



وزارة التخطيط التنوي والإحصاء
Ministry of Development Planning and Statistics

Background Document

Modernization of Official Statistics in Support of Sustainable Development Goals in Qatar: The Road Map

SUSTAINABLE DEVELOPMENT GOALS



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Part one: Road Map on Statistics for Sustainable Development Goals in the State of Qatar ¹

1.1 Introduction:

This Road Map is a resource for guiding the work of the Ministry of Development Planning and Statistics (MDPS) on statistics for Sustainable Development Goals (SDGs). It outlines a strategy for MDPS and stakeholders to follow in implementing the UN recommendations on the Role of National Statistical Offices (NSOs) in Measuring and Monitoring the Sustainable Development Goals adopted by the UN Statistical Commission, Economic Commission for Europe, Conference for European Statisticians and various other UN bodies. The Road Map lays out the activities associated with producing statistics and indicators for SDGs; more particularly on the following areas:

1.2 Establishing national mechanisms for collaboration

This Road Map aims to guide the Ministry of Development Planning and Statistics work on statistics for SDGs. In this road map MDPS will play a key role in measuring the extent of the achievement of SDGs in Qatar. According to the sustainable Development Agenda 2030, the annual progress report on the SDGs prepared by the UN Secretary General (UNSG) in cooperation with the international statistical system will be based on global indicators and data produced by national statistical systems. The follow-up and review processes at all levels will be “rigorous “ and evidence-based, informed by country-led evaluations and data which is high-quality, accessible, timely, reliable and disaggregated by income, sex, age, nationality, residence status, disability, geographic location and other characteristics relevant in the national contexts.

It is important to differentiate between the terms “reporting” on SDGs and “providing data and statistics for measuring progress” towards SDGs and targets.

“Reporting” on SDGs concerns tracking the progress towards SDGs and targets at policy level.

¹ This document will be continually updated throughout the duration of the years 2107-2022, to incorporate new developments and lessons learned. I acknowledge that this document has benefited a lot from the work of UN ECE, UN Statistical Commission, Conference for European Statisticians and various UN bodies on SDGs and modernization of official Statistics, especially from the work of the High-Level Group on Modernization of official statistics (HLG-MOS). This document has been prepared by Dr. Ahmad Hussein, expert at the Ministry of Development Planning and Statistics for modernization of official statistics in support of the implementation of the SDGs Agenda 2030. The views expressed here are those of the author and do not necessarily represent or reflect the views of the Ministry of Development planning. The author *would* like to thank Mr. Steven Vale, UNECE Regional Advisor on modernization of Official Statistics for his helpful technical advice and comments.

It requires an evaluation of adequate progress given policy priorities. The global reporting by the UN Secretary General to the High-level Political Forum (HLPF) on Sustainable Development and the voluntary country reviews (VNR) at HLPF are two such examples.

A good basis for identifying data providers in a country is an assessment of readiness to provide data on SDG indicators and identification of data gaps. The indicators team of the MDPS recommends that, carrying out these assessments, should be done in close collaboration with relevant data producers in the line ministries such as the Ministry of Health, Ministry of Education and Higher Education, Qatar Central Bank etc. An essential outcome of these analyses is the identification and assignment of responsibilities among line ministries and Institutions, private sector, and Non-Governmental Organizations

MDPS should consider designating a National body “for example, Qatar national SDGs indicators team” to coordinate the measurement system for SDGs to achieve consistency in the work of all stakeholders, information exchange and discussion and implementation of internationally accepted methodologies. The following terms of reference should be considered:

- MDPS should inform all relevant line ministries, institutions, Businesses, academia, NGOs, and Non-profit organizations of the SDGs indicators and contribute to strengthening cooperation and efficiency to meet the challenges of SDGs. The designation of a focal point in each body will facilitate this process.
- MDPS should consider ways to coordinate the national communication and as per provision of data and indicators on SDGs
- MDPS should serve as a focal point at the national level to coordinate the provision of statistics for SDGs and provide technical support when necessary.
- MDPS as the national coordinating body should prepare detailed national road maps or plans of action to implement international standards in providing data on statistical SDGs indicators
- MDPS should organize meetings with main data users to improve understanding of their statistical needs.
- MDPS should establish technical thematic working groups (for example, on social protection, healthy population, economic growth, technology and innovation, environment protection, etc.) to discuss issues related to measuring the SDGs in these areas.

1.3 Assessing readiness to provide data on global SDG indicators

- Identifying data providers and data sources

MDPS should play a major role in assessing the readiness of the concerned bodies in Qatar to provide data on SDGs for global, regional, and national reporting. MDPS can play a leading role in coordinating their national readiness assessments by facilitating communication with the line Ministries and institutions. The assessment should be disseminated for the use of various stakeholders. A successful readiness assessment also requires the existence of clear definitions and metadata for global indicators.

MDPS should identify potential data providers for statistical indicators within its national statistical system, data sources and data availability. In some cases, MDPS may choose to rely

on non-official data sources, in case of any observed deficiencies regarding the quality, transparency, or timeliness of the reported data considerations.

MDPS could also identify potential data providers for non-statistical indicators (for example from various policy institutions and academia).

MDPS routinely provides national and sub-national statistics to UN agencies. These UN agencies then produce comparable, global statistics in specific regions according to their mandates. As interest in statistics has increased in magnitude and scope, the volume and complexity of these data flows have also increased.

- ***Identifying and addressing data and methodology gaps and conceptual issues***

MDPS should identify common areas of interest where further work is needed. Good governance, technical guidance and quality control are necessary to ensure comparability of data and help to develop new statistics when necessary. MDPS meetings should remain the primary venues to share experiences and explore potential solutions within the country. In our assessment process the concept of “leaving no one behind” should be sufficiently addressed within the indicators framework by proposing relevant disaggregation; and assess the suitability of data for disaggregation purposes; and review best practices and country experiences on selected disaggregation issues

1.4 Developing, national and sub-national indicators

Transformation of SDGs and targets into action and measures at the national and sub-national levels and their integration with the National Development strategy 2017-2022 and other policy interventions will be a crucial step for the successful implementation of SDGs. National indicators may be developed to complement global indicators to support measurement of national strategies. The decision whether to have national SDG indicators depend on national priorities in SDG implementation.

The global SDG indicator list is designed to measure progress with SDGs at the global level. National indicators are justified: (i) where there are specific national priorities not addressed by global indicators; (ii) when policy requires additional indicators to measure Qatar specific part of an SDG in more detail; or (iii) when global targets may not be ambitious enough (or too ambitious). The demand for national indicators is expected to be raised by policy-makers, but selection and measurement should be developed in consultation with the national statistical system. Furthermore, Agenda 2030 emphasizes the need for using existing mechanisms and processes. Therefore, when establishing national SDGs indicators, it is advisable to build on existing policies and indicators in areas related to sustainable development. A good example is Eurostat’s strategy of developing the EU SDG indicators set based on existing statistics and the EU’s policy priorities, while also reflecting all 17 SDGs.²

The global SDG indicators list predominantly comprises objective indicators. At the national level, subjective indicators could be considered. Subjective indicators of wellbeing, for example has

² Ministry of Development Planning and Statistics. Working task teams on the development of national indicators. Document No. 2 Rev. 1

proved to be valid and can be reliably measured. There is a growing interest in understanding sustainable development by using both objective and subjective measures.

It is advisable to consider the following criteria for selecting national indicators are recommended:

- Maintain a balance between social, economic, and environmental indicators to remain faithful to the intent and ambition of Agenda 2030;
- Prioritize outcome indicators except where SDG targets specifically address inputs or outputs;
- Prioritize indicators that are produced by the official statistical system following established standards and agreed methodologies;
- Consider existing sustainable development indicators lists relevant to the case of national development in Qatar. Indicator sets should be related to policy areas (e.g. social protection, healthy population, quality education and well-being indicators);
- Select multi-purpose indicators whenever possible to minimize the number of indicators; and
- Minimize reporting burden, considering that many global indicators may be produced by international organizations (especially qualitative indicators) and thus do not put a burden on national statistical systems.

1.5 Providing data on global SDG indicators

The aim of the global SDG indicators framework is to provide the basis for the UN Secretary General's report for the annual High-level Political Forum (HLPF). The SG report uses global and regional aggregates and, in principle, does not present national data. However, the globally harmonized national data (provided by UN agencies) and regional and global aggregates are available in the global SDG indicator database maintained by UNSD.

In addition to the SG report, HLPF considers voluntary national reviews by countries. These reviews should also make use of national data (the recommended template for the voluntary country reports includes a statistical annex). MDPS had already prepared and presented Qatar National voluntary review in August 2017 at the High level political Forum which was held in New York. The SDG indicators platform consists of three components: (i) a data collection or submission portal that allows different data providers to submit/post data; (ii) a production database and (iii) a dissemination portal where users can find tables, texts and publications.

The platform is wider than just a dissemination database as it may include a submission mechanism for data providers outside the Ministry and a production database. The implementation of a dissemination portal may also be part of a communication strategy. It is recommended that the SDG indicators databases and dissemination platforms used by the country meet the following specifications, which comply with the Fundamental Principles of Official Statistics and the sustainable Development Agenda 2030.

- Comparability
- Transparency
- Timeliness
- Public accessibility

The quality assurance process is a fundamental aspect of data flow models. In accordance with Agenda 2030, national statistical systems collect and provide data and metadata for the global review and follow-up of progress towards SDGs. International statistical systems compile these data and provide internationally comparable data in their respective domains. The agencies responsible for specific SDG indicators are called “custodian agencies”. Regional organizations sometimes facilitate the transmission of data and metadata from the national to the global level. IAEG-SDGs recommend that. The following data flow is one example of an approach that could be adopted for providing SDG data:

- Data can be sent from MDPS to the international organizations (custodian agencies) either through the existing data submission channels or through the newly developed channels set up for SDG indicators. The regional organizations sometimes facilitate the transmission of data and metadata from the national to the global level (such a model is used successfully, for example, in the case of national accounts data submission).
- MDPS should display its data as per SDG indicators on National Reporting Platforms (NRPs), from where the International organizations/custodian agencies (as well as any other users) can extract the data from NRPs.
- The custodian agencies compile the data and forward it to the global level (UNSD). MDPS should have an opportunity to verify its (harmonized) data prior to the release by the custodian agency (for example, when the data are modelled or adjusted to ensure international comparability).
- A central SDG database (maintained by UNSD) is compiled using data extracted from international organizations responsible for different subject matter areas (the database was released in summer 2016) and data are added as they become available.

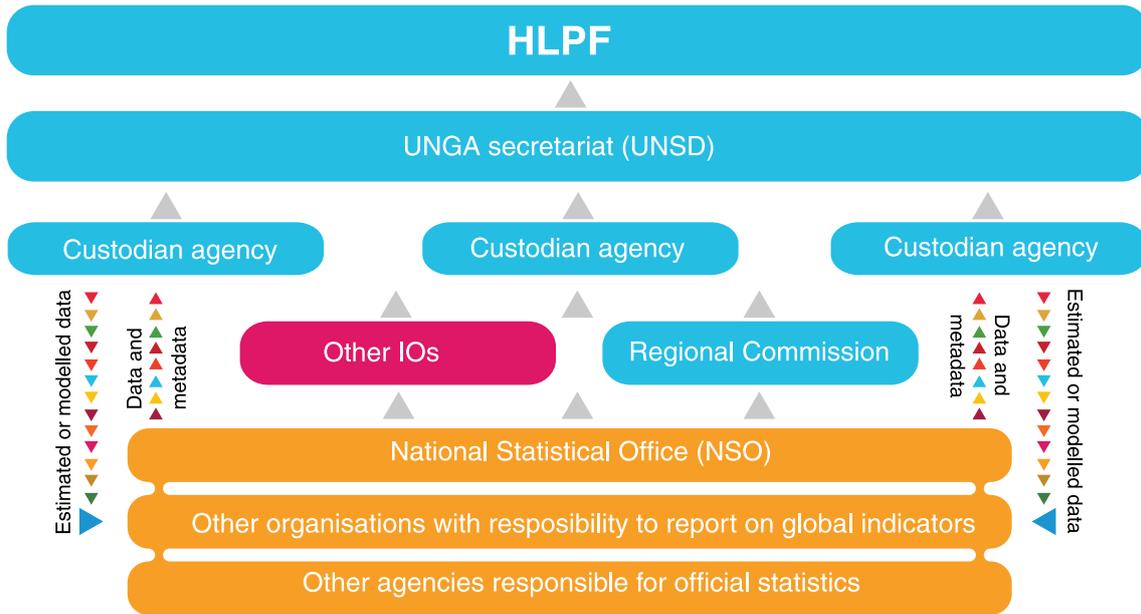


Figure 1: Reporting mechanism for the SDGs indicators ³

1.6 Building statistical capacity for the SDGs statistics

MDPS needs to improve its statistical capacities to be able to produce the required global list of SDG indicators. However, when discussing capacity building, the terminology and consideration of this topic are usually focused on providing statistical training and technical assistance from developed to less developed statistical systems. This approach does not work properly in the process of assessing and analyzing how to improve statistical capacities in Qatar. It would be better to have a common understanding of which are the capacities to be built. These go beyond just producing selected products or indicators, dealing with institutional, legal, financial, human resources and technical issues.

The Expert Meeting on Statistics for SDGs (10-12 April 2017) ⁴ concluded that there is a need to clarify the conceptual issues and terminologies related to capacity building. It was proposed to set

³ United Nations. Economic Commission for Europe and Conference of European Statisticians. Guidelines for countries to facilitate decisions about reporting approach and the development of NRPs

⁴ <https://www.unecce.org/index.php?id=45249>

up a small task team to develop a concept note on what statistical capacity building means in the context of SD. The term “capacity building” can refer to activities at different levels.

First, there are activities inside the country. These include how we define the strategies for building capacities in the national statistical system and how MDPS creates partnerships with relevant stakeholders. This aspect is important for all stakeholders. Secondly, there are national activities, or an International organization to support MDPS in the production of new statistics, including organizing workshops and training (the case of SESRIC and ATRIS). These activities can be observed from both the donor perspective and from the point of view of the country that receives capacity building support; they can be called bilateral activities. Third, there are regional activities, including the sharing of experiences in general and discussing new approaches (such as use of new data sources); they can be called multilateral activities. A possible list of capacities could be discussed at a seminar “Institutional cooperation for capacity development”:

- Technical human resources (the practical skills needed to produce, analyze and disseminate statistics);
- Technical infrastructure (the equipment needed to do the work: buildings, computers, networks, etc.);
- Organizational human resources (the skills needed to make the organization work efficiently together to fulfil the mandate);
- Organizational infrastructure (the systems needed to organize the work (financial flows, legal framework, employment contracts, project management tools, quality framework, etc.);
- Finances (public and other funds to cover the cost of running the organization and producing the statistics);
- Strategic choices (priority of which statistics to produce, user orientation, dissemination strategies, national statistics development strategies); and
- Networks: functional cooperation among NSS partners, government and other user groups, international organizations, other statistics producers, academics, etc.

In addition to the above issues, there will be a direct link between the elements of capacity development and the strategic objectives of the Cape Town Global Action Plan for Sustainable Development Data(CTGAP). It is also worth to mention that in late 2017, a survey on statistical capacity needs was jointly undertaken by PARIS21 and the High level- Group for Partnership, Coordination and Capacity –Building for Statistics for the 2030 Agenda for sustainable Development(HLG-PCCB). The aim of the survey was to obtain a better understanding of the current capacity development needs identified by the national statistical office. The results of the survey help to guide where capacity development activities will focus. The full survey results are available at <http://www.paris21.org/capacity-development-40>⁵.

⁵ <http://www.paris21.org/capacity-development-40>



1.7 Communication and dissemination of statistics for SDGs

Communication on the SDGs should target different audiences: data users (policy makers, civil societies, general public, media, academia, private companies, international organizations, specialized agencies, etc.) and data providers (within MDPS, within the statistical system, and outside the statistical system). Appropriate means of communication for different audiences should be identified.

The official statistical community needs to communicate the most important elements of its work related to statistics for SDGs. In this context, the Road Map is itself a communication tool that provides a summary of issues to be considered and steps to be taken in developing statistics for SDGs.

- ***Developing a communication strategy:***

The basis for a communication strategy is identification of what should be communicated, to whom, how and when. The strategy should consider communication of both indicators and data and communication of the issues surrounding data, such as the role of official statistics, statistical quality, and metadata, etc.

Communication regarding SDGs should be guided by certain principles: (a) openness, objectivity, and transparency; (b) coordination to avoid duplication; (c) standardization and consistency; (d) establishment of a culture of information sharing, exchange of experience and best practices; and (e) integrating communications at national level with global communication on SDGs. Communicating data and indicators deal with questions such as the technical platforms and means of communication, provision of metadata, indicator-based assessments, etc.

In addition to the issues that are common to the dissemination of official statistics in general, some issues are specific to communicating statistics on the SDGs:

- High interest and expectations of policy makers
- Areas that are methodologically new and/or that were previously considered to be outside official statistics
- Non-statistical indicators and data that are not available within the statistical system
- Competition with data providers from outside the statistical system
- Wide coverage and integrated nature of the statistics related to SDGs

- ***Identifying available and required resources:***

As part of the development of a communication strategy, the human, financial and technical resources for communications should be analyzed, considering the resources already available, the need for their development and the need for any additional resources. Communication of sustainable development indicators in a comprehensive manner will require significant planning and coordination. In countries where the statistical office so far has not been involved in communicating issues related to sustainable development, building up the required capacities in the statistical office will require additional resources.



- ***Communication with policy makers:***

Throughout the process of establishing SDGs, there has been a new attention to data, statistics, and measurement by policy makers. This has brought statistics and policy closer together and attract more policy attention to statistics⁶

Action to be taken:

- MDPS should develop a communication strategy for statistics on SDGs, as part of or as a complement to general communication strategies and define the groups that should be targeted by communication, both data providers (Ministries, academia, etc.) and data users (policy makers, civil society, private companies, etc.). Communication of statistics for SDGs should be ideally linked to a general communication strategy of Statistics in Qatar.
- MDPS should define how information will be communicated and assess available resources (financial, human, and technical).
- MDPS should assess existing dissemination platform.
- MDPS should conduct a customer satisfaction survey.

⁶ Ahmad Hussein. EFFECTIVE USE OF STATISTICS IN EVIDENCE-BASED POLICYMAKING: CONCEPTUAL FRAMEWORK (2013) ESCWA. Beirut

Part two: Modernization of Official Statistics in Support of the SDGS and the National Development Strategy (2017-2022)

2.1 Introduction

The global statistical community has recognized the need to modernize official statistics. SDGs further strengthen the case for this. No country is currently able to produce the statistics required for all the SDG indicators and, although funding may be available in some cases, the pressure to meet SDG indicators needs through efficiency improvements is growing. All statistical organizations, from the most to the least developed, face the same challenges. So, working together as a "Statistical Modernization Community" and avoiding duplication of effort has clear attractions. The greatest potential for savings from efficiency improvements comes from the standardization of production processes across different statistical domains.

The UNECE High-level Group for Modernization of Official Statistics (HLG-MOS) has developed various standards and models to facilitate this, including the Generic Statistical Business Process Model (GSBPM) and the Generic Statistical Information Model (GSIM). Applying these models greatly increases the potential benefits of using common software, both within and across statistical organizations. So, HLG-MOS has also created a plan for developing software designed for sharing, known as the Common Statistical Production Architecture. There has also been a call for increased use of data collected initially for non-statistical purposes (such as "big data" and administrative records) to improve the efficiency of statistical production. Calls for increased use of data from private organizations for the calculation of official statistics are also gaining considerable support. Different initiatives and groups are working on the modernization of official statistics. In addition to HLG-MOS, these include Eurostat (Vision 2020 and the "transformative agenda") and UNSD. The Cape Town Action Plan for Sustainable Development Data (CTGAP) calls for strengthening the national statistical systems. All future steps should be based on the experiences of these initiatives and groups.

2.2 Human resources, organizational frameworks, and evaluation

Human resources, organizational frameworks and cultural change are leading principles of modernization of national statistical organizations. We facilitate the sharing of good practices and exploration of emerging issues in human resources management and training (HRMT) and provide guidance for improving HRMT in statistical organizations. Work in this area covers topics such as⁷:

- Implementing organizational change: change and risk management
- How to attract and retain qualified staff
- Training and learning: methods and efficiency
- Performance management
- Building competencies
- Staff motivation
- Guidelines for managers including best practices

⁷ <https://www.unece.org/fileadmin/DAM/stats/documents/applyprinciples.e.pdf>

- Evaluation including costs and benefits of modernization activities

2.3 Statistical production, methods, and information technology

Work with groups of experts to develop standards, guidelines, methods and tools to modernize and improve the efficiency of statistical production should be initiated and facilitate virtual and face-to-face communication to share experiences and ideas between national and international statistical organizations.

Work in this area covers topics such as:

- Business and IT changes that will impact statistical production
- Enterprise architecture and its role in the modernization of statistical production
- Innovation in technology and methods driving opportunities for modernization
- Best practices in statistical data editing, and the development of generic statistical data editing models
- Developing a modernized statistical model
- Applications of machine learning and artificial intelligence to official statistics
- Record linkage

2.4 Data collection and data sources

In this regard experts should be working on many different aspects of data collection, ranging from the positioning of collection activities within the structure of statistical body to the technologies and tools that facilitate efficient collection. Our focus shouldn't be only on the technical aspects of collection instruments and processes, but on the strategic level, bringing together data collection managers and cutting across statistical domains. The ultimate goal of this work is to facilitate exchange of experience and best practices within and between statistical departments.

Work in this area covers topics such as:

- New data sources
- Mixed-mode and multi-source collection
- Risk management in using new tools and sources
- Improving the respondent experience
- Centralization of data collection
- Synergies with dissemination and communication teams in order to better address respondents
- Using Mobile devices
- International collaboration in data collection

2.5 Dissemination and communication

Presenting official statistics effectively is crucial to support informed decision-making at government, business, and private level.

Experts should be working in dissemination, communication and branding of official statistics and statistical information, to facilitate exchange of experience and promote good practices within the international statistical community. This work covers diversified issues as: dissemination and

communication outcomes, tools, processes, and strategic approaches related to communicating with users of official statistical products and services.

Work in this area covers topics such as:

- Social media
- Apps, APIs, and open data
- Digital publishing
- Building and maintaining the authentication of official statistics
- Statistical literacy
- Communication with the media
- Management of dissemination/communication functions and linkage to data collection
- Strengthening International collaboration

For example on this issue you can visit the below link:

<https://findikaattori.fi/en>

2.6 Standards and metadata

Group of experts should work together to develop, improve, implement, and evaluate standards for statistical production. The use of standards ensures that common definitions and processes are used within and among statistical agencies, helping to remove the barriers to collaboration on technical projects, fostering the sharing of knowledge and experiences, and furnishing a basis for streamlined statistical production. The work in this area includes, in particular, standards for metadata, since efficient use and sharing of data rely on metadata to guarantee that everyone has the same understanding of the information and processes followed to produce official statistics.

Work in this area covers topics such as:

- Quality indicators
- Metadata glossary
- Standards for linked open data/metadata

The standards referred to hereafter are cross-cutting, supporting the modernization of all types of statistical production, and are endorsed by the HLG-MOS.

a) GSBPM (Generic Statistical Business Process Model) : The Generic Statistical Business Process Model (GSBPM):

The GSBPM describes and defines the set of business processes needed to produce official statistics. It provides a standard framework and harmonized terminology to help statistical organizations to modernize their statistical production processes, as well as to share methods and components. The GSBPM can also be used for integrating data and metadata standards, as a template for process documentation, for harmonizing statistical computing infrastructures, and to provide a framework for process quality assessment and improvement. These and other purposes for which the GSBPM Will be elaborated further. This version of the GSBPM is fully aligned with version 1.1 of the Generic Statistical Information Model

<http://www.unece.org/stat/platform/display/metis/Generic+Statistical+Information+Model>

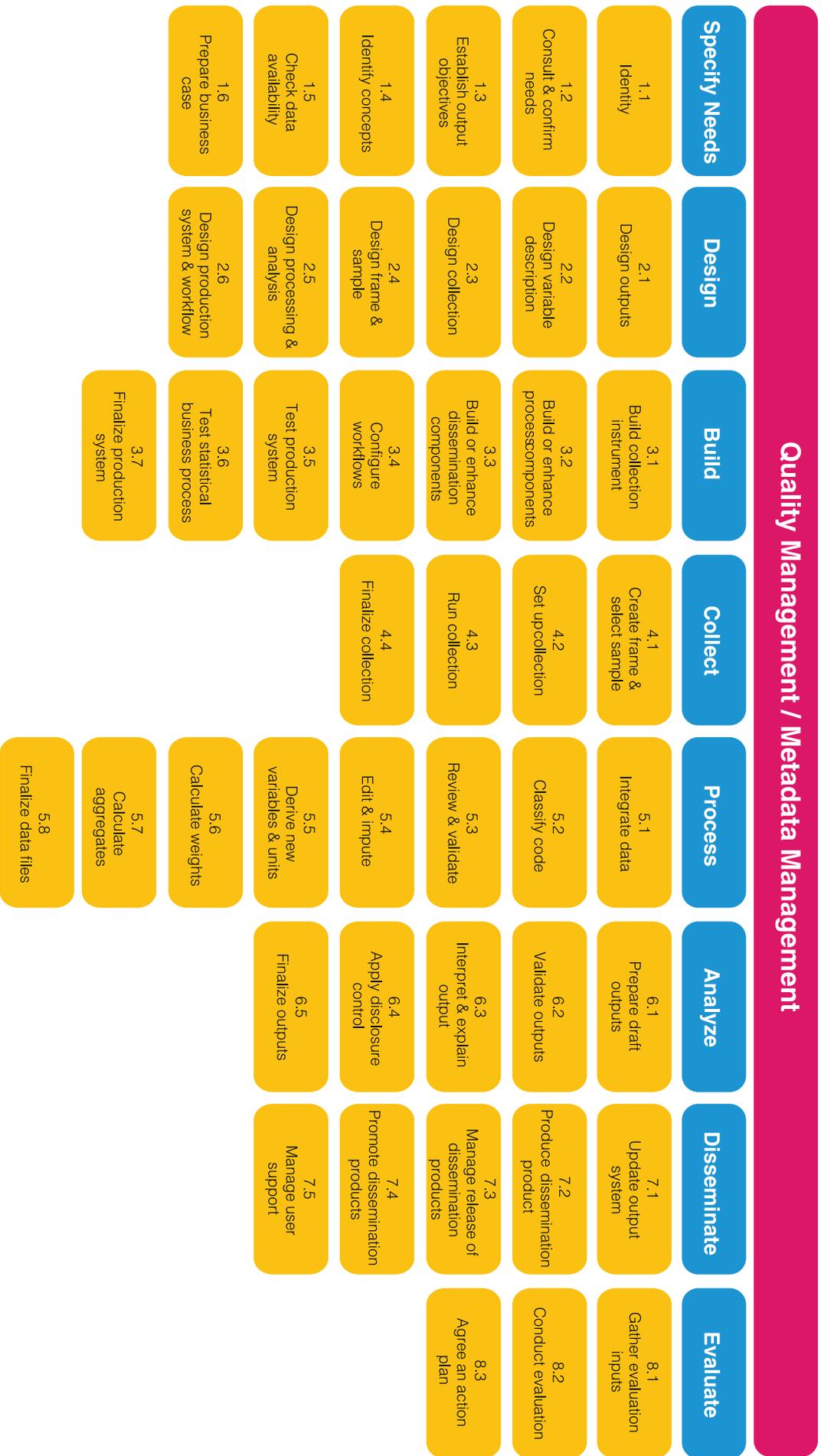


Figure 2: The Generic Statistical Business Process Model (GSBPM)

b) GSIM (Generic Statistical Information Model):

The Generic Statistical Information Model (GSIM): This model is a companion to the GSBPM. While the GSBP describes the stages of the statistical production process, the GSIM describes the different objects (e.g., data, metadata, editing rules, and classifications) that flow between those stages.

c) The Common Statistical Production Architecture (CSPA):

The CSPA provides a blueprint for designing and developing statistical production components in a way that makes them much easier to share within and between organizations.

<http://www1.unece.org/stat/platform/display/CSPA/Common+Statistical+Production+Architecture+>

d) GAMSO (Generic Activity Model for Statistical Organizations)⁸:

The Generic Activity Model for Statistical Organizations (GAMSO) Version 1.1 describes and defines the activities that take place within a typical statistical organization. It extends and complements the Generic Statistical Business Process Model (GSBPM) by adding additional activities needed to support statistical production. When the GSBPM was developed, such activities were referred to as over-arching processes, and were listed, but not elaborated in any great detail. Over the years there have been several calls to expand the GSBPM to better cover these activities. The GAMSO was therefore developed to meet these needs.

The following diagram, which is adapted from one in the vision paper of the High-Level Group for the Modernization of Official Statistics, shows the position of the GAMSO in relation to the other models and frameworks needed for statistical modernization.

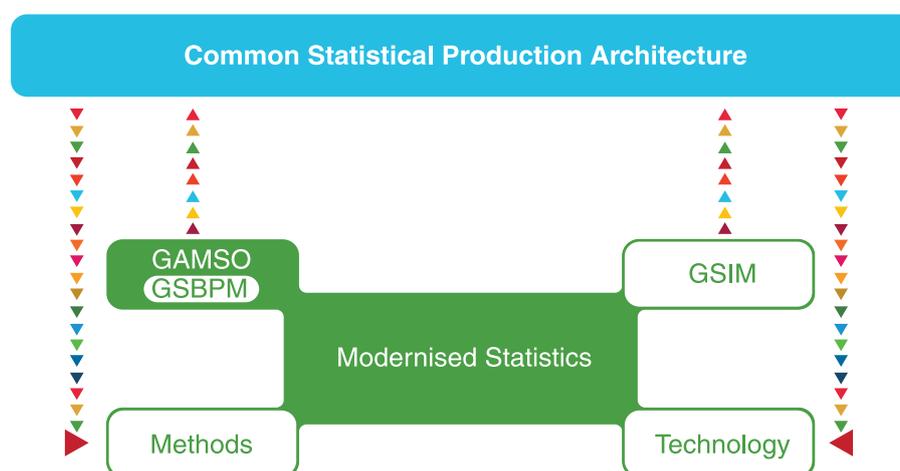


Figure 3: Common Statistical Production Architecture

⁸ Created by Fiona Willis-Núñez, last modified by Steven Vale on 09 Jul, 2017 Go to start of metadata

e) Big data:

The HLG-MOS of the UNECE has commissioned a number of activities to better understand the importance and impact of big data. A major international collaboration project in 2014 resulted in guidelines on privacy and partnership issues, a big data quality framework, and the documented outcomes of a series of experiments to test big data methods and tools.

To support these experiments, the ‘sandbox’—a shared computing environment containing big data sets and software tools—has been created in partnership with the Irish Central Statistics Office and the Irish Centre for High-End Computing.

f) A Framework for Data Integration:

There are many new opportunities created by data sources such as Big Data and Administrative data. These sources have the potential to provide more timely, more disaggregated statistics at higher frequencies than traditional survey and census data.

National Statistical Offices (NSOs) face declining response rates and declining accuracy of survey data while at the same time there are increasing data needs at both the national and international levels.

Despite tightening budgets, there are strong calls to NSOs to produce more timely data that is additionally ever more disaggregated. This will accelerate further with the needs for monitoring the Global Goals for Sustainable Development, Climate Change Conference and other multilateral agreements.⁹

⁹ <https://statswiki.unece.org/display/DI/WPA%3A+a+framework+for+Data+Integration>

Annex I: Guidelines for Statistical Data and Metadata Exchange (SDMX)¹⁰

These definitions come from the 2009 edition of the SDMX Metadata Common Vocabulary.

Statistical Metadata system (SMS). The SMS should be a tool enabling a statistical organization to effectively perform the following functions:

- Planning, designing, implementing, and evaluating statistical production processes.
- Managing, unifying, and standardizing workflows and processes.
- Documenting data collection, storage, evaluation, and dissemination.
- Managing methodological activities, standardizing, and documenting concept definitions and classifications.
- Managing communication with end-users of statistical outputs and gathering of user feedback.
- Improving the quality of statistical data and transparency of methodologies. Ensuring and evaluating the quality of statistical data is one of the most important activities. To this end, national and international statistical organizations have adopted a set of criteria (relevance and completeness, comparability and coherence of statistical concepts, accuracy of statistical estimations, timeliness, and punctuality of delivered statistical information, its accessibility and clarity). The SMS should offer a relevant set of metadata for these criteria.
- Managing statistical data sources and cooperation with respondents.
- Improving discovery and exchange of data between the statistical organization and its users.
- Improving integration of statistical information systems with other national information systems. Growing demands to use administrative data for statistical purposes require better integration and sharing of metadata between statistical and administrative bodies, to ensure coherence and consistency of exchanged information.
- Disseminating statistical information to end users. End users need reliable metadata for searching, navigation, and interpretation of data. Metadata should also be available to assist post-processing of statistical data.
- Improving integration between national and international organizations. International organizations are increasingly requiring integration of their own metadata with metadata of national statistical organizations to make statistical information more comparable and compatible, and to monitor the use of agreed standards.
- Developing a knowledge base on the processes of statistical information systems, to share knowledge among staff and to minimize the risks related to knowledge loss when staff leave or change functions.

¹⁰ https://unstats.un.org/unsd/dnss/docs-nqaf/04_sdmx_cog_annex_4_mcv_2009.pdf

- Improving administration of statistical information systems, including administration of responsibilities, compliance with legislation, performance, and user satisfaction.
- Facilitating the evaluation of costs and revenues for the statistical organization.
- Unifying statistical terminology as a vehicle for better communication and understanding among managers, designers, subject-matter statisticians, methodologists, respondents, and users of statistical information systems.



Annex II: List of Goals, Targets and Indicators of the SDG 2030¹¹

Adopted by the General Assembly of the United Nations resolution 68/261.

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Indicators</i>
Goal 1. End poverty in all its forms everywhere	
1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)
1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	1.2.1 Proportion of population living below the national poverty line, by sex and age 1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	1.3.1 Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work - injury victims and the poor and the vulnerable
1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	1.4.1 Proportion of population living in households with access to basic services 1.4.2 Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure
1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	1.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population 1.5.2 Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)

¹¹ *Note:* The present annex contains the revised list of global Sustainable Development Goal indicators, including refinements, modifications to several indicators to reflect the agreements on the Sendai Framework for Disaster Risk Reduction 2015 -2030 and editorial changes

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Indicators</i>
<p>1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions</p> <p>1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions</p>	<p>1.5.3 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030</p> <p>1.5.4 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies</p> <p>1.a.1 Proportion of domestically generated resources allocated by the government directly to poverty reduction programmes</p> <p>1.a.2 Proportion of total government spending on essential services (education, health and social protection)</p> <p>1.a.3 Sum of total grants and non-debt-creating inflows directly allocated to poverty reduction programmes as a proportion of GDP</p> <p>1.b.1 Proportion of government recurrent and capital spending to sectors that disproportionately benefit women, the poor and vulnerable groups</p>
<p>Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture</p>	
<p>2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round</p> <p>2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons</p> <p>2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment</p>	<p>2.1.1 Prevalence of undernourishment</p> <p>2.1.2 Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)</p> <p>2.2.1 Prevalence of stunting (height for age < -2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age</p> <p>2.2.2 Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)</p> <p>2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size</p> <p>2.3.2 Average income of small-scale food producers, by sex and indigenous status</p>

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Indicators</i>
2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality	2.4.1 Proportion of agricultural area under productive and sustainable agriculture
2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed	2.5.1 Number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities 2.5.2 Proportion of local breeds classified as being at risk, not-at-risk or at unknown level of risk of extinction
2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries	2.a.1 The agriculture orientation index for government expenditures 2.a.2 Total official flows (official development assistance plus other official flows) to the agriculture sector
2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round	2.b.1 Agricultural export subsidies
2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility	2.c.1 Indicator of food price anomalies
Goal 3. Ensure healthy lives and promote well-being for all at all ages	
3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	3.1.1 Maternal mortality ratio 3.1.2 Proportion of births attended by skilled health personnel
3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	3.2.1 Under-five mortality rate 3.2.2 Neonatal mortality rate

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Indicators</i>
3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	<p>3.3.1 Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations</p> <p>3.3.2 Tuberculosis incidence per 100,000 population</p> <p>3.3.3 Malaria incidence per 1,000 population</p> <p>3.3.4 Hepatitis B incidence per 100,000 population</p> <p>3.3.5 Number of people requiring interventions against neglected tropical diseases</p>
3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being	<p>3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease</p> <p>3.4.2 Suicide mortality rate</p>
3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	<p>3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders</p> <p>3.5.2 Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol</p>
3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents	<p>3.6.1 Death rate due to road traffic injuries</p>
3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes	<p>3.7.1 Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods</p> <p>3.7.2 Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group</p>
3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	<p>3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)</p> <p>3.8.2 Proportion of population with large household expenditures on health as a share of total household expenditure or income</p>
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	<p>3.9.1 Mortality rate attributed to household and ambient air pollution</p>

Goals and targets (from the 2030 Agenda)

Indicators

<p>3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate</p>	<p>3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)</p> <p>3.9.3 Mortality rate attributed to unintentional poisoning</p> <p>3.a.1 Age-standardized prevalence of current tobacco use among persons aged 15 years and older</p>
<p>3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all</p>	<p>3.b.1 Proportion of the target population covered by all vaccines included in their national programme</p> <p>3.b.2 Total net official development assistance to medical research and basic health sectors</p> <p>3.b.3 Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis</p>
<p>3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States</p>	<p>3.c.1 Health worker density and distribution</p>
<p>3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks</p>	<p>3.d.1 International Health Regulations (IHR) capacity and health emergency preparedness</p>

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

<p>4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes</p>	<p>4.1.1 Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex</p>
<p>4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education</p>	<p>4.2.1 Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex</p> <p>4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex</p>

Goals and targets (from the 2030 Agenda)

Indicators

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict - affected, as data become available) for all education indicators on this list that can be disaggregated

4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

4.6.1 Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture 's contribution to sustainable development

4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment

4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all

4.a.1 Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single - sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)

4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries

4.b.1 Volume of official development assistance flows for scholarships by sector and type of study

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Indicators</i>
4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	4.c.1 Proportion of teachers in: (a) pre-primary; (b) primary; (c) lower secondary; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g. pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country
Goal 5. Achieve gender equality and empower all women and girls	
5.1 End all forms of discrimination against all women and girls everywhere	5.1.1 Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex
5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation	5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age 5.2.2 Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence
5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation	5.3.1 Proportion of women aged 20-24 years who were married or in a union before age 15 and before age 18 5.3.2 Proportion of girls and women aged 15-49 years who have undergone female genital mutilation/cutting, by age
5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location
5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	5.5.1 Proportion of seats held by women in (a) national parliaments and (b) local governments 5.5.2 Proportion of women in managerial positions
5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences	5.6.1 Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Indicators</i>
5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws	5.6.2 Number of countries with laws and regulations that guarantee full and equal access to women and men aged 15 years and older to sexual and reproductive health care, information and education 5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure 5.a.2 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control
5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women	5.b.1 Proportion of individuals who own a mobile telephone, by sex
5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels	5.c.1 Proportion of countries with systems to track and make public allocations for gender equality and women's empowerment
Goal 6. Ensure availability and sustainable management of water and sanitation for all	
6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services
6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	6.3.1 Proportion of wastewater safely treated 6.3.2 Proportion of bodies of water with good ambient water quality
6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	6.4.1 Change in water-use efficiency over time 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources
6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	6.5.1 Degree of integrated water resources management implementation (0-100) 6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Indicators</i>
6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	6.6.1 Change in the extent of water-related ecosystems over time
6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies	6.a.1 Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan
6.b Support and strengthen the participation of local communities in improving water and sanitation management	6.b.1 Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	
7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	7.1.1 Proportion of population with access to electricity 7.1.2 Proportion of population with primary reliance on clean fuels and technology
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	7.2.1 Renewable energy share in the total final energy consumption
7.3 By 2030, double the global rate of improvement in energy efficiency	7.3.1 Energy intensity measured in terms of primary energy and GDP
7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	7.a.1 International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems
7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support	7.b.1 Investments in energy efficiency as a proportion of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

<p>8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries</p>	<p>8.1.1 Annual growth rate of real GDP per capita</p>
<p>8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high -value added and labour-intensive sectors</p>	<p>8.2.1 Annual growth rate of real GDP per employed person</p>
<p>8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro -, small- and medium-sized enterprises, including through access to financial services</p>	<p>8.3.1 Proportion of informal employment in non-agriculture employment, by sex</p>
<p>8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead</p>	<p>8.4.1 Material footprint, material footprint per capita, and material footprint per GDP</p> <p>8.4.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP</p>
<p>8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value</p>	<p>8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities</p> <p>8.5.2 Unemployment rate, by sex, age and persons with disabilities</p>
<p>8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training</p>	<p>8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training</p>
<p>8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms</p>	<p>8.7.1 Proportion and number of children aged 5-17 years engaged in child labour, by sex and age</p>
<p>8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment</p>	<p>8.8.1 Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status</p>

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Indicators</i>
8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products	8.8.2 Level of national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status 8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate 8.9.2 Proportion of jobs in sustainable tourism industries out of total tourism jobs
8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all	8.10.1 (a) Number of commercial bank branches per 100,000 adults and (b) number of automated teller machines (ATMs) per 100,000 adults 8.10.2 Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider
8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries	8.a.1 Aid for Trade commitments and disbursements
8.b By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization	8.b.1 Existence of a developed and operationalized national strategy for youth employment, as a distinct strategy or as part of a national employment strategy
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	
9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans -border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	9.1.1 Proportion of the rural population who live within 2 km of an all-season road 9.1.2 Passenger and freight volumes, by mode of transport
9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries	9.2.1 Manufacturing value added as a proportion of GDP and per capita 9.2.2 Manufacturing employment as a proportion of total employment
9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets	9.3.1 Proportion of small-scale industries in total industry value added 9.3.2 Proportion of small-scale industries with a loan or line of credit

Goals and targets (from the 2030 Agenda)

Indicators

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

9.4.1 CO₂ emission per unit of value added

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

9.5.1 Research and development expenditure as a proportion of GDP

9.5.2 Researchers (in full-time equivalent) per million inhabitants

9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States

9.a.1 Total official international support (official development assistance plus other official flows) to infrastructure

9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

9.b.1 Proportion of medium and high-tech industry value added in total value added

9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

9.c.1 Proportion of population covered by a mobile network, by technology

Goal 10. Reduce inequality within and among countries

10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average

10.1.1 Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

10.2.1 Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities

10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

10.3.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Indicators</i>
10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	10.4.1 Labour share of GDP, comprising wages and social protection transfers
10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations	10.5.1 Financial Soundness Indicators
10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions	10.6.1 Proportion of members and voting rights of developing countries in international organizations
10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies	10.7.1 Recruitment cost borne by employee as a proportion of yearly income earned in country of destination 10.7.2 Number of countries that have implemented well-managed migration policies
10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements	10.a.1 Proportion of tariff lines applied to imports from least developed countries and developing countries with zero-tariff
10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes	10.b.1 Total resource flows for development, by recipient and donor countries and type of flow (e.g. official development assistance, foreign direct investment and other flows)
10.c By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent	10.c.1 Remittance costs as a proportion of the amount remitted
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	
11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing
11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities

Goals and targets (from the 2030 Agenda)	Indicators
11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	<p>11.3.1 Ratio of land consumption rate to population growth rate</p> <p>11.3.2 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically</p>
11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage	11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)
11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	<p>11.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population</p> <p>11.5.2 Direct economic loss in relation to global GDP, damage to critical infrastructure and number of disruptions to basic services, attributed to disasters</p>
11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	<p>11.6.1 Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities</p> <p>11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)</p>
11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	<p>11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities</p> <p>11.7.2 Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months</p>
11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning	11.a.1 Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city

Goals and targets (from the 2030 Agenda)

Indicators

11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials

11.b.1 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030

11.b.2 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies

11.c.1 Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials

Goal 12. Ensure sustainable consumption and production patterns

12.1 Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

12.2 By 2030, achieve the sustainable management and efficient use of natural resources

12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

12.1.1 Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national policies

12.2.1 Material footprint, material footprint per capita, and material footprint per GDP

12.2.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP

12.3.1 Global food loss index

12.4.1 Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement

12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment

12.5.1 National recycling rate, tons of material recycled

12.6.1 Number of companies publishing sustainability reports

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Indicators</i>
12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities	12.7.1 Number of countries implementing sustainable public procurement policies and action plans
12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment
12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production	12.a.1 Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies
12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products	12.b.1 Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools
12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities	12.c.1 Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels
Goal 13. Take urgent action to combat climate change and its impacts ¹²	
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population
	13.1.2 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030
	13.1.3 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies

¹² Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.

13.2 Integrate climate change measures into national policies, strategies and planning

13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula

13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions

13.a Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible

13.a.1 Mobilized amount of United States dollars per year between 2020 and 2025 accountable towards the \$100 billion commitment

13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

13.b.1 Number of least developed countries and small island developing States that are receiving specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change -related planning and management, including focusing on women, youth and local and marginalized communities

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.1.1 Index of coastal eutrophication and floating plastic debris density

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches

- 14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels
- 14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations
- 14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics
- 14.4.1 Proportion of fish stocks within biologically sustainable levels
- 14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information
- 14.5.1 Coverage of protected areas in relation to marine areas
- 14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation¹³
- 14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing
- 14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism
- 14.7.1 Sustainable fisheries as a proportion of GDP in small island developing States, least developed countries and all countries
- 14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries
- 14.a.1 Proportion of total research budget allocated to research in the field of marine technology
- 14.b Provide access for small-scale artisanal fishers to marine resources and markets
- 14.b.1 Progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries

¹³ Taking into account ongoing World Trade Organization negotiations, the Doha Development Agenda and the Hong Kong ministerial mandate.

14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of “The future we want”

14.c.1 Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

15.1.1 Forest area as a proportion of total land area

15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type

15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

15.2.1 Progress towards sustainable forest management

15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

15.3.1 Proportion of land that is degraded over total land area

15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

15.4.1 Coverage by protected areas of important sites for mountain biodiversity

15.4.2 Mountain Green Cover Index

15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

15.5.1 Red List Index

15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed

15.6.1 Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits

15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products

15.7.1 Proportion of traded wildlife that was poached or illicitly trafficked

15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species

15.8.1 Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species

15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

15.9.1 Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020

15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems

15.a.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems

15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation

15.b.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems

15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities

15.c.1 Proportion of traded wildlife that was poached or illicitly trafficked

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

16.1 Significantly reduce all forms of violence and related death rates everywhere

16.1.1 Number of victims of intentional homicide per 100,000 population, by sex and age

16.1.2 Conflict-related deaths per 100,000 population, by sex, age and cause

16.1.3 Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months

16.1.4 Proportion of population that feel safe walking alone around the area they live

16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children

16.2.1 Proportion of children aged 1-17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month

16.2.2 Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation

16.2.3 Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18

16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all

16.3.1 Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms

16.3.2 Unsentenced detainees as a proportion of overall prison population

16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime

16.4.1 Total value of inward and outward illicit financial flows (in current United States dollars)

16.4.2 Proportion of seized, found or surrendered arms whose illicit origin or context has been traced or established by a competent authority

16.5 Substantially reduce corruption and bribery in all their forms	<p>in line with international instruments</p> <p>16.5.1 Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months</p> <p>16.5.2 Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months</p>
16.6 Develop effective, accountable and transparent institutions at all levels	<p>16.6.1 Primary government expenditures as a proportion of original approved budget, by sector (or by budget codes or similar)</p> <p>16.6.2 Proportion of population satisfied with their last experience of public services</p>
16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels	<p>16.7.1 Proportions of positions (by sex, age, persons with disabilities and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions</p> <p>16.7.2 Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group</p>
16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance	16.8.1 Proportion of members and voting rights of developing countries in international organizations
16.9 By 2030, provide legal identity for all, including birth registration	16.9.1 Proportion of children under 5 years of age whose births have been registered with a civil authority, by age
16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	<p>16.10.1 Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months</p> <p>16.10.2 Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information</p>
16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime	16.a.1 Existence of independent national human rights institutions in compliance with the Paris Principles

16.b Promote and enforce non-discriminatory laws and policies for sustainable development

16.b.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law

Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Finance

17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection

17.1.1 Total government revenue as a proportion of GDP, by source

17.1.2 Proportion of domestic budget funded by domestic taxes

17.2 Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of gross national income for official development assistance (ODA/GNI) to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries

17.2.1 Net official development assistance, total and to least developed countries, as a proportion of the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee donors' gross national income (GNI)

17.3 Mobilize additional financial resources for developing countries from multiple sources

17.3.1 Foreign direct investments (FDI), official development assistance and South-South Cooperation as a proportion of total domestic budget

17.3.2 Volume of remittances (in United States dollars) as a proportion of total GDP

17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress

17.4.1 Debt service as a proportion of exports of goods and services

17.5 Adopt and implement investment promotion regimes for least developed countries

17.5.1 Number of countries that adopt and implement investment promotion regimes for least developed countries

Technology

17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance

17.6.1 Number of science and/or technology cooperation agreements and programmes between countries, by type of cooperation

knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism

17.6.2 Fixed Internet broadband subscriptions per 100 inhabitants, by speed

17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed

17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology

Capacity-building

17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation

Trade

17.10 Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda

17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020

17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access

Systemic issues

Policy and institutional coherence

17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence

17.14 Enhance policy coherence for sustainable development

17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development

17.7.1 Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies

17.8.1 Proportion of individuals using the Internet

17.9.1 Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries

17.10.1 Worldwide weighted tariff-average

17.11.1 Developing countries' and least developed countries' share of global exports

17.12.1 Average tariffs faced by developing countries, least developed countries and small island developing States

17.13.1 Macroeconomic Dashboard

17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development

17.15.1 Extent of use of country-owned results frameworks and planning tools by providers of development cooperation

Multi-stakeholder partnerships

17.16 Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries

17.17 Encourage and promote effective public, public- private and civil society partnerships, building on the experience and resourcing strategies of partnerships

17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals

17.17.1 Amount of United States dollars committed to public-private and civil society partnerships

Data, monitoring and accountability

17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts

17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries

17.18.1 Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics

17.18.2 Number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics

17.18.3 Number of countries with a national statistical plan that is fully funded and under implementation, by source of funding

17.19.1 Dollar value of all resources made available to strengthen statistical capacity in developing countries

17.19.2 Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years; and (b) have achieved 100 per cent birth registration and 80 per cent death registration

Annex III: Refinements, Modifications Reflecting Agreed Sendai Framework Indicators, and Editorial Changes to the Sustainable Development Goal Indicators

Table 1
Refinements to the global indicator framework

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Refinement of Indicator</i>
Goal 1. End poverty in all its forms everywhere	
1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions	<p>1.a.1 Proportion of domestically generated resources allocated by the government directly to poverty reduction programmes</p> <p>1.a.3 Sum of total grants and non-debt-creating inflows directly allocated to poverty reduction programmes as a proportion of GDP¹⁴</p>
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture	
2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round	2.b.1 This indicator to be deleted, keeping only indicator on “Agriculture export subsidies” for target 2.b
Goal 3. Ensure healthy lives and promote well-being for all at all ages	
3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	3.8.2 Proportion of population with large household expenditures on health as a share of total household expenditure or income
3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all	<p>3.b.1 Proportion of the target population covered by all vaccines included in their national programme</p> <p>3.b.3 Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis¹⁵</p>

¹⁴ Indicator 1.a.2 remains unchanged.

¹⁵ Indicator 3.b.2 remains unchanged.

Goals and targets (from the 2030 Agenda)

Refinement of Indicator

Goal 5. Achieve gender equality and empower all women and girls

5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences

5.6.2 Number of countries with laws and regulations that guarantee full and equal access to women and men aged 15 years and older to sexual and reproductive health care, information and education

Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

7.a.1 International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

8.8.2 Level of national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status

8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products

8.9.2 Proportion of jobs in sustainable tourism industries out of total tourism jobs

8.b By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization

8.b.1 Existence of a developed and operationalized national strategy for youth employment, as a distinct strategy or as part of a national employment strategy

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime

16.4.2 Proportion of seized, found or surrendered arms whose illicit origin or context has been traced or established by a competent authority in line with international instruments

Table 2
Modifications reflecting agreed Sendai Framework indicators

Indicator included in Commission report in 2016 and agreed upon by Statistical Commission at its forty -seventh session

Modification based on agreed Sendai Framework language

Goal 1. End poverty in all its forms everywhere

1.5.1 Number of deaths, missing persons **and persons affected by disaster** per 100,000 people

1.5.1 Number of deaths, missing persons and **directly affected persons attributed to disasters** per 100,000 population (*repeat of 11.5.1 and 13.1.1*)

1.5.2 Direct **disaster** economic loss in relation to global gross domestic product (GDP)

1.5.2 Direct economic loss **attributed to disasters** in relation to global gross domestic product (GDP)

1.5.3 Number of countries **with national and local** disaster risk reduction strategies

1.5.3 Number of countries **that adopt and implement** national disaster risk reduction strategies **in line with the Sendai Framework for Disaster Risk Reduction 2015-2030** (*repeat of 11.b.1 and 13.1.2*)

1.5.4 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies (*repeat of 11.b.2 and 13.1.3*)

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

11.5.1 Number of deaths, missing persons **and persons affected by disaster** per 100,000 people

11.5.1 Number of deaths, missing persons and **directly affected persons attributed to disasters** per 100,000 population (*repeat of 1.5.1 and 13.1.1*)

11.5.2 Direct **disaster** economic loss in relation to global GDP, including **disaster** damage to critical infrastructure and **disruption** of basic services

11.5.2 Direct economic loss in relation to global GDP, damage to critical infrastructure and **number of disruptions to basic services, attributed to disasters**

11.b.1 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with **the Sendai Framework for Disaster Risk Reduction 2015-2030**

11.b.1 Number of countries **that adopt and implement** national disaster risk reduction strategies **in line with the Sendai Framework for Disaster Risk Reduction 2015-2030** (*repeat of 1.5.3 and 13.1.2*)

11.b.2 Number of countries **with national and local** disaster risk reduction strategies

11.b.2 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with **national disaster risk reduction strategies** (*repeat of 1.5.4 and 13.1.3*)

Goal 13. Take urgent action to combat climate change and its impacts

13.1.1 Number of countries **with national and local** disaster risk reduction strategies

13.1.1 Number of deaths, missing persons and **directly affected persons attributed to disasters** per 100,000 population (*repeat of 1.5.1 and 11.5.1*)

13.1.2 Number of deaths, missing persons **and persons affected by disaster** per 100,000 people

13.1.2 Number of countries **that adopt and implement** national disaster risk reduction strategies **in line with the Sendai Framework for Disaster Risk Reduction 2015-2030** (*repeat of*

1.5.3 and 11.b.1)

13.1.3 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies (repeat of 1.5.4 and 11.b.2)

Table 3
Editorial changes

Indicator included in Commission report in 2016 and agreed upon by Statistical Commission at its forty-seventh session

Editorial change to the indicator

Goal 3. Ensure healthy lives and promote well-being for all at all ages

3.3.2 Tuberculosis incidence per **1,000** population 3.3.2 Tuberculosis incidence per **100,000** population

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

4.6.1 **Percentage** of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex 4.6.1 **Proportion** of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex

Goal 5. Achieve gender equality and empower all women and girls

5.5.1 Proportion of seats held by women in national parliaments and local governments 5.5.1 Proportion of seats held by women in (a) national parliaments and (b) local governments

Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

7.b.1 Investments in energy efficiency as a **percentage** of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services 7.b.1 Investments in energy efficiency as a **proportion** of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

8.10.1 Number of commercial bank branches and automated teller machines (ATMs) per 100,000 adults 8.10.1 (a) Number of commercial bank branches **per 100,000 adults** and (b) **number of** automated teller machines (ATMs) per 100,000 adults

Goal 10. Reduce inequality within and among countries

10.2.1 Proportion of people living below 50 per cent of median income, by **age, sex** and persons with disabilities 10.2.1 Proportion of people living below 50 per cent of median income, by **sex, age** and persons with disabilities

10.3.1 Proportion of the population reporting having personally felt discriminated against or harassed within the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law 10.3.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law

Goal 13. Take urgent action to combat climate change and its impacts

13.a.1 Mobilized amount of United States dollars per year **starting in 2020** accountable towards the \$100 billion commitment

13.a.1 Mobilized amount of United States dollars per year **between 2020 and 2025** accountable towards the \$100 billion commitment

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.7.1 Sustainable fisheries as a **percentage** of GDP in small island developing States, least developed countries and all countries

14.7.1 Sustainable fisheries as a **proportion** of GDP in small island developing States, least developed countries and all countries

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

16.6.2 Proportion of **the** population satisfied with their last experience of public services

16.6.2 Proportion of population satisfied with their last experience of public services



Annex IV: Possible Additional Indicators for Inclusion in the Sustainable Development Goal Indicators

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Possible additional indicator to address</i>
Goal 1. End poverty in all its forms everywhere	
1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions	International cooperation for education, health and social protection
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture	
2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons	Anaemia among women of reproductive age
2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries	The element of private investment
Goal 3. Ensure healthy lives and promote well-being for all at all ages	
3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being	Treatment coverage for individuals with depression
3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	Psychoactive substance abuse
3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents	Injures from road traffic accidents
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	Illnesses attributed to household and ambient air pollution Illnesses attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe WASH services) Illnesses attributed to unintentional poisoning

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Possible additional indicator to address</i>
<p>3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all</p>	<p>Private and not-for-profit investment in medical research and basic health sectors</p>
<p>3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States</p>	<p>Health workforce</p>
<p>Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p>	
<p>4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes</p>	<p>The number of children not in school</p> <p>The number of guaranteed years of free and compulsory education mandated by law</p>
<p>4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries</p>	<p>Additional sources of funding for scholarships aside from ODA, including private sources</p>
<p>Goal 6. Ensure availability and sustainable management of water and sanitation for all</p>	
<p>6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity</p>	<p>The number of individuals who experience water stress or water shortages</p>
<p>Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all</p>	
<p>7.1 By 2030, ensure universal access to affordable, reliable and modern energy services</p>	<p>Affordability of electricity</p>

Goals and targets (from the 2030 Agenda)

Possible additional indicator to address

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

Additional aspects of decent work

8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms

Prevalence of forced labour

8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products

Sustainable tourism plans/programmes

8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all

Access to social insurance

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry’s share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

The “inclusive and sustainable qualifications of industrialization”

Goal 10. Reduce inequality within and among countries

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

Political inclusion of all

10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

Legal frameworks that enforce and monitor equality and non-discrimination

10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality

Economic inequality

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Possible additional indicator to address</i>
10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies	Deaths, injuries and crimes committed against migrants
Goal 12. Ensure sustainable consumption and production patterns	
12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	Legal agreements regarding hazardous waste and whether countries adequately fulfil their commitments and obligations regarding each agreement
12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	Sustainable practices
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	
14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics	Illegal, unreported and unregulated fishing
14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism	The economic impact of sustainable fisheries, aquaculture, tourism and other coastal and marine resources uses The productivity of aquaculture
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	
15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems	Private sources of funding for conservation and sustainable use of biodiversity and ecosystems
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all	Access to civil justice

<i>Goals and targets (from the 2030 Agenda)</i>	<i>Possible additional indicator to address</i>
16.6 Develop effective, accountable and transparent institutions at all levels	Trust in different public institutions
16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	Other fundamental freedoms
Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	
Technology	
17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism	Total international flows for research and development
17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology	International cooperation for science, technology and information and communications technology
Systemic issues	
<i>Data, monitoring and accountability</i>	
17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries	Additional measures of progress on sustainable development that complement GDP

Annex V: Bogota Declaration¹⁶

4th Global Conference on Big Data for Official Statistics in Bogota, Colombia, 8-10 November 2017

Taking into consideration the recommendations contained in the Secretary-General's report of the Independent Expert Advisory Group on a Data Revolution for Sustainable Development, entitled "A world that counts: mobilizing the data revolution for sustainable development", including:

- (a). technology, innovation and analysis to establish a network of data innovation networks for leveraging and sharing data and data research;
- (b). capacity-building and resources related to capacity-building and technology transfer, data literacy and resource mobilization through innovative financing mechanisms in partnership with the private sector; and
- (c). governance and leadership related to partnerships and coordination between governments, the private sector, non-governmental organizations, the media and academia to promote good practices and principles in data sharing, open data and data rights.

Recalling the adoption of the Cape Town Global Action Plan for Sustainable Development Data (see E/CN.3/2017/3) and the related outcome documents of the regional conferences on the Transformative Agenda (see E/CN.3/2017/5) by the Statistical Commission at its 48th session in March 2017.

Highlighting that the Cape Town Global Action Plan for Sustainable Development Data calls upon the global statistical community to take action on the strategic area of modernizing and strengthening the national statistical systems with a focus on modernizing the governance and institutional framework; on applying statistical standards and new data architecture for data sharing, exchange and integration; and on facilitating the use of new technology and new data sources in statistical production processes.

The Global Working Group at the 4th Global Conference on Big Data for Official Statistics in Bogota

Proposes:

to provide a major thrust for the strategic area of the Cape Town Action Plan on innovation and modernization by advancing global data collaboratives, facilitated by a trusted federated global platform initially for research and development in the discovery, access and use of data, statistical methodology, software applications and capacity building for the production of statistics and indicators. These partnerships will innovate

¹⁶ <https://unstats.un.org/unsd/bigdata/conferences/2017/default.asp>

and help modernize official statistics and their use of new data sources, including Big Data. It will enable data driven transformation in the production of specific statistics or SDG indicators for better decision making.

to progressively invest in research and development via task teams of the Global Working Group whose main objective is the innovation of current statistical production processes and the creation of new ways of compiling SDG indicators; define a framework for the evaluation of the task teams' work centered on the quality of the information produced as well as their cost effectiveness and scale successful projects by transforming them into data products for global consumption;

to progressively develop the data and technology architecture of the global platform based on the requirements of the work programs of the task teams of the Global Working Group, and underpinned by real user demands and business cases;

that this work program for trusted data, services and applications is undertaken under the auspices and guidance of the United Nations Statistical Commission, in support of the global community of official statistics by putting the national statistical systems of developed and developing countries at its heart;

that the global collaborative should build on the best practices of private and public Big Data initiatives, offers technology infrastructure and a network for data innovation to the official statistical community and addresses the need for an interconnected and federated network to facilitate:

- (a). the exchange of ideas and methods for processing, analyzing and visualizing Big Data among official statisticians, data scientists and domain experts from the public and private sectors with a focus on research and development building towards modernized statistical production
- (b). the sharing and exchange of trusted metadata, methods, services and applications for continuous development and reuse, including sharing trusted data where useful and legally possible. The sharing of sensitive data between trusted partners will be agreed bilaterally, whilst widely applicable open data sources can be generally made available
- (c). the development, jointly among the official statistical community, private sector technology companies and other communities, of a trusted data architecture so different types of data can be shared safely and securely;

to support capacity building via a library of trusted training materials and a catalogue of trusted guidance material, methods and software applications and via conducting workshops on Big Data and new analytical techniques.

Underlines:

that the implementation of the global data collaborative as a federated system will place the community of official statistics at the heart of modern trusted data usage and information technology.

that it will offer both developed and developing countries opportunities to realize the benefits of multi-source data, including Big Data, administrative data, census data and survey data, to better understand economic, environmental and societal changes without investment in expensive technologies.

that the global collaborative for trusted data, services and applications will benefit all parties involved via synergies in sharing methods and data, creating a global culture of best practice and capability sharing.

that the sharing of knowledge and capacity building in human resources in the discovery, access and use of multi-source data is a shared responsibility of national and international statistical community and should be scaled in existing statistical capacity building programs.

Recommends:

a global data collaborative, facilitated by the global platform with the potential to accommodate many different types of trusted data, services and applications. The global data collaborative through the global platform should work towards:

- (a). making it easy for all nations to gain value by participating in the global network;
- (b). delivering a marketplace and a flexible cloud-based technology infrastructure to allow trusted data, methods, services and applications to be shared as a public good where useful and legally possible;
- (c). developing transparent partnership agreements with private and public sector organizations so that network partners contribute and derive value through a business model which is individually sustainable for all stakeholders and ensures access to trusted data.

Global Working Group assembled for the 4th Global Conference on Big Data for Official Statistics, Bogota November 2017.

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