producers' common expectations revolve around four issues. First, many useful data can be collected from a single survey if the design of the survey is appropriate and the survey is comprehensive. Second, given that private sector entities collect diverse data that are not disseminated, there is a need to develop public-private partnership to improve private data dissemination. Third, the use of modern technology (such as mobile phones, personal digital assistants, etc.) among trained surveyors should be promoted. And fourth, maintaining confidentiality of certain types of data, such as those on HIV/AIDS, is important.

Policy-Makers

Policy-makers mentioned a number of needed actions to improve data availability. First, the selection of post-2015 indicators should be prudent so that relevant numbers are not very large and progress can be easily tracked. Second, institutional capacity needs to be significantly increased for measuring the new indicators. Third, funders – the GoB and development partners – should ensure the flow of necessary finance to generate needed data. Fourth, the BBS should lead the process of the data revolution in Bangladesh, while other stakeholders should cooperate and help with coordination. Fifth, the time lags of major surveys such as the HIES and LFS should be reduced. Alternatively, initiatives to generate proxy data and produce reliable intermediate estimates could be undertaken.

Development Partners

Development partners have four common expectations. First, data must enable users to discern whether the poor and marginalised segments of the population are receiving essential services. This means that data will need to be disaggregated by gender, geography, income, disabilities and other categories to ensure that no one is left behind. Second, stronger monitoring and evaluation at all levels and in all processes of statistical development – from planning to implementation – are needed. This will help guide decision making, update priorities and ensure accountability. Such measures will require substantial investment in capacity building. Third, a regularly updated registry of commitments to ensure accountability and monitor delivery gaps is an idea that could be considered. Fourth, open access to data should be ensured through the use of modern technology including websites and geographic information systems.

Academics and the Research Community

Academics and the research community have different expectations for the data revolution. First, only ensuring the availability of data is not enough – data need to be accessible, affordable and usable. Second, data on associated variables in surveys should also be made available because to the ability to explain trends in progress is key. Third, it is important to learn from the better performers and promote best practices in the areas of data production, literacy, dissemination and openness. Fourth, immediate steps are required to address the scarcity of data as regards soft issues such as governance. Finally, data need to be delivered to users in a timely manner.

Conclusion

The Bangladesh country study presents an overall assessment of the existing statistical capacity of Bangladesh in view of the emerging demands in the context of the post-2015 sustainable development agendas. The study examines the data adequacy for measuring post-2015 progress, and identifies key opportunities and challenges at the country level to improve availability, access, timeliness and quality of data. Feasibility of selected set of candidate post-2015 targets have also been examined and assessed.

The Bangladesh case study's key findings are:

- Bangladesh has seen gradual improvements in data production, dissemination and use with regard to development issues over the last 10 years.

- The global ambition towards a data revolution has begun to gain ground in Bangladesh. Relevant stakeholders are becoming increasingly aware of emerging data demands.

- Although data availability has improved in Bangladesh, data are currently not readily available for a number of candidate indicators. For instance, needed statistics that are not currently reported in Bangladesh can be estimated or calculated for 42 indicators (out of 120 candidate indicators examined in this study) from existing administrative information and available surveys. Data for several important indicators are unavailable at the level of disaggregation needed.

- The dearth of data will likely make it difficult to establish a baseline for measuring progress on the post-2015 agenda in Bangladesh. Without baseline data it will be difficult for Bangladesh to establish measurable post-2015 targets.

- Available data in Bangladesh are of variable quality. They often suffer from a lack of accuracy and reliability, timeliness and punctuality, accessibility and clarity, and coherence and comparability. There is a need to improve overall data quality. This is particularly true for a number of goal areas, including energy and infrastructure, environmental sustainability and disaster resilience, governance, and global partnership for sustainable development.

- Issues relating to the accessibility and affordability of data need to be urgently addressed. In connection to this, the dissemination of disaggregated and unit-level data should be promoted at a minimum cost. Promoting data dissemination digitally and in user-friendly formats (e.g., spreadsheets) and establishing interactive websites for data should be a priority.

- Global minimum standards for a number of key areas, such as ending extreme poverty by 2030, will be difficult to attain in Bangladesh unless a host of measures are put in place. These measures will require significant resource allocation.

- Although certain efforts have sought to reform the statistical system in Bangladesh, they are inadequate to meet the growing demands for more and better data. For example, Bangladesh is currently implementing a National Strategy for the Development of Statistics for the 2013–23 period. Progress on data improvement activities has not been satisfactory because a number of actions planned as part of the strategy have not been implemented within the stipulated timeframe.

- Expectations for the data revolution vary from stakeholder to stakeholder in Bangladesh. Coordination and cooperation among stakeholders will need to be significantly improved to align expectations. The demands for more frequent, timely, disaggregated, quality data from policy-makers and non-governmental actors need to be recognised by data producers.

- The potential roles of the private sector and modern technology in the data revolution in Bangladesh have yet to be adequately appreciated. A big push is required for the advantages of information and communication technologies to be recognised and leveraged.

Beyond these key findings, the study highlights data challenges for Bangladesh. These include:

- weak infrastructure;
- lack of human resources;
- outdated and inadequate legislation;
- insufficient financial resources;
- inadequate documentation (e.g., metadata, survey methodology);
- duplication of sources;
- poor access to data producers;
- poor coordination among data users, producers and other stakeholders;
- inadequate commitment to quality data production from development partners;
- lack of awareness about importance of statistics among policy designers and decision makers;
- absence of data dissemination policy;
- storage of data not being digitized;
- lack of coherent approach towards validation of unofficial data; and
- absence of transparency and quality control efforts.

Addressing this long list of challenges will not be easy for a country such as Bangladesh and these challenges cannot be solved in a short span of time. There is a need to urgently design an agenda for action to address these challenges. Such an agenda should be informed by key considerations about data production, data availability and access, and capacity and coordination.

Data Production

There is a need to standardise and bring coherence to relevant concepts and definitions of variables through consultations among major stakeholders. New surveys will be needed to generate data on various important indicators. This is particularly true for indicators related to governance and institutional strengthening. There is a need to consolidate existing surveys and data collection procedures. In many cases, surveys should be conducted more frequently, which may require increasing financial, technical, logistical resources and improving human resources. As demands for disaggregated data (e.g., spatial, gender, age-group, ethnicity) grow, data producers should take the necessary steps to address emerging needs by including disaggregated data on their agendas. Concerted efforts need to be taken to enhance the quality of data generated through the use of modern technology. While they are concerned with data related to measuring progress on the post-2015 agenda, policy-makers are also interested in understanding the key factors that influence the attainment of better results, so it will be necessary to generate data that not only monitor post-2015 development outcomes but also the variables that impact them.

Data Availability and Access

Data should be made available in a timely manner to facilitate real-time decision making. Raising administrative efficacy and increasing the use of technology can contribute towards this. Ensuring transparency in data production and access for data users should be a core dimension of the data

revolution in Bangladesh. In connection to this, the development of a data dissemination plan and updated legislation are required.

Capacity and Coordination

Adequate funding for strengthening institutional capacity and undertaking new activities needs to be ensured. Together with the Government of Bangladesh, development partners need to address this issue upfront in their planning. Coordination among data producers and data users should be strengthened to harness existing capacities in the private sector. Institutional capacity needs to be enhanced, keeping medium-term needs associated with the post-2015 agenda in the purview. Above all, the data revolution in the context of the post-2015 agenda requires a new set of institutional arrangements. In September 2015, the Ministry of Foreign Affairs will represent the Government of Bangladesh at the United Nations summit where the post-2015 agenda will be finalised. The General Economics Division of the Planning Commission is expected to play a key role in planning and coordinating the subsequent implementation process. The Bangladesh Bureau of Statistics will play a central role in generating data to track development progress. Local Consultative Groups may coordinate development partners' initiatives, while the Ministry of Finance, including its Economic Relations Division, ought to coordinate financing needs. Civil society organisations and other stakeholder groups will be both generators and users of key data. Analysts, experts and researchers will use relevant data to measure and assess progress. A comprehensive plan on data that articulates concrete tasks for specific institutions and stakeholders will need to be designed. Only such a plan will enable a data revolution to occur in Bangladesh.

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Annex 1. Research Team

The Bangladesh case study was conducted by a dedicated research team from CPD, an independent civil society think tank in Bangladesh. CPD is closely involved in shaping the post-2015 agenda as the Secretariat of the Southern Voice network, which involves 48 think tanks from Africa, Asia and Latin America. CPD is thus very much embedded in the global South's efforts to make its voice heard in the post-2015 process. The four-member CPD research team for the Bangladesh case study is led by Professor Mustafizur Rahman, Executive Director, CPD. The three other members are Towfiqul Islam Khan, Research Fellow, CPD, Md. Zafar Sadique, Senior Research Associate, CPD, and Mostafa Amir Sabbih, Research Associate, CPD.

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Annex 3. Key Documents and Resources Consulted for Selecting Targets and Indicators

Organisation/Author	Source/Web link
High-Level Panel	HLP (High-Level Panel of Eminent Persons on the Post-2015 Development Agenda). 2013. *A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development*. New York: United Nations.
Open Working Group	OWG (Open Working Group on Sustainable Development Goals). 2013. "Informal Meeting on Measuring Progress." December 17. New York: United Nations Department of Economic and Social Affairs. http://unstats.un.org/unsd/Dissemination/workshops/OWG_2013/docs/OWG%20informal%20meeting%2017%20Dec%202013%20-%20Report%20(final).pdf.
Sustainable Development Solutions Network	SDSN (Sustainable Development Solutions Network). 2014. *An Action Agenda for Sustainable Development: Report for the UN Secretary-General*. Paris and New York: SDSN.
UN	https://www.worldwewant2015.org. IAEG-MDG (United Nations Inter-Agency and Expert Group on MDG Indicators). 2013. *Lessons Learned from MDG Monitoring from a Statistical Perspective*. New York: United Nations. UN (United Nations). 2013. *Special Event 25 September: Outcome Document*. New York: UN. http://www.un.org/millenniumgoals/pdf/Outcome%20documentMDG.pdf. UNSG (United Nations Secretary-General). 2013. *A Life of Dignity for All: Accelerating Progress towards the Millennium Development Goals and Advancing the United Nations Development Agenda beyond 2015*. A/68/202. New York: United Nations. UN System Technical Support Team. Various issues briefs available at http://sustainabledevelopment.un.org/index.php?menu=1549 (see "UN System inputs" tab).
PARIS21	PARIS21 (Partnership in Statistics for Development in the 21st Century). 2009. *Paris21 at Ten: Improvements in Statistical Capacity Since 1999*. Paris: PARIS21. PARIS21 (Partnership in Statistics for Development in the 21st Century). 2013. *Towards a Post-2015 Framework That Counts: Aligning Global Monitoring Demand with National Statistical Capacity Development*. Paris: PARIS21.

Organisation/Author	Source/Web link
	PARIS21 (Partnership in Statistics for Development in the 21st Century). 2014. “PARIS21, CGD, and APHRC Debate Innovations and Technology.” PARIS21 News, April 4. http://www.paris21.org/news/PARIS21-CGD-APHRC-Debate.
OECD	OECD (Organisation for Economic Co-operation and Development). 2013. “Strengthening National Statistical Systems to Monitor Global Goals.” *OECD and Post-2015 Reflections*, Element 5, Paper 1. Paris: OECD.
Post2015.org	http://post2015.org/tag/data-revolution.
General Economics Division of the Planning Commission	GED (General Economics Division). 2014. *Millennium Development Goals: Bangladesh Progress Report 2013*. Dhaka: GED, Bangladesh Planning Commission.
Fukuda-Parr	Fukuda-Parr, Sakiko. 2013. *Global Development Goal Setting as a Policy Tool for Global Governance: Intended and Unintended Consequences*. Working Paper 108, International Policy Centre for Inclusive Growth, Brasilia.
Langford	Langford, Malcolm. 2012. “The Art of the Impossible: Measurement Choices and the Post-2015 Development Agenda.” Background paper prepared for “Governance and human rights: Criteria and measurement proposals for a post-2015 development agenda,” Office of the High Commissioner for Human Rights/UN Development Programme Expert Consultation, New York, November.
Glennie	Glennie, Jonathan. 2013. “A Development Data Revolution Needs to Go Beyond the Geeks and Bean-Counters.” Poverty Matters Blog, *Guardian*, October 3. http://www.theguardian.com/global-development/poverty-matters/2013/oct/03/data-revolution-development-policy.
Kharas	Kharas, Homi. 2013. “A Data Revolution for the Post-2015 Agenda?” Future Development Blog, World Bank, October 1. http://blogs.worldbank.org/futuredevelopment/data-revolution-post-2015-agenda.

Annex 4. Candidate Targets, Indicators and Definitions

Annex Table 4.1. End poverty: Targets and indicators Target	Indicator	Definition/Note
Global		
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 per day at 2005 prices (World Bank 2014b).
Reduce poverty	Proportion of population below US$2 (PPP) per day	Refers to the percentage of the population living on less than US$2 per day at 2005 prices (World Bank 2014c).
	Proportion of population living below national poverty line	The cost of basic needs method is the standard method for estimating the incidence of poverty in Bangladesh. It is a process for counting the poor according to the consumption expenditure threshold, which is expressed as a percentage. The poverty headcount ratio provides an estimate of the percentage of people living below the poverty line as a share of the total population. The upper poverty line is considered to be the national poverty line in Bangladesh. The upper poverty line is estimated by adding together the food and non-food poverty lines (BBS, different years).
	Share of employed persons living below the nationally-defined 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 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).
National		
End extreme income poverty	Proportion of population below national extreme poverty line	Refers to the proportion of the population under the lower poverty line. The lower poverty line refers to the extremely poor households whose total expenditure on food and non-food items combined is equal to or less than the food poverty line (BBS, different years)

Annex Table 4.1. End poverty: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Reduce poverty	Reduce severity index (squared poverty gap ratio)	The squared poverty gap measures the severity of poverty. Here, the squared poverty gap ratio is estimated by the Foster, Greer and Thorbecke method using both the lower and upper poverty lines (BBS, different years).
	Percentage of population living in poverty according to the multidimensional poverty index	The multidimensional poverty index complements monetary measures of poverty by considering overlapping deprivations suffered by people at the same time. The index identifies deprivations across the same three dimensions as the UN Development Programme's Human Development Index – life expectancy, education and per capita income – and indicates the number of people who are multidimensionally poor (suffering deprivations in 33 percent of weighted indicators) and the number of deprivations with which poor households typically contend with (UNDP 2010)
Reduce the proportion of people who suffer from hunger	Proportion of children under 5 years of age with low weight-for-height (wasting)	Refers to the percentage of children under five years of age who are wasted. Weight-for-height describes current nutritional status. A child who is below minus two standard deviations from the reference median for weight-for-height is considered to be too thin for his/her height, or wasted, a condition reflecting acute or recent nutritional deficit (NIPORT, different years).
Cover x% of poor and vulnerable people with social protection measures	Percentage of poor and vulnerable people under social protection measures	Refers to the percentage of households receiving benefits from at least one type of social safety net programme during the last 12 months (BBS, different years).
End hunger and protect the right of all to have access to sufficient, safe, affordable and nutritious food	Proportion of people (by sex and age) consuming less than 2,122 kilocalories per day	Refers to the proportion of population of both sexes in absolute poverty measured by the direct calorie intake method. This method measures poverty incidences by taking into account the minimum level of food energy to maintain normal health as the threshold to measure poverty. For Bangladesh, the minimum calorie threshold is 2,122 kilocalories per capita per day, which is known as the food poverty line. The percentage of people failing to acquire this level are known as absolute food poor (BBS 2007).
	Proportion of people (by sex and age) consuming less than 1,805 kilocalories per day	Refers to the percentage of people failing to acquire 1,805 kilocalories per day known as hardcore food poor (BBS 2007).
	Per capita production of cereal	Refers to the per capita production of cereals (rice, wheat and others).
Improve nutritional status of pregnant women, lactating mothers and their newborns	Coverage of iron-folic acid supplements for pregnant women (%)	Refers to the percentage of pregnant women under coverage of iron-folic acid supplements to prevent anemia.

Annex Table 4.2. Ensure quality education for all: Targets and indicators Target	Indicator	Definition/Note
Global		
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). National (or sub-national) assessment: Large-scale assessment surveys designed to describe the achievement of students in a curriculum area and 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 (TVET) 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).
National		
Ensure all children have access to early childhood and quality primary and secondary education	Dropout rate at secondary level, %	Refers to the percentage of students who drop out at the secondary level (grades 6 to 10).
	Teacher-student ratio by level of education	Refers to the ratio of teacher and students at primary, secondary and tertiary levels. It accounts for personnel in the classroom dedicated to teaching students at each level.
Increase the number of adults with skills, including technical and vocational skills	Percentage of education budget for Technical and Vocational Education and Training	Refers to the percentage of the education budget allocated for Technical and Vocational Education and Training from the national budget.

Annex Table 4.2. Ensure quality education for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Promote quality research (for knowledge creation/innovation)	Proportion of budget allocated to research and innovation	Refers to the proportion of the budget allocated to research and innovation from the national budget.
	Number of research findings/innovations patented	Includes the number of research findings/innovations covered by patent rights.

Annex Table 4.3. Create jobs, sustainable livelihoods, and inclusive growth for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Global		
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 percentage of the working-age population (ILO 2014). This definition is consistent with that used by the BBS,
	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 type 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 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.

Annex Table 4.3. Create jobs, sustainable livelihoods, and inclusive growth for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
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. Even though a single Gini coefficient value has no simple interpretation, comparisons of the level over time or between populations are very straightforward: the higher the coefficient, the higher the inequality of the distribution, and vice versa.
	Growth rate of income of the bottom 40%	After-tax income quintiles are used to measure the growth rate of the bottom 40% for all households. The ranked population is divided into five groups of equal numbers of units, called quintiles. The lowest income quintile represents the 20% of the population whose income is lowest. By the same token, the highest quintile represents the 20% of the population whose income is highest.
	Gross fixed capital formation (% of GDP)	Gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, etc.), 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 2014d).
National		
Achieve full and productive employment for all, including women and young people	Proportion of own-account and contributing family workers in total employment	Own-account workers are those workers who, working on their own account or with one or more partners, hold the type of jobs defined as self-employment jobs (i.e., remuneration is directly dependent upon the profits derived from the goods and services produced) and have not engaged on a continuous basis any employees to work for them during the reference period. Contributing family workers, also known as unpaid family workers, are those workers who are self-employed as own-account workers in a market-oriented establishment operated by a related person living in the same household (ILO).
	GDP per person engaged (or labour productivity)	Labour productivity is measured as output per person employed (ILO).
	% of formal employment as a share of total employment by sex and type	Refers to the share of formal employment in total employment. Employees are considered to have informal jobs if their employment relationship is, by law or in practice, not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits (e.g., advance notice of dismissal, severance pay, paid annual or sick leave, etc.) (ILO).

Annex Table 4.3. Create jobs, sustainable livelihoods, and inclusive growth for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Reduce child labour and eliminate worst forms of child labour	Number of children removed from child labour	Refers to the number of children removed from child labour. Child labour is measured as the number of children aged 6–14 years who are not in school but rather engaging in paid and unpaid work (BBS 2010).
Reduce vulnerability of workers and ensure their rights and safety	Incidence of occupational injury among industrial workers (%)	Refers to work-related injuries or incidence of injury rates among industrial workers.
Decrease the number of young people not in education, employment or training by x%	% of skilled youth employed	Refers to the percentage of economically active, employed young people (aged 15–29 years) by level of education (BBS).
	% of youth employed	Refers to the percentage of young people (aged 15–29 years) who are employed (BBS, different years).
Increase new start-ups by x and value addition in new products by y through creating an enabling business environment and boosting entrepreneurship	Number of new jobs created (by sector)	Refers to the sector-wise creation of new jobs.
Eliminate discrimination against women in political, economic and public life	Labour force participation rate of women compared to men	Refers to labour force participation rate by sex.
	Average number of hours per week of unpaid domestic work (by sex)	Refers to the average number of hours spent by males and females per week on unpaid household work.
	Proportion of women-owned or managed businesses	Refers to the percentage of businesses owned or managed by women.

Annex Table 4.4. Ensure sustainable energy and develop infrastructure for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Global		
Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	This indicator measures the number of people that use 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 the population with an account (self or together with someone else) at a bank, credit union, other financial institution (e.g., cooperative, microfinance institution) or post office (if applicable) (modified slightly from World Bank Global Index Glossary).
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.
	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 (e.g., kerosene, ethanol and other biofuels), (ii) gaseous fuels (e.g., natural gas, liquefied petroleum gas and biogas) and (iii) electricity. Solid fuels include: (i) traditional biomass (e.g., wood, charcoal, agricultural residues and dung), (ii) processed biomass (e.g., pellets and briquettes) and (iii) other solid fuels (e.g., 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 4.4. Ensure sustainable energy and develop infrastructure for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
National		
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	% of households with access to electricity (rural/urban)	Refers to the percentage of households that have access to electricity by region.
	Per capita consumption of electricity	Refers to electricity consumption by kilowatt-hours per capita. Electricity consumption measures the production of power plants and combined heat and power plants less transmission, distribution and transformation losses and own use by heat and power plants (IEA 2014).
Increase use of energy-efficient transport and infrastructure	% using railway as mode of transport (passenger/freight)	Refers to the percentage of passengers and freights using railways as a mode of transport.

Annex Table 4.5. Establish a sustainable, healthy and resilient environment for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Global		
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 metres 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 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 show how protected areas are managed based on International Union for the Conservation of Nature categories and includes marine areas.

Annex Table 4.5. Establish a sustainable, healthy and resilient environment for all: Targets and indicators		
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 taxpayers include: concentration of revenues, complexity of the business and tax dealing, 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).
	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. The system follows a similar accounting structure as the System of National Accounts and uses concepts, definitions and classifications consistent with it in order to facilitate the integration of environmental and economic statistics (UNStats 2014).
National		
Build resilience and reduce deaths from natural hazards	Proportion of disaster-related economic loss (% of GDP)	Refers to the amount of economic and infrastructure losses incurred as a direct result of the natural disaster as a percentage of GDP.
	Percentage of national budget/resources committed to disaster risk reduction and climate change adaptation across sectors	Refers to the percentage of resources committed to disaster risk reduction and climate change adaptation from the national budget across different sectors.
	% of reduction in natural and human-induced disaster mortality	Refers to the percentage reduction of deaths caused by natural and human-induced disasters.
Safeguard ecosystems and biodiversity	Proportion of fish stocks within safe biological limits	Refers to the percentage of fish stocks or species that are exploited within the level of maximum sustainable biological productivity (FAO).
Publish and use economic, social and environmental accounts in all governments and companies	Proportion of government departments and large companies (capitalisation above US$100 million equivalent) publishing economic, social and environmental accounts	Refers to the percentage of government departments and private companies having capitalisation above US$100 million equivalent that publish according to the System of Environmental-Economic Accounting.

Annex Table 4.5. Establish a sustainable, healthy and resilient environment for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Ensure sustainability in production, consumption and use of resources	Consumption of ozone-depleting chlorofluorocarbons (metric tonnes per capita)	Refers to the consumption of chlorofluorocarbons (carbon, chlorine and fluorine) that deplete the Earth's ozone layer in metric tonnes per capita.
	Greenhouse gas emissions (per capita and per US$1 GDP [PPP])	Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere and clouds. This property causes the greenhouse effect. Water vapour (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4) and ozone (O_3) are the primary greenhouse gases in the Earth's atmosphere (Environment Canada 2013). Note: It should be noted that greenhouse gas emission intensity measures greenhouse gas emissions per unit of GDP.
	CO_2 emissions per capita, per US$1 GDP and total	Refers to per capita CO_2 emissions, per US$1 GDP and total.
	% change in particulate concentration in urban air	Particulate matter is the sum of all solid and liquid particles suspended in urban air, many of which are hazardous. This complex mixture includes both organic and inorganic particles, such as dust, pollen, soot, smoke and liquid droplets.
Provide universal access to safe drinking water at home, and in schools, health centres and refugee camps	% of urban population using basic drinking water	Refers to the percentage of the population who use any of the following types of water supply for drinking: piped water into dwelling, plot or yard, public tap/standpipe, borehole/tube well, protected dug well, protected spring, rainwater collection and bottled water (WHO and UNICEF 2014). This is a modified MDG indicator.
	% of urban population using basic sanitation services	Refers to the percentage of the urban population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal and insect contact with excreta (WHO and UNICEF 2014). This is a modified MDG indicator.
Reduce the vulnerability and exposure of local communities to disasters	% of area covered by early warning system	Refers to the percentage of area that are covered by early warning systems for natural disasters.
	% of earthquake-resilient buildings and infrastructure	Refers to buildings and infrastructure that are designed to withstand earthquakes.
	% of area covered by community-based disaster risk management	Refers to the percentage of area that is covered by disaster risk management using community-based approaches.
	% of the population below a particular flood line (100-year flood, 10 years)	Refers to the percentage of the population who live below a "100-year flood in every 10 years" flood line. The "100-year flood" is an estimate of the long-term average recurrence interval, which does not mean that there really are 100 years between each major flood of greater or equal magnitude.
	% of industrial sector with water management	Refers to the percentage of industries that have a water management mechanism.

Annex Table 4.6. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Global		
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 five years of age who registered with the civil authority as a percentage of the total population of children under five.
	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 between the time of filing a case and receiving a verdict.
	Proportion of seats held by women and minorities in national or local-level government	In Bangladesh's context, the indicator refers to the proportion of seats held by women and minorities in the national parliament.
	% of adults with an account at a formal financial institution, disaggregated by sex	Denotes the percentage of the population with an account (self or together with someone else) at a bank, credit union, other financial institution (e.g., cooperative, microfinance institution) or 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 the goal area on energy and infrastructure, disaggregated by sex.
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). Data would likely come from the BBS's Violence Against Women Survey.
	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 4.6. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators		
Target	**Indicator**	**Definition/Note**
National		
Reduce bribery and corruption in all forms	Perception of corruption in political, judicial and law enforcement institutions	Transparency International's Corruption Perceptions Index is one option but would not serve as an official source. Additional work would be needed to develop an official measure of corruption in Bangladesh.
	Public perception of corruption in public administration	Transparency International's Corruption Perceptions Index is one option but would not serve as an official source. Additional work would be needed to develop an official measure of corruption in Bangladesh.
Increase public participation in political processes and civic engagement at all levels	Number of ministry oversight hearings held by parliamentary committees	Refers to the number of oversight hearings for ministries or executive agencies held by parliamentary committees.
	Number of stakeholder consultation meetings held by ministries/local governments	Refers to the number of stakeholder consultation meetings held by ministries/local governments. Stakeholders include national and local government representatives, research institutions, non-governmental organisations and the private sector.
	Percentage of budget allocations directly benefiting the poor and disadvantaged groups such as women, ethnic minorities and the disabled	Refers to percentage of total government budget allocations which directly benefits the poor and disadvantaged groups such as women, ethnic minorities and the disabled
	Number of CSOs that have officially participated and expressed their views in the process of developing and approving the national budget	Refers to the participation of CSOs in the process of both the development and approval of the national budget.
Guarantee the public's right to information and access to government data	Number of government entities that regularly place reports on their budgets and expenditure on their websites	Refers to the number of government entities that publish their budget allocation and expenditure reports on a regular basis.
Improve transparency and strengthen accountability and integrity of public and private institutions	Percentage of queries attended to by government entities under the Right to Information Act	Refers to the percentage of information queries addressed by government entities under the Right to Information Act of 2009.
Ensure justice institutions are accessible, independent, well-resourced and respect due-process rights	Number of prosecutions by the Anti Corruption Commission in one year	Refers to the number of prosecutions against the number of convictions by the Anti Corruption Commission in one year.

Annex Table 4.6. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Enhance the capacity, professionalism and accountability of the security forces, police and judiciary	Increase in overall Rule of Law Index score	The World Justice Project Rule of Law Index (2014) offers a detailed, multidimensional view of the extent to which countries adhere to the rule of law in practice and is the most comprehensive index of its kind. The index measures the rule of law using 47 indicators organised around eight themes: constraints on government powers, absence of corruption, open government, fundamental rights, order and security, regulatory enforcement, civil justice and criminal justice (World Justice Project 2014).

Annex Table 4.7. 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 2014e).
	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 developed countries 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 is defined as ODA and other official flows. Productive sector defined as infrastructure, agriculture and manufacturing.
	Proportion of foreign direct investment to the productive sector	Productive sector is defined as infrastructure, agriculture and manufacturing.
	Share of South-South cooperation to the productive sector	Productive sector is defined as infrastructure, agriculture and manufacturing.
National		
Promote an open, rule-based, predictable, accountable and non-discriminatory trading system	Average tariffs imposed by developed countries on agricultural products, textiles and clothing from developing countries	Refers to the average tariff rates that are imposed on agricultural products, textiles and clothing of developing countries by developed countries.
	Percentage of trade to GDP	Refers to the share of trade to GDP.

Annex Table 4.7. Establish a global partnership for sustainable development: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Implement reforms to ensure stability and transparency of the international financial system and encourage stable, long-term private foreign investment	Share of non-performing loans in banking system's total loan portfolio	Refers to value of nonperforming loans divided by the total value of the loan portfolio (including non-performing loans before the deduction of specific loan-loss provisions). The loan amount recorded as non-performing should be the gross value of the loan as recorded on the balance sheet, not just the amount that is overdue (IMF).
	Foreign direct investment to total investment ratio and foreign direct investment to GDP	Foreign direct investment refers to the net inflow of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital and short-term capital as shown in the balance of payments (IMF).
Developed countries that have not done so should make concrete efforts towards the target of 0.7% of gross national income as ODA to developing countries and 0.15–0.20% of gross national income as ODA to LDCs; other countries should move towards voluntary targets for complementary financial assistance	% of gross national income to ODA	Net ODA consists of disbursements of loans made on concessional terms (net of repayments of principal) and grants by official agencies of DAC members, by multilateral institutions and by non-DAC countries to promote economic development and welfare in countries and territories on the DAC list of ODA recipients. It includes loans with a grant element of at least 25 percent (calculated at a rate of discount of 10 percent) (OECD-DAC).
Enhance global collaboration for mobilisation of resources	Percentage of ODA received by developing countries from OECD/DAC countries	Refers to the percentage of ODA received by developing countries from OECD/DAC countries.
	Percentage of ODA received by LDCs from OECD/DAC countries	Refers to the percentage of ODA received by LDCs from OECD/DAC countries. LDCs as defined by the UN-OHRLLS (2014).
Reduce illicit financial flows and tax evasion and increase stolen-asset recovery by $x	Illicit financial flows as a share of GDP	Illicit financial flows are illegal movements of money or capital from one country to another. Global Financial Integrity classifies such movements as illicit flows when the money or capital are illegally earned, transferred and/or utilised.
Strengthen partnership in addressing challenges to humanity	Number of human-trafficking cases detected, prevented and prosecuted	UNODC (2004) defines trafficking in persons as the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, abduction, fraud, deception, the abuse of power or a position of vulnerability,

Annex Table 4.7. Establish a global partnership for sustainable development: Targets and indicators		
Target	**Indicator**	**Definition/Note**
including human and drug trafficking, money laundering, and prevention of and action against extremism and terrorism	(disaggregated by sex, age and ethnicity)	or the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. At minimum, exploitation includes the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude and the removal of organs.
	Basel Anti-Money Laundering Index	The Basel Anti-Money Laundering Index assesses a country's overall risk of money laundering/terrorist financing, but does not measure the actual existence of money laundering activity in a country. The overall risk score for a country indicates the risk level, meaning the vulnerability of a given country regarding money laundering and terrorist financing based on its adherence to anti-money laundering/counter-terrorism financing standards and other risk categories (ICAR 2014).
	Percentage of intra-regional trade to GDP	Intra-regional trade refers to trade that focuses on economic exchange primarily between countries of the same region or economic zone.
	Number of signed treaties involving an integrated transport network for intra- and inter-regional cooperation on trade facilitation	Refers to the number of treaties signed between governments to create an integrated transport network for intra- and inter-regional cooperation on trade facilitation. Trade facilitation can be defined as the simplification and harmonisation of international trade procedures including import and export procedures.

Annex Table 4.8. Ensure primary health services for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
National		
End/reduce preventable infant and under-5 deaths	Infant mortality rate (per 1,000 live births) (rural/urban by gender and wealth quintile)	Refers to the number of infants dying before reaching one year of age per 1,000 live births in a given year (UNICEF, WHO, World Bank, UN Population Division).
	Under-5 child mortality rate (per 1,000 live births) (rural/urban by gender and wealth quintile)	Refers to the probability (expressed as a rate per 1,000 live births) of a child born in a specified year dying before reaching the age of five if subject to current age-specific mortality rates (UNICEF, WHO, World Bank, UN Population Division).
Decrease the maternal mortality ratio to no more than x per 100,000	Maternal mortality ratio (per 100,000 live births) (rural/urban by gender and wealth quintile)	Refers to the number of women who die from pregnancy-related causes while pregnant or within 42 days of pregnancy termination per 100,000 live births (WHO, UNICEF, UN Population Fund, World Bank and UN Population Division)
Ensure universal sexual and reproductive health and rights	Percentage of births attended by skilled health personnel	Refers to the percentage of deliveries attended by health personnel trained in providing lifesaving obstetric care, including giving the necessary supervision, care and advice to women during pregnancy, labour and the post-partum period, conducting deliveries on their own and caring for newborns. Traditional birth attendants, even if they receive a short training course, are not included (UNICEF).

Annex Table 4.8. Ensure primary health services for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
	Percentage of use of contraceptive methods	Refers to the percentage of women who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method used. It is usually reported for married or in-union women aged 15–49 years (UNDESA 2014).
	Percentage of unmet need for family planning	Refers to the percentage of women who are fecund and sexually active but are not using any method of contraception and report not wanting any more children. This is a subcategory of total unmet need for family planning, which also includes unmet need for spacing births. The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behaviour (UNDESA).
	Percentage of one-time antenatal care	Refers to the percentage of women aged 15–49 years with a live birth in a given time period that received antenatal care provided by skilled health personnel (doctors, nurses or midwives) at least once during pregnancy, as a percentage of women age 15–49 years with a live birth in a given time period (WHO and UNICEF).
	Total fertility rate	Total fertility rate represents the number of children who would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates (UN).
Ensure basic health services for all	Doctor, nurse and paramedics-population ratio (rural/urban)	Refers to the total number of doctors, nurses and paramedics assigned for by region.

Annex 5. Key Resources Consulted for Testing Data Adequecy at Country Level

Organisation	Source/Web link
BBS	• Household Income and Expenditure Survey, different years • Labor Force Survey, different years • Multiple Indicator Cluster Survey, different years • Sample Vital Registration System, different years • Violence Against Women Survey, 2011 http://www.bbs.gov.bd
NIPORT	Bangladesh Demographic and Health Survey, different years http://www.niport.gov.bd
BANBEIS	*Bangladesh Educational Statistics*, different years http://banbeis.gov.bd
Directorate of Primary Education, Ministry of Primary and Mass Education	Annual Primary School Census, different years http://www.dpe.gov.bd
Department of Environment, Ministry of Environment and Forests	http://www.doe.gov.bd
Department of Disaster Management, Ministry of Disaster Management and Relief	http://www.ddm.gov.bd
World Bank	World Development Indicators, different years http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators
UN	http://unstats.un.org

Annex 6. Validation Workshop Participants

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Annex 7. List of Goals, Targets and Indicators for the Bangladesh Case Study

Annex Table 7.1. End poverty: Targets and indicators Target	Indicator	Available Source	Potential Source
Global			
End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	BBS (HIES), World Bank (WDI)	
Reduce poverty	Proportion of population below US$2 (PPP) per day	BBS (HIES), World Bank (WDI)	
	Proportion of population living below national poverty line	BBS (HIES), World Bank (WDI)	
	Share of employed persons living below the nationally-defined poverty line	BBS (HIES)	
Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	NIPORT (BDHS), BBS (Child and Mother Nutrition Survey)	
National			
End extreme income poverty	Proportion of population below national extreme poverty line	BBS (HIES)	
Reduce poverty	Reduce severity index (squared poverty gap ratio)	BBS (HIES), World Bank (WDI)	
	Percentage of population living in poverty according to the multidimensional poverty index	UN Development Programme	
Reduce the proportion of people who suffer from hunger	Proportion of children under 5 years of age with low weight-for-height (wasting)	NIPORT (BDHS), BBS (Child and Mother Nutrition Survey)	
Cover x% of poor and vulnerable people with social protection measures	Percentage of poor and vulnerable people under social protection measures	BBS	

Annex Table 7.1. End poverty: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
End hunger and protect the right of all to have access to sufficient, safe, affordable and nutritious food	Proportion of people (by sex and age) consuming less than 2,122 kilocalories per day	BBS (HIES)	
	Proportion of people (by sex and age) consuming less than 1,805 kilocalories per day	BBS (HIES)	
	Per capita production of cereal	BBS (HIES)	
Improve nutritional status of pregnant women, lactating mothers and their newborns	Coverage of iron-folic acid supplements for pregnant women (%)	Institute of Public Health Nutrition, Helen Keller International, BBS (Child and Mother Nutrition Survey)	

Annex Table 7.2. Ensure quality education for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Global			
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	Directorate of Primary Education (Annual Primary School Census), BBS (MICS)	
	% of girls and boys who complete primary school	Directorate of Primary Education (Annual Primary School Census), BBS (MICS, SVRS)	
	% of girls and boys who complete secondary school	BANBEIS	
	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Directorate of Primary Education (Annual Primary School Census)	
Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training (TVET) institution	BANBEIS	
National			
Ensure all children have access to early childhood	Dropout rate at secondary level, %	BBS (MICS)	
	Teacher-student ratio by level of education	BANBEIS, World Bank (WDI)	

Annex Table 7.2. Ensure quality education for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
and quality primary and secondary education			
Increase the number of adults with skills, including technical and vocational skills	Percentage of education budget for Technical and Vocational Education and Training	Ministry of Finance	
Promote quality research (for knowledge creation/innovation)	Proportion of budget allocated to research and innovation	Ministry of Finance	
	Number of research findings/innovations patented	World Bank (WDI)	

Annex Table 7.3. Create jobs, sustainable livelihoods, and inclusive growth for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Global			
Achieve full and productive employment for all, including women and young people	Labour force participation rate	BBS (LFS)	
	Time-related underemployment (thousands)	BBS	
Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)		BBS
Support inclusive growth and reduce inequality	Palma ratio	BBS (HIES)	
	Gini coefficient	BBS (HIES)	
	Growth rate of income of the bottom 40%	BBS (HIES)	

Annex Table 7.3. Create jobs, sustainable livelihoods, and inclusive growth for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
	Gross fixed capital formation (% of GDP)	BBS (*National Accounts Statistics*), World Bank (WDI)	
National			
Achieve full and productive employment for all, including women and young people	Proportion of own-account and contributing family workers in total employment	International Labour Organization Statistics	
	GDP per person engaged (or labour productivity)	World Bank (WDI), BBS	
	% of formal employment as a share of total employment by sex and type	BBS (LFS)	
Reduce child labour and eliminate worst forms of child labour	Number of children removed from child labour		BBS (MICS)
Reduce vulnerability of workers and ensure their rights and safety	Incidence of occupational injury among industrial workers (%)	International Labour Organization Statistics	
Decrease the number of young people not in education, employment or training by x%	% of skilled youth employed	BBS (LFS)	
	% of youth employed	BBS (LFS)	
Increase new start-ups by x and value addition in new products by y through creating an enabling business environment and boosting entrepreneurship	Number of new jobs created (by sector)	BBS	

Annex Table 7.3. Create jobs, sustainable livelihoods, and inclusive growth for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Eliminate discrimination against women in political, economic and public life	Labour force participation rate of women compared to men	BBS (LFS)	
	Average number of hours per week of unpaid domestic work (by sex)	BBS (Time Use Survey)	
	Proportion of women-owned or managed businesses	BBS	

Annex Table 7.4. Ensure sustainable energy and develop infrastructure for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Global			
Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	World Bank (WDI), Bangladesh Telecommunication Regulatory Commission	
	Average bandwidth speed (megabits/second)	Bangladesh Telecommunications Company Limited	
	% of the population with access to an all-season road		BBS
	% of adults with an account at a formal financial institution	World Bank (Global Findex)	BBS, Bangladesh Bank, Microcredit Regulatory Authority
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	BBS, Bangladesh Power Development Board	
	Rate of improvement in energy intensity		Bangladesh Power Development Board
	Share of the population with access to modern cooking solutions (%)		Bangladesh Power Development Board
	Share of renewable energy to total energy consumption	Bangladesh Power Development Board	
National			
	% of households with access to electricity (rural/urban)	World Bank (WDI)	

Annex Table 7.4. Ensure sustainable energy and develop infrastructure for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Per capita consumption of electricity	BBS (HIES)	
Increase use of energy-efficient transport and infrastructure	% using railway as mode of transport (passenger/freight)	BBS (*Statistical Yearbook*)	

Annex Table 7.5. Establish a sustainable, healthy and resilient environment for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Global			
Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Department of Disaster Management, Ministry of Disaster Management and Relief	
Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	World Bank (WDI)	
	Trends in coverage of protected areas	Ministry of Environment and Forests	
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	
	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting		Department of Environment, Ministry of Environment and Forests
National			
Build resilience and reduce deaths from natural hazards	Proportion of disaster-related economic loss (% of GDP)	Department of Disaster Management, Ministry of Disaster Management and Relief	

Annex Table 7.5. Establish a sustainable, healthy and resilient environment for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
	Percentage of national budget/resources committed to disaster risk reduction and climate change adaptation across sectors	Ministry of Finance	
	% of reduction in natural and human-induced disaster mortality	Department of Disaster Management, Ministry of Disaster Management and Relief	
Safeguard ecosystems and biodiversity	Proportion of fish stocks within safe biological limits	Department of Fisheries of the Ministry of Fisheries and Livestock	
Publish and use economic, social and environmental accounts in all governments and companies	Proportion of government departments and large companies (capitalisation above US$100 million equivalent) publishing economic, social and environmental accounts	Department of Environment, Ministry of Environment and Forests	
Ensure sustainability in production, consumption and use of resources	Consumption of ozone-depleting chlorofluorocarbons (metric tonnes per capita)	Department of Environment, Ministry of Environment and Forests	
	Greenhouse gas emissions (per capita and per US$1 GDP [PPP])	World Bank (WDI)	
	CO_2 emissions per capita, per US$1 GDP and total	World Bank (WDI)	
	% change in particulate concentration in urban air	Department of Environment, Ministry of Environment and Forests	
Provide universal access to safe drinking water at home, and in schools, health centres and refugee camps	% of urban population using basic drinking water	NIPORT (Urban Health Survey)	
	% of urban population using basic sanitation services	NIPORT (Urban Health Survey)	

Annex Table 7.5. Establish a sustainable, healthy and resilient environment for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Reduce the vulnerability and exposure of local communities to disasters	% of area covered by early warning system	Department of Disaster Management, Ministry of Disaster Management and Relief	
	% of earthquake-resilient buildings and infrastructure	Department of Disaster Management, Ministry of Disaster Management and Relief	
	% of area covered by community-based disaster risk management	Department of Disaster Management, Ministry of Disaster Management and Relief	
	% of the population below a particular flood line (100-year flood, 10 years)	BBS	
	% of industrial sector with water management	Ministry of Information	

Annex Table 7.6. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Global			
Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	BBS (MICS)	
	Proportion of adults with a basic legal identity document	Election Commission (National Identity Registration Wing), BBS	
Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and	Average time between filing a case and receiving a verdict	Ministry of Law, Justice and Parliamentary Affairs	
	Proportion of seats held by women and minorities in national or local-level government	UN Statistics Division	Ministry of Law, Justice and Parliamentary Affairs, Local Government Division of the

Annex Table 7.6. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
participation in political and economic life on the basis of social status			Ministry of Local Development, Rural Development and Co-operatives, Election Commission
	% of adults with an account at a formal financial institution, disaggregated by sex	BBS, World Bank (Global Findex)	
Improve personal safety	Prevalence of violence against women, including domestic violence	BBS (Violence Against Women Survey), NIPORT (BDHS)	
	Violent death per 100,000 people	UN Office on Drugs and Crime (Homicide Statistics), Ministry of Home Affairs, BBS	
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"		Transparency International Bangladesh, BBS
Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes		Transparency International Bangladesh, BBS, Anti Corruption Commission
National			
Reduce bribery and corruption in all forms	Perception of corruption in political, judicial and law enforcement institutions	Transparency International Bangladesh, BBS, Anti Corruption Commission	
	Public perception of corruption in public administration		Transparency International Bangladesh, BBS, Anti Corruption Commission

Annex Table 7.6. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Increase public participation in political processes and civic engagement at all levels	Number of ministry oversight hearings held by parliamentary committees	Ministry of Law, Justice and Parliamentary Affairs	
	Number of stakeholder consultation meetings held by ministries/local governments	Ministry of Law, Justice and Parliamentary Affairs, Local Government Division of the Ministry of Local Development, Rural Development and Co-operatives	
	Percentage of budget allocations directly benefiting the poor and disadvantaged groups such as women, ethnic minorities and the disabled	Ministry of Finance	
	Number of CSOs that have officially participated and expressed their views in the process of developing and approving the national budget	Ministry of Finance	
Guarantee the public's right to information and access to government data	Number of government entities that regularly place reports on their budgets and expenditure on their websites	Local Government Division of the Ministry of Local Development, Rural Development and Co-operatives, Information Commission	
Improve transparency and strengthen accountability and integrity of public and private institutions	Percentage of queries attended to by government entities under the Right to Information Act	Information Commission	
Ensure justice institutions are accessible, independent, well-resourced and respect due-process rights	Number of prosecutions by the Anti Corruption Commission in one year	Anti Corruption Commission	

Annex Table 7.6. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Enhance the capacity, professionalism and accountability of the security forces, police and judiciary	Increase in overall Rule of Law Index score	World Justice Project Rule of Law Index	

Annex Table 7.7. Establish a global partnership for sustainable development: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
Global			
Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	World Bank, OECD, Economic Relations Division, Ministry of Finance	
	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	World Trade Organization, Bangladesh Bank, Ministry of Commerce	
	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and the prevention of money laundering	Ministry of Law, Justice and Parliamentary Affairs	
Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	OECD, Economic Relations Division, Ministry of Finance	
	Proportion of foreign direct investment to the productive sector	Bangladesh Bank	
	Share of South-South cooperation to the productive sector	OECD, Economic Relations Division, Ministry of Finance	
National			
Promote an open, rule-based, predictable,	Average tariffs imposed by developed countries on agricultural products, textiles and clothing from developing countries	Economic Relations Division, Ministry of Finance	

Annex Table 7.7. Establish a global partnership for sustainable development: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
accountable and non-discriminatory trading system	Percentage of trade to GDP	World Bank (WDI), Ministry of Finance	
Implement reforms to ensure stability and transparency of the international financial system and encourage stable, long-term private foreign investment	Share of non-performing loans in banking system's total loan portfolio	Bangladesh Bank	
	Foreign direct investment to total investment ratio and foreign direct investment to GDP	Bangladesh Bank, World Bank (WDI)	
Developed countries that have not done so should make concrete efforts towards the target of 0.7% of gross national product income as ODA to developing countries and 0.15–0.20% of gross national income as ODA to LDCs; other countries should move towards voluntary targets for complementary financial assistance	% of GNI to ODA	OECD	
Enhance global collaboration for mobilisation of resources	Percentage of ODA received by developing countries from OECD/DAC countries	Economic Relations Division, Ministry of Finance	
	Percentage of ODA received by LDCs from OECD/DAC countries	Economic Relations Division, Ministry of Finance	
Reduce illicit financial flows and tax evasion and increase stolen-asset recovery by $x	Illicit financial flows as a share of GDP	UN Development Programme, Global Financial Integrity	
Strengthen partnership in addressing challenges to humanity including human	Number of human-trafficking cases detected, prevented and prosecuted (disaggregated by sex, age and ethnicity)	Ministry of Home Affairs	

Annex Table 7.7. Establish a global partnership for sustainable development: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
and drug trafficking, money laundering, and prevention of and action against extremism and terrorism	Basel Anti-Money Laundering Index	Basel Anti-Money Laundering Index	
	Percentage of intra-regional trade to GDP	World Trade Organization, UN Conference on Trade and Development, National Board of Revenue of the Ministry of Finance, Ministry of Commerce	
	Number of signed treaties involving an integrated transport network for intra- and inter-regional cooperation on trade facilitation	World Trade Organization, Ministry of Road Transport and Bridges	

Annex Table 7.8. Ensure primary health services for all: Targets and indicators			
Target	**Indicator**	**Available Source**	**Potential Source**
National			
End/reduce preventable infant and under-5 deaths	Infant mortality rate (per 1,000 live births)	NIPORT (BDHS), BBS (MICS)	
	Under-5 child mortality rate (per 1,000 live births)	NIPORT (BDHS), BBS (MICS)	
Decrease the maternal mortality ratio to no more than x per 100,000	Maternal mortality ratio (per 100,000 live births)	NIPORT (Bangladesh Maternal Mortality and Health Care Survey), BBS (SVRS)	
Ensure universal sexual and reproductive health and rights	Percentage of births attended by skilled health personnel	NIPORT (BDHS),	
	Percentage of use of contraceptive methods	NIPORT (BDHS), BBS (SVRS)	
	Percentage of unmet need for family planning	NIPORT (BDHS), BBS (SVRS)	
	Percentage of one-time antenatal care	NIPORT (BDHS)	
	Total fertility rate	BBS (SVRS)	
Ensure basic health services for all	Doctor, nurse and paramedics-population ratio (rural/urban)	World Bank (WDI), Ministry of Health and Family Welfare	

Annex 8. 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 purposes
	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
	Timeliness	Release policy distinguishing between statistical outputs and the corresponding release procedures and timeliness targets

Criteria	Components (scale)	Sub-components (scale)
Timeliness and punctuality	*Main Question: How quickly are the data released for dissemination or further processing?*	Compliance with timeliness targets like the International Monetary Fund 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

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

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