



Module 1: Monitoring SDG 4 – Global and Thematic Indicators and International Comparable Education Statistics

Module overview – objectives, topics and learning outcomes

Education 2030 marks an important shift in emphasis from access to education, to quality learning; learning that is inclusive, equitable and relevant and which should take place throughout one's life and across all levels and types of education. Education 2030 is universal in nature and warrants the collective commitment of all countries, regardless of their individual levels of development.

SDG 4-Education 2030 has strong emphasis on monitoring. The International Advisory Expert Group has proposed 11+ global indicators to monitor global progress in SDG 4. Similarly, the Technical Cooperation Group has proposed 43+ thematic indicators, including the global indicators, to monitor education sector development holistically. These indicators are internationally comparable and inform on progress in universal education and quality learning at global and regional levels.

It is important for countries and personnel involved in education statistics and monitoring to understand these SDG4 global and thematic indicators and the different levels of monitoring and production processes of international statistics so that countries are ready for their data reporting at the global level – which ultimately strengthens data and statistical reporting at the national level as well.

Countries should have a clear understanding of indicators and monitoring methodologies, data requirements and available sources and data analysis/interpretation and utilization, among others. This module is designed to outline concepts in global and thematic monitoring and their indicator framework, as well as to inform stakeholders in education and statistics on the global processes of monitoring and reporting on SDG 4-Education 2030.

The following topics are covered in this module:

- Monitoring SDG 4, the global and thematic indicator framework;
- Understanding SDG 4 indicators, their concepts and methodologies;
- Producing and reporting internationally comparable education data at the regional and global levels.

After completing this module, learners will have acquired the following learning outcomes:

- Able to explain the global and thematic monitoring framework on SDG 4;
- Able to define the SDG 4 indicators and their methodologies for quality data production;
- Able to discuss international education statistics and their processes.

1 Monitoring the SDG 4 -Education 2030 Agenda

Recent demands for global data to inform sustainable development policymaking are unparalleled. In the document “Transforming our World: The 2030 Agenda for Sustainable Development”, countries underscored the importance of “quality, accessible, timely and reliable disaggregated data [...] to help with the measurement of progress and to ensure no one is left behind” (Paragraph 48)¹. Furthermore, countries recognized the crucial role of “increased support for strengthening data collection and capacity building” and committed to addressing the gaps in data collection for the targets of the 2030 Agenda, so as to better inform the measurement of progress (Paragraph 57).

The ‘Cape Town Global Action Plan for Sustainable Development Data’ highlighted the role of data and monitoring in the SDGs by calling on *policy leaders to achieve a global pact, or alliance that recognizes the funding of National Statistical Systems’ (NSS) modernization efforts that are essential to the full implementation of Agenda 2030*².

However, at the Global Education Meeting 2018 in Belgium it was acknowledged by Member States that meeting the targets embedded in SDG 4-Education 2030 is **not on track**. Also, according to a survey conducted in preparation for the Asia-

Box 1: Cape Town Global Action Plan for Sustainable Development Data



The Cape Town Global Action Plan for Sustainable Development Data was informally launched at the first UN World Data Forum on 15 January 2017 in Cape Town, South Africa. It was adopted by the United Nations’ Statistical Commission at its 48th Session in March 2017. The Action Plan is referenced in the Resolution on the work of the Statistical Commission, adopted by the General Assembly in July 2017 (RES/71/313). The current version incorporates input received by the statistical community, including national statistical systems and other stakeholders, following an open consultation held in November 2015.

¹ UN General Assembly, 2015: Resolution Adopted by the General Assembly on 25th September 2015. “Transforming the World: the 2030 Agenda for Sustainable Development”, UN, New York, access: <https://www.preventionweb.net/publications/view/45418>

² Cape Town Global Action Plan for Sustainable Development Data, Prepared by the High-level Group for Partnership, Coordination and Capacity-Building for Statistics for the 2030 Agenda for Sustainable Development Adopted by the UN Statistical Commission at its 48th Session March 2017, access: <https://unstats.un.org/sdgs/hlg/cape-town-global-action-plan/>

Pacific Forum on Sustainable Development 2019, the vast majority of countries in the region have highlighted that ‘data and monitoring’ as well as ‘capacity building’ are the most important areas for their efforts towards SDG 4³. In the wake of the urgency of this situation, the High-Level Political Forum in September 2019 will review, reflect and step up progress on SDG 4 to reinstate the critical importance of achieving the 2030 Agenda for Sustainable Development⁴.

SDG 4-Education 2030 explicitly calls for enhancing capacity building to support national plans on implementing SDG 4 on education, as much as on the other SDGs due to their interconnectedness. To do so, the Education 2030 Agenda emphasizes strengthening monitoring systems to track progress with achieving the Goals. Effective planning, follow-up and review of the implementation of the Education 2030 Agenda requires the collection, processing, analysis and dissemination of an unprecedented amount of education data and statistics at the local, national, regional and global levels, as well as by multiple stakeholders.

Our next analysis looks at the difference between the past Millennium Development Goal (MDG) 2 and the present Sustainable Development Goal (SDG) 4 on education to comprehend the increased demand on monitoring education.

1.1 The global and thematic indicator framework

The 2030 Agenda for Sustainable Development differs from the MDGs in several ways. The most prominent is that the SDGs have been determined through an international consensual process that was led and is therefore owned by countries, rather than the United Nations. Meaning, the countries of the world have established the current world development agenda that is to be adhered to. This process has determined the established goals and targets, as well as the framework to review progress until 2030.

MDG 2 on education stressed universal primary education and gender parity in participation by education level. This approach was recognized by some countries as not directly relevant to their own in-country contexts. The SDGs stress the universality of their goals and targets, with relevance for countries at all levels of development.

The SDGs are more comprehensive in scope (i.e. beyond primary/basic education and towards life-long learning); more results-oriented (i.e. a focus on both access and learning outcomes); and more equity-focused (i.e. based on the principle of ‘no one left behind’) compared to the MDGs. The characteristics of the SDGs have substantive impact on data requirements and monitoring frameworks.

³ UN ESCAP, 2018: Survey to support the development of Goal Profiles for Sustainable Development Goal Roundtables during the 6th Asia Pacific Forum on Sustainable Development (APFSD) (internal). For more information, please contact UN ESCAP, access: www.unescap.org

⁴ UNESCO, 2018: Global Education Meeting 2018, Brussels Declaration, ED-2018/GEM/1, access: <https://unesdoc.unesco.org/ark:/48223/pf0000366394>

SDG 4 in particular covers learning from early childhood to adulthood, spanning all ages. At the same time, it stresses the themes of: quality, skills acquisition, inclusion and equity. It is more extensive in approach yet also adaptable to national contexts.

SDG 4 monitoring is carried out at four levels

NATIONAL LEVEL MONITORING of SDG 4 is linked to the needs of national and sub-national governments in developing education sector plans and informing education policies. Data that provides high-level granularity and adapts to the specificities of the national context – such as in the sub-national geographical units, specific disadvantaged groups, or by wealth – offers greater capacity to inform policy by examining relevant disparities in education outcomes.

Monitoring at this level benefits from the active participation of a diverse group of stakeholders who represent their respective constituencies and education-related concerns.

REGIONAL LEVEL MONITORING of SDG 4 sets out indicators to take account of priorities and issues of common interest that are shared by countries in a particular region, as outlined in regional planning documents, or frameworks. The Regional Roadmap for the SDG 4-Education 2030 Agenda in Asia and the Pacific (2015-2030) provides countries with a strategic approach⁵.

GLOBAL LEVEL MONITORING relies on a more limited and carefully selected group of leading indicators to provide an overview of progress towards each target. It provides harmonization of monitoring and reporting of SDGs for cross-country

Box 2: Lesson excerpt from the MDGs



There have been great improvements in data gathering under the MDGs, but the goals do not serve as either a management tool, or a real-time report card. MDG data comes with too great a time lag – often three or more years – and too often the data is incomplete and of a poor quality. MDG monitoring also gave too little attention to what should be measured, so, to this day, we lack some important metrics for key development priorities. Similarly, there was insufficient investment in strengthening statistical capacity to ensure effective real-time monitoring of the MDGs and to establish statistical standards and quality requirements. The SDGs require annual reporting of high-quality data from all countries. This in turn will require much greater investment in building independent, impartial national statistical capacities and strengthening quality and standards. National Statistical Offices (NSOs) must be actively involved in the development of global and national indicator frameworks through a multi-stakeholder process that could be convened by the UN Statistical Commission. The SDGs will be goals for the world – applicable to all countries, as well as multiple, diverse actors. As such, the best input from business, science, academia and civil society should be sought in their development, as well as in the development of the accompanying monitoring architecture.

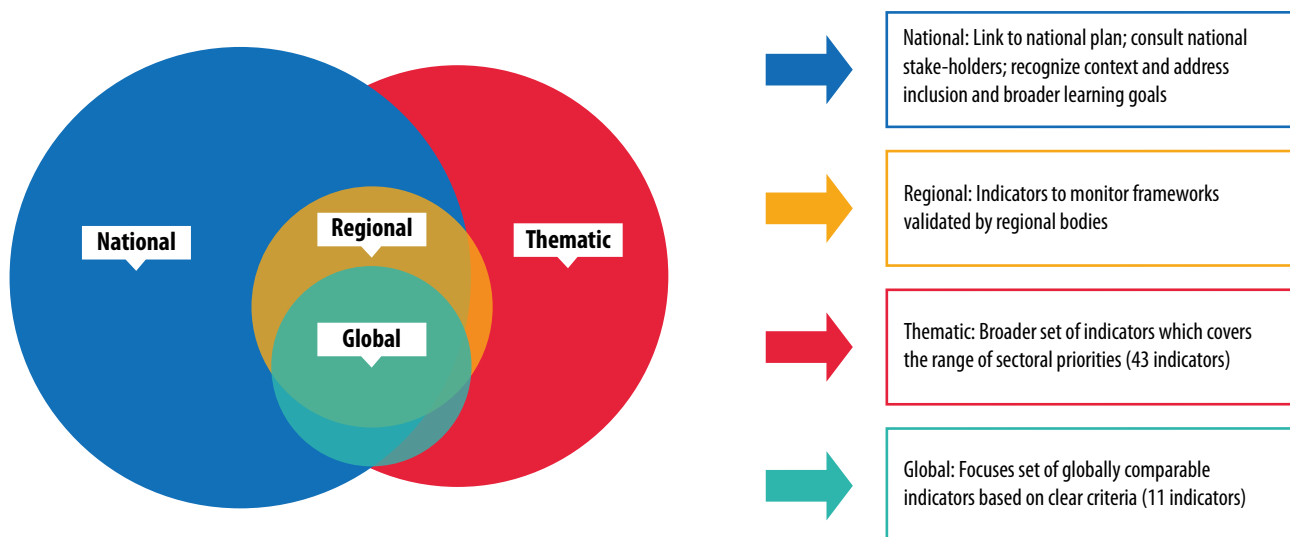
Source: Sustainable Development Solutions Network, 2015: Indicators & Monitoring Framework for SDGs (draft version 6, Feb, 2015), **access:** <http://unsdsn.org/wp-content/uploads/2015/01/150116-Indicators-and-a-Monitoring-Framework-for-SDGs-working-draft-for-consultation.pdf>

⁵ UNESCO, 2018: The Regional Roadmap for the SDG 4-Education 2030 Agenda in Asia and the Pacific (2015-2030). Presented at the 4th Asia Pacific Meeting on Education 2030, Bangkok, Thailand, 14 July 2018, access: [https://teams.unesco.org/ORG/fu/bangkok/public_events/Shared%20Documents/IOE/2018/4th-APMED2030/Meeting%20Documents/SDG4%20National%20Coordinators%20Network%20Documents/Regional%20SDG4%20Roadmap%20\(9July2018\)_CLEAN.pdf](https://teams.unesco.org/ORG/fu/bangkok/public_events/Shared%20Documents/IOE/2018/4th-APMED2030/Meeting%20Documents/SDG4%20National%20Coordinators%20Network%20Documents/Regional%20SDG4%20Roadmap%20(9July2018)_CLEAN.pdf)

comparability, which is of critical importance to countries to see where they stand at a particular point in time in comparison with other countries. This will also provide insights in measuring performance, driving policy reforms and allocating resources in an equitable manner in order to improve learning among all population groups.

THEMATIC LEVEL MONITORING works with comparable indicators within a specific sector, such as education, environment, energy, health, etc., or it may be about a cross-cutting theme, like gender and poverty. Thematic indicators serve as a framework to track progress on a cross-nationally comparable basis. It provides a better in-depth view of sectoral priorities that are available in the global monitoring framework.

Figure 1: Four levels of monitoring



Note: For more on the thematic monitoring see the Quick Guide to Education Indicators for SDG 4, **access:** <http://uis.unesco.org/sites/default/files/documents/quick-guide-education-indicators-sdg4-2018-en.pdf>

Source: Sustainable Development Solutions Network, 2015. Indicators & Monitoring Framework for SDGs (draft version 6, Feb, 2015), **access:** <http://unsdsn.org/wp-content/uploads/2015/01/150116-Indicators-and-a-Monitoring-Framework-for-SDGs-working-draft-for-consultation.pdf>

The nature of monitoring indicators at the different levels

While the global indicators are obligatory in nature, they have been set as a set of 11 indicators that are internationally comparable, which the countries are expected to report on at the global level. It may be noted that these have been developed by the UN Inter-Agency and Expert Group, IAEG-SDGs.⁶

The 43 thematic indicators are optional and are of a nature of a more comprehensive set of internationally-comparable indicators that countries may use to report on progress towards SDG 4 at the global level.

These indicators have been developed by the Technical Cooperation Group (TCG) and of which UIS is the secretariat. Other agencies, such as UNICEF, are members which provide technical input to ongoing global discussion and guidance.

Regional indicators are specific indicators that are common to countries within a specific region. They may also be developed to collectively monitor and report on progress.

An example for a target-by-target analysis is the *Paving the Road to Education* report that explores and details the indicators of SDG 4 by data available at that time⁷.

National indicators help the process of monitoring at the country level. They may also include context-specific indicators that are considered essential for monitoring and regulating national educational development.

 **The UN Inter-Agency and Expert Group repository⁸**

⁶ For further information on: IAEG-SDGs: Inter-agency and Expert Group on SDG Indicators; Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development; Tier Classification for Global SDG Indicators; SDG Indicators: Metadata repository, access: <https://unstats.un.org/sdgs/iaeg-sdgs/>

⁷ UNESCO, 2018: *Paving the Road to Education. A Target-by-target analysis of SDG 4 for Asia and the Pacific*. Bangkok, UNESCO, access: <https://bangkok.unesco.org/content/paving-road-education-target-target-analysis-sdg-4-asia-and-pacific>

⁸ Inter-agency and Expert Group on SDG Indicators, access: <https://unstats.un.org/sdgs/iaeg-sdgs/>

2 Understanding the SDG 4 Indicators, Concepts and Methodologies

2.1 The indicators and their concepts

As mentioned, there are 43 thematic indicators, which allow us to monitor education more comprehensively. The targets in SDG 4 cover a broad range of aspects of education, therefore, monitoring must cover a wide range of data. Consequently, the thematic indicators have been developed to capture different concepts of education, such as provision, policy, participation, learning, skills, equity, etc.

Table 1: Concepts behind the SDG 4 indicators

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		
Learning	4.1.1	Proportion of children/young people in Grades 2/3 at the end of primary and at the end of lower secondary achieving at least a minimum proficiency level in reading and mathematics.
	4.1.2	Administration of nationally-representative learning assessments in the early grades of primary (2/3), at the end of primary and at the end of lower secondary.
Completion	4.1.3	Gross intake ratio to the last grade (primary, lower secondary).
	4.1.4	Completion rate (primary, lower secondary, upper secondary).
Participation	4.1.5	Out-of-school rate (primary, lower secondary, upper secondary).
	4.1.6	Percentage of over-age children (primary, lower secondary).
Provision	4.1.7	Number of years of free and compulsory primary and secondary education guaranteed in legal frameworks.
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		
Readiness	4.2.1	Proportion of children under five years who are developmentally on track in health, learning, psychosocial well-being.

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Participation	4.2.2	Participation rate in organized learning (one year before the official primary education entry age).
Readiness	4.2.3	Percentage of children under five years of age experiencing positive and stimulating home learning environments.
Participation	4.2.4	Gross early childhood education enrolment ratio in (a) pre-primary education; and (b) early childhood educational development programmes.
Provision	4.2.5	Number of years of free and compulsory pre-primary education guaranteed in legal frameworks.
4.3 By 2030, ensure equal access for all women and men to an affordable and quality technical, vocational and tertiary education, including university		
Participation	4.3.1	Participation rate youth and adults in a given age-range in formal and non-formal education and training in the previous 12 months, by type of programme.
	4.3.2	Gross enrolment ratio for tertiary education.
	4.3.3	Participation rate in technical and vocational education programmes (15- to 24-year-olds).
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		
Skills	4.4.1	Proportion of youth/adults with information and communications technology (ICT) skills, by type of skill.
	4.4.2	Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills.
	4.4.3	Youth/adult educational attainment rates by age group, economic activity status and level of education and programme orientation.
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 people and children in vulnerable situations		
Equity cross-target	4.5.1	Parity indices (female/male, rural/ urban, bottom/top wealth quintile and others such as disability status and conflict-affected as data becomes available) for all education indicators on this list that can be disaggregated.
Policy	4.5.2	Percentage of students in primary education whose first or home language is the language of instruction.
	4.5.3	Extent to which explicit formula-based policies reallocate education resources to disadvantaged populations.
	4.5.4	Education expenditure per student by level of education and source.
	4.5.5	Percentage of total aid to education allocated to the least developed countries.

4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy		
Skills	4.6.1	Proportion of the population in a given age group achieving at least a fixed level of proficiency in functional literacy and numeracy skills.
	4.6.2	Youth/adult literacy rate.
Provision	4.6.3	Participation rate of youth/adults in literacy programmes.
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		
Provision	4.7.1	Extent to which global citizenship education and education for sustainable development are mainstreamed in national education policies, curricula, teacher education and student assessment.
	4.7.2	Percentage of schools that provide life skills-based HIV and sexuality education.
	4.7.3	Extent to which the framework on the World Programme on Human Rights Education is implemented nationally, as per the United Nations General Assembly (UNGA) resolution 59/113.
Knowledge	4.7.4	Percentage of students of a given age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability.
	4.7.5	Percentage of secondary education students showing proficiency in their knowledge of environmental science and geoscience.
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		
Resources	4.a.1	Proportion of schools with access to basic drinking water, single-sex basic sanitation facilities and basic handwashing facilities. Proportion of schools with access to electricity, the Internet for pedagogical purposes and computers for pedagogical purposes. Proportion of schools with adapted infrastructure and materials for students with disabilities.
Environment	4.a.2	Percentage of students experiencing bullying, corporal punishment, harassment, violence, sexual discrimination and abuse.
	4.a.3	Number of attacks on students, personnel and institutions.

4.b By 2020, substantially expand globally the number of scholarships available to developing countries – in particular the 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		
Number	4.b.1	Volume of Official Development Assistance (ODA) flows for higher education scholarships by beneficiary country.
	4.b.2	Number of higher education scholarships awarded by beneficiary country.
4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially the least developed countries and small island developing states		
Trained	4.c.1	Proportion of teachers in pre-primary, primary, lower secondary and upper secondary who have received at least the minimum organized and recognized teacher training pre-service and in-service required for teaching at the relevant level in a given country, by type of institution.
Trained	4.c.2	Pupil-trained teacher ratio by education level.
Qualified	4.c.3	Percentage of teachers qualified according to national standards by education level and type of institution.
Qualified	4.c.4	Pupil-qualified teacher ratio by education level.
Motivated	4.c.5	Average teacher salary relative to other professions requiring a comparable level of qualification.
	4.c.6	Teacher attrition rate by education level.
Supported	4.c.7	Percentage of teachers who received in-service training in the last 12 months by type of training.

Note: The highlighted indicators are to be monitored and reported on at the global level.

Source and details: UIS, 2018: Metadata for the global and thematic indicators for the follow-up and review of SDG 4 and Education 2030, **access:** <http://uis.unesco.org/sites/default/files/documents/sdg4-metadata-global-thematic-indicators-en.pdf>

Different types of data are needed to produce different indicators in order to monitor different aspects of education. Although most of the needed data to populate indicators is quantitative, qualitative data is also needed to monitor some of those aspects.

Indicators constitute the backbone for monitoring progress towards the achievement of SDG 4 at the national level – just as they do at regional and global levels.

The national education indicator framework for SDG 4 should address the particular gaps in measuring outcomes of quality indicators, for which further methodological development may be required within national and local contexts.

Equally important is the need to focus on those who are left behind. It is again true that those who are left behind are often those who are hidden from policymakers and planners' view.

In this regard, equity is emphasized with respect to those who are marginalized as they are the ones left behind. Socially responsible statistics should ensure that everyone is counted, so that those who tend to be left behind can be effectively addressed⁹.

The above-mentioned demands on monitoring require creating and maintaining data quality standards and the development of new measurement methodologies.

These standards consist of definitions, concepts, classification systems and methodologies. They help improve harmonization and comparability of official statistics.

By doing this, new data sources will have to be identified and the already existing ones will have to be assessed, extended, improved and integrated with other data sources.

Integration with other data sources may warrant better coordination between ministries of education, national statistics offices and other ministries, as for example on health (as for the Demographic Health Survey); on labour (as for the Labour Force Survey); or other socio-economic issues in general (as for other surveys such as the Multiple Indicator Cluster Survey). For more information, see Module 4.

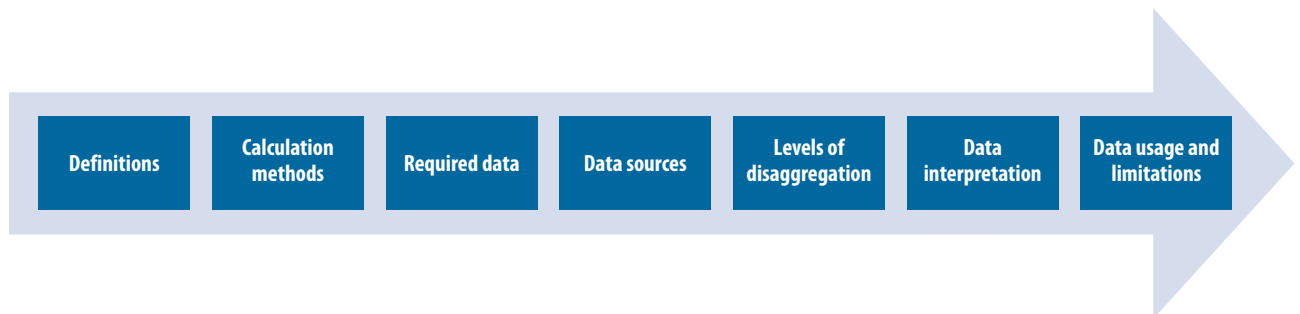
All these, in turn, would mean a mobilization of additional resources to strengthen coordinated and integrated national data collection mechanisms.

2.2 Clarity in definition and methodologies

It is important that countries develop their national education indicator framework as part of the education sector plan and a guiding document, or metadata, to ensure everyone involved in data collection and analysis will have a single guiding document on concepts and methodologies and avoid misinterpretation of information. Such a document should include, for each indicator, the elements as illustrated in Figure 2.

⁹ UNESCO, 2016: Education 2030: Incheon Declaration and Framework for Action for the Implementation of Sustainable Development Goal 4. ED-2016/WS/28. Paris, UNESCO; also see: UNICEF, 2017: The State of the World Children 2016. A fair chance for every child. New York, UNICEF, access: https://www.unicef.org/publications/index_91711.html

Figure 2: Important aspects to consider for selecting national indicators for monitoring education



Source: Adapted from UIS, 2018: Metadata for the global and thematic indicators for the follow-up and review of SDG 4 and Education 2030, **access:** <http://uis.unesco.org/sites/default/files/documents/sdg4-metadata-global-thematic-indicators-en.pdf>

Based on such documents, concerned officials and staff can be trained on education indicators. Those involved in monitoring SDG 4 should thoroughly understand the relevant indicators and their methodologies. The following box shows an excerpt from a metadata document for the indicator on the gross intake ratio to the last grade.

i The UIS metadata document for the global and thematic SDG 4 indicators¹⁰

Figure 3: Number of thematic and global SDG 4 indicators that can be derived from different data sources



Note: The number of indicators exceeds the total number of global and thematic indicators because some indicators can be retrieved from more than one data source.

Source: UIS, 2017: SDG 4 Data Digest, UIS, Montreal, **access:** <http://uis.unesco.org/sites/default/files/documents/quality-factor-strengthening-national-data-2017-en.pdf>

¹⁰ UIS, 2018: Metadata for the global and thematic indicators for the follow-up and review of SDG 4 and Education 2030, **access:** <http://uis.unesco.org/sites/default/files/documents/sdg4-metadata-global-thematic-indicators-en.pdf>

Box 3: Example of metadata for an indicator: Gross intake ratio to the last grade (primary, lower secondary)



Definition: Total number of new entrants into the last grade of primary education, or lower secondary general education, regardless of age, expressed as a percentage of the population at the intended entrance age to the last grade of primary education, or lower secondary general education. The intended entrance age to the last grade is the age at which pupils would enter the grade if they had started school at the official primary entrance age, had studied full-time and had progressed without repeating, or skipping a grade.

Purpose: This is a proxy measure of primary completion. It reflects how the impact of policies on access to and progression through the early grades of each level of education impact the final grade of that level. It also indicates the capacity of the education system to cater for the completion of the population of the intended entrance age to the last grade of the given level of education. It assumes that pupils entering the last grade for the first time will eventually complete the grade and hence the given level of education.

Calculation method: The number of new entrants in the last grade of the given level of education, regardless of age, is expressed as a percentage of the population of the intended entrance age to the last grade of that level of education.

GIRLG_n = NEI_n / P_{n,a} where: **GIRLG_n** = Gross intake ratio to the last grade **l** of level **n** of education.
NEI_n = New entrants to the last grade **l** of level **n** of education.
P_{n,a} = Population of the intended entrance age **a** to the last grade of level **n** of education.
n = 1 (primary) or 2 (lower secondary).

Note: If data on new entrants is not collected directly, they can be calculated by subtracting the number of pupils repeating the last grade from total enrolment in the last grade.

Interpretation: A high ratio indicates a high degree of primary, or lower secondary education completion.

Disaggregation: By sex and level of education.

Data required and source: New entrants to the last grade of each level of education (or enrolment minus repeaters in the last grade); population of the intended entrance age to the last grade of each level of education and data on the structure (entrance age and duration) of each level of education. Administrative data from schools on enrolment and repeaters, or new entrants by grade; population censuses and surveys for population estimates by single year of age; administrative data from ministries of education on the structure of the education system.

Limitations and comments: This is a gross measure and may therefore exceed 100 per cent if there are large numbers of pupils who entered school either early, or late and/or who have repeated earlier grades. The fact that the GIR can exceed 100 per cent also makes it more difficult to interpret than the completion rate. Compared to the completion rate, the gross intake ratio to the last grade does not indicate how many children complete the last grade, only how many children enter that grade. If students in the last grade leave school before graduation, the gross intake ratio to the last grade overestimates completion.

Source: For detailed information: UIS, 2018: Metadata for the global and thematic indicators for the follow-up and review of SDG 4 and Education 2030, **access:** <http://uis.unesco.org/sites/default/files/documents/sdg4-metadata-global-thematic-indicators-en.pdf>

2.3 Data sources for calculating various indicators

As mentioned earlier, no single data provider can produce all the data, or information to monitor SDG 4. To monitor different concepts in education, data accordingly needs to be produced from different sources. The following figure shows the number of global and thematic SDG 4 indicators that can be derived from different data sources.

A brief explanation of the data sources

ADMINISTRATIVE DATA: According to official protocol, ministries of education, or NSOs complete the UIS survey, based on administrative records from school questionnaires. Administrative data constitutes the source for many of the SDG 4 indicators, as seen in figure three above. Countries produce education data mainly from administrative data, namely through an Education Management Information System (EMIS). Although this data is collected for administrative purposes, it represents the opportunity to facilitate research for scientific advances as it offers population-wide information tracked over large periods of time. The UIS too has based its database to a large extent on administratively provided data. One of the two global education surveys, conducted annually by UIS, is on formal education programmes and administrative data is utilized in this approach.

HOUSEHOLD SURVEYS: These surveys are used to produce indicators to examine specific individual characteristics of populations that are available only in such sources. They provide demand-side information on education, such as, participation and completion and also non-participation of the population surveyed, plus educational attainments of adults and literacy rates. The latter two are also part of the global data collection, conducted by the UIS and this approach uses survey data. Household surveys constitute the source for as many as 19 monitoring indicators of SDG 4. Large international household surveys, such as the Multiple Indicator Cluster Survey, supported by UNICEF and the Demographic and Health Survey, are also valuable sources for data on learning opportunities for children before entry into primary school.

These two surveys are particularly good sources for producing education statistics and given their wealth of socioeconomic data and other information about households, disaggregation of the data is possible. The Data Quality Assessment Framework (DQAF) for household surveys by UIS is helpful in assessing the utility of various household data sources to apply in education statistics¹¹. See Module 4 on Household Surveys for more details.

LEARNING ASSESSMENTS: Cross-national learning assessments such as, LaNA, PASEC, PILNA, PIRLS, PISA, SACMEQ, SEA-PLM, TERCE and TIMSS have been identified to calculate

¹¹ Got to the UIS Capacity Development Tools for the DQAF for household surveys, access: <http://uis.unesco.org/en/capacity-development-tools>

some indicators relating to learning outcomes for SDG 4¹². Large scale assessments focus on defined learning domains, such as reading and mathematics, which are usually measured against the knowledge required by the national curriculum at specific grade levels and defined in the assessment framework, or expected competencies at different education levels.

Data for some indicators for SDG 4 targets 4.1, 4.2, 4.4, 4.6 and 4.7 can be accessed from learning assessments. The Principles of Good Practice in Learning Assessment is proposed by UIS as a support to the international commitment to the management of SDG 4 data quality for learning assessments (more on Learning Assessment in Module 6).

FINANCIAL AND EXPENDITURE DATA: This area includes information on government spending on education, such as teacher salaries and this is maintained by ministries of finance and/or education. Public finance data is more widely reported, but data handlers face persistent difficulties in updating and maintaining information on private and other funding sources.

Again, considerable research effort is needed to compare budget estimates for education by different budget allocation heads, revised estimates and final modifications with reference to a particular financial year. Similarly, efforts may be needed to obtain data on amounts actually spent under each budget account at the close of the financial year, the amount surrendered and the reasons for such surrenders.

In order to get a comprehensive picture on expenditure on education, it is necessary to rely on other sources, such as household surveys for assessing private expenditure on education and information from ministries, or other organizations responsible for obtaining information on official development assistance.

2.4 Quality of the data

When looking at different sources of data, it is important to see whether the available data is of a good quality. For all data sources, it is important to assess how countries maintain their data quality and this can be evaluated in general by several criteria identified in Table 2.

¹² See: Literacy and Numeracy Assessment (LaNA), access: <https://www.iea.nl/lana>; Programme d'analyse des systems educatifs de la CONFEMEN (PASEC), access: <http://www.pasec.confemen.org>; Pacific Islands Literacy and Numeracy Assessment (PILNA), access: <https://www.spc.int/resource-centre/publications/pacific-islands-literacy-and-numeracy-assessment-pilna-2018-0>; Progress in International Reading Literacy Study (PIRLS), access: <https://www.iea.nl/pirls>; Programme for International Student Assessment (PISA), access: <http://www.oecd.org/pisa/>; Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), access: <http://www.sacmeq.org>; Southeast Asia Primary Learning Metrics (SEA-PLM), access: <http://www.seaplms.org/seaplms/>; Tercer Estudio Regional Comparativo y Explicativo (TERCE), access: http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/Santiago/pdf/Kit_TERCE.pdf; Trends in International Mathematics and Science Study (TIMSS), access: <https://www.iea.nl/timss>

Table 2: Data quality assessment criteria

CRITERIA	DESCRIPTION
Relevance:	The extent to which the data serves to address the purposes for which they are sought by users.
Accuracy:	The degree to which the data correctly estimates, or describes the quantities or characteristics that they are designed to measure. Accuracy refers to the closeness between the values provided in the product and the (unknown) true values.
Reliability:	This refers to the closeness of the initially released values of a statistical output to the values that are subsequently released for the same reference period.
Coherence:	This reflects the degree to which a statistical output is logically connected and mutually consistent with other statistical outputs.
Timeliness of data:	This refers to the length of time between the availability of a statistical output and the event or phenomenon it describes. Timeliness is assessed in terms of a time scale that depends upon the period for which the data is of value – that is, sufficiently timely to be acted upon.
Punctuality:	The punctuality of a statistical output implies the existence of and adherence to an output dissemination schedule.
Accessibility:	This reflects how readily the data can be discovered, located and accessed from within data holdings.
Interpretability:	The interpretability, or clarity of a statistical output reflects the ease with which users can understand and properly use the data.
Objectivity:	Statistical methods and outputs are determined by statistical considerations and not by pressures from providers, users, or other stakeholders.
Impartiality:	Impartiality refers to commentaries and press releases being objective and non-partisan.
Transparency:	Users are informed about sources and methods and also about changes to sources and methods that might affect outputs. Again, the limitations of the outputs and of the processes by which they are produced are acknowledged.
Credibility:	This refers to the confidence users have in the products, based primarily on their image of the producer and its statistical outputs, as well as in their trust in the objectivity and impartiality of the methods used.
Validity:	Validation of data is done through a process of documenting all discrepancies, or data issues and following up on these with data producers. If after such a follow up, the data quality is still deemed questionable, then decisions are taken either to suppress the data, or replace it with suitable estimates, or alternate sources are utilized.
Coverage:	Data coverage is defined with a consideration of aspects, such as target population size, representativeness of sample, etc.
Methodological soundness:	This refers to the methodological basis for the statistics that follows internationally-accepted standards, guidelines and good practices.
Frequency:	This refers to the interval of time between two data collection periods, such as quarterly, half-yearly, annual, once-in-five-years, once-in-ten-years, etc.

Source: UIS, 2017: SDG 4 Data Digest, UIS, Montreal, **access:** <http://uis.unesco.org/sites/default/files/documents/quality-factor-strengthening-national-data-2017-en.pdf>

3 International Comparable Education Data Production and Reporting at the Regional and Global Levels

3.1 The importance of international comparable data in education

The successful implementation of SDG 4 at the different levels hinges upon the tenacity of two policy pillars, namely, ensuring a strong focus on monitoring and improving learning outcomes; and ensuring a similar focus on those who are left behind. Doing the latter is more difficult as such people often remain hidden. Hence the importance of socially responsible statistics, as this would ensure that everyone is counted, thus making it more directly helpful to policymakers and other stakeholders of education to address the specific education needs of such people.

The international education statistics serve two main purposes:

1. To provide global and regional data and essential indicators:
 - For advocacy;
 - To mobilize resources (at the national, global and regional levels);
 - To hold governments and other duty bearers, donors, and international organizations accountable.
2. To facilitate comparison:
 - In order to learn from one another and to demonstrate what can be achieved;
 - For benchmarking;
 - To act as a catalyst for debate.

To ensure comparability, there should be international agreed standards and methodologies which allows users to collect/compile and present data from different countries in a comparable manner. The following sections will present some of the tools and standards that are used at the international level for the purpose of comparability.

3.2 How do we explain the difference between international and national statistics?

National statistics are calculated based on specific national context and therefore, definitions and methodologies can differ from one country to another. For example, the duration of primary education in different national education systems can vary. Indeed, some countries have a primary education of only four years, whereas other countries could have a duration of five years, six years or even eight years. In national monitoring, the calculation of relevant indicators would be based on their own education system, meaning that a country with eight years of primary is monitoring, in fact, basic education. Therefore, unadjusted direct comparison of national statistics should be avoided.

To ensure comparability among different countries, common frameworks for collecting and organizing information are needed. The frameworks' role is to facilitate exchange and comparability of statistical information between countries and agencies. They are applied to the structure and content of data and metadata and could be applied to the statistical production process.

To ensure international comparability of statistics, UIS utilizes population data produced by the United Nations Population Division, which applies the same projection methodology for all countries in estimating their population data. In its pursuit of calculating cross-nationally comparable data, UIS also uses financial data from the World Bank and International Monetary Fund (IMF). Again, these two agencies produce data with standardized methodologies that are applicable to all countries.

To ensure comparability of education statistics produced at the global level, of major importance is the *International Standard Classification of Education (ISCED)*, which is the framework to classify educational activities.

 **United Nations Population Division Databases**¹³

¹³ United Nations Population Division Databases, access: <http://www.un.org/en/development/desa/population/publications/database/index.shtml>

 World Bank Databank¹⁴

 International Monetary Fund Data¹⁵

3.3 International Standard Classification of Education 2011

The UIS is the custodian of classifications, standards and methodologies that are implemented by countries to ensure cross-national comparability of education indicators. A classification is the aforementioned ISCED. It is relevant to note in this context that UIS also maintains the classification of fields of study; sets out measurement concepts; and maintains methodologies for assessing data quality.

National education systems may vary in terms of structure and curricular content. Therefore, it may be difficult to benchmark performance across countries over time, or to monitor progress towards national and international goals. In order to understand and properly interpret inputs, processes and outcomes of education systems from a global perspective, it is vital to ensure data is comparable. This can be done by applying ISCED – the standard framework used to categorize and report cross-nationally comparable education statistics.

ISCED is composed of three components:

- Internationally agreed concepts and definitions;
- The classification systems;
- National ISCED mappings of education programmes and related qualifications.

¹⁴ World Bank Databank, access: <https://data.worldbank.org/>

¹⁵ International Monetary Fund Data, access: <https://www.imf.org/en/Data>

What is ISCED?

ISCED belongs to the United Nations International Family of Economic and Social Classifications, which are applied in statistics worldwide with the purpose of assembling, compiling and analyzing cross-nationally comparable data.

It is the reference classification for organizing education programmes and related qualifications by education levels and fields. ISCED is a product of international agreement and adopted formally by the General Conference of UNESCO Member States.

It is designed to serve as a framework to classify educational activities as defined in programmes and the resulting qualifications into internationally agreed categories. The basic concepts and definitions of ISCED are therefore intended to be internationally valid and comprehensive of the full range of education systems.

The classification of education programmes is done by their content using two main cross-classification variables: levels of education and fields of education. ISCED 2011 has also introduced a related classification of educational attainment levels based on recognized educational qualifications.

Information compiled, according to ISCED, can be used for assembling statistics on many different aspects of education which may be of interest to policymakers and other users of international education statistics. These aspects include:

- Enrolment or attendance;
- Human or financial resources invested in education;
- The educational attainment of the population.

ISCED facilitates the transformation of detailed national education statistics on participants, providers and sponsors of education, compiled on the basis of national concepts and definitions, into aggregate categories that can be compared and interpreted internationally.

Data collection on education, as per ISCED, can be from different data sources, such as, administrative registers, individual and household surveys, as well as macroeconomic aggregated statistics. Guidance on such implementation of ISCED is included in an operational manual and other training materials.

ISCED mapping

ISCED mappings are an essential tool for organizing information on national education systems, their programmes and related qualifications in order to ensure the comparability of ISCED-level information and to support their interpretation for international statistical purposes.

ISCED mappings ensure a transparent process of coding national education programmes and related qualifications into comparable categories for use in international statistics by



Remember!

ISCED is needed to produce cross-nationally comparable data.

linking the classification criteria to the properties of the education programmes and their related qualifications.

Units of Classification

The basic units of classification under ISCED are the national (and sub-national) education programme and the related recognized educational qualifications. In the context of ISCED, an education programme is defined as a coherent set of sequence of educational activities or communication designed and organized to achieve pre-determined learning objectives, or accomplish a specific set of educational tasks over a sustained period.

The objectives encompass improving knowledge, skills and competencies within any personal, civic, social and/or employment related context. Learning objectives are typically linked to the purpose of preparing for more advanced studies and/or for an occupation, trade, or class of occupations, or trades, but may be related to personal development, or a leisure aspect.

A common characteristic of an education programme is that, upon fulfilment of learning objectives or education tasks, successful completion is certified¹⁶. As ISCED is pertinent to international data collection, processing and the reporting process, it is strongly advisable that all Member States produce their ISCED mapping. This mapping should be carried out with in-depth discussions and wide-ranging consultation with all stakeholders of education providers in the country.

ISCED Levels

There are nine different levels of ISCED, as illustrated in Table 3.

Table 3: Different ISCED levels.

ISCED 0	Early Childhood Education	ISCED 5	Short-Cycle Tertiary Education
ISCED 1	Primary Education	ISCED 6	Bachelor or Equivalent
ISCED 2	Lower Secondary Education	ISCED 7	Master or Equivalent
ISCED 3	Upper Secondary Education	ISCED 8	Doctoral or Equivalent
ISCED 4	Post Tertiary Non-Secundary Education		

Source: UIS, 2012: International Standard Classification of Education 2011, **access:** <http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>

¹⁶ For a better and more detailed understanding of this formulation, refer to section 2, points 12 to 25, of the International Standard Classification of Education: UIS, 2012: International Standard Classification of Education 2011. Montreal, UNESCO Institute for Statistics, access. <http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>

Figure 4: Example of a country ISCED mapping – Kiribati 2011

ID	Name of the education programme (National language)	Name of the education programme (English)	Minimum entrance requirements (National language)	Minimum entrance requirements (English)	Main diplomas, qualifications or certificates awarded at end of programme (National language)	Main diplomas, qualifications or certificates awarded at end of programme (English)	Theoretical entrance age	Theoretical duration (in years)	ISCED 2011 level		ISCED 2011 Type (ECED/Pre-primary) or Orientation (G/V/U)	ISCED 2011 Completion (F/P/N) & Position in national degree structure	ISCED 2011 Access (Y/N)	Notes	ISCED 2011 Programme code (ISCED-P: 3 digit)	ISCED 2011 Attainment code (ISCED-A: 3 digit)
									ISCED 2011 level	ISCED 2011 level						
1	Preschool	Preschool	3	3	NA	NA	3	3	Early childhood education	0	Pre-primary	-	-	-	020	020
2	Primary Education (years 1-6)	Primary	6	6	Primary Education (years 1-6)	Primary Education (years 1-6)	6	6	Primary education	1	-	Full completion	-	-	100	100
3	Junior Secondary (Year 7 to 9)	Junior Secondary (Year 7 to 9)	12	12	Junior School Certificate	Junior School Certificate	12	3	Lower secondary education	2	General	Full completion	Yes, to ISCED 3	-	244	244
4	Senior Secondary (Year 10 and 11)	Senior Secondary (Year 10 and 11)	Junior School Certificate	Junior School Certificate	Kiribati National Certificate	Kiribati National Certificate	15	2	Upper secondary education	3	General	Partial completion	-	-	342	342
5	Senior Secondary Year 12	Senior Secondary Year 12	Kiribati National Certificate	Kiribati National Certificate	Kiribati National Certificate	Kiribati Senior School Certificate	17	1	Upper secondary education	3	General	Partial completion	-	-	342	342
6	Senior Secondary Year 13 (SPBEA)	Senior Secondary Year 13 (SPBEA)	Kiribati National Certificate	Kiribati Senior School Certificate	South Pacific Form 7 Certificate	South Pacific Form 7 Certificate	18	1	Upper secondary education	3	General	Full completion	Yes, to ISCED 4 and 5, 6, 7 (tertiary)	-	344	344
7	Senior Secondary Year 13 Foundation (USP)	Senior Secondary Year 13 Foundation (USP)	Kiribati National Certificate	Kiribati Senior School Certificate	USP Foundation	USP Foundation Certificate	18	1	Upper secondary education	3	General	Full completion	Yes, to ISCED 4 and 5, 6, 7 (tertiary)	-	344	344
8	Technical, Colleges and Vocational (TVET)	Technical, Colleges and Vocational (TVET)	Kiribati National Certificate	Kiribati National Certificate	Technical Certificates/Diploma	Technical Certificates/Diploma	17	3	Upper secondary education	3	Vocational	Full completion	Yes, to ISCED 4 and 5, 6, 7 (tertiary)	-	354	354
9	Pastoral/Theological Institutes	Pastoral/Theological Institutes	Kiribati National Certificate	Kiribati National Certificate	Diploma	Diploma	17	3	Upper secondary education	3	Vocational	Full completion	No	-	353	353
10	University of South Pacific Bachelor degree	University of South Pacific Bachelor degree	Form 7 or Foundation	Form 7 or Foundation	Bachelor Degree	Bachelor Degree	19	3	Bachelor's or equivalent level	6	Unspecified	Full completion: First degree (3-4 years)	-	-	665	660

Type (ISCED 2011 level 0)

ECED= Early childhood educational development
Pre-primary

Orientation (ISCED 2011 levels 2-8)

G = General
V = Vocational
U = Unspecified orientation (ISCED 6-8)

Access (ISCED 2011 levels 2-4)

Y = Programme provides direct access to a higher ISCED level
N = Programme does not provide direct access to a higher ISCED level

Completion (ISCED 2011 levels 2-8)

F = Full completion of level
P = Partial completion of level (ISCED 2&3 only)
N = No completion of level

Position in national degree structure (ISCED 2011 levels 6-7)

First degree
Long first degree
Second for further degree (after Bachelor or equivalent)
Second for further degree (after Master or equivalent)

As ISCED is in international data collection, processing and reporting framework, it is strongly advisable that all countries produce their ISCED mapping. As previously stated, this mapping should be carried out through broad discussions and consultations with all stakeholders of education providers in the country.

 **The International Standard Classification of Education 2011**¹⁷

 **ISCED 2011 Operational Manual**¹⁸

3.4 International data collection

It has already been noted that one level of monitoring is at the national level, where it is likely to have the largest set of indicators in order to reflect the specificities of national education systems and local contexts.

We have also seen that monitoring at this level should be linked to the needs of the national government in preparing education plans and informing policies. Countries can also think of considering thematic, regional or other indicators to reflect their unique circumstances and development priorities.

At the regional level of monitoring, a set of indicators may be developed to reflect the priorities and issues of common interest of the countries in a particular region. As for thematic or sectoral monitoring, a set of globally comparable indicators has been proposed based on consultations within the different sectoral stakeholder groups, such as, education, environment, energy and health. The range of the sectoral priorities are wider in comparison to those of the global framework.

¹⁷ UIS, 2012: International Standard Classification of Education 2011. Montreal, UNESCO Institute for Statistics, access: <http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>

¹⁸ OECD, European Union and UIS, 2015: ISCED 2011 Operational Manual: Guidelines for Classifying National Education Programmes and Related Qualifications, OECD Publishing, access: http://uis.unesco.org/sites/default/files/documents/isced-2011-operational-manual-guidelines-for-classifying-national-education-programmes-and-related-qualifications-2015-en_1.pdf

3.4.1 Collection, compilation and dissemination of international data on education

As mentioned earlier, UIS is the official source of cross-nationally comparable data on education and the main source for the preparation of the Global Education Monitoring Report (GEMR).

UIS, through its two annual surveys on education, collects and compiles education data from all the countries. Every year, it sends out annual questionnaires to countries and requests them to provide data on a regular basis in order to be able to produce historical trends.

Two types of data have been collected through UIS annual surveys:

TYPE 1: Education surveys which includes three questionnaires:

- Questionnaire A on: Students' access and participation in education, as well as teachers (ISCED 0 to 4);
- Questionnaire B on: Education expenditures (ISCED 0 to 8);
- Questionnaire C on: Students' participation and graduation in tertiary education, as well as teachers (ISCED 5 to 8).

TYPE 2: Literacy and education attainment survey:

- Educational attainment of 25+ population;
- Literacy status of 15+ population.

The following items are the main areas covered by data collection:

- Regular/formal education in early childhood education (including pre-primary), primary, basic and secondary schools and in colleges, universities and other higher education institutions;
- Education in public (or state) and in private schools, colleges or universities;
- Special needs education (both in regular schools and in special schools);
- Distance education (especially at the tertiary, or higher education level);
- Both full-time and part-time education;
- The education of international students as well as of nationals or citizens of your country.

For the education survey, Member States are requested to report their data using administrative data sources, whereas in the Literacy and Educational attainment survey, data is mainly provided using household surveys (see Module 4 on Household Surveys).

It is important for all the countries to submit/report their data on the aforementioned areas to UIS for it to calculate and publish internationally comparable data on education at global and regional/sub regional levels.

3.4.2 Process of international data collection and dissemination

DATA COLLECTION: Data is collected through the excel questionnaire, which Member States fill and send back to UIS every year. To help Member States to complete the questionnaires, UIS has also developed instructions manuals. On-site support can be provided through UIS field staff, on request.

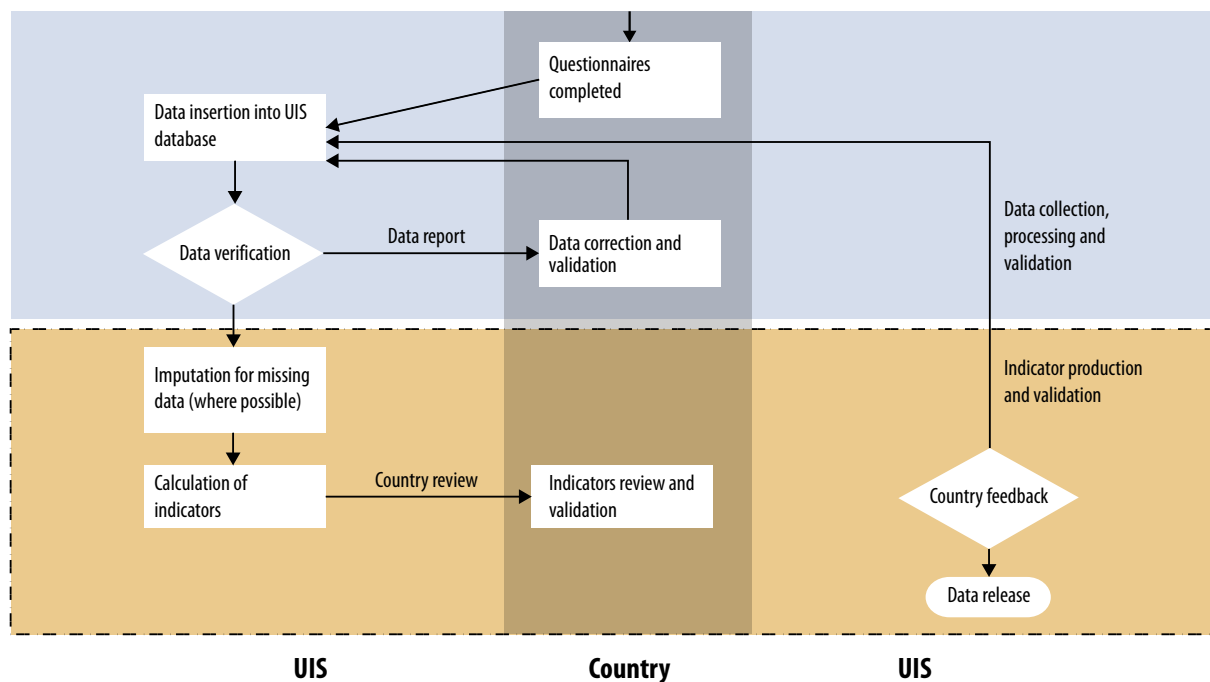
DATA PROCESSING AND VERIFICATION: Once questionnaires have been received back by UIS, data entry and data processing starts. The data processing includes data entry as well as data check which are based on historical data, data definition and internal consistency of the data. A data report is prepared highlighting any discrepancies in the data observed and it is sent to the respective country for clarification.

INDICATOR PRODUCTION: Based on an individual country's feedback to the data report, the data is revised and the data can be used to calculate indicators. The process is then followed by the preparation of a draft Indicators Review. This document includes a wide range of indicators that will be published in the international database. This document also provides definitions and methodologies of indicators. Countries are requested to carefully review these indicators and confirm that they can be published.

DISSEMINATION: The validated data and indicators are published and disseminated through the UIS data centre (UIS. stat) and other online databases (e.g., the World Bank database), as well as in global publications for wider stakeholders to access and use.

Figure five provides a comprehensive overview of the UIS global comparable data production process.

Figure 5: UIS International comparable data production process



Source: UIS, 2017: SDG 4 Data Digest, UIS, Montreal, **access:** <http://uis.unesco.org/sites/default/files/documents/quality-factor-strengthening-national-data-2017-en.pdf>

3.4.3 Global SDG 4 data dissemination and reporting

Monitoring the SDGs at the global level relies on a limited and carefully chosen set of indicators that aim to provide an overview on progress towards the targets. For the SDG 4, the challenges of measurement need to be addressed through a universal agenda with indicators that are relevant for all countries.

The targets look at not only learning throughout the life-cycle but also go beyond traditional areas of measurement to reflect a comprehensive and integrated view of the skills and capacities needed by the learner in relation to their living and contribution towards the society and the environment in a sustainable manner. Equity is emphasized in order to specifically focus on those who are socio-economically marginalized and those who have been left behind.

Monitoring of SDG 4 at global and regional levels will, mainly, rely on the comparable data/ indicators produced by UIS annually. The global monitoring of SDG 4-Education 2030 is carried out through the publication of the *Global Education Monitoring Report*¹⁹. This report is a mechanism for global monitoring and reporting on SDG 4 and on education in the other SDGs. It reports on the implementation of national, regional and international strategies.

¹⁹ For the latest information on and from the Global Education Monitoring Report, access: <https://en.unesco.org/gem-report/>

UIS is the overall coordinator on SDG 4 monitoring

As the overall coordinator for SDG 4 indicators, UIS interacts with a range of other partners who collect, or contribute data towards a specific target, or indicator. UIS also contributes to the other goals in its field of responsibility.

The UIS is also a member of the UN Statistical System Coordination Group which promotes system-wide integrated and coherent actions to enhance and modernize sustainable statistical data collection across all UN agencies. It contributes to the adoption and implementation of international statistical standards in line with the Fundamental Principles of Official Statistics, which has been adopted by UNGA.

The United Nations Statistics Division has gathered data from the UN and other organizations for each of the global indicators. These have been published in an SDG Indicator Database hosted by the said Statistics Division²⁰. The UIS has compiled data for each of the global indicators under its mandates of education, science and culture. When the database was launched, the first SDG progress report was also published.

UIS, in particular, is mandated to produce comparable education indicators, cross-nationally and to work with partners through a country-led process and technical advisory groups to develop indicators, statistical approaches and monitoring tools in order to better assess progress towards the achievement of the education targets.

UIS will continue to be the official sources of comparable data on education and:

- It will continue to produce international monitoring indicators based on its annual education survey and on other data sources.
- In addition to collecting data, UIS will work with partners to develop new indicators, statistical approaches and monitoring tools to better assess progress across the targets that are related to UNESCO's mandate, working in coordination with the Education 2030 Steering Committee.

For more information:

 **Laying the Foundation to Measure Sustainable Development Goal 4²¹**

 **Education Indicators for SDG 4²²**
(See Chapter 3 on: 'What is the UIS role in SDG 4 monitoring.')

²⁰ Sustainable Development Goal indicators website, access: <https://unstats.un.org/sdgs/>

²¹ UIS, 2016: Sustainable Development Data Digest. Laying the Foundation to Measure Sustainable Development Goal 4. Montreal, UNESCO Institute for Statistics, access: <http://uis.unesco.org/sites/default/files/documents/laying-the-foundation-to-measure-sdg4-sustainable-development-data-digest-2016-en.pdf>

²² UIS, 2018: Quick Guide to Education Indicators for SDG 4. Montreal, UNESCO Institute for Statistics, access: <http://uis.unesco.org/sites/default/files/documents/quick-guide-education-indicators-sdg4-2018-en.pdf>