

EXECUTIVE SUMMARY



SDG 4 DATA DIGEST 2017

The Quality Factor: Strengthening National Data to Monitor Sustainable Development Goal 4



UNESCO

The constitution of the United Nations Educational, Scientific and Cultural Organization (UNESCO) was adopted by 20 countries at the London Conference in November 1945 and entered into effect on 4 November 1946. The Organization currently has 195 Member States and 10 Associate Members.

The main objective of UNESCO is to contribute to peace and security in the world by promoting collaboration among nations through education, science, culture and communication in order to foster universal respect for justice, the rule of law, and the human rights and fundamental freedoms that are affirmed for the peoples of the world, without distinction of race, sex, language or religion, by the Charter of the United Nations.

To fulfil its mandate, UNESCO performs five principal functions: 1) prospective studies on education, science, culture and communication for tomorrow's world; 2) the advancement, transfer and sharing of knowledge through research, training and teaching activities; 3) standard-setting actions for the preparation and adoption of internal instruments and statutory recommendations; 4) expertise through technical cooperation to Member States for their development policies and projects; and 5) the exchange of specialized information.

UNESCO Institute for Statistics

The UNESCO Institute for Statistics (UIS) is the statistical office of UNESCO and is the UN depository for global statistics in the fields of education, science, technology and innovation, culture and communication.

The UIS was established in 1999. It was created to improve UNESCO's statistical programme and to develop and deliver the timely, accurate and policy-relevant statistics needed in today's increasingly complex and rapidly changing social, political and economic environments.

Published in 2017 by:

UNESCO Institute for Statistics
P.O. Box 6128, Succursale Centre-Ville
Montreal, Quebec H3C 3J7 Canada

Tel: +1 514-343-6880

Email: uis.publications@unesco.org

<http://www.uis.unesco.org>

ISBN 978-92-9189-221-1

Ref: UIS/2017/ED/SD/15

© UNESCO-UIS 2017

Design: JCNicholls Design / www.jcnicholls.com

This publication is available in Open Access under the Attribution-ShareAlike 3.0 IGO (CC-BY-SA 3.0 IGO) license (<http://creativecommons.org/licenses/by-sa/3.0/igo/>). By using the content of this publication, the users accept to be bound by the terms of use of the UNESCO Open Access Repository (<http://www.unesco.org/open-access/terms-use-ccbysa-en>).

The designations employed and the presentation of material throughout this publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities or concerning the delimitation of its frontiers or boundaries.

The ideas and opinions expressed in this publication are those of the authors; they are not necessarily those of UNESCO and do not commit the Organization.

Background

In the era of the Sustainable Development Goals (SDGs), the demand for more and better data has never been so pressing. With their strong emphasis on inclusion and equity, the SDGs compel us to look beyond national and regional averages to ensure that nobody is left behind. SDG 4 on education, for example, calls for a quality education for each and every child by 2030. This ambitious goal is placing pressure on countries to produce and use good quality data on an unprecedented scale.

The *SDG 4 Data Digest* provides information on key data issues confronting countries and the international community. The 2016 edition focused on the necessary indicators to track progress. This year, the focus is on data quality as the foundation for an effective monitoring framework to support the pursuit of SDG 4.

In response to the data challenges at the national level, the UNESCO Institute for Statistics (UIS) has developed a set of tools and strategies to enable countries to produce and take ownership of quality data and to help donors target their resources towards the most cost-effective approaches. These tools and strategies, set out in the Digest, build on the Institute's longstanding experience in working directly with countries and its mandate as the official source of data, standards and methodologies needed to monitor progress towards SDG 4.

Objectives of the SDG 4 Data Digest 2017

The Digest contributes to three key areas that are essential for effective monitoring:

- Strengthening statistical capacity to support effective implementation of the SDG 4-Education 2030 Agenda at the national, regional and global levels;
- Incorporating the efforts of donors and partners to improve the quality, reporting and use of education data within national strategies for education statistics that are grounded in national realities and priorities; and
- Increasing the effectiveness of the resources allocated to countries for their data production and capacity-development activities.

Key messages

Section 1: Monitoring the international education agenda

The first section of the Digest examines the overall context of monitoring the international education agenda, with a focus on existing governance structures and the current indicator frameworks to monitor SDG 4 adopted by the international community. The implementation of these frameworks requires the development and validation of new methodologies and the refinement of existing methodologies to ensure cross-country comparability.

The Digest highlights serious challenges with regard to data availability. According to assessments by the UIS in 2016 across 121 countries, the world is currently collecting less than half (47%) of the data needed to monitor progress on the 11 global indicators for SDG 4.

When data are available, their quality and scale do not always meet SDG 4 expectations. The disaggregation of data on wealth and disability status, for example, is only possible in 14% and 19% of countries, respectively. In addition, there are data gaps on key SDG 4 concepts, particularly knowledge, skills, learning and school readiness – available in only 43% of countries.

The Digest argues that the statistical capacity of most countries is being put to the test by the breadth, depth and ambition of the global education goals. The emphasis on equity and the quality of education within the 2030 Agenda for Sustainable Development requires countries to collect more data from a wider range of sources including: administrative data, financial data, censuses, household surveys as well as national, regional and international learning assessments.

Expanding a country's capacity to collect and report data is, clearly, a vital first step. But, as the Digest points out, it is not enough on its own. The other indispensable step is to assess the quality of the data being produced relative to international quality standards. As shown in the Digest, there are 12 characteristics that are often used to validate the quality of data collection and dissemination processes: relevance, accuracy, reliability, coherence, timeliness, punctuality, accessibility, interpretability, objectivity, impartiality, transparency and credibility. The Digest shows that it is essential to organize these characteristics in conceptual frameworks that can be applied systematically to statistical systems to assure the quality of data outputs.

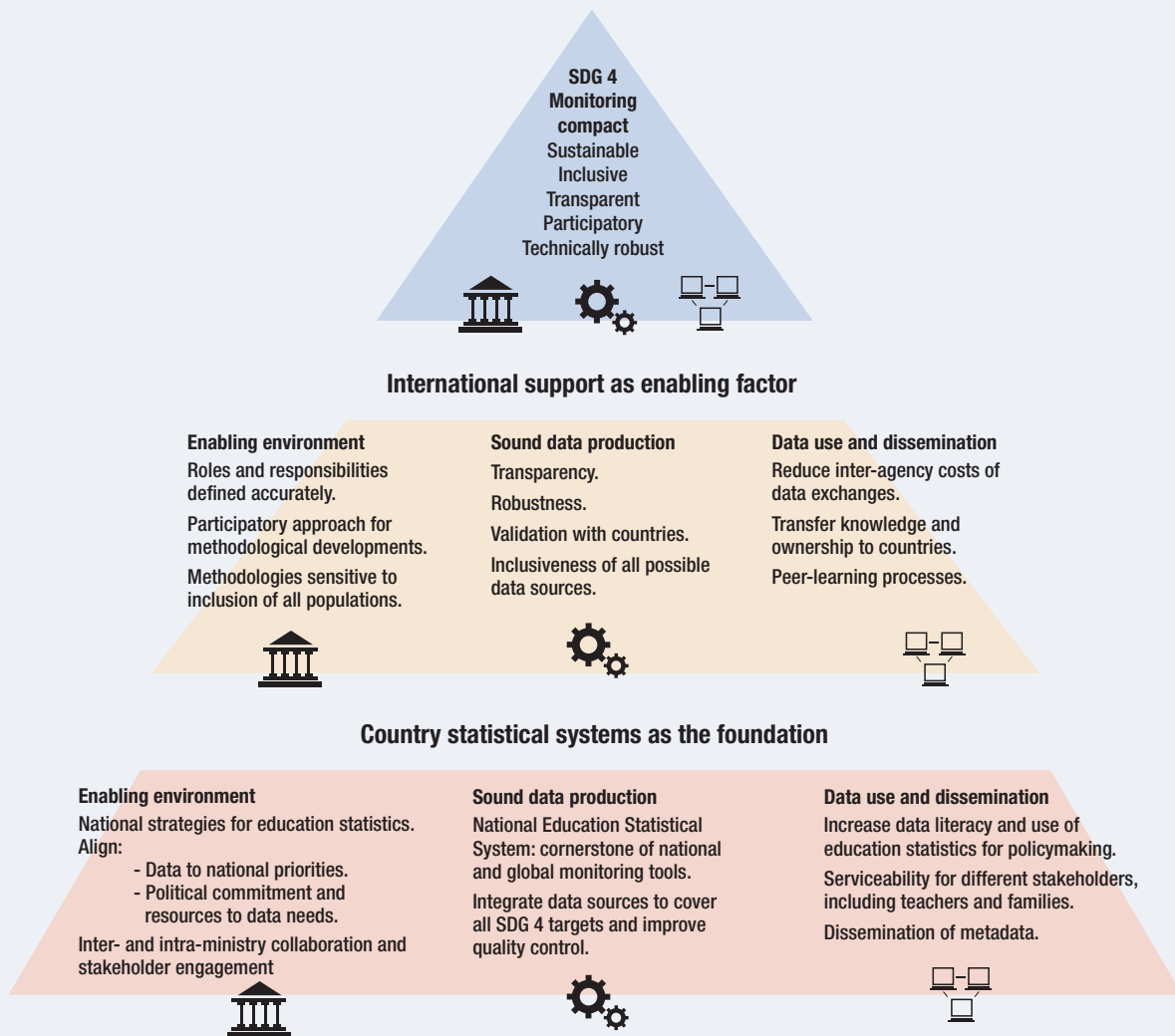
Section 2: Producing quality statistics to monitor progress towards SDG 4

The second section of the Digest takes a closer look at how to produce quality statistics, setting out the UIS vision for improving the quality of education data at national and international levels. This vision is grounded in the role of the UIS as the custodian of the majority of education indicators for the SDG 4-Education 2030 Agenda.

The Digest sets out a vision for the creation of a SDG 4 Monitoring Compact, based on a pyramid structure (see **Figure 1**). The model requires strengthening national statistical systems, which are the foundation of the monitoring system, and building international support mechanisms to efficiently produce cross-nationally-comparable indicators. The international community, which includes public and private actors, provides critical support for achieving the global compact for monitoring SDG 4.

To enable countries to produce quality data on education at the national level, the UIS proposes a framework and the education data quality assessment framework (Ed-DQAF). This is implemented with a tool that, by assessing the quality of the data production processes followed by countries, makes it possible to produce objective inputs to plan any necessary improvements. Its implementation aims to follow a specific set of good practices to produce quality statistics and examines the presence of an enabling environment, sound data production, and effective data use and dissemination of the different information sources. It is also in line with international technical standards and definitions.

Figure 1. Components of the data revolution in education



Source: Adaptation from UNESCO Institute for Statistics, 2017i.

It is the task – and mandate – of the UIS to bring together national-level data and engage in multiple activities to provide internationally-comparable data across education systems and countries. These include producing international standards, such as the International Standard Classification of Education (ISCED), defining and establishing methodologies for indicator development, compiling and disseminating international statistics on education through annual data collections directly from Member States or from international organizations, and providing technical support to Member States. By creating a base of internationally-accepted standards, methodologies, definitions and classifications, combined with quality data produced nationally, the Digest show the way forward to ensuring the comparability of data across countries, regions and time.

Section 3: Supporting the development of national statistical capacities to monitor SDG 4

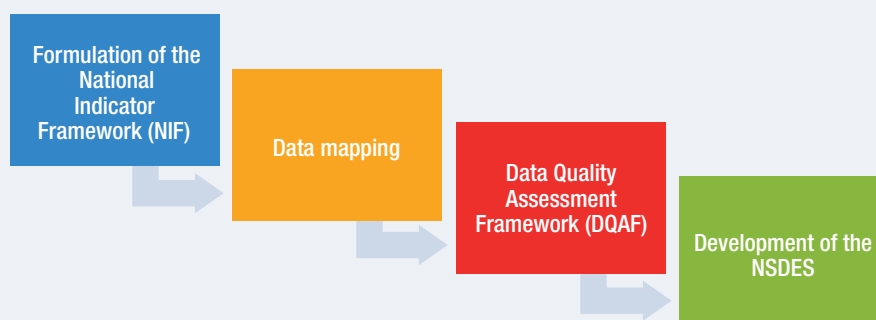
To support countries and donors in the monitoring and pursuit of SDG 4, the Digest sets out the UIS model for statistical capacity development (see **Figure 2**). This is rooted in the formulation of a national indicator framework (NIF) which determines each country's data needs. It follows a comprehensive mapping that identifies the data sources that are already in place, as well as the information gaps, to address the NIF's requirements.

The diagnosis stage includes the implementation of data quality assessments on each data source, a key stage which leads to the generation of information for the design of a National Strategy for the Development of Education Statistics (NSDES). The aim is to take a sectoral view of education data and policy priorities and clearly identify what needs to improve in order to link the two more closely together. It represents a systematic way to tackle SDG 4 data challenges.

The Ed-DQAF and the capacity development model outlined in the Digest are among a number of strategies and tools produced by the UIS to support national statistical systems, covering three main areas:

- Mapping tools to help countries identify potential data sources across ministries and national statistical offices, identify gaps, and locate potential opportunities to monitor SDG 4 by integrating different databases, enhancing existing instruments to collect additional data, and producing disaggregated data.
- Data quality assessment tools to evaluate and strengthen the processes by which countries use different types of data, including administrative records, household surveys, learning assessments and expenditure information.
- Manuals, guidelines and codes of practice to support the production of education data to provide national policymakers with the evidence they need to plan and monitor the performance of their education systems and progress towards the SDG 4 targets.

Figure 2. UIS model of national capacity development



Conclusions

The SDG 4 Data Digest positions data quality as crucial for the implementation of SDG monitoring frameworks, based on quality frameworks that are aligned to both national priorities and international technical standards. It stresses the importance of national coordination, backed by international cooperation and support. It sets out the key role of the UIS and its partner agencies as major contributors in terms of data collection, indicator development and strengthening of national data systems for quality monitoring of progress towards SDG 4.

The strategies and tools set out in the Digest represent real value added for both countries and donors. The Digest sets out how the UIS provides countries with methodologies and instruments to face the monitoring challenge of the SDG 4-Education 2030 Agenda, aiming to narrow the gap between national statistical capacities and the demands for quality data production. At the same time, donors and international organizations are enabled to minimise transaction costs, improve coordination and collaboration, and gain accurate assessments of capacity-building needs.

Together, countries and the international community are equipped to strengthen national statistical capacity that can leverage the power of data in the pursuit of a quality education for every child.



Countries are struggling to respond to the unprecedented demand for more and better data associated with the 2030 Agenda for Sustainable Development. In education, the international community has agreed to use a set of 11 global indicators and 32 thematic indicators to monitor progress towards Sustainable Development Goal (SDG) 4. Yet the challenge to produce them is enormous. According to the world's most comprehensive global education database – produced by the UNESCO Institute for Statistics (UIS) – less than half of countries are currently reporting 19 global and thematic indicators and only 1 global indicator and 6 thematic indicators have coverage exceeding 75%.

As the official data source for SDG 4–Education 2030, the UIS works on a daily basis with national statistical offices and ministries of education around the world to collect the data and apply the standards and methodologies needed to produce cross-nationally comparable indicators. The Institute understands the challenges facing national statisticians and is therefore uniquely placed to help countries strengthen their statistical capacities.

This report presents a comprehensive strategy and framework to improve the quality of data needed to implement and monitor progress towards the SDG 4–Education 2030 Agenda. It showcases a concrete set of tools designed to help countries strengthen each stage of their national education statistical systems – from diagnostic tools to evaluate data availability and quality to the frameworks and guidelines needed to initiate a national strategy for the development of education statistics that directly responds to policy priorities. The report also addresses the wider statistical capacity-development issues facing countries, donors and partners. Above all, the UIS shows the way forward to building better statistical systems by providing national stakeholders with the tools and strategies they need to produce high-quality education data and achieve their development goals.



UNESCO Institute for Statistics
P.O. Box 6128, Succursale Centre-Ville
Montreal, Quebec H3C 3J7
Canada