REGIONAL PREPARATORY MEETINGS FOR THE FIRST SESSION OF THE 'UNESCO CONFERENCE ON EDUCATION DATA AND STATISTICS'

SUMMARY OF KEY ISSUES RAISED

2023

2024 CONFERENCE ON
EDUCATION DATA
AND STATISTICS

The preparatory meetings for the first session of the 'UNESCO Conference on Education Data and Statistics' served as a platform to discuss regional issues and priorities. The papers presented at each meeting depended on the region in question. Considering all regions, the presentations covered the following topics:

1. International Standard Classification of Education: challenges and solutions forward
2. Administrative data: challenges and solutions forward
3. Teacher data: challenges and solutions forward
4. Education expenditure data: challenges and solutions forward
5. Household survey data: challenges and solutions forward
6. Learning assessments and skills survey data: challenges and solutions forward
7. National SDG 4 benchmarks: challenges and solutions forward

For each topic, the UNESCO Institute for Statistics (UIS) provided an overview of the background, key issues, and challenges faced by countries in data collection, compilation, and international reporting. Participating countries were encouraged to provide their feedback, seek clarifications, express concerns, and offer any additional insights that each paper should address. Finally, the UIS proposed a future agenda to collaborate with Member States in enhancing data collection, compilation, and reporting at both national and international levels.

INTERNATIONAL STANDARD CLASSIFICATION OF EDUCATION: CHALLENGES AND SOLUTIONS FORWARD

- The regional meetings acknowledged the vital importance of the International Standard Classification of Education (ISCED) in establishing and compiling education data that can be compared internationally. Additionally, Member States recognized the significant role of the UIS in offering assistance and aiding the alignment of national education programs with ISCED standards.

- Specific concerns, expectations, and challenges faced by countries in applying the ISCED classification for international data reporting were noted.

- The proposed strategies received favorable reception to address existing challenges. The establishment of the ISCED Committee marks a significant development, with the anticipation of yielding substantive recommendations in the forthcoming months.

Arab States

- Issues were raised regarding the classification of ISCED 4, with inquiries about methods and further guidance on classifying vocational and short-term courses within ISCED levels.
- Clarification was requested regarding the removal of the adult education data sheet from the annual education survey, with countries seeking information on how to report adult education data.

Asia

- Concerns were raised regarding the complexities of categorizing non-formal education, particularly considering the challenges posed by the decentralization of school administration to provincial levels. In addition, the need for an increase focus on transitions within ISCED levels 0-2 was underscored.
- Countries expressed a clear intention to incorporate ISCED mapping into national education master plans. This was coupled with an expressed need for enhanced coordination among diverse education providers to facilitate more effective ISCED mapping.
- Furthermore, countries emphasized the urgency of adapting or updating ISCED-F to mirror the evolving developments and requirements more accurately in different areas of tertiary education.

Africa

- No region-specific interventions.

Pacific

- In the Pacific, where Universities often operate under the University of South Pacific (USP) in a joint regional approach, the ISCED classification at the tertiary level was discussed to facilitate easier classification for countries.
- Challenges in mapping some short-term TVET (Technical and Vocational Education and Training) programs in ISCED were discussed, particularly in determining the orientation of these programs within ISCED.

Latin America and the Caribbean

- Topic not addressed in the conference.

OECD

- The OECD shared insights on reviewing ISCED 2011 and ISCED-F 2023, offering suggestions on classifying professional and general higher education, and differentiating between formal and informal early childhood education programs.

- At the recent Eurostat Education and Training Statistics meeting (ETS), findings from national studies on early childhood education programs were shared. These studies, focusing on both standard and non-ISCED programs, might help improve the classification of programs at ISCED level 01. The OECD suggested discussing these findings further at the upcoming INES working group on early childhood education.

- Some countries expressed the opinion that a general revision of ISCED is unnecessary, emphasizing instead the need for guidance on ISCED utilization. They suggested focusing on updates and improvements in specific areas.

- Among the recommendations was the enhancement of ISCED questionnaires through the addition of a new column for recording the development and implementation dates of programs within national education systems. Additionally, the inclusion of extra variables was proposed to align ISCED standards more effectively with national data collection processes. Furthermore, there was a suggestion to investigate how ISCED could be extended to include special needs education.

- Several OECD countries emphasized the importance of UIS products reflecting the essential role of ISCED. They recommended frequent updates to the ISCED mappings on the UIS website, ensuring they accurately represent the evolving nature of national education systems and programs.

ADMINISTRATIVE DATA: CHALLENGES AND SOLUTIONS FORWARD

- Regional meetings highlighted administrative data as essential for education planning and policymaking, emphasizing the need for accuracy, quality maintenance, and consistent reporting. Effective communication between countries and the UIS is crucial for overcoming these challenges.

- There was a unanimous consensus on the importance of timely and frequent data reporting at the international level to enhance policy development and monitoring.
- The pre-meetings proved to be instrumental in tackling administrative educational data challenges, emphasizing the importance of accurate and reliable data for assessing educational progress. It also highlighted the critical need for specialized guidance in the implementation of administrative data reporting, particularly in areas like education expenditure, homeschooling, and especially teacher data (training and practice).

Arab States

- The potential of utilizing more generative AI and big data in the upcoming years to enhance the education data system was a key topic of discussion.
- A request was made for the creation of more user-friendly tools and comprehensive guides to assist countries in compiling higher education data.

Asia

- Countries expressed concerns over the difficulty of obtaining disaggregated data at various ISCED levels, particularly in terms of education expenditure.
- The topic of incorporating homeschooling data into the system was raised, with a consensus on the need for a joint discussion to address this issue effectively.
- Countries indicated that the development of integrated Educational Management Information Systems (EMIS) has significantly improved reporting on indicators, especially for primary and secondary school education. However, compiling data for Tertiary Education remains a challenge, as the system currently encompasses all tertiary education data.
- The region backed to advocate for more agile and flexible data system, one that is adaptable and resilient to future challenges and changes. This could involve exploring new methodologies or technologies to enhance data collection and management processes, ensuring they are robust enough to withstand potential disruptions.

Africa

- There was a general consensus on the challenges faced by countries in implementing administrative data reporting. Key areas requiring additional guidance and solutions were identified, including education expenditure, homeschooling, and teacher training data.

- The necessity for training, particularly in ISCED, was emphasized, along with the regular organization of workshops to enhance understanding and implementation. It was noted that not all necessary data for calculating indicators are currently being collected at the country level.

- Concerns were raised regarding the length and annual modifications of the questionnaire, leading to a proposal for a standardized format that remains consistent each year and across regions to streamline data collection and enhance comparability. Additionally, there were issues highlighted about delays in data production, resulting in information gaps. Within these challenges remain the public and private school data sources.

- Countries requested comprehensive clarification regarding the UIS's strategies for data collection, publication, and dissemination.

Pacific

- Countries emphasized that data should first be practical at the school level before being relevant nationally and internationally. They noted the necessity for enhancing national capacities in data collection, compilation, and adherence to standards.

- The main challenges in utilizing administrative data for reporting include the lack of clear data definitions and limited coverage of Educational Management Information Systems (EMIS), often only encompassing public schools. The need for capacity development was stressed, along with the alignment of EMIS with national objectives, supported by clear indicators.

- The importance of inter-departmental and inter-ministerial collaboration for effective data compilation was highlighted.

- The proposal of developing an advocacy tool was put forward. This tool would aid countries in understanding the significance of data at various levels, from schools to districts and the national sphere.

Latin America and the Caribbean

- The difficulty in comparing data between different educational systems highlighted the importance of standardizing methodologies.

- While recognizing the importance of personal data protection laws in safeguarding private information, concerns were raised about the challenges these regulations for an effective coordination and interoperability.

- Participants indicated that the administrative workload to feed EMIS systems is sometimes excessive, especially in schools or institutions with limited human resources.

- The need to develop specific instruments for collecting data on students with special educational needs was highlighted, suggesting that current data systems may not be sufficiently inclusive or detailed.

OECD

- The region-specific interventions referred only to teacher data, available in the following section.

TEACHER DATA: CHALLENGES AND SOLUTIONS FORWARD

- The meetings emphasized the critical importance of producing accurate and consistent teacher data to evaluate educational progress and challenges. Countries recognized the difficulty in defining 'qualified' and 'trained' teachers, particularly concerning teacher qualifications.

- The necessity for cooperative efforts and data standardization across member states was emphasized to facilitate international comparisons. The importance of developing clear criteria for teacher qualification was underlined, although it was acknowledged that global-level definitions might not be practical due to country-specific needs.

Arab States

- Countries raised issues of qualified and trained teachers and highlighted the need for international definitions and clearer guidance in collecting, compiling, and reporting data on qualified and trained teachers.

- Countries shared their specific difficulties in implementing administrative data reporting, underscoring the need for guidance and solutions in areas such as education expenditure, home schooling, and teacher training data.

Asia

- Challenges related to collecting and reporting data on teacher training in the uniform manner were highlighted.
- The complexity of accurately disaggregating teacher data by educational level was discussed, especially considering that the same teachers often teach across multiple levels. This raises issues in counting teachers accurately and avoiding double-counting, particularly in higher education institutions.
- The production of data on ratio of pupil to *trained* teacher was noted as a more representative measure of quality education than the more general ratio of pupil-teacher ratio. In addition, there was a query on whether this ratio should be broken down by subject areas.
- It was discussed the need of international definition of minimum qualification and minimum training to measure the qualified and trained teacher in a more comparable manner. It was also enquired the global process of defining the minimum qualification and trained teacher and countries showed their interest in contributing to the process.

Africa

- Countries raised issues of qualified and trained teachers and highlighted the need for international definitions and clearer guidance in collecting, compiling, and reporting data.
- Countries mentioned that classification of teachers is not always straight-forward as there are different types of teachers and different types of trainings provided.
- Some countries experience a unique situation where the number of trained teachers exceeds the number of teachers employed. Therefore, a suggestion was made to accurately define the ratios of students to qualified or trained teachers, considering these specific circumstances.

Pacific

- The region has acknowledged the issue of insufficient coverage in teacher data.
- Countries supported the need to align the definition of trained teachers, their qualifications and salaries. Participants backed the proposition that adopting ISCED-T could address these issues by providing more internationally comparable definitions, as opposed to relying on

national definitions which may lack comparability. The need for additional guidelines and clearer methods for compiling data on trained and qualified teacher data was mentioned.

- Challenges were noted in acquiring teacher salary data, especially for private school teachers. Additionally, difficulties in segregating teacher data by different levels of education, particularly at lower and upper secondary levels, were mentioned.
- The countries voiced a need for greater harmonization across varying educational systems to address these issues effectively.

Latin America and the Caribbean

- Countries expressed the concern that the collection of information on the continuous training of teachers presented significant challenges due to the decentralization of responsibility to territorial entities.
- There was an emphasis on the need to improve calculation and collection methodologies to align with international standards and ensure that the information is comparable between countries.

OECD

- ISCED-T will be used to help with the definition of trained/qualified teachers.

- OECD reported the creation of a new group in the INES working party on attractiveness of the teaching profession and teacher shortages. OECD carried out a survey to estimate data availability to measure teachers' shortage and to determine indicators where they are confident about data availability for a launch of data collection in 2024.
- Countries are investigating different methodologies for calculating teacher attrition to reflect teachers leaving the profession, and teachers moving across professions. OECD has worked on this issue since 2017 and has considered several methods. An attempt was made to develop an improved methodology, but only a small number of countries reported the necessary data. No comparison was made on a significant number of countries between the improved methodology and the SDG 4 methodology.

EDUCATION EXPENDITURE DATA: CHALLENGES AND SOLUTIONS FORWARD

- The meetings underscored the crucial role of education expenditure indicators in promoting educational equity and resource allocation and mobilization.
- Recognized were the challenges related to data source conflicts, private expenditure on education, data consolidation, and coverage have contributed to the limited reporting of such data at an international level.
- Participants acknowledged the complexities involved in measuring private expenditure on education and the need for a standardized approach.
- Countries endorsed the proposed agenda forward and expressed that the proposed actions will be crucial to improving the quality and accuracy of education expenditure data.

Arab States

- Topic not addressed in the conference.

Asia

- Difficulties in data disaggregation for education expenditure by levels were faced. Challenges also include data from multiple ministries. Countries stated difficulties in obtaining data for SDG4 expenditure at the national level due to the methodological heterogenity across local governments and private sources.
- Countries faced challenges in collecting education expenditure data from household surveys.
- The region suggested the development of appropriate methodologies and guidelines for disaggregating the data by levels, registering education expenditure in more harmonized manners using household survey to produce private expenditures.

Africa

- Topic not addressed in the conference.

Pacific

- Countries highlighted the difficulty in gathering detailed education expenditure data, noting that such information is often not publicly accessible.

- A proposal was made to enhance Educational Management Information Systems (EMIS) to encompass data on education expenditure, thereby improving data availability and accuracy.
- The importance of establishing a connection between the education sector plan and the education budget was emphasized, underlining the need for a coherent approach.

Latin America and the Caribbean

- Topic not addressed in the conference.

OECD

- Topic not addressed in the conference.

HOUSEHOLD SURVEY DATA: CHALLENGES AND SOLUTIONS FORWARD

The emerging topics reflect a consensus on the need to improve the quality and coherence of educational information obtained from household surveys (HSS).

- The meetings acknowledged the strengths and benefits of household surveys in monitoring SDG4. However, countries noted these instruments are underutilized in policy discussions and monitoring due to a lack of capacity, awareness among policy makers, and coordination between Ministries of Education (MoE) and National Statistics Offices (NSO).
- The challenges of using household surveys for monitoring SDG4 were addressed. These include the lack of standardized context questionnaires across various surveys, inconsistencies in age recording, and the non-alignment with ISCED classification.
- The meetings endorsed the agenda presented during the sessions to address the issues and challenges of using household surveys in monitoring SDG4. Proposed solutions included improving survey coverage, harmonizing contextual questionnaires, adhering to international standards, and establishing collaborative partnerships to enhance the quality and reliability of data derived from household surveys.

Arab States

- The challenges associated with the costs and frequency of Household Surveys (HHS) were discussed, emphasizing the difficulties in monitoring using these instruments. There was a call for better harmonization between HHS and administrative data.
- The difficulty in contributing to HHS, which are often conducted with the support of international agencies like the World Bank or ILO, was acknowledged.
- Despite various challenges, the value of HHS as a critical data source for monitoring SDG4 was recognized. However, Arab States pointed out the need for raising awareness among different stakeholders and establishing coordination between NSO and MOE for an effective utilization of HHS.

Asia

- Challenges in harmonizing data between household surveys and administrative records were highlighted, particularly regarding the inclusion of respondents' birth months in surveys.
- Concerns were raised about the extended timeframe required for household survey data collection, which poses challenges for annual reporting. This delay can lead to potential discrepancies when integrating household survey data with other data sources.
- Countries shared challenges in data collection in remote rural areas, particularly during the rainy season, and expressed concerns about the sensitivity of the questions and their impact on data quality.

Africa

- Countries raised the need of standardizing the timing of HHS to improve data consistency.
- Queries were raised about the use of HHS data across all countries or only in those lacking administrative data, and whether there would be a comparison between data derived from administrative sources and household surveys.

Pacific

- Countries emphasized the need for clear definitions regarding various population groups, such as youths, across different household surveys to ensure uniformity. They also pointed out that the MOE should provide more detailed comments and inputs regarding data requirements for monitoring SDG4.

- The pivotal role of NSO in guiding data generation processes and harmonizing statistical systems within countries was recognized.

Latin America and the Caribbean

- Countries focused on the harmonization of concepts and methodologies to ensure comparability and coherence of data at the regional and international level. These countries pointed out that including sets of questions that could be adopted in different national contexts is essential to have common criteria.
- A preference emerged for reinforcing administrative records rather than relying on household surveys to collect data on education, due to the perception that administrative records can offer greater accuracy and more faithfully reflect the educational reality of the country. Countries highlighted the importance of using complementarity tools and technologies for data collection.
- Challenges in measuring non-formal education were also identified.

OECD

- Topic not addressed in the conference.

LEARNING ASSESSMENTS AND SKILLS SURVEY DATA: CHALLENGES AND SOLUTIONS FORWARD

- The meetings acknowledged the importance of learning outcomes data in SDG4 monitoring and noted that there are significant data gaps in monitoring learning at various levels and among different groups.
- Issues such as comparability of grades and education levels, procedural quality, financial costs, and low coverage of cross-national assessments were highlighted.
- The meetings agreed on the agenda forward for potential solutions, particularly on implementing the Assessment of Minimum Proficiency Level (AMPL) assessment programmes to measure minimum proficiency levels for reporting SDG4.1.1a, b, and c to ensure comparability.

- It was emphasized that efforts to harmonize data, align assessments, and establish a common understanding of proficiency levels are essential for robust data reporting and international comparisons.

Arab States

- Countries highlighted the issues of non-comparability between various assessments and urged the UIS to take the lead in discussions and harmonizing of tools, methodologies, and processes.
- Some countries undertook Literacy Assessment and Monitoring Programme (LAMP) studies to measure adult literacy skills and suggested that the UIS build assessments on LAMP (such as mini-LAMP) to continue collecting data using those tools to fill the data gaps.

Asia

- Countries pointed out the challenges related to digital access and capacity for its population.
- Countries with multilingual context face challenges in assessing minimum proficiency among different linguistic groups as the assessments are mainly done in the official language.
- The desire for increased UIS support for capacity building and future learning assessments programmes was addressed.
- Countries proposed to establish an expert body to validate learning outcomes national assessments that are in alignment to a specific set of standards.

Africa

- Issues related to the measurement of learning outcomes, how to use the international standards and opportunities will be addressed in a follow-up meeting.

Pacific

- The necessity of incorporating learning outcome assessments into sector plans was discussed, emphasizing the need for a clearly defined budget and specific outcome targets.

- Countries expressed the necessity for international agencies, such as the UIS, to support countries in aligning their national assessments with international standards, potentially by utilizing global competency frameworks. This approach aims to ensure consistency and relevance in educational assessments across different nations.
- The proposal for training and orientation sessions on understanding the Minimum Proficiency in Learning (MPL) and Global Competency Framework (GCF) was made, aiming to utilize these frameworks in monitoring learning outcomes at national, regional, and global levels.

Latin America and the Caribbean

- Countries raised the need to harmonize national and regional assessments with international standards.
- Challenges were identified in assessing and monitoring learning in tertiary education and among migrant population, and also in calibrating and validating assessment data.
- The dialogue extended to the role of assessments in public policy formulation and their contribution to the SDGs.
- The implementation of tools and structures for standardized assessments was a key point.

OECD

- Topic not addressed in the conference.

NATIONAL SDG 4 BENCHMARKS: CHALLENGES AND SOLUTIONS FORWARD

- Member states reaffirmed their commitment to establishing national benchmarks for SDG4, focusing on linking policies, plans, and monitoring across all levels, while acknowledging challenges in wider participation and benchmark quality.
- The meetings highlighted the agenda for raising political and stakeholder awareness, supporting countries in setting benchmarks, and enhancing national reporting aligned with policy levels.

- There was agreement on the importance of timely international data reporting, recognizing the relevance of climate change and the interconnectedness of SDG 4 with other sustainable goals, and an endorsement of the UIS's agenda to address global data and reporting gaps.

Arab States

- There was an inquiry about the rationale for using baseline values from around 2015 instead of the most recent data available.
- Countries highlighted the necessity of obtaining access to the UIS's projection model, which would be instrumental in assisting them to estimate benchmark values tailored to their unique contexts.
- A suggestion was made to include annually updated figures in the dataset of benchmark indicators, in addition to the existing older baseline and future target values.
- Clarification was provided that countries are invited to revise and update their benchmark values as needed, ensuring their data remains current and relevant.

Asia

- Countries highlighted the issues of possible learning loss due to pandemic and suggested to consider such impacts while updating their national benchmark values.

Africa
- No region-specific interventions.

Pacific

- Topic not addressed in the conference.

Latin America and the Caribbean

- No region-specific interventions.

OECD

- No region-specific interventions.

Table 1: Summary of Member States' recommendations for enhancing the UIS role:

1. **Teacher Standards and Guidelines:** Member states emphasized the need for clear international standards and harmonization in teacher-related indicators, such as attrition rates, counts in the system, and teacher training. A call for an international definition of minimum teacher qualifications and training was made, including clarity on how ISCED-T could contribute to comparable definitions.

2. **Increased UIS Support for Capacity Building:** There was a strong demand for enhanced support from UIS teams, particularly in the application and understanding of ISCED. Countries stressed the importance of keeping ISCED mappings on the UIS website regularly updated to reflect the dynamic nature of national education systems and programs. Additionally, regarding benchmarking national setting, countries requested increased support to assimilate UIS's projection model as a crucial tool for countries to accurately estimate benchmark values in their unique contexts.

3. **Dissemination Strategy:** Clear guidelines for data collection, publication, and dissemination strategies were requested by member states. They sought comprehensive clarification on UIS's approach, alongside a well-defined calendar of events and sustained communication between countries and UIS.

4. **Brokerage and collaboration with relevant stakeholders:** Member states underscored the vital role of UIS in facilitating collaboration and alignment between countries and other international stakeholders. The importance of UIS as a mediator and facilitator in these discussions was highlighted, to ensure that national challenges are effectively addressed in the context of global educational standards and practices. There was a particular emphasis on the work the UIS has undertaken regarding the harmonization of assessment data and the need to support UIS in continuing this work help to the alignment of national assessments with global standards.

Table 2: Summary of issues by region

Region	International Standard Classification of Education	Administrative data	Teacher data	Education expenditure data	Household survey data	Learning assessments and skills survey data	National SDG 4 benchmarks
Arab States	-Guidance on classifying vocational and short-term courses in ISCED levels. -Mechanism to provide adult education data.	-Use of AI and Big data. -User-friendly tools and guides for higher education. -Financial support for upgrading/updating the system.	-International definitions and clearer guidance.	Not treated.	-Harmonize HHS and administrative data. -Coordination between NSO and MOE.	-Harmonize tools, methodologies and processes. -Build assessments upon LAMP.	-Reason for not using the latest data available. -Projection model used for estimating benchmark values. -Add yearly updated figures.
Asia	-Questions about the inclusion of non-formal education. -Address home schooling. -Increase attention to the transition in ISCED levels 0-2. -Rotation-based ISCED committee membership. -Coordination among different education providers. -Revision of ISCED-F.	-Difficulty in getting expenditure data by ISCED disaggregated levels. -Address home schooling. -Compiling data for Tertiary Education is challenging. -Collect data using national ID for EMIS and HHS.	-Guidelines on counting teachers who are teaching in different levels. -International definition of minimum qualification and training. -Produce data for Pupil trained teacher ratio.	-Difficulties in getting data disaggregation by levels and ministries/departments. -Challenges in collecting data from HHS. -Improved data recording systems for quality data. -Develop methodologies and guidelines for disaggregation of data by levels. -Harmonize	-Challenges in including the birth month of respondents. -Challenges in collecting data in rural areas. -Extended time required to obtain data from HHS. -How to address annual reporting. -Third-party validation to ensure data quality.	-Retention of pen and paper assessments (LaNA). -Challenges in comparability due to differences in grade levels. -Multilingual context posed a challenge. -Increased UIS support for capacity building. -Establish a validation body (of experts) to validate country specific local assessments. -Expansion of	-Consider pandemic impacts while updating benchmarks. -Introduction of 'UN ESCAP method'.

				education expenditure recording.		indicators related to gender equeality. -Address issues such as early teenage pregnancy. -Collect more data on STEM education for women and girls.	
Africa	-	-Training and workshops.	-International definitions and clearer guidance. -Properly definition of student to qualified or trained teacher ratios. -Unified questionnaire from year to year and across region.	Not treated.	-Coordination between NSO and MOE. -Standardize the timing.	-	-
Pacific	-Review ISCED on tertiary level as Universities are not in all countries. -Difficulty in mapping short term TVET programmes. -How to address programmes with both TVET and academic components.	-Capacity development, aligning EMIS with national development. -Collaboration between departments and Ministries. -Advocacy tool for countries to understand the importance of data.	-Internationally comparable definitions, using ISCED-T. -Harmonize different systems. -Difficulty in getting teacher salary data. -Difficulty in disaggregating data by education level. -Guidelines and	-Strengthen EMIS to include education expenditure data. -Linkage between education sector plan and education budget/ expenditure. -Collaboration with the Ministry of Planning/Finance.	-Uniform definitions on population groups. -MOE should provide detailed inputs for monitoring SDG4. -Collaboration between MOE and NSO.	-Clear strategies to produce learning data for targets 4.6.1. 4.7.4 etc. -Integrate learning outcome assessment in sector plans with a clear budget and results. -Harmonize national assessments with international	Not treated.

			clarity in compiling data.	-Difficulty in getting private spending.		standards. -Training on MPL and Global Competency Framework (GCF).	
Latin America and the Caribbean	Not treated.	-Standardization of methodologies. -Balance between legal protection and detailed data for effective policy making. -International support for innovation in data capture and strengthening of information systems. -Efficiency and security in data management. -Sophisticated and adaptive EMIS systems to address diverse populations and educational costs.	-Improve calculation and collection methodologies to align with international standards.	Not treated.	-Harmonization of concepts and methodologies, especially on school attendance. -Use of question models and decision trees. -Conceptually distinguish between enrollment and actual attendance. -Collaboration between NSO and educational institutions. -Review the length of questionnaires and budgetary constraints. -Standards for classifying and measuring non-formal education. -Use of emerging	-Integration of local and regional assessments with international standards. -System to monitor learning in tertiary education. -Standardize instruments to collect data on migrants. -Calibration and validation of assessment data. -Inclusion of socio-emotional skills and curricular parameters. -Mapping the Caribbean's regional assessments.	Not treated.

					technologies and tools.		
OECD	-Suggestions on how to classify professional and general higher education. -Challenges in distinguishing between formal and informal early childhood education programmes. -ISCED mappings on UIS website up to date. -A dynamic collection and reporting of ISCED mappings. -Additional variables to determine the link between ISCED requirements and data collection at the national level. -How ISCED could account for special needs education. -Additional column to collect information on the date at which reported programmes were developed and implemented in the national education system.	-	-OECD carried out a survey to estimate data availability to measure teachers' shortage. -Investigate different methodologies for calculating teacher attrition.	Not treated.	Not treated.	Not treated.	-Consider regional level targets.

Table 3: Summary of issues by area

Area	International Standard Classification of Education	Administrative data	Teacher data	Education expenditure data	Household survey data	Learning assessments and skills survey data	National SDG 4 benchmarks
Harmonization	-Standardizing and compiling internationally comparable data. -Classification of professional and general higher education. -Issues distinguishing formal and informal ECE programmes. -Guidance on classifying vocational and short-term courses in ISCED levels. -How to address programmes with both TVET and academic components.	-Collaboration and data standardization. -Capacity development, aligning EMIS with national development.	-International definition of minimum qualification and training. -Global-level definitions might not be practical. -Calculation and collection methodologies aligned with international standards. -Different types of teachers and types of trainings. -Properly define the student to qualified or trained teacher ratios.	-Harmonize the education expenditure recording.	-Non-standardized context questionnaires among various surveys. -Inconsistency in recording age. -Not using ISCED classification. -Use of question models and decision trees. -Challenge of including birth month of respondents. -Harmonize HHS and administrative data. -Uniform definitions on population groups. -Standards for classifying and measuring non-formal education.	-Harmonize tools, methodologies and processes. -Issues like comparability of grades and education levels. -Implementing AMPL assessment programmes. -Challenges in comparability due to grade levels. -Standardize instruments to collect data on migrants.	-The 'UN ESCAP method' was introduced. -Reasons for not using the latest data available. -Projection model used for estimating benchmark values.

Quality	-Additional variables to determine the link between ISCED requirements and national data collection. -More attention to the transition in ISCED levels 0-2. -Revision of ISCED-F.	-Sustained communication between countries and UIS. -Regular implementation of workshops.	-Guidelines on counting teachers who are teaching in different levels.	-Improved data recording systems for quality data. -Develop appropriate methodologies and guidelines for disaggregating data by levels.	-Collaborative partnerships to enhance quality and reliability of data. -Third-party validation. -Conceptually distinguish between enrollment and actual attendance.	-Procedural quality. -Establish a validation body (of experts) to validate country specific local assessments. -Calibration and validation of assessment data. -Multilingual context posed a challenge. -Training on MPL and Global Competency Framework (GCF).	-Quality of benchmark values.
Coverage	-Issues of decentralization of school administration to the provincial level. -Complexity of mapping the programmes run by different Ministries/departments. -Issue of not addressing home schooling in ISCED.	-Difficulty in getting expenditure data by ISCED disaggregated levels. -Home-schooling data. -Compiling data for Tertiary Education is challenging. -Collect data using national ID for EMIS and HHS. -Use AI and Big data.	-Survey to estimate data availability to measure teachers' shortage. -Investigate different methodologies for calculating teacher attrition. -Produce data for Pupil trained teacher ratio. -Difficulty in getting teacher salary data. -Difficulty disaggregating data by education level.	-Difficulties in getting data disaggregation by levels and ministries/departments. -Difficulty in getting private spending. -Strengthen EMIS to include education expenditure data. -Collaboration with the Ministry of Planning/Finance.	-The indicators that may be derived are numerous. -Challenges of collecting data in rural areas.	-Data gaps in monitoring learning at various levels and groups. -Low coverage of cross-national assessments. -Retention of pen and paper assessments (LaNA). -Expansion of indicators related to gender equality. -Address issues such as early teenage pregnancy. -Collect more data on STEM education for women and girls. -Clear strategies to produce learning data for targets 4.6.1. 4.7.4 etc.	-Consideration of regional level targets.

Reporting and monitoring	-ISCED mappings on UIS website up to date. -Concerns about mapping non-formal education. -Mechanism to provide adult education data. -Dynamic collection and reporting of ISCED mappings.	-Difficulties in implementing administrative data reporting. -Balance between legal protection and detailed data for effective policy making.	-Clearer guidance.		-Under-utilization in policy discussions and monitoring. -MOE should provide inputs for monitoring SDG4.	-System to monitor learning in tertiary education.	-Consider pandemic impacts while updating benchmarks.
Frequency	-Additional column to collect information on the date at which reported programmes were developed and implemented in the national education system.	-Questionnaire changes from year to year. -Lag in data production. -Sophisticated and adaptive EMIS systems.			-Issue of standardizing the timing of HHS. -Extended time required to obtain data from HHS. -How to address annual reporting.		-Add yearly updated figures.
Financial cost		-Financial support for upgrading/ updating the system. -International support for innovation in data capture and strengthening of information systems.	-Importance of always taking into consideration the budget.		-Review length of questionnaires and budgetary constraints.	-Financial costs.	