

Asia-Pacific Education 2030

SDG 4 Midterm Review



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Short Summary

This publication marks the conclusion of the collaborative national midterm reviews of SDG 4 achievement in the Asia-Pacific. More importantly, it represents the beginning of the final sprint to the 2030 finish line. It also serves as a comprehensive analytical and policymaking tool for all stakeholders in the region to reflect and be better prepared for the second half of the journey.

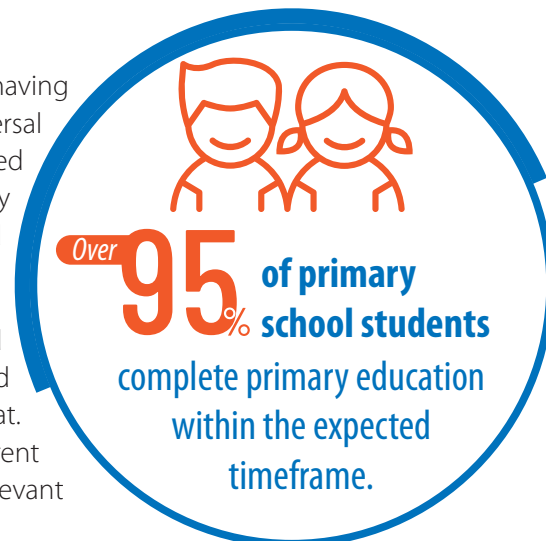
At the midway point of implementing the Education 2030 Agenda, we are observing both challenges and progress in achieving Sustainable Development Goal 4 (SDG 4) in the Asia-Pacific. The region, overall, has made advances in reaching the globally and regionally most important targets under SDG 4, yet it is still far from delivering the common commitment of the Education 2030 Agenda, to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'.

Eight years into implementation, the Asia-Pacific has shown progress, especially in improving access to lower levels of basic education, as well as expanding early childhood education (ECE). Across most subregions of Asia and the Pacific, over 95% of primary school students complete primary education within the expected timeframe, while more than 80% of children one year before the official primary entry age are enrolled in organized early childhood education.

However, participation in education is only one part of the puzzle, and the quality of learning, evidenced by limited data for the Asia-Pacific region on learning outcomes, remains concerning. More than half of students in Eastern and South-Eastern Asia do not reach the minimum proficiency level in mathematics at the end of lower secondary education.

Overall and from a regional perspective, with priorities having accelerated in ECE, primary education reaching universal participation, and higher education being consistently regarded as prestigious to accomplish, secondary education is currently the weakest link apart from the chronically undervalued technical vocational education and training path.

Fulfilling our commitment to the Education 2030 Agenda and leaving no one behind is not an easy endeavour and we need everyone on board in this unprecedented, yet necessary feat. This publication is meant to facilitate taking stock of the current situation and accelerate focused advances on the most relevant education topics for the Asia-Pacific region.



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"Since wars begin in the minds of men and women it is in the minds of men and women that the defences of peace must be constructed"

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Asia-Pacific Education 2030

SDG 4 Midterm Review

Foreword

As we reach the critical midpoint in our journey toward achieving Sustainable Development Goal 4 (SDG 4) in the Asia-Pacific region, it has become increasingly evident that we are not on track to fulfill our shared aspirations: ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all.

While encouraging progress has been made in areas such as basic education access and early childhood education participation, these advancements remain uneven across different sub-regions and countries at various stages of development. The learning disruptions related to the international public health emergency have set back our progress, exacerbating existing inequalities. However, it is important to recognize that even before the pandemic, progress was already slow in key areas such as improving learning quality.

Sustainable Development Goal 4 was founded on the principle that education is a fundamental human right and, as such, a public good. The Education 2030 Agenda is more ambitious and aspirational than any previous educational frameworks. Its success over the 15 years of its implementation hinges on national ownership and accountability, as countries must translate these aspirations into timely actions. Monitoring and benchmarking progress are crucial to preventing an accountability deficit on longer-term targets, and to ensuring transparency and comparability in national achievements.

This midterm review, outlined in the *Regional Roadmap for SDG 4 – Education 2030 Agenda in Asia and the Pacific*, is an integral part of the monitoring process. It serves as a vital instrument for countries not only to assess previous successes and challenges, but also to identify areas requiring prioritization and acceleration. This publication examines key SDG 4 indicators, highlights the most pressing challenges the region faces, and provides evidence-based recommendations to guide our efforts moving forward.

The national SDG4 benchmark setting exercise for key SDG4 indicators enhances monitoring by making it more meaningful and aligned with national education policies and planning. It also establishes consistent linkages between national, regional, and global monitoring. While continuing to develop appropriate monitoring mechanisms for these critical benchmark indicators, member states are encouraged to leverage their achievements in target-setting and incorporate these targets in national education budget and programming planning and implementation.

As we look ahead, with the year 2030 fast approaching, we encourage countries to strengthen their efforts to accelerate national progress toward our shared educational aspirations, leaving no one behind. Countries must also embrace transparency and accountability by improving the availability of key education data and statistics for SDG 4 monitoring. There will be difficulties going forward, but they are not insurmountable. We urgently need coordinated action to honor our commitment to every child and every youth, ensuring quality education and a more inclusive, better future. Our region has a proven track record of exceeding expectations, and we can certainly excel in advancing the SDG 4 agenda.

Through this midterm review, we hope the Asia-Pacific region will maintain its optimism despite challenges, and that this publication will serve as a catalyst for better coordination, planning, and implementation of SDG 4 with all involved stakeholders. We call on all member states, regional partners, and education stakeholders, including civil society and private sector organizations, to continue and expand upon successful achievements. Additionally, we urge them to develop strategies to overcome issues and challenges, and to implement the recommendations provided by the report to achieve SDG 4 in the second half of the SDGs.



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List of Contents

Executive Summary	11
I. Background to the SDG 4 Midterm Review	14
1. Purpose and Scope	15
2. Benchmarking SDG 4 in Asia and the Pacific	18
II. The SDG 4 Midterm Review	24
3. Access to and the continued participation in Basic Education is a stable but not yet common condition	25
4. Completing Basic Education with Minimum Proficiency Levels (MPLs)	28
4.1 Progress has been made in reducing out-of-school rates in the Asia-Pacific region, but rates are still high for upper secondary level	28
4.2 Upward progress in the completion of Basic Education	32
4.3 Learning is visibly divided among subregions	36
4.4 Basic infrastructure provisions are high but not for every school.....	40
4.5 Teachers are almost always trained and qualified	42
5. From Learning Readiness to Educator Expertise in Early Childhood	45
5.1 Participation in Early Childhood Education (ECE) is high but not universal.....	45
5.2 A healthy childhood development with limitations in lower-income economies.....	48
5.3 Early childhood teachers are mostly but not always trained and qualified	49
5.4 Early childhood education is most needed in countries of lower economic development	50
6. Learning Pathways beyond Basic Education	51
6.1 Higher Education continues to gain steam while TVET remains underutilized.....	51
6.2 Rethinking the benefits of university and vocational pathways.....	55
7. The Digital Divide and Missing ICT Skills facing the Digital Transformation	56
7.1 Upper secondary leading in the provision of ICT services and facilities	56
7.2 The skills divide in higher-and lower-income economies.....	58
7.3 Leveraging ICT for educational transformations depends on resource availabilities.....	60
8. Sustainability for Education and Education for Sustainability	62
8.1 Education with social and environmental responsibility in mind	62
8.2 Adult skills sustain lifelong learning	64
8.3 Many countries are not following the expenditure recommendations	66
8.4 National planning and policymaking need to be built on statistics.....	69
8.5 Education must be sustainable to deliver values of social and environmental sustainability	72
9. Impacts of COVID-19 Pandemic on Education	73
9.1 Country's response to continue learning	74
9.2 Country Resilience in Education Access and Participation despite Loss of Learning Days.....	75
9.3 Understanding the scale of learning loss using minimum proficiency level	76
9.4 Marginalized population were the hardest hit	77
III. Recommendations and the way forward	79
10 Recommendations	80
References	87
Annex	91

List of Figures

Figure 1: Proportion of countries in the Asia-Pacific region submitted national SDG 4 benchmarks, by subregion (%)	20
Figure 2: SDG 4 Indicator 4.1.7 – Number of years of free and compulsory primary and secondary education guaranteed in legal frameworks by percentage of countries	26
Figure 3: SDG 4 Indicator 4.1.4 - Out-of-school rate (both sexes), 2010, 2015 and 2021	29
Figure 4: SDG 4 Indicator 4.1.4 – Out-of-school rates, by country, for primary, lower secondary, and upper secondary levels, 2023 or the latest year available	30
Figure 5: SDG 4 Indicator 4.1.2 – Completion rate, by subregion and level, for 2010, 2015 and 2022	32
Figure 6: SDG 4 Indicator 4.1.4 – Completion rate, by country, for primary, lower secondary, and upper secondary level, for 2022 or the latest year available	33
Figure 7: SDG 4 Indicator 4.5.1 – Adjusted gender parity index - Completion rate, by country, 2022 or the latest year available	34
Figure 8: SDG 4 Indicator 4.5.1 – Adjusted wealth parity index – Completion rate, by country, 2022 or the latest year available	35
Figure 9: SDG 4 Indicator 4.1.1 – Students with minimum proficiency levels in reading and mathematics at the end of lower secondary, 2010, 2015, 2019	36
Figure 10: SDG 4 Indicator 4.1.1 – Proportion of students achieving at least a minimum proficiency level at the end of primary education and at the end of lower secondary education, in mathematics, 2019 or the latest year available	37
Figure 11: SDG 4 Indicator 4.1.1 – Proportion of students achieving at least a minimum proficiency level at the end of primary education and at the end of lower secondary education, in reading, 2021 (lower secondary) and 2018 (primary) or the latest year available	38
Figure 12: SDG 4 Indicator 4.a.1 – Proportion of schools with access to basic services and facilities in handwashing, drinking water, electricity, single-sex toilets, and disability-friendly infrastructure, by subregion and component, 2022 or the latest year available	40
Figure 13: SDG 4 Indicator 4.c.1 – Proportion of teachers with the minimum required qualifications (training pre-/in-service), by level and subregion, 2022 or the latest year available	42
Figure 14: SDG 4 Indicator 4.c.1 – Proportion of teachers with the minimum required qualifications (training pre-/in-service) compared to 4.c.3 – Proportion of qualified teachers, by level, 2022 or the latest year available	43
Figure 15: SDG 4 Indicator 4.2.2 – Adjusted net enrolment rate, one year before the official primary entry age, by subregion, 2022 or the latest year	46
Figure 16: SDG 4 Indicator 4.2.2 – Adjusted net attendance rate, one year before the official primary entry age, 2023 or the latest year available	47
Figure 17: SDG 4 Indicator 4.2.1 – Proportion of children aged 24-59 months who are developmentally on track in health, learning and psychosocial well-being, countries with available data, 2022 or the latest year available	48
Figure 18: SDG 4 Indicator 4.c.1 – Proportion of pre-primary teachers with the minimum required qualifications, 2022 or the latest year for both sexes.....	49
Figure 19: SDG 4 Indicator 4.3.2 – Gross enrolment ratio for higher education, by subregion, for 2010, 2015, 2022	52

Figure 20: SDG 4 Indicator 4.3.2 – Gross enrolment ratio for higher education, by country, for 2010–2015 and 2016–2023 or the latest year available	52
Figure 21: SDG 4 Indicator 4.3.3 – Proportion of 15- to 24-year-olds enrolled in vocational education, by subregion, 2010, 2015, and 2022 or latest year	53
Figure 22: SDG 4 Indicator 4.3.1 – Participation rate of youth (aged 15 to 24) and adults (aged 25 to 64) in formal and non-formal education and training in the previous twelve months, for countries with available data, 2022 or the latest year	55
Figure 23: SDG 4 Indicator 4.a.1 – Proportion of schools with access to basic services and facilities (computers and the Internet) for pedagogical purposes, by subregion, 2022 or the latest year	57
Figure 24: SDG 4 Indicator 4.4.1 – Proportion of youth (aged 15–24) and adults (aged 25–74) with ICT skills by level of skills, for countries with the available data, 2022 or the latest year	59
Figure 25: SDG 4 Indicator 4.7.1 – Extent to which (i) Global citizenship education and (ii) Education for sustainable development are mainstreamed in national education policies, curricula, teacher education and student assessments, for countries with the available data, 2020.....	63
Figure 26: SDG 4 Indicator 4.6.1 – Proportion of population achieving at least a fixed level of proficiency in functional literacy and numeracy skills, by country with the available data, for the latest year available.....	65
Figure 27: Framework for Action Indicator 1.a.2 – government expenditure on education as a percentage of total government spending, and 1.a.GDP – government expenditure on education as a percentage of GDP, 2023 or the latest year, by percentage of countries.....	67
Figure 28: Framework for Action Indicator 1.a.2 – government expenditure on education as a percentage of total government spending (left), and 1.a.GDP – government expenditure on education as a percentage of GDP (right), 2023 or the latest year, by income economy	68
Figure 29: Percentage of countries in the Asia-Pacific region adopting different methods of remote learning (%)	74
Figure 30: Key education indicators’ 2019 values vs. 2022 values, by sub-regions (%)	75
Figure 31: Proportion of students at the end of lower secondary education achieving at least a minimum proficiency level in 1) reading, 2) mathematics, countries in Asia-Pacific region, pre-pandemic vs. post-pandemic, both sexes.....	76
Figure 32: Change in percentage point in the proportion of students at the end of lower secondary education achieving at least a minimum proficiency level before and after pandemic, by gender and family income, by subject, in percentage point.....	78

List of Tables

Table 1: List of global benchmark indicators.....	20
Table 2: List of regional benchmark indicators for Asia and the Pacific and proposed minimum values.....	22
Table 3: Share of countries with no data for regional benchmark indicators between 2019–2023.....	22
Table 4: Capacity of National Education Data Ecosystems to Monitor SDG 4: Statistical Performance Indicator Index	70

List of Boxes

Box 1: Bangladesh ensuring equal access to all levels of education for girls and boys since 2015	26
Box 2: China advancing upper secondary education participation.....	27
Box 3: Sri Lanka advancing disability inclusive education.....	27
Box 4: The Philippine’s battle cry to improve basic education for all	30
Box 5: Indonesia increasing secondary education participation to indigenous and migrant students	31
Box 6: Sindh Girls Stipend Programme to overcome barriers to female education.....	34
Box 7: Assessment programmes to monitor learning outcomes in the region	39
Box 8: China reducing homework and off-campus training burden in compulsory education	39
Box 9: Upgrading Last Mile Schools in the Philippines.....	41
Box 10: Country initiatives on improving the teaching profession	44
Box 11: Mongolia striving for universal early childhood care and education	47
Box 12: Countries strengthening Technical Vocational Training and Education participation	54
Box 13: China promoting digital literacy	58
Box 14: Japan will continue promoting the digital transformation in education and the development of digitally skilled human resources.....	61
Box 15: India implementing literacy and numeracy formation among adults.....	66
Box 16: Mongolia’s comprehensive administrative education data collection	71
Box 17: Japan recognizes the need for standardization of, and analysis and utilization of educational data	71

Executive Summary

The year 2023 marked the midway point of the implementation of the Education Agenda 2030 – Sustainable Development Goal 4 (SDG 4). Since 2015, when the agenda for SDG 4 was adopted by UNESCO Member States, the monitoring of the advances made under this goal has been of utmost importance. With SDG 4, global and regional development aspects have been enshrined and are distinguished by global and thematic areas for monitoring.

When the first baseline review for the status of SDG 4 was carried out shortly after this goal was adopted, the Asia-Pacific region was characterized by the following observations: a need to increase ECE access; completion rates for basic education showing an upward trend; learning outcomes hinting at gender-based disparities; water and electricity infrastructure access often limited and unevenly available among school levels and geographical regions; the existence of a trained or qualified teacher workforce varied notably among countries of different economic development; and a noticeable need for equity-focused policy planning and education financing. Socio-economic disparities influenced all outcomes across education topics and data for the monitoring of SDG 4 and in particular, the socio-economic characteristics of learners was mostly scarce and heavily reliant on proxy data.

In 2020, the baseline review was followed up by the five-year progress review of SDG 4 in the region. Trends indicated that progress was occurring among Asia-Pacific countries, in particular in primary education participation and completion, extending into the lower secondary level for some but not all countries. Also, teachers' qualifications and training saw improvements. Shortcomings remained in infrastructure access, particularly in lower-income countries and therein primary schools.

Technical and Vocational Education and Training (TVET) was indicated to be affected by low participation rates and underappreciation as a learning pathway. As was noted initially at the time of the baseline review and confirmed five years later with the status review, rural and low-income families faced disadvantages in accessing a quality education. Gender, language and ethnicity were also identified as factors that often barred educational achievements in the region.

Meanwhile, over the course of eight years into the SDG 4 development agenda, monitoring efforts worldwide have gained ground, making educational data vastly more available, including retrospective data of the past. Asia-Pacific countries have contributed greatly to improving the monitoring of SDG 4 through aligning their national data collections with international standards. Although it has been pointed out that data related to skills measurements remains limited more often than not, including in the domains of literacy, numeracy, science or information and communication technology, more and more countries are showing that they are able and willing to understand their development situation based on data, which they will use to advance their respective education sectors.

At the time of the review in 2023, all Asia-Pacific countries were hit by the damaging consequences of the COVID-19 pandemic. In the post-pandemic period, regional countries have been making their education sector planning more resilient and adaptive to potential future shocks. Despite the significant challenges posed by the pandemic and subsequent school closures, which disrupted access to classrooms for millions of students, the region demonstrated resilience by implementing a variety of remote learning strategies to ensure continued education.

While shortcomings in remote learning were felt among students and teachers during the restricted period from 2020 to 2022, the region overall did not suffer a stronger setback as feared, as far as current data trends indicate. In reality, development trends are overall in line with past trajectories, indicating a slow but steady progress, while previous shortcomings remain. Challenges can be mostly attributed to areas difficult to reach and lacking service access, which exacerbates existing inequities.

Overall, the Asia-Pacific region has made notable progress in expanding access to basic education, particularly through increased completion rates and reduced out-of-school rates. Advances in teacher training are evident, with the majority now meeting minimum qualification standards. Higher education continues to be highly valued, reflected in positive enrolment growth. Information and technology skills have become more widespread, especially in upper-middle and high-income countries. Basic infrastructure, such as water and electricity, has also expanded. However, these achievements still fall short of the ambitious targets set under SDG 4, and the region is not on track to achieve most of the targets by 2030.

Challenges persist, especially in the transition towards upper secondary education. While lower secondary education completion has improved on regional level, adolescents from low- and lower-middle-income countries are prone to missing completion. Accordingly, the out-of-school rates increase from level to level and are highest at the upper secondary level. While gender plays a role in the completion of each education level, with boys more likely to miss education completion, poverty remains as the primary impediment to complete any given level of education.

The quality of basic education remains a significant concern. Progress in improving students' learning outcomes, particularly in terms of the proportion of students achieving at least minimum proficiency in reading and mathematics, has been slow and, in many cases, has regressed since 2015. Disparities in learning outcomes persist not only between countries of different economic status but also between populations of different backgrounds within the same country.

Data from individual countries also shows that learning outcomes can and often decrease from the end of primary to the end of lower secondary education. In relation to skills learning, disparities in information and communications technology (ICT) skills persist and will require a long-term approach involving the skilling-up of teachers. High-income economies are typically leading in ICT skills among their populations and overall, young people show higher ICT competencies than their adult counterparts.

ECE plays a crucial role in later cognitive and non-cognitive skills development. Participation in ECE varies across the subregions, with Central Asia showing progress and South Asia and South-East Asia showing signs of stagnation. Most children are also developmentally on track, as expressed in their health, learning and psychosocial well-being. Significantly again, countries of lower economic status tend to show a higher proportion of children not being on track developmentally.

As was the trend in previous SDG 4 review, higher education enjoys comparatively high and steadily increasing enrolment trends across the subregions, in particular in East Asia where the gross enrolment ratio for tertiary education catapulting to seven in ten youths enrolling.¹ Oceania also remained at similar levels historically. In contrast, TVET remains underutilized, despite its role in upskilling the workforce for economic development. The contradiction in this observation is that despite high aspirations for university attainment, upper secondary education participation, and completion to qualify for a university education remains a bottleneck. While vocational education pathways could offer an alternative, at least after the lower secondary level, this path is underdeveloped.

¹ East Asian regional average of gross enrolment ratio for tertiary education was estimated to be 71% for 2022 by UIS. This indicator is calculated by total enrolment in tertiary education divided by the population in the 5-year group immediately following upper secondary education.

The expansion of water and electricity infrastructure is noticeable across the subregions, whereby shortcomings remain in secondary schools in South-East Asia and specifically for disability-adapted infrastructure in every subregion. Upper secondary schools lead the way in being equipped with computer and Internet access for pedagogical services, covering most schools across the region. Primary schools, in contrast, are typically less often equipped with these necessary devices and service access. The geographic location of the type of school influences its service access, with remote schools expectedly falling short of the needed access.

Fostering social and environmental sustainability has reached the education system and is typically addressed with Education for Sustainable Development (ESD) and Global Citizenship Education (GCED). The first but limited available data on mainstreaming ESD and GCED are showing mixed results.

Countries have displayed attempts to integrate these domains across learning assessments, teacher training, curricula and policy development – yet not every country has managed to do so in every domain.

Ultimately, education financing has received closer attention and monitoring. Midway through the implementation of SDG 4, many countries made adjustments to their education expenditures, either by aligning their budgets to their national Gross Domestic Product (GDP) or to their total national public expenditure planning. However, many countries do not fall in line with either recommendation of the Education 2030 Agenda and only a few managed to align with both recommendations.

The midterm review of SDG 4 pinpoints that adequate investment is required to ensure the formation of capable and knowledgeable citizens and to ensure the education sector itself remains sustainable. Equitable spending on populations typically facing barriers to education participation need to be further integrated in national education budgeting, especially in secondary education.

Improving the qualities and outcomes of learning remain a top priority for ensuring countries' sustainable development – ranging from foundational skills in reading and mathematics in basic education to the advanced competencies needed for the 21st century, including digital literacy, environmental stewardship, and global citizenship. However, serious lack of data not only making it difficult to monitor the progress in learning, but also hindering the improvement of the quality of learning.

The region needs to pay closer attention to aligning the learning pathways, from primary to tertiary education – with the secondary education level in between being the weakest link. This approach also needs to expand job market relevant education programmes, in collaboration with universities and vocational education institutions. The latter should pursue further expansion as a vocational education can provide a skills training that otherwise would be out of reach for youth who do not qualify for university.

While the pandemic had short-term consequences on education, efforts were made to mitigate learning losses. Collaboration and solidarity among authorities and stakeholders was notable, but further analysis is recommended to assess any lasting negative impacts on specific learning outcomes.



Background to the SDG 4 Midterm Review



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- 1 Purpose and Scope
 - 2 Benchmarking SDG 4 in Asia and the Pacific



1

Purpose and Scope

The year 2023 marked the midpoint of the SDG 4 – Education 2030 Agenda, signifying our arrival at the halfway juncture in the fifteen-year journey towards the realization of this SDG. In 2015, with the adoption of the Education 2030 Agenda and its framework for action, referred to as the 'Incheon Declaration', a comprehensive, holistic and transformative vision for education was officially launched. With the mission to ensure 'inclusive and equitable quality education and promote lifelong learning opportunities for all', the Education 2030 Agenda – SDG 4 aims to address challenges in education carried forward from the prior Millennium Development Goals (MDGs) and a decision was made to progress in social, economic and environmental development.

The global adoption of the Education 2030 Agenda – SDG 4 signalled a commitment from governments worldwide to an ambitious and universal roadmap for sustainable development. In addition to its visionary aspiration, the Incheon Declaration underscores the imperative for evidence-based policies founded upon data-driven monitoring and evaluation. UNESCO has been declared as the custodian agency for overseeing the majority of all SDG 4 target areas, along with the UNESCO Institute of Statistics (UIS) as the custodian for worldwide SDG 4 education data.

In the Asia-Pacific region, the regional collaborative platform for education – Learning and Education 2030+ (LE 2030+) – has been established to facilitate the coordination and monitoring of the implementation of SDG 4.² LE 2030+ has formulated the Regional Roadmap for the SDG 4 – Education 2030 Agenda,³ which was presented during the 4th Asia Pacific Meeting on Education 2030 (APMED 2030), held in Bangkok, Thailand, in 2018. This roadmap serves as a guide and timeline for regional stakeholders to refer to. Notably, it stipulates the completion of the regional midterm review of SDG 4. This call was later reaffirmed by education ministers in the Bangkok Statement 2022, adopted at the 2nd Asia-Pacific Regional Education Minister’s Conference (APREMC-II) as the outcome document, which called on UNESCO to support Asia-Pacific Member States to undertake a midterm review of SDG 4.⁴

The significance of such a review at the midterm of SDG 4 provides education stakeholders with the opportunity to assess progress-made and to identify areas that require prioritization and acceleration, given the unprecedented disruption that has taken place both within the region and on a global scale in the education sector. The far-reaching impact of the global COVID-19 pandemic, along with the resulting public health measures, including social distancing and school closures, has cast a shadow over progress in SDG 4. Therefore, it is paramount that regional stakeholders reevaluate the state of SDG 4 implementation in the post-pandemic landscape – with the aspiration of not only recovering from the challenges but also constructing a more resilient and effective regional education system.

Emerging from the international pandemic, another catalysing event that took place in response to the concertation of education planning was the Transforming Education Summit (TES), convened by UN Secretary-General António Guterres at the United Nations Headquarters (UNHQ) in New York in September 2022.⁵ The summit elevated education to the top of political agendas to mobilize action, ambition, solidarity and solutions in order to expedite progress in achieving SDG 4. This is expected to reinforce the integration of education into overall national development policies and strategies, as intended with the wider 2030 Agenda of the SDGs.

In this context, the midterm review assumes a key role in evaluating the situation UNESCO Member States and the wider education community are in regarding achieving SDG 4. This publication evaluates progress made towards achieving the Education 2030 Agenda – SDG 4 in the Asia-Pacific region, supported by data-driven analysis as collected, compiled and processed by UIS and centred on global SDG 4 indicators and therein SDG 4 benchmark indicators, as well as thematic SDG 4 benchmark indicators relevant for the region. The regional review uses national midterm reviews as conducted independently by Member States and submitted to UNESCO Bangkok to highlight the commitments and practices individual countries have taken to shape progress in their context under SDG 4.

With the focus on selected SDG 4 indicators, there naturally comes the limitation of not exploring the entire spectrum of SDG 4 monitoring. This includes aspects such as safe classrooms, home learning environments for children below the age of five or knowledge and skills in the global citizenship and sciences domains. However, since the different thematic indicators of SDG 4 are relevant for different country contexts, they are also not consistently pursued. By concentrating on the global SDG 4 indicators, including SDG 4 benchmark indicators, this approach offers a cross-regional, relevant perspective on the progress of SDG 4.

² UNESCO, 2016. Asia and the Pacific. Regional and Sub-Regional Coordination. Access: <https://www.unesco.org/sdg4education2030/en/regional-coordination/asia-pacific/about/regional-and-sub-regional-coordination>

³ UNESCO, 2019. Regional Roadmap for SDG 4 – Education 2030 Agenda. UNESCO, Bangkok. Access: <https://www.unesco.org/sdg4education2030/en/regional-coordination/asia-pacific/about/regional-roadmap-2015-2030>

⁴ UNESCO, 2022. 2nd Asia-Pacific Regional Education Minister’s Conference (APREMC II): outcome document. UNESCO, Bangkok. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000382563>

⁵ United Nations, 2022. Transforming Education Summit. United Nations, New York, 16, 17 & 19 September 2022. Access: <https://www.un.org/en/transforming-education-summit>

The publication is separated into three main chapters, with the first main chapter introducing the review and giving an overview of the development of the SDG 4 benchmarking process, as well as outlining TES, which are both shaping further realization of the Education 2030 Agenda.

The second main chapter includes comparative data analysis on SDG 4 indicators, composed primarily of global SDG 4 indicators, as well as regional and global SDG 4 benchmarking indicators. The second chapter is further divided to focus on globally and regionally relevant topics under SDG 4, covering basic education, ECE and development, tertiary youth and adult education, ICT connectivity and skills, as well as education for sustainability encompassing ESD and GCED, adult skills and the sustainable financing of education. The impact of COVID-19 is explored in a subsequent part of the main analysis chapter.

Finally, the third chapter summarizes recommendations to direct policy attention towards the most urgent areas in the Asia-Pacific region's education sector administration and it also provides guidelines for the way forward.



2

Benchmarking SDG 4 in Asia and the Pacific

SDG 4 represent the aspirations of the global community. The success of achieving the aspirations depends upon countries translating the aspirations into actions, including setting up national benchmarks or targets. It is for this reason that in 2015, the Education 2030 Framework for Action, which is the roadmap for achieving Sustainable Development Goal (SDG) 4, called on countries to establish national benchmarks to address “the accountability deficit associated with longer-term targets”. The UNESCO Institute for Statistics (UIS) and the Global Education Monitoring (GEM) Report, which are mandated to jointly monitor progress towards SDG 4, provided support to countries to fulfil their commitment to establish national SDG 4 benchmarks on 8 indicators through a set of global processes. In addition, the UIS partnered with UNESCO Bangkok and Learning and Education2030+ Networking Group (formerly known as Regional Thematic Working Group on Education 2030+) to support countries in identifying four additional indicators for Asia and the Pacific that reflect region-specific education priorities for benchmarking.

Global SDG 4 benchmark indicators

There are altogether eight indicators for global benchmarking (Table 1). The global benchmarking process began shortly after the adoption of the SDG 4 monitoring framework by the UN General Assembly in 2017 and went through several key steps. During the first step, the Technical Cooperation Group on SDG 4 Indicators in August 2019 endorsed seven SDG 4 indicators deemed suitable for benchmarking for three reasons: data were available for most countries; the indicator followed a clear historical trend (from 0% to 100%) or a clear target (e.g. gender parity, minimum public expenditure) was associated with it; and the indicator was policy-relevant. Then, in August 2021, countries were invited to submit national benchmark values by 1 October 2021 for 2025 and 2030. The invitation was sent as a follow up to request by the October 2020 Global Education Meeting declaration for UNESCO to 'propose relevant and realistic benchmarks of key SDG indicators.'⁶

Finally, At the Transforming Education Summit in September 2022, the UN Secretary-General called for 'ways to strengthen political accountability for transforming and financing education, taking current arrangements for monitoring SDG 4 implementation including the Global Education Meetings and the national SDG 4 benchmarking process to the next level.'⁷ The SDG 4 High-Level Steering Committee (HLSC) recognized that the previously selected global SDG 4 benchmark indicators can help monitor four of seven global initiatives, as proposed during the summit. Nevertheless, additional areas considered essential for the 21st century world were discussed.

After consultation with Member States in December 2022, HLSC intends to add indicators for initiatives to the existing SDG 4 benchmark indicator framework, focusing on the themes of 'Greening Education', 'Digital Transformation' and 'Youth Participation'. While these themes were not originally formalized concepts of the Education 2030 – SDG 4 framework, they find resemblance in the thematic education targets and indicators, such as education for sustainable development and global citizenship education, as well as digital/ICT skills and infrastructure connectivity.

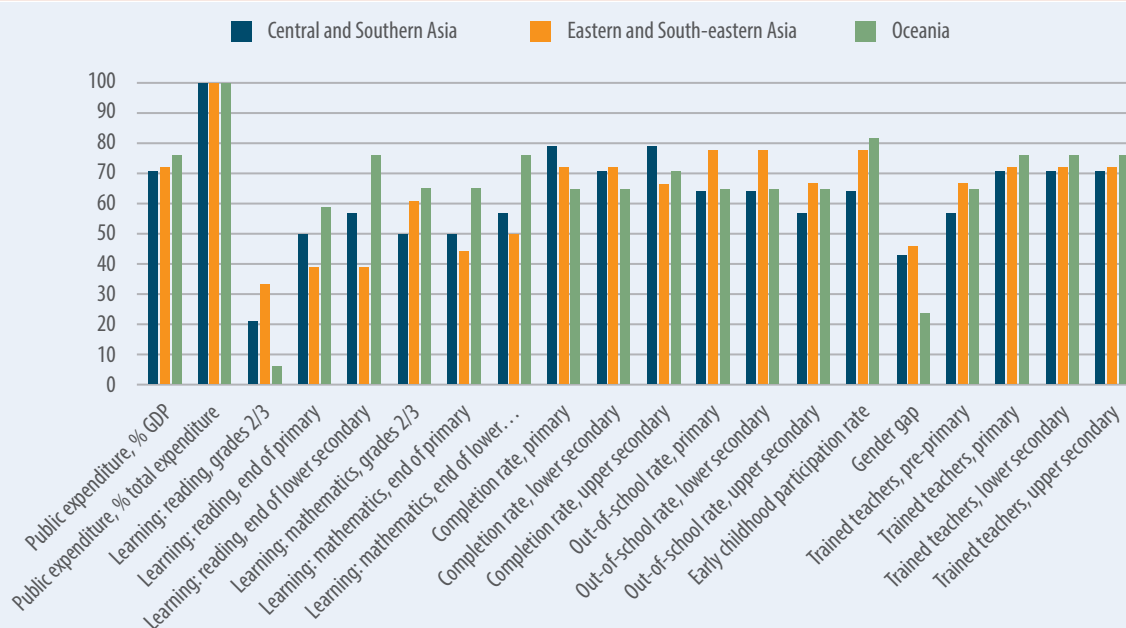
Consecutively, in August 2023, UIS engaged countries from the Asia-Pacific consultative meetings to further the benchmark adoption process. These countries were briefed on future additions of benchmark indicators pertaining to greening education and youth participation in education. To date, the benchmark indicator set has been expanded by one additional indicator readily available from the Education 2030 monitoring framework to track digital transformation by means of the proportion of schools with access to the Internet for pedagogical purposes.

⁶ UNESCO (2020). 2020 Global Education Meeting Declaration.

⁷ United Nations, 2022. Transforming Education Summit. United Nations, New York, 16, 17 & 19 September 2022. Access: <https://www.un.org/en/transforming-education-summit>

Table 1: List of global benchmark indicators

Thematic area		Indicator		Disaggregation	
Early childhood	Global Indicator 4.2.2	Participation rate one year before primary	1		
	Thematic Indicator 4.1.4	Out-of-school rate	3	(b) Primary school age (c) Lower secondary school age (d) Upper secondary school age	
Basic education	Global Indicator 4.1.2	Completion rate	3	(b) Primary (c) Lower secondary (d) Upper secondary	
	Related to Global Indicator 4.5.1	Gender gap, completion rate in upper secondary	1		
	Global Indicator 4.1.1	Minimum learning proficiency in (i) reading and (ii) mathematics	6	(a) Early primary grades (b) End of primary (c) End of lower secondary	
Digitalization	Global Indicator 4.a.1	Schools connected to the internet	3	(a) Primary (b) Lower secondary (c) Upper secondary	
Quality	Global Indicator 4.c.1	Trained teachers		(a) Pre-primary (b) Primary (c) Lower secondary (d) Upper secondary	
Financing	Global Indicator 1.a.2 and Education 2030 benchmarks	Education expenditure	2	(a) As share of total public expenditure (b) As share of gross domestic product	

Figure 1: Proportion of countries in the Asia-Pacific region submitted national SDG 4 benchmarks, by subregion (%)

Source: UIS Database, February 2024.

Overall, 87% of the countries in Asia and Pacific have set their national SDG 4 benchmarks for at least one indicator other than financing. In particular, all countries have set to dedicate target shares of public expenditure on education. In addition, over 70% of the countries in each of the sub-regions in Asia and the Pacific have also set national targets on education expenditure as share of national domestic product. This was also the case with having trained teachers at primary, lower secondary and upper secondary levels (Figure 1).

There are differences across the region in setting national targets across the benchmark indicators. For instance, 70% or more countries in Central and Southern Asia as well as Eastern and South-eastern Asia have set national targets on completion rates at primary and lower secondary levels. This was also the case with Oceania for indicators on minimum reading and mathematical proficiency at lower secondary; Central and Southern Asia and Oceania for the completion rate at upper secondary level; Eastern and South-eastern Asia for out-of-school rates at primary and lower secondary levels; as well as Eastern and Southern-eastern Asia and Oceania for participation rate one year before primary.

On the other hand, many countries are yet to set national targets on indicators regarding learning outcomes. For instance, less than 30% of countries across the region have set national targets on minimum reading proficiency at early primary grades. Half or fewer countries in Central and Southern Asia as well as Eastern and Southern-eastern Asia have set national targets on reading and mathematical proficiency at primary level. In addition, less than half of the countries have set national targets on reducing gender gaps in completion rate at upper secondary level. All countries in the region are also encouraged to set national targets on the indicator of school connectivity.

Asia and Pacific regional specific benchmark indicators

It is essential that SDG 4 implementation is connected to the regional and sub-regional priority needs. The Asia and Pacific region has been a fast developing region in the world and the countries in the region have specific challenges and priorities regarding education. Therefore, the UIS has supported the bridging of SDG 4 with regional and subregional education development frameworks.⁸

More specifically, UIS partnered with UNESCO Bangkok and Learning and Education 2030+ Networking Group (formerly known as Regional Thematic Working Group on Education 2030+) to consult countries on additional region-specific priorities of educational development for regional benchmarking, in addition to the 8 global benchmarking indicators. A series of regional and sub regional consultations were organized during March and April 2021 where country representatives discussed the relevance and approaches of regional benchmark indicators. They agreed on the key criteria for selecting regional benchmark indicators: relevance to the education development policies of the countries in the region, availability of the data, and feasibility of monitoring the indicator at regional level. Through extensive discussions among representatives of participating countries, four indicators were identified as additional regional indicators for benchmarking (see Table 2).

⁸ UIS (2021). Continental Overview: Bridging Asia-Pacific Education Monitoring Frameworks and SDG 4. Access: https://tcg.uis.unesco.org/wp-content/uploads/sites/4/2021/11/Benchmarks-Report_Asia-Pacific_Oct-2021.pdf

Table 2: List of regional benchmark indicators for Asia and the Pacific and proposed minimum values

SDG indicator	Indicator name	Minimum benchmark values		
		Central & Southern Asia	East & Southeast Asia	Pacific
SDG 4.3.1	Participation rate of youth and adults in formal and non-formal education and training	15%	15%	15%
SDG 4.3.2	Gross enrolment ratio for tertiary education	30%	40%	30%
SDG 4.3.3	Participation rate in technical vocational education programme	5%	5%	5%
-	Percentage of graduates from Science, Technology, Engineering and Mathematics programmes in tertiary education	20%	20%	-

The consultations recognized the diverse contexts of the Asia and Pacific, including income level. Taking this diversity into consideration, the consultations resulted in adopting an approach to set minimum benchmark values for each of the indicators, which is different from the global benchmarking exercise. The participants of the regional consultations also agreed to set regional minimum benchmark values for these indicators at sub regional level, which would be much useful for monitoring at sub regional level aside from better reflecting the sub regional contexts. Table 2 contains the proposed sub regional minimum benchmark values. The next step is for the regional and sub-regional entities to use these benchmark values to monitor progress.

Countries in the region will need to overcome the challenge of data gaps in the four regional benchmark indicators. As can be seen in Table 3, as many as half or more countries in the Central and Southern Asia did not report data to the UIS for have any data for the indicator on participation in formal and non-formal education and training over 2019-2023. This was the case for more than half of the countries in East and Southeast Asia for the indicator on percentage distribution of graduates in STEM programmes in tertiary education. The same was true for more than half of the countries in the Pacific for all of the three indicators for which minimum values were agreed upon for the sub-region.

Table 3: Share of countries with no data for regional benchmark indicators between 2019–2023

Indicator	Indicator name	Percentage of countries with no data		
		Central & Southern Asia (14 countries)	East & Southeast Asia (18 countries)	Pacific (21 countries)
SDG 4.3.1	Participation in formal and non-formal education and training	50%	33%	52%
SDG 4.3.2	Gross enrolment ratio for tertiary education	14%	17%	76%
SDG 4.3.3	Participation rate in technical vocational education programme	36%	28%	52%
-	% graduates from STEM programmes in tertiary education	36%	56%	-

On the other hand, around two-thirds or more countries in Central and Southern Asia as well as East and Southeast Asia had at least one data point over the five years of 2019–2023 for at least three of the four regional benchmark indicators. This means that these indicators can be used to monitor progress in these regions, even for the indicators with no data for more than half of the countries. It is important to use the indicators to inform policy discussions on these issues considered to be of particular importance to educational development in the region.

Looking ahead

Asia-Pacific region has made impressive strides in setting national targets of the global SDG 4 benchmarking indicators. In addition, it has also made progress in identifying an additional set of indicators for benchmarking that speak to the specific needs of the region in realizing the ambition of SDG 4. These will no doubt strengthen country ownership of the global goals and facilitate the translation of aspirations of the global agenda into national actions in collectively implementing SDG 4.

However, the region needs to step up efforts to finish the “last mile” in order to fully incorporate the global and regional benchmark indicators in national planning. As was highlighted, as many as 30% or more countries have yet to set national benchmarks on most of the seven global benchmark indicators and their sub-components. In particular, 70% or more countries in the three sub-regions have not set targets on the indicator measuring reading proficiency at early primary grades, and more than half of the countries in the region have not set national targets on gender equality regarding completion rates at upper secondary level. All countries are yet to set national targets on the eighth of the global benchmarking indicator, the one on school connectivity, which was adopted following the Transforming Education Summit in 2022. Certainly, countries in the region are also yet to take up the regional benchmark indicators and set national targets.

But the achievement of the SDG 4 aspirations of the region depends upon all countries coming together in finishing this “last mile” of setting national targets on all the global and regional benchmark indicators. Asia and the Pacific has built a strong foundation in incorporating the global benchmark indicators in national planning. The region should solidify this achievement and build on the strong foundation and monitor and report on the status and trends for the indicators and countries which have already set the national targets. Such monitoring and reporting should provide feedback on the achievements and gaps in progressing towards the SDG 4 goals. The feedback should stimulate reflections among regional and subregional dialogues and peer learning among countries on best practices, challenges, and solutions for setting and implementing the benchmark indicators, and encourage cross-country collaboration and coordination.

At the same time, countries should continue to get the technical and financial support that they need to address the deficits in data, capacity, or resources to set national targets on the benchmark indicators, especially the ones on reading proficiency, gender equality, and school connectivity.



The SDG 4 Midterm Review



- 3 Access to and the continued participation in Basic Education is a stable but not yet common condition
- 4 Completing Basic Education with Minimum Proficiency Levels (MPLs)
- 5 From Learning Readiness to Educator Expertise in Early Childhood
- 6 Learning Pathways beyond Basic Education
- 7 The Digital Divide and Missing ICT Skills facing the Digital Transformation
- 8 Sustainability for Education and Education for Sustainability
- 9 Impacts of COVID-19 Pandemic on Education



3

Access to and the continued participation in Basic Education is a stable but not yet common condition

A robust and inclusive education system stands as a critical enabler for national sustainable development, serving as the bedrock upon which thriving societies are built. A well-established basic education system that is accessible to all children not only transforms the lives of these children growing up, but it also paves the way for sustainable progress for their later adult life, ensuring that no one is left behind in the journey towards a better and more equitable world. Hence, SDG 4 has emphasized a free and compulsory primary and secondary education since its launch in 2015 – aiming to maximize the impact and inclusivity of basic education.

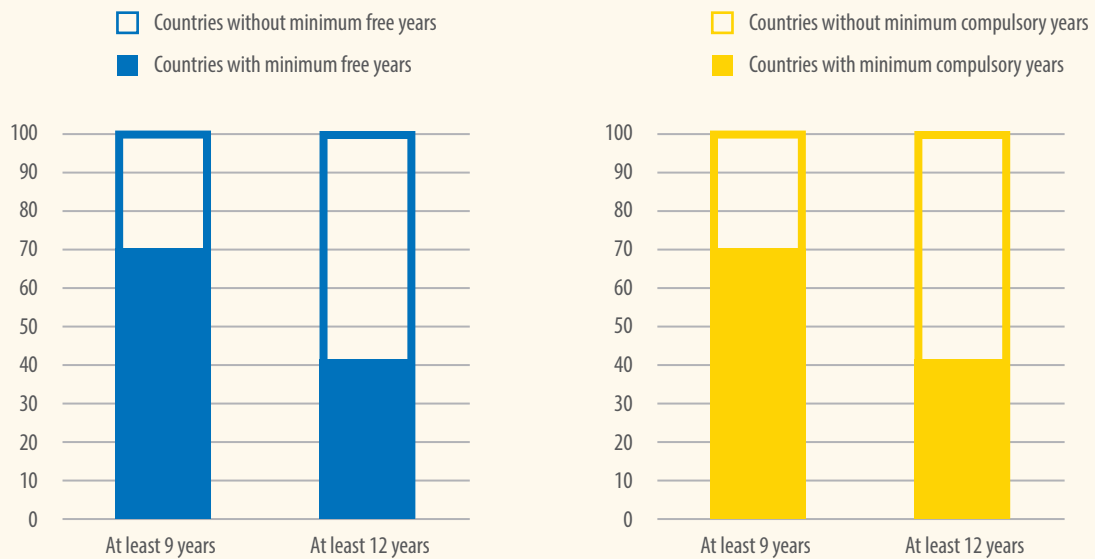
70% of countries in the region provide at least nine years of free education, covering typically lower secondary levels (Figure 2). Less than half of countries (41%) provide the legal basis for making upper secondary education free, as reflected by between eleven to thirteen years of free education. Yet, education being free is only one driver of accessing and then continuing the learning experience; being compulsory influences whether young learners participate in a full cycle of basic education up to the end of upper secondary. Lower secondary education is compulsory for 69% of the countries covering at least nine years. In contrast, one fifth (20%) of the countries consider upper secondary education compulsory.

Box 1: Bangladesh ensuring equal access to all levels of education for girls and boys since 2015

The **Bangladesh** government-led Primary Education Development Project (PEDP-4) focuses on enhancing access to a quality primary education. Emphasizing the reduction of enrolment and retention disparities, it employs targeted strategies, such as providing stipends for girls, distributing free textbooks, and establishing schools in underserved areas. In addition, specifically designed for secondary and higher secondary levels, this programme offers financial incentives to girls, serving as a catalyst for their enrolment and regular attendance. By addressing gender disparities, this initiative has elevated girls' participation in secondary education levels.

Source: Ministry of Education, 2023. National SDG 4 Midterm Review: Bangladesh. Government of Bangladesh, Dhaka.

Figure 2: SDG 4 Indicator 4.1.7 – Number of years of free and compulsory primary and secondary education guaranteed in legal frameworks by percentage of countries



Source: UIS database, November 2023.

Establishing the statutory grounds for free and compulsory education of at least nine years and corresponding to at least the completion of lower secondary education is pivotal to counter-incentivize early school leaving and ensuring better learning outcomes among adolescents before they are supposed to enter the labour market.

Box 2: China advancing upper secondary education participation

In a bid to advance universal access to primary and secondary education, **China** has introduced a tuition-free upper secondary education policy tailored to specific groups. This initiative encompasses free secondary vocational education for all rural students, including those registered in counties and towns, urban students specializing in agriculture, individuals from low-income families, and students attending schools in ethnic minority regions. Simultaneously, China has enacted a policy providing free upper secondary education specifically aimed at students hailing from low-income families.

Source: Ministry of Education, 2023. 2030 UN Agenda for Sustainable Development. China's Progress Report on SDG 4-Education 2030. Government of China, Beijing.

Box 3: Sri Lanka advancing disability inclusive education

Sri Lanka formulated a long-term Inclusive Education Plan (IEP) spanning from 2019 to 2030. This strategic blueprint delineates five domains for advancing disability-inclusive education: policy formulation, curriculum enhancement, fostering human resources, bolstering infrastructure and amplifying awareness. The emphasis in this plan rests on integrating children with disabilities into mainstream classrooms through the meticulous revision of prevailing admission protocols. To this end, the Ministry of Education pinpointed the need of enhancing the capabilities of professionals specializing in inclusive education, encompassing officers, in-service advisors and Special Education Needs (SEN) coordinators, at centralized and decentralized levels. Recognizing this need, concerted efforts have been made to recruit and position special education teachers. Furthermore, the pre-service curriculum offered by the national colleges of education are being revised to integrate inclusive education as a compulsory subject, thereby underscoring Sri Lanka's progressive stance in fostering an inclusive educational landscape.

Key initiatives include: i) A guidance manual for intellectually impaired children's education; ii) Distributing 22,000 Sinhala and 8,000 Tamil copies of the policy circular on 'providing inclusive education to all children, including providing educational facilities in respect of children with special educational needs and special needs'; iii) Crafting an adjacent guidance manual to the circular; and iv) Launching the inaugural *Teachers Guide Books: Towards Inclusive Education – Parts I & II*.

Source: National Education Commission, 2023. Sri Lanka National SDG 4 Midterm Review. Government of Sri Lanka and UNESCO, Colombo.





4

Completing Basic Education with Minimum Proficiency Levels (MPLs)

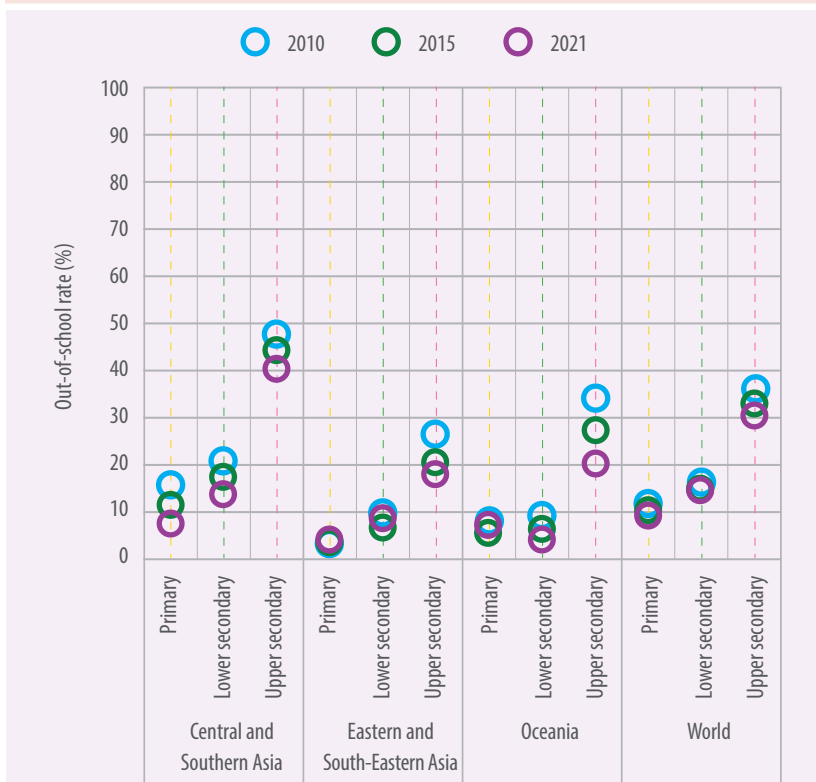
4.1 Progress has been made in reducing out-of-school rates in the Asia-Pacific region, but rates are still high for upper secondary level

The out-of-school rate is an important SDG 4 measurement that reflects challenges in accessing education and retaining participation throughout the basic education cycle. Getting young learners back in school since the COVID-19 pandemic has been a highly discussed topic in the region and around the world, with fears that all progress will be irreversibly lost.

With data collected and provided by UIS on out-of-school population estimates, available until and including 2021 when the pandemic extended around the planet, rates across the board indicate improvements for the subregions (Figure 4). Central and Southern Asia improved from 11 per cent in 2010 to seven per cent by 2021 at the primary level, while Eastern and South-Eastern Asia stood at four per cent in 2021, a marginal increase from three per cent in 2010. Oceania improved by a marginal one per cent, from eight per cent in

2010, to seven per cent in 2021. Overall, the Asia-Pacific region fares notably better, being below the world average of nine per cent of children being out-of-school.

Figure 3: SDG 4 Indicator 4.1.4 - Out-of-school rate (both sexes), 2010, 2015 and 2021



Source: UIS database, November 2023.

In lower secondary education, Eastern and South-Eastern Asia and Oceania indicated low out-of-school rates at eight per cent and four per cent, respectively. The subregion of Central and Southern Asia had the relatively highest rate of 14 per cent in 2021, previously at 21 per cent in 2010.

The upper secondary level remains a bigger concern where the most out-of-school populations are registered. In Central and Southern Asia, nearly half of all youth were out-of-school in 2010. This figure marginally improved to 40 per cent in 2021. In Oceania, the rate improved from 34 per cent in 2010 to 20 per cent in 2021. In Eastern and South-Eastern Asia, the rate improved from 26 per cent in 2010 to 18 per cent in 2021. However, since 2015, Eastern and South-Eastern Asia have improved by only two per cent, from a previous 20 per cent.

From a regional perspective, primary education is the least concerning level, with exceptions in individual countries. Notable countries of concern are Lao PDR and Cambodia in South-Eastern Asia where the primary rates increased from five per cent in 2015, to eight per cent in Lao PDR and from eight per cent to 13 per cent for Cambodia in 2022 (Figure 4). In Eastern Asia, in Macao, a Special Administrative Region of China, the primary out-of-school rate increased from 11 per cent in 2015 to 17 per cent in 2022. The Federated States of Micronesia varied in its rate, from 17 per cent in 2015, down to five per cent in 2018 and back to 16 per cent in 2022. In Pakistan, the rates at the primary level stood at 27 per cent in 2021 at the height of the COVID 19-pandemic – the highest reported rate in the region.

Box 4: The Philippines’ battle cry to improve basic education for all

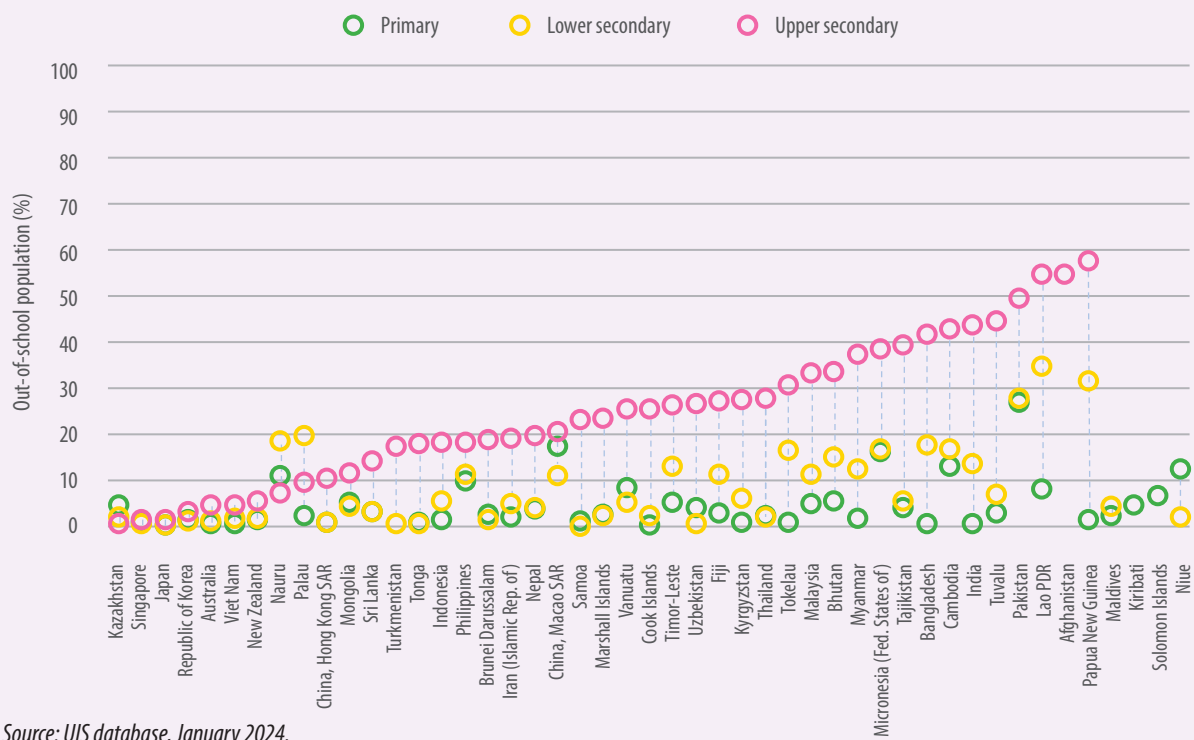
Launched in 2023, the **Philippines’** education agenda, dubbed as the battle cry, ‘MATATAG: Bansang Makabata, Batang Makabansa’ (‘A nation for the children, children for the nation’) rallies for sustained efforts from across all sectors of society to contribute to resolving pervasive challenges in its basic education sector. The MATATAG Agenda represents a new direction with redressing the curriculum to strengthen the literacy and numeracy programmes as well as foundational skills. In line with the new agenda, the National Learning Recovery Program (NLRP) has been adopted to ‘strengthen learning recovery and continuity, improve learner literacy and numeracy, and accelerate the achievement of education targets’. The NLRP consists of National Learning Camp, National Reading Programme, National Mathematics Programme, National Science and Technology Programme and other central and decentral programmes in learning outcomes.

The MATATAG Agenda further elevated attention to education for disadvantaged children and youth. For example, inclusive education programmes are to be reinforced for out-of-school learners who are missing the basic and functional literacy skills and to access equivalent pathways to complete basic education under the ‘Alternative Learning System 2.0’.

Source: Department of Education, 2024. The Philippines National Midterm Report on Sustainable Development Goal SDG 4 – Quality Education. Government of the Philippines, Pasig City.

Across the region, half of all countries were home to at least one in four youths who were not in upper secondary education. In India, Lao PDR, Pakistan and Papua New Guinea, near or above half of upper-secondary-school-age youth were not in upper secondary education. These same countries were affected the most at the lower secondary level too, with between three to four out-of-ten adolescents being out of school.

Figure 4: SDG 4 Indicator 4.1.4 – Out-of-school rates, by country, for primary, lower secondary, and upper secondary levels, 2023 or the latest year available



Source: UIS database, January 2024.



Box 5: Indonesia increasing secondary education participation to indigenous and migrant students

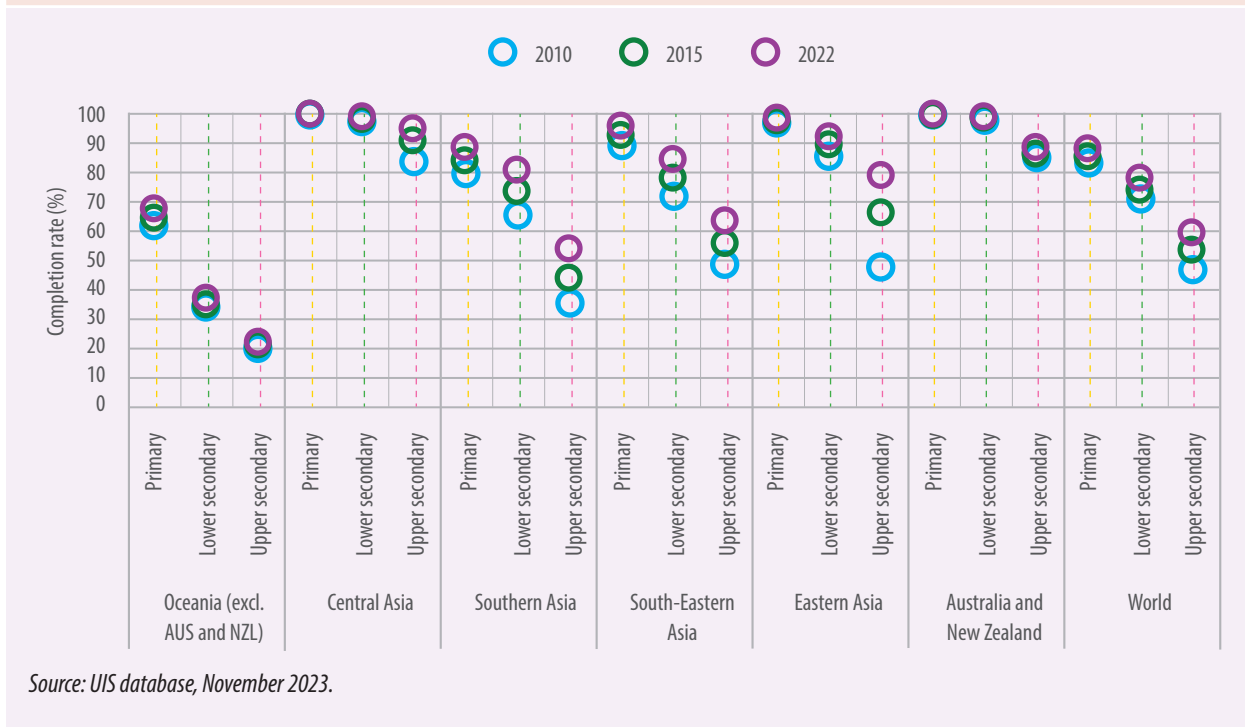
The Affirmative Scholarship for Secondary Education (*Basiswa Afirmasi Pendidikan Menengah – ADEM*) is an Indonesian government assistance programme provided to migrant students at lower secondary education level to continue upper secondary education, including vocational programmes. This programme is one of the government's efforts, through the Ministry of Education, Culture, Research and Technology (*Kemendikbudristek*), to equalize the quality of education administered by the Education Financing Service Center or *Puslapdik*. The central and regional governments are the parties that have the obligation to provide services and facilities, with the responsibility to ensure the implementation of a quality education. It is targeted at students of Indigenous Papuan (Papuan and West Papuan children) heritage, originating from special regions classified as frontier, outermost and disadvantaged, and/or of parents who become migrant workers in Malaysia.

Source: Ministry of Education, Culture, Research & Technology, Ministry of National Planning & Development, National Secretary of SDGs, National Bureau of Statistics, 2023. SDG 4 Mid Term Review. Indonesia. Government of Indonesia, UNESCO, and UNICEF, Jakarta. For more information, access: <https://adem.kemdikbud.go.id>

4.2 Upward progress in the completion of Basic Education

Completion rate for each level of basic education is an important measurement for SDG 4 monitoring. It indicates how many students in a given age group have completed the relevant level of education. While enrolment and out-of-school as its opposite reflect accessibility to the education system, the completion rate reflects the effectiveness of progression within the system.

Figure 5: SDG 4 Indicator 4.1.2 – Completion rate, by subregion and level, for 2010, 2015 and 2022



Source: UIS database, November 2023.

On a subregional basis, as per Figure 5, the Asia-Pacific has made significant progress in ensuring that children, adolescents and youths complete their respective education level. While primary education has been high in completion for most subregions since at least 2010, South-Eastern Asia has seen an additional improvement by four per cent, from a 92 per cent, to a 96 per cent completion rate. Oceania, excluding Australia and New Zealand, lagged behind and remained relatively stagnant at 67 per cent in 2022, from 64 per cent in 2010.

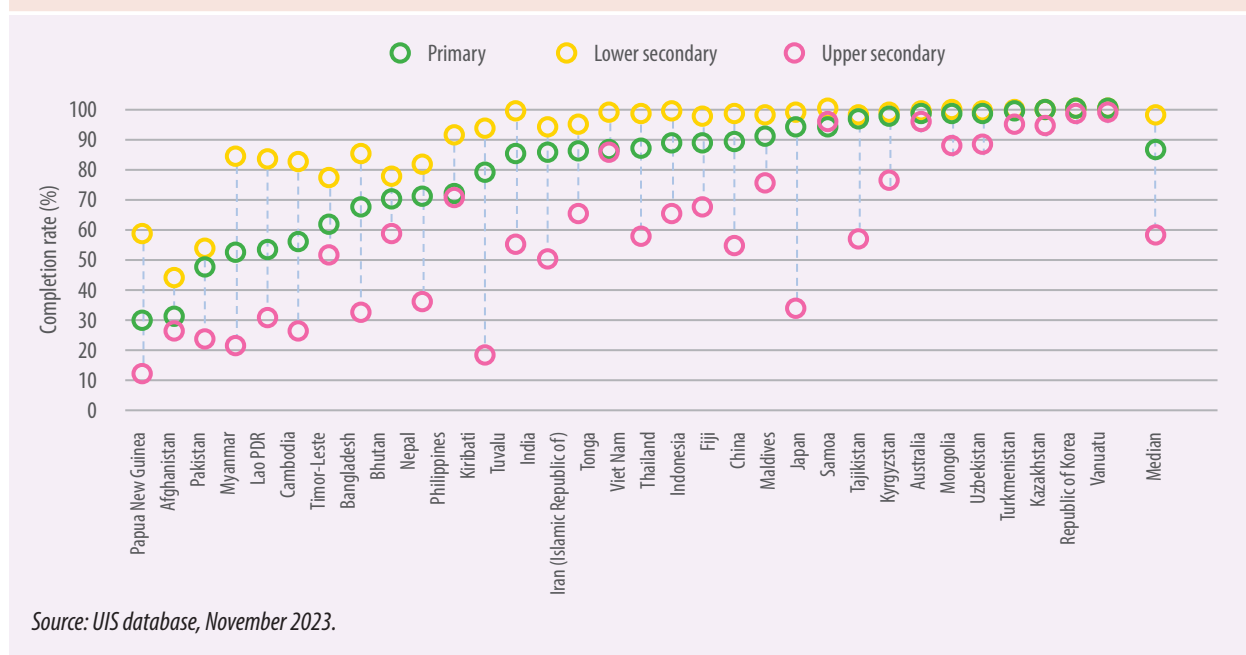
Secondary education levels showed more notable progress. Lower secondary education completion in Southern Asia improved from 66 per cent in 2010 to 81 per cent by 2022, effectively increasing the completion rate from two in three adolescents, to four in five. Similarly, South-Eastern Asia slowly but continuously improved from 72 per cent in 2010 to 78 per cent in 2015 and 84 per cent in 2022.

While upper secondary education completion achieved progress, the completion rates were significantly lower across the region. Southern Asia witnessed a little more than half (54 per cent) of its youth completing this level, compared to one in three (35 per cent) in 2010. The biggest gainer was Eastern Asia where 48 per cent of youth completed this level in 2010, two in three (66 per cent) in 2015, and 79 per cent in 2022 – effectively increasing to four in five youths successfully completing upper secondary.

A bottleneck was the most notable in Oceania at both secondary levels, which remained stagnant at around a 37 per cent and a 22 per cent completion rate, respectively.

The country data (Figure 6) depicts that the gap between the primary completion rate to secondary completion rate particularly upper secondary is still big for most of the countries in the region.

Figure 6: SDG 4 Indicator 4.1.4 – Completion rate, by country, for primary, lower secondary, and upper secondary level, for 2022 or the latest year available

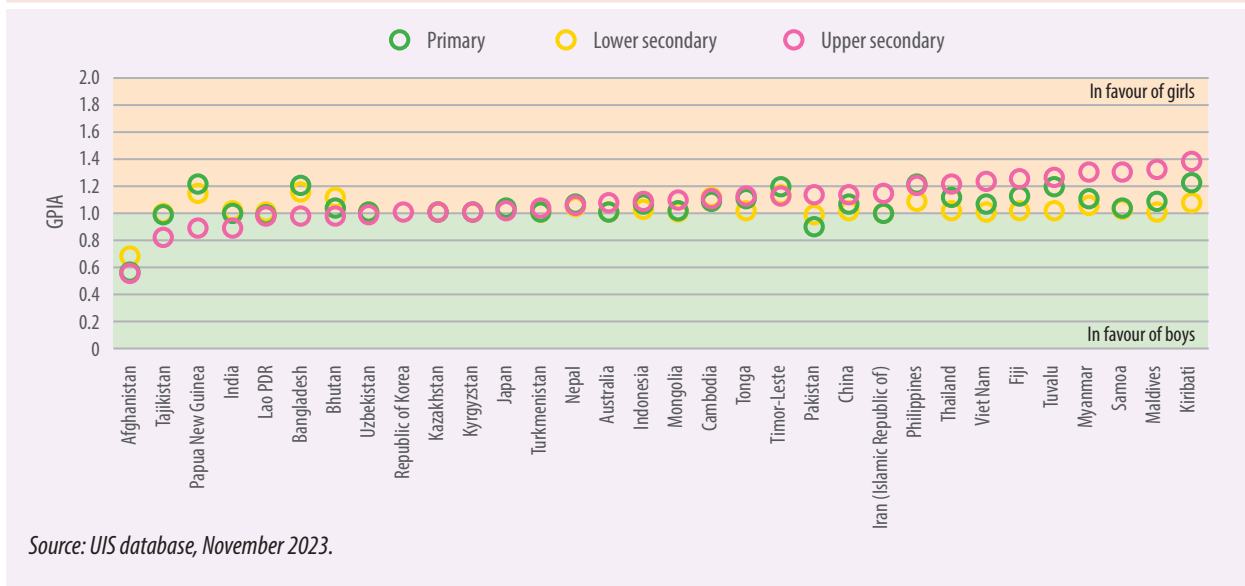


Source: UIS database, November 2023.

Gender equality in the completion of education has been adopted as the global benchmark indicator to ensure education reaches every child equally, regardless of sex. Specifically, upper secondary education has been chosen as the measure to monitor and report on gender disparities in education, as gender-based disparities are most pronounced at this level. Figure 7 shows the gender disparities for each of the three basic education levels to further highlight that the gender divide widens with each higher level – being the widest or most unequal in upper secondary education.

For the majority of countries, each higher basic education level has a wider gender disparity in favour of girls, signifying that boys generally complete less of an education compared to girls in the majority of countries. The most notable exception is Afghanistan where girls are twice as likely not to complete upper secondary, at a gender parity index of 0.5 in favour of boys.

Figure 7: SDG 4 Indicator 4.5.1 – Adjusted gender parity index - Completion rate, by country, 2022 or the latest year available



Box 6: Sindh Girls Stipend Programme to overcome barriers to female education

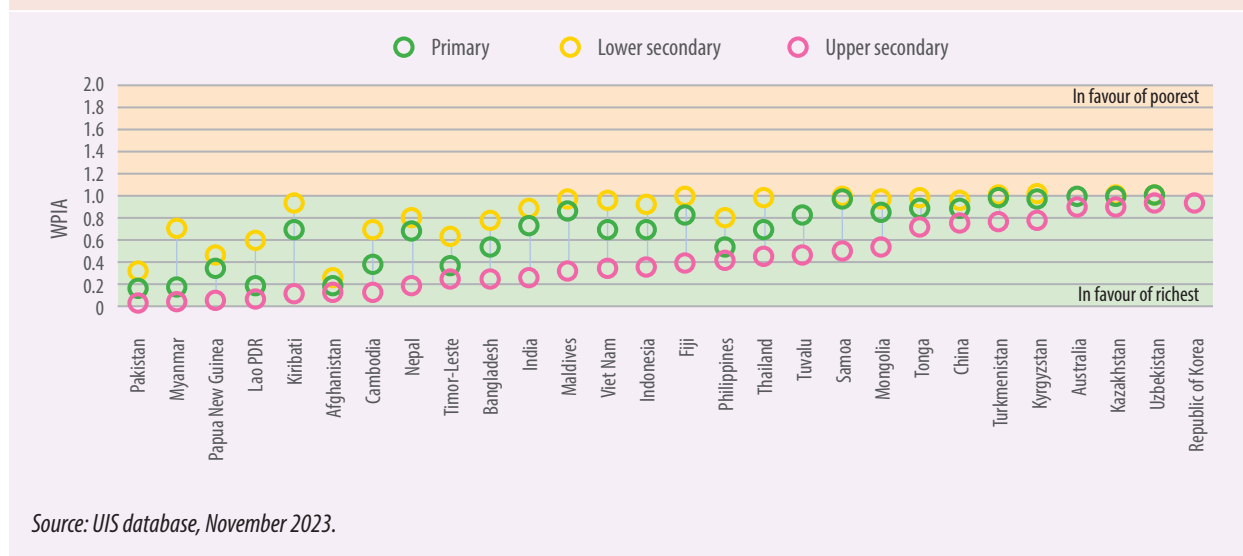
In **Pakistan**, the Sindh Girls Stipend Programme facilitates the education of female students from class six to ten in all government schools. Administered by the School Education and Literacy Department, the programme is designed to achieve several objectives:

- **Financial Relief and Incentives:** The programme alleviates the financial burden on parents, serving as an incentive for girls to pursue and continue their education. Its primary goals include reducing the dropout ratio of girls and increasing the transition rate of female students within schools.
- **Modes of Payment and Transparency Measures:** Initially distributed through the Pakistan Post via money orders, the delivery system was later enhanced for better, transparent and timely distribution. The School Education and Literacy Department transitioned to branchless banking, incorporating methods such as SMS, biometric verification, ATM cards and pin mailers to ensure transparency.
- **Procedure for stipend distribution:** The distribution process involves the following steps:
 - Collection of female students' data from schools through SAP forms via the district LSU team.
 - Data entry/cleaning using innovative OCR/ICR scanning methods.
 - Hiring a branchless banking firm through the EOI process.
 - Disbursement to the parent/guardian.
 - Complaint management to address any issues that may arise during the distribution process.

Source: Ministry of Federal Education and Professional Training, 2023. SDG 4 Quality Education. Mid-Term Review Progress Report of Islamic Republic of Pakistan. Government of Pakistan, Islamabad. For more information: <http://www.sindheducation.gov.pk/pages.jsp?page=GirlsStipendProgram-Overcomingbarriertofemaleeducation>

To provide an additional insight into equity divides (Figure 9), looking at the completion rates from a wealth perspective shows that children to adolescents and youths from the wealthiest quintiles across the region complete their respective education level more often than their poorest counterparts. Most significantly, the richest quintiles are more than twice as likely to complete the upper secondary level. The wealth parity indices stand at or near zero in Lao PDR, Myanmar, Pakistan and Papua New Guinea in lower secondary and in particular in upper secondary education, indicating that the poorest quintiles generally do not complete these levels. **Wealth is the prime factor that determines whether a child, adolescent or youth completes an education level.**

Figure 8: SDG 4 Indicator 4.5.1 – Adjusted wealth parity index – Completion rate, by country, 2022 or the latest year available



Global SDG 4 indicator

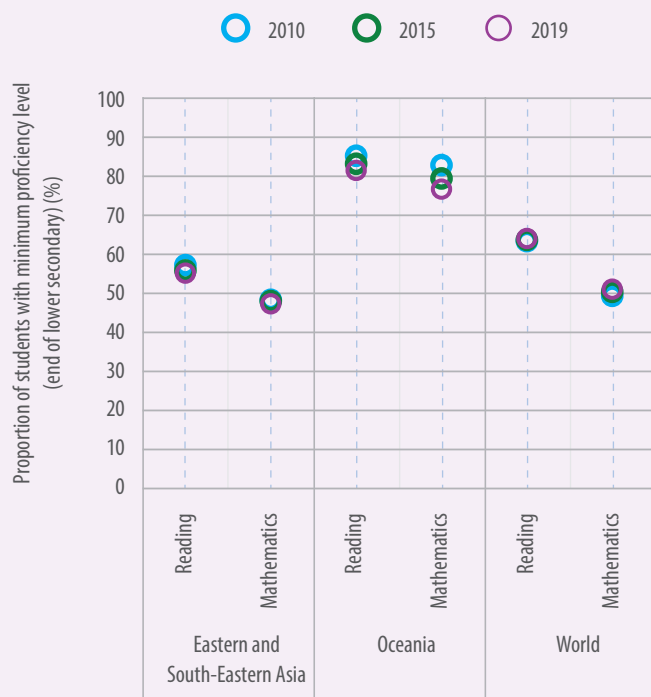


4.3 Learning is visibly divided among subregions

A consistent and rigorous assessment of learning outcomes for reliable and comparable results across time and countries is fundamental for the improvement of educational frameworks that are supposed to impart vital learning skills. Learning while attending and gradually levelling up in school is the primary objective for young learners and upcoming citizens to allow them to partake in society's subsequent pathways beyond basic education.

Although completion rates have been improving across the subregions to an extent as seen previously, completing education is only one part of the figurative equation. As the learning crisis has been debated for years, limited data for the Asia-Pacific region is available to provide a glimpse into the region's learning situation (Figure 9).⁹

Figure 9: SDG 4 Indicator 4.1.1 – Students with minimum proficiency levels in reading and mathematics at the end of lower secondary, 2010, 2015, 2019



Source: UIS database, November 2023.

Countries with the available data in Eastern and South-Eastern Asia indicated that the subregions achieve, at best, half of all learners equipped with reading and mathematics skills at the end of lower secondary education. This is more worrying, since this measure refers to minimum skills, not the complex literacy and numeracy competencies required in higher education or for participating in the labour market and public life.

In Oceania, it appears that at least four in five adolescents have been equipped with minimum reading and mathematics competencies, although a six percent point decrease from 2010 to 2019 is noticeable (Figure 11). Nevertheless, Oceania is also the subregion with the least populations, where available, but limited resources can be more efficiently used by a smaller number of learners, focused on quality instead of quantity teaching. In addition, students tested for minimum

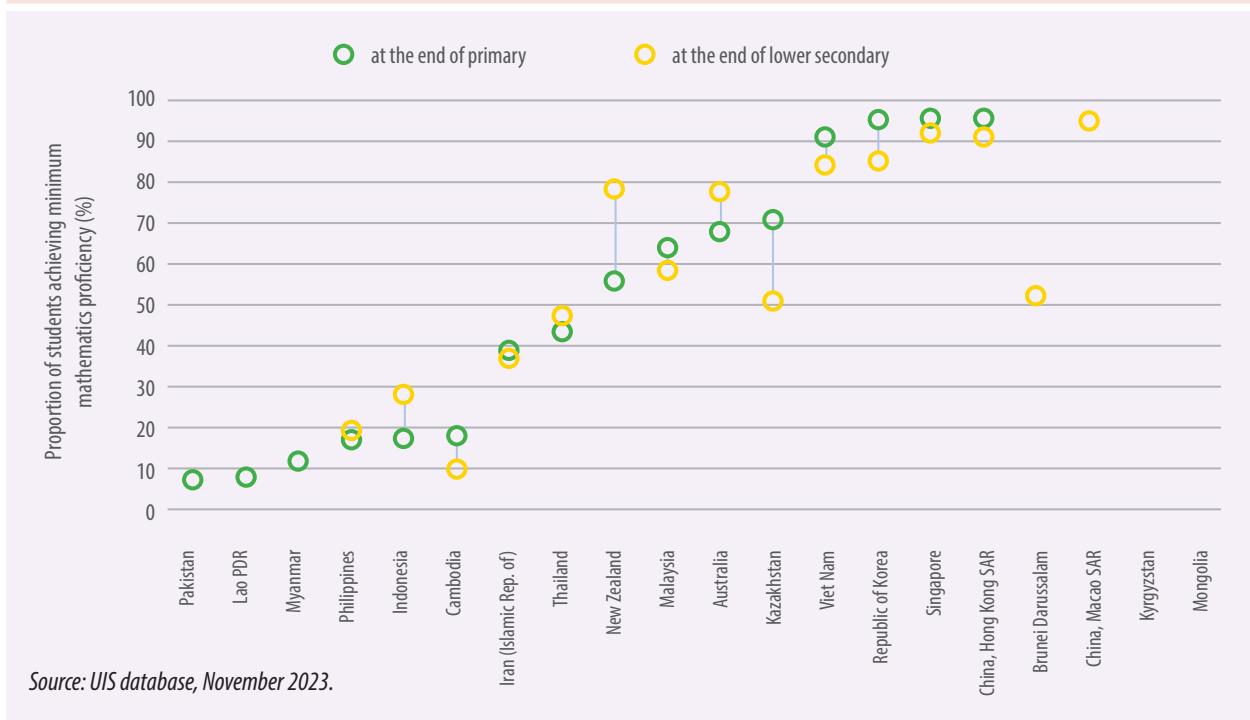
competencies may likely be those not having exited the education path prior to the end of lower secondary. It remains to point out, that from a regional perspective since 2010, learning outcomes have not improved and have even slightly decreased in some situations, for example, Oceania.

⁹ The minimum proficiency level provides a benchmark of basic knowledge in either domain as is appropriate for learners at their age and education stage. The sources of data are typically i) International and/or regional assessment programmes: Programme for International Student Assessment (PISA); Trends in International Mathematics and Science Study (TIMSS); *Programme d'Analyse des Systèmes Educatifs de la CONFEMEN* (PASEC); Pacific Islands Literacy and Numeracy Assessment (PILNA); Southeast Asia Primary Learning Metrics (SEA-PLM); ii) National assessment by standards of the Catalogue of Learning Assessments (CLA); iii) population surveys: Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA); UNICEF Multiple Indicator Cluster Surveys (MICS); People's Action for Learning (PAL) NETWORK (e.g. Annual Status of Education Report (ASER), UWEZO, etc.). For more information on the minimum proficiency level, access: <https://gaml.uis.unesco.org/>

Illustrating the proportion of students achieving a minimum proficiency in mathematics (Figure 10), the high-income economies of Hong Kong (SAR of China), Republic of Korea and Singapore show over 90 per cent of their students achieve a minimum proficiency at the end of both primary and lower secondary education.

At the same time, the lower-middle income economy of Viet Nam has seen a success story in recent years, with 84 per cent reaching a minimum proficiency at the end of lower secondary and 91 per cent at the end of primary education. The majority of countries which are not high-income economies, however, do not fare as well as Viet Nam, showing vastly different learning outcomes from as low as eight per cent at the end of primary school in Pakistan, to a still notable 71 per cent in Kazakhstan.

Figure 10: SDG 4 Indicator 4.1.1 – Proportion of students achieving at least a minimum proficiency level at the end of primary education and at the end of lower secondary education, in mathematics, 2019 or the latest year available



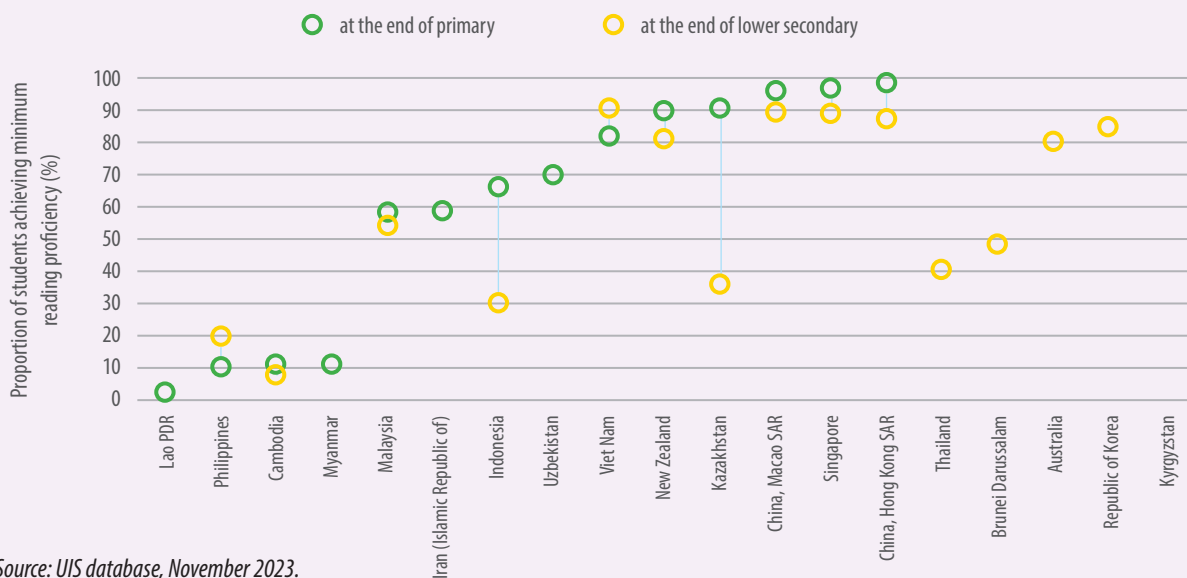
Global SDG 4 indicator and global benchmark indicator

Figure 11 shows the picture is similar among high achieving countries, with the addition of Kazakhstan, 91 per cent and New Zealand, 90 per cent, at the end of primary education in proportion of students achieving at least a minimum proficiency level in reading. Most notable in the reading domain is the steep drop of populations with minimum proficiencies at the end of lower secondary education, such as Kazakhstan with 36 per cent and Indonesia with 30 per cent, reducing their primary school achievement rates by two thirds and one-half, respectively.

In both domains of reading and mathematics, it is apparent that low proficiencies remain at the foundational level. In either reading or mathematics, proficiencies go down further by the next higher level and end of lower secondary education for many countries. The potential causes of this trend may well include increased curriculum complexity at each higher grade or prioritizing resource allocations in primary education. In any case, the proficiency decline between primary and lower secondary level suggests a gap in the continuity of learning.

As learning outcomes are low or even declining at the next higher level, countries produce a citizenry that may have completed education – or exited without its completion – but are under-skilled in the foundational domains which undermines building a resilient and thriving economy and a population that is competent to deal with the challenges of climate change and the sustainability of the planet.

Figure 11: SDG 4 Indicator 4.1.1 – Proportion of students achieving at least a minimum proficiency level at the end of primary education and at the end of lower secondary education, in reading, 2021 (lower secondary) and 2018 (primary) or the latest year available



Source: UIS database, November 2023.

Box 7: Assessment programmes to monitor learning outcomes in the region

Acknowledging the significance of obtaining timely and accurate data on learning outcomes, the Southeast Asia Primary Learning Metrics (SEA-PLM) programme has been designed by South-Eastern Asian countries to elevate learning outcomes in basic education in South-Eastern Asia. Launched in 2012 by the Southeast Asian Ministers of Education Association (SEAMEO) and UNICEF, its objective is to measure and enhance students' knowledge and skillsets, thus bolstering primary education quality in the region. SEA-PLM assists ASEAN (Association of Southeast Asian Nations) countries in establishing comparable learning assessment frameworks and tracking student outcomes.

Since its launch in 2012, SEA-PLM has fostered increased regional collaboration among South-Eastern Asian countries in the field of education, particularly in the harmonization of learning assessment tools and practices. Other than serving as a valuable resource for regional comparisons and benchmarking, through strategic capacity building initiatives, SEA-PLM has also strengthened the evaluative competencies of Member States. Furthermore, it has provided critical insights for policy formulation, identified areas for improvement and underscored the importance of global citizenship education in the Asia-Pacific region.

Other key international benchmarking programmes include the Programme for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS). These initiatives afford Asia-Pacific countries the opportunity to measure student performance against globally recognized standards.

Furthermore, individual countries have instituted national assessments to oversee student achievements. For instance, Australia implements the National Assessment Program – Literacy and Numeracy (NAPLAN) to monitor skills in reading, writing, language conventions and numeracy for students in years three, five, seven and nine. Similarly, India's National Achievement Survey (NAS) evaluates students on various curriculum competencies across multiple grades. Finally, UIS, in collaboration with six international countries, developed the Literacy Assessment and Monitoring Programme (LAMP) to gather comparative data on literacy through national household surveys.

Box 8: China reducing homework and off-campus training burden in compulsory education

China introduced the 'Opinions on Further Reducing Students' Homework and Off-campus Training Burden in Compulsory Education Stage' in 2021. This policy initiative, informed by an extensive big data evaluation, involved 18,600 training institutions, 680,000 students and 740,000 parents across 100 districts and counties in ten provinces, as well as numerous field research and demonstration projects.

Measures have been taken to reduce the extracurricular burden on primary and secondary school students. These measures include defining the amount of homework, prohibiting extracurricular training by off-campus training institutions on national statutory holidays and academic breaks, suspending registration and approval of off-campus academic training institutions in the compulsory education stage and preventing all existing off-campus academic training institutions re-registering as non-profit organizations.

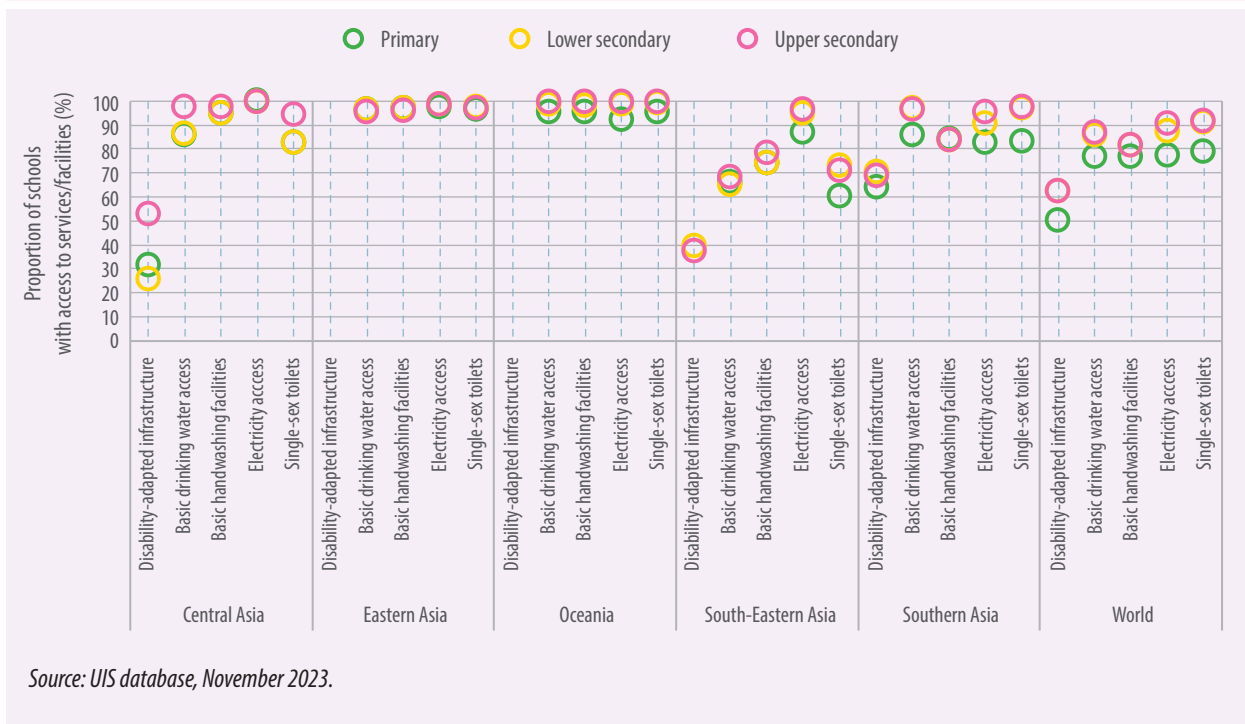
The overarching objectives of the 'double reduction' policy are to enhance the quality of classroom education and teaching, to optimize student assignments, ensure that off-campus services align with students' needs and re-establish schools as the primary learning site. The policy aims to regulate off-campus training institutions, eradicate non-compliant practices and curtail the unchecked expansion of such entities in the academic training sphere.

Source: Ministry of Education, 2023. 2030 UN Agenda for Sustainable Development. China's Progress Report on SDG 4-Education 2030. Government of China, Beijing.

4.4 Basic infrastructure provisions are high but not for every school

Inadequate access to basic infrastructure on the school campus directly impacts educational outcomes. Clean water and handwashing facilities are fundamental for drinking and hygiene purposes, playing a crucial role in preventing water-borne diseases which can lead to absenteeism and dropouts. A reliable electricity supply is critical for a conducive learning environment, to advance pedagogy with technology-integrated methods and content, to adjust classrooms to temperature changes or to ensure that sanitation facilities can rely on flowing water. Single-sex sanitation facilities are significant, especially for adolescent girls, in establishing an inclusive learning environment, as without proper and private sanitation facilities, many girls either miss school during their menstrual cycles or drop out entirely due to a lack of privacy and hygiene resources, perpetuating gender disparities in educational attainment.¹⁰

Figure 12: SDG 4 Indicator 4.a.1 – Proportion of schools with access to basic services and facilities in handwashing, drinking water, electricity, single-sex toilets, and disability-friendly infrastructure, by subregion and component, 2022 or the latest year available



Source: UIS database, November 2023.

Global SDG 4 indicator

¹⁰ UNESCO, 2020, Global Education Monitoring Report, Gender Report: A new generation: 25 years of efforts for gender equality in education. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000374514/PDF/374514eng.pdf.multi>

Basic facilities regarding handwashing, the provision of single sex toilets and electricity are predominantly a given by 2022, though stark differences exist by subregion and service provision (Figure 12). Eastern Asia, across the three levels of basic education, demonstrated near universal basic facilities, including electricity access. Oceania had similar trends, though primary education institutions show marginal shortcomings in the provision of these basics, with electricity access lacking in about seven per cent of primary schools.

In Central Asia, lower secondary schools, as well as primary schools, tend to fall off in the provision of single-sex toilets and basic drinking water, with access found to be between 82 to 86 per cent. The situation is similar in Southern Asia, where primary schools tend to be most evenly affected by a lack of services and facilities, with between 82 to 86 per cent of primary schools having the required provisions. Both lower and upper secondary schools were equally affected, with 83 per cent of primary schools having access to basic drinking water facilities.

South-Eastern Asia paints a diverse picture regarding these provisions. Basic drinking water is not a concern for two in three schools across the levels, while basic handwashing facilities are a concern for about three in four schools. Single sex toilets were available for only 60 per cent of primary schools, but this provision was improving for lower secondary and upper secondary schools to 73 per cent and 71 per cent, respectively. Electricity access is nearly universal in this subregion across the secondary level, yet it remained available to only 87 per cent of primary schools.

Disability-adapted infrastructure is the greatest shortcoming on the provision of basic services across the Asia-Pacific region, with Central Asia as well as South-Eastern Asia below the world average of 50 per cent in primary and 62 per cent in secondary education. In Central Asia, at least half of all upper secondary schools provided disability-adapted infrastructure, whereas primary and lower secondary schools diminish this provision to 31 per cent and 26 percent, respectively. In South-Eastern Asia, one in three secondary schools can show disability-adapted infrastructure. In Southern Asia, about two in three schools on average are disability-adapted.

Box 9: Upgrading Last Mile Schools in the Philippines

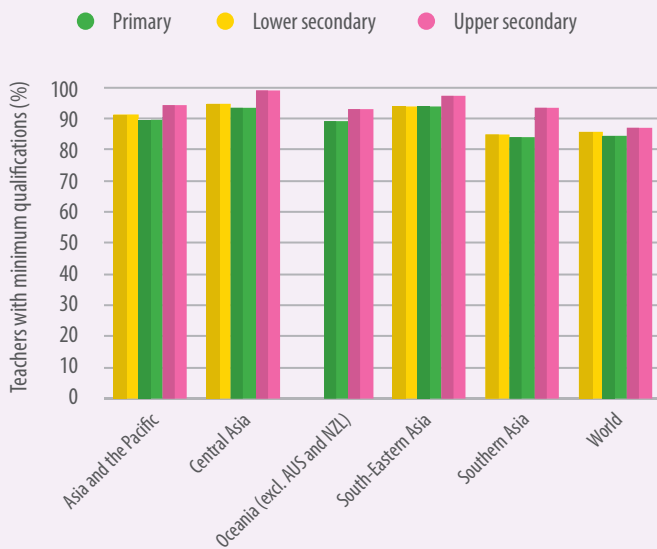
The **Philippines** government seeks to transform remote and hard-to-reach classrooms. Acknowledging the benefit of a conducive classroom environment to the overall learning performance the Last Mile Schools programme was established in 2019 with the purpose to reach learners in Geographically Isolated, Disadvantaged, and Conflict-Affected (GIDCA) regions. The Last Mile Schools programme addresses transforming makeshift classrooms into appropriate learning environments, with the adequate infrastructure and connection to electricity, in particular through the installation of solar panels where electrification has not yet been provided and improved digitalization through the provision of ICT resources.

Source: Department of Education, 2024. The Philippines National Midterm Report on Sustainable Development Goal (SDG) 4 – Quality Education. Government of the Philippines, Pasig City.

4.5 Teachers are almost always trained and qualified

Qualified and trained teacher is the pre-requisite for ensuring delivering quality teaching learning processes in the classrooms. Looking at teachers who have received at least the minimum organized pedagogical teacher training pre-service and in-service, within the respective academic year and required for teaching at the relevant level (Figure 13), at least nine out of ten teachers across the Asia-Pacific had undergone formal training to teach in their respective level. Upper secondary education has notably the highest percentage of trained teachers across the region, with the lowest rate at 94 per cent in Southern Asia. This subregion also has the lowest rate of trained teachers in primary education (85 per cent) and lower secondary (84 per cent).

Figure 13: SDG 4 Indicator 4.c.1 – Proportion of teachers with the minimum required qualifications (training pre-/in-service), by level and subregion, 2022 or the latest year available



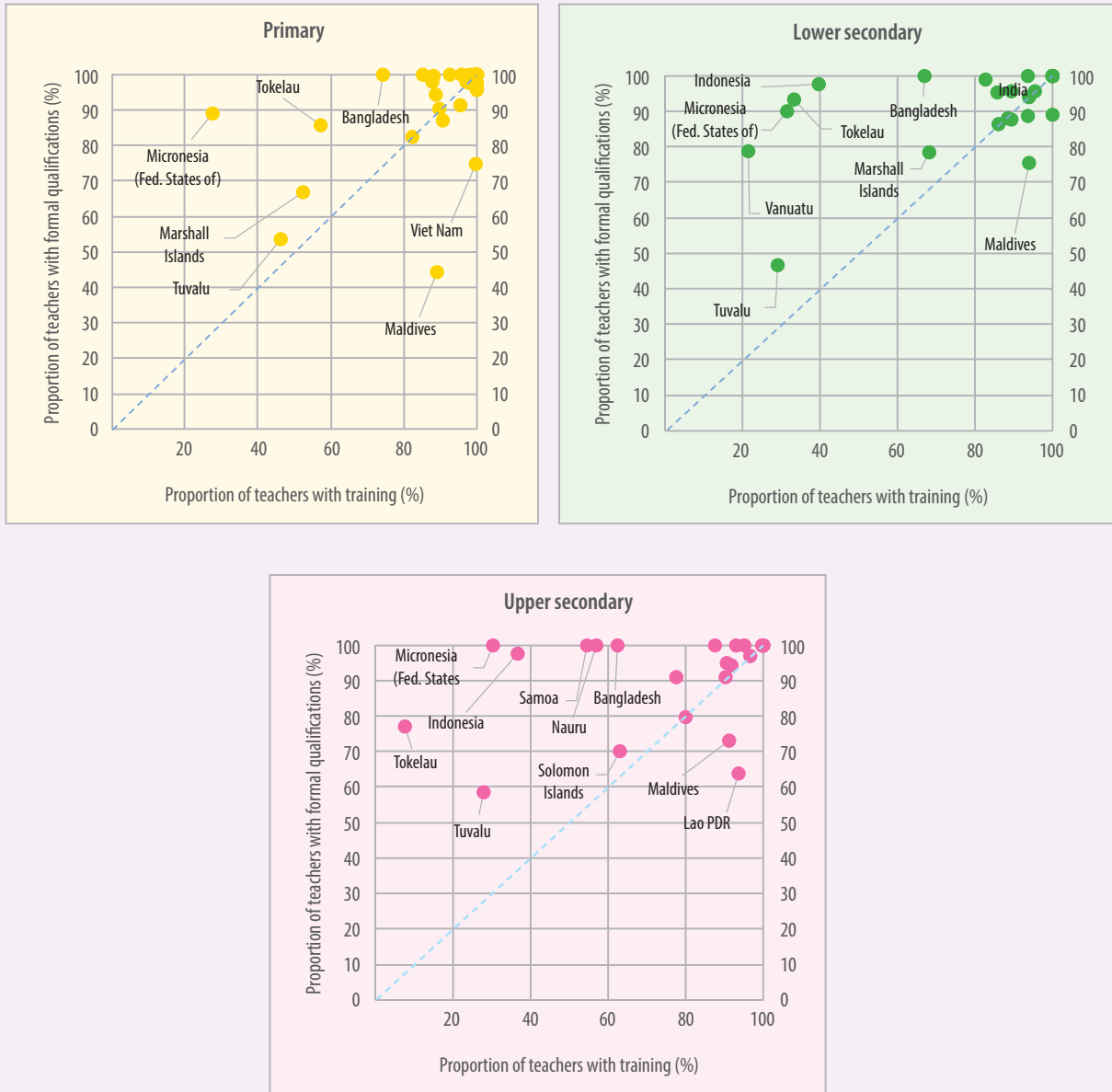
Note: Subregional data for Oceania is not available at the primary education level. Subregional data for East Asia is also not available.
 Source: UIS database, November 2023.

Comparing data on minimum organized pedagogical teacher training with formal teaching qualifications by national standards (Figure 14), this indicates that the majority of teachers who received training also hold formal qualifications for that same level. Differences depend on the level, such as at the primary level, where in the Maldives, as well as Viet Nam, the majority or all teachers had undergone training either pre- or in-service during the past twelve months of the latest academic year.

It was found that about three in four teachers held formal qualifications in Viet Nam and less than half in the Maldives. In the Federated States of Micronesia, nine out of ten teachers possessed formal qualifications, but only one in four had undergone the relevant

training. At the lower secondary level, Maldives and the Marshall Islands witnessed an increase in the proportion of formal qualifications, while in Indonesia four in ten teachers received the relevant training in comparison to nearly all teachers holding a formal qualification. The most pronounced deviations are visible at the upper secondary level, with more countries showing imbalances between training versus formal qualifications. Notable in this comparison is that the majority of countries with these imbalances are SIDS.

Figure 14: SDG 4 Indicator 4.c.1 – Proportion of teachers with the minimum required qualifications (training pre-/in-service) compared to 4.c.3 – Proportion of qualified teachers, by level, 2022 or the latest year available



Source: UIS database, November 2023.

Box 10: Country initiatives on improving the teaching profession

In a dedicated effort to enhance both teachers' content knowledge and subsequent student learning outcomes in **Pakistan**, the Khyber Pakhtunkhwa Elementary and Secondary Education Department, developed by the Directorate of Curriculum and Teacher Education (DCTE), introduced the 'Induction Training Program' tailored for newly recruited educators. This mandatory nine-month training features a comprehensive scheme of studies crafted to address the content and pedagogical requirements of recently hired teachers. The design of the programme, informed by assessment results and insights from focus group discussions, led to the curation and dissemination of subject-specific videos through a Learning Management System (LMS). Upon completion of the primary-level training resources, the programme was formally launched. This entailed the selection and training of subject experts (science, mathematics, English language and IT) who were tasked with conducting face-to-face sessions at more than 486 cluster centres across the province. Apart from manifesting pedagogical skills and professional standards, codes of conduct and sensitization to equality issues form the core of the training.

Source: Ministry of Federal Education and Professional Training, 2023. SDG 4 Quality Education. Mid-Term Review Progress Report of Islamic Republic of Pakistan. Government of Pakistan, Islamabad.

Australia is tackling the challenges of teacher demand, supply and retention through a comprehensive 'National Teacher Workforce Action Plan'. This strategic initiative aims to augment the influx into and continuity within the teaching profession. The plan strategically focuses on enhancing teacher supply, fortifying initial teacher education, retaining existing educators, uplifting the status of the profession and gaining a deeper understanding of future teacher workforce needs.

Key initiatives embedded in this plan encompass the provision of scholarships to exemplary school graduates pursuing teaching degrees, funding pilot programmes to investigate methods for alleviating teacher workload, facilitating practical and remunerated work experiences during studies and broadening entry pathways into teaching for seasoned professionals transitioning from other fields.

Source: Department of Education, 2023. Sustainable Development Goal 4 - Midterm Review. Australian response. Government of Australia, Sydney. For more information: <https://www.education.gov.au/national-teacher-workforce-action-plan>

China has implemented a series of initiatives, collectively known as the 'five plans and one subsidy', to enhance the status of rural teachers. These include the Rural Teacher Support Plan (2015-2020), Special Post Teacher Recruitment Plan, National Training Plan, Special Program for Teacher Development in Three Districts, Retired Teacher Re-employment Plan, Excellent Teacher Development Plan, and Rural Teacher Living Subsidy. Since the inception of the Retired Teacher Re-employment Plan in 2018, around 15,000 retired educators, including principals and senior teachers, have joined rural compulsory education schools. In 2021, 450 retired teachers were recruited by colleges and universities under the administration of the Ministry of Education to support 10 universities in China's western regions. The Special Post Plan, in its 16th year in 2021, has recruited over 1.3 million teachers. The different initiatives aim at different outcomes, such as the Retired Teacher Re-employment Plan and the Special Post Plan to increase the supply of teachers in rural region, while the Central Award and Allowance Policy aims to improve rural teachers' employment conditions. As a result in 2021, for example, the Central Award and Allowance Policy have benefitted nearly 1.3 million teachers with policy-guided monthly allowances to subsidize teacher deployment, and it also led to the implementation of local subsidy policies, totally benefitting more than 100,000 rural schools in over 1,800 poverty-stricken areas.

Source: Ministry of Education, 2023. 2030 UN Agenda for Sustainable Development. China's Progress Report on SDG 4-Education 2030. Government of China, Beijing.



5

From Learning Readiness to Educator Expertise in Early Childhood

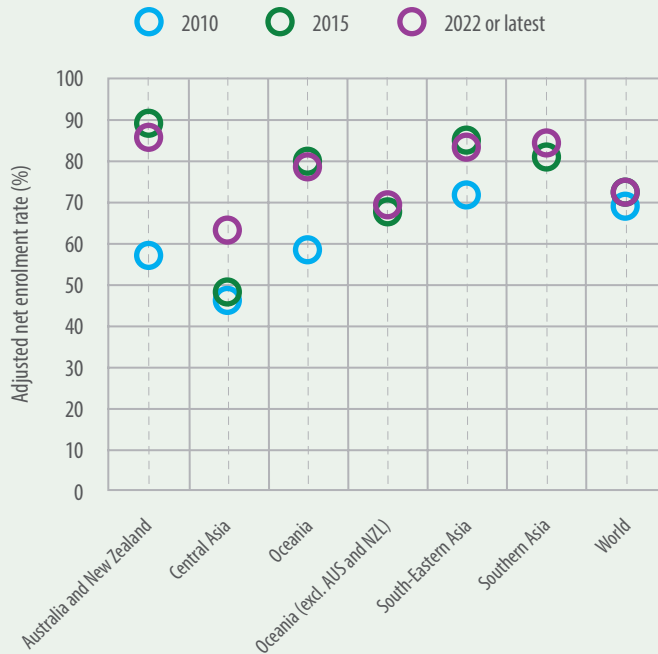
5.1 Participation in Early Childhood Education (ECE) is high but not universal

The period from birth to eight years old is a crucial childhood development stage because it is the fastest brain development period in one's life, as well as the period when children are the most sensitive to interventions.¹¹ ECE is not only preparation for primary school, it is also the foundation for emotional wellbeing and learning throughout life, as those who participate in ECE are able to improve their pedagogic understanding, their school achievement grades and maximize their income as they grow older and enter the labour force.¹² An accessible, high-quality, and inclusive ECE system remains one of the best investments a country can make as it promotes holistic development, gender equality and social cohesion.

¹¹ Black, Maureen M et al. 2017. *Early childhood development coming of age: science through the life course*. Lancet (London, England) vol.389,10064. Access: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884058/>

¹² Shariff, Abusaleh. 2018. *Cost-Benefit Analysis of Incentives and Improved Quality of Pre-school Education at Anganwadi Centers in Rajasthan*. Access: https://www.researchgate.net/publication/329706121_Cost-Benefit_Analysis_of_Incentives_and_Improved_Quality_of_Pre-school_Education_at_Anganwadi_Centers_in_Rajasthan

Figure 15: SDG 4 Indicator 4.2.2 – Adjusted net enrolment rate, one year before the official primary entry age, by subregion, 2022 or the latest year



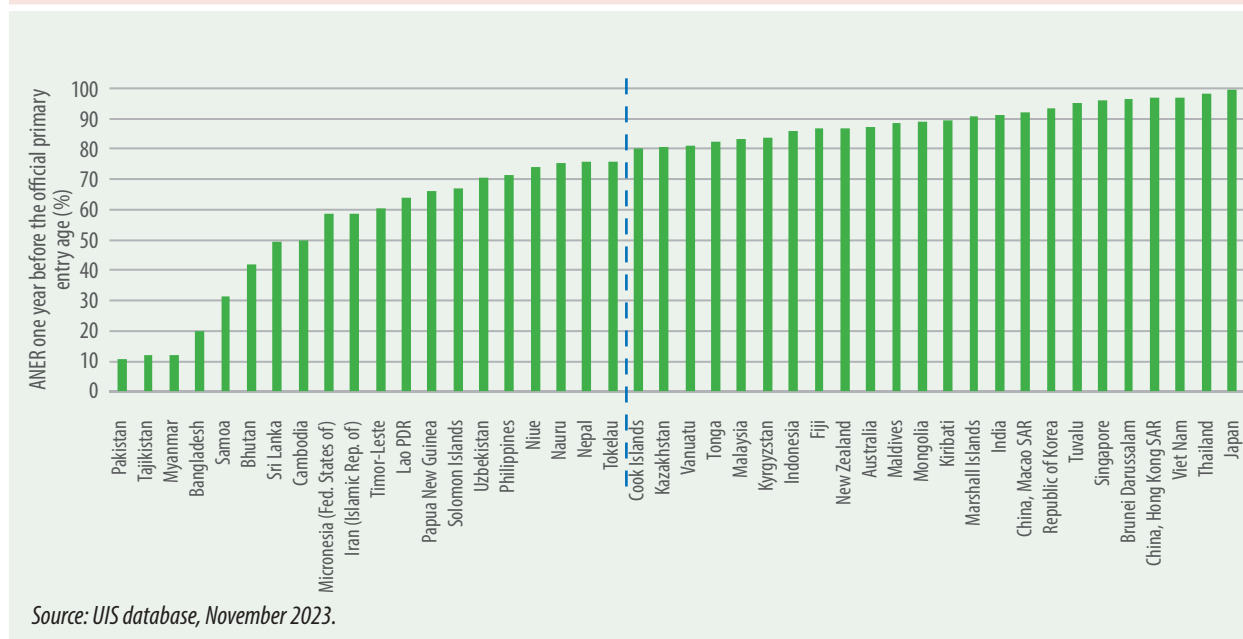
Note: Southern Asia's 2015 data point has been substituted with 2019 for illustrative purposes as no prior data has been available.
Source: UIS database, November 2023.

The UIS data shows that in 2022, at least 80% of the children one year before the official primary entry age are attending some form of educational programmes (Figure 15). Analysing the historical data, Oceania shows the greatest progress in enrolling pre-primary aged children from 58 per cent in 2010 to 78 per cent by 2022. However, in 2015 its rate stood at 80 per cent, indicating a marginal decline since the inception of SDG 4.

South-Eastern Asia made progress from 72 per cent in 2010 to 83 per cent in 2021, also contracting by a marginal two per cent since 2015. Central Asia progressed from 46 per cent in 2010 to 63 per cent in 2022, increasing from less than half to nearly two in three children. Its major progress stems from 2015, where it stood at 48 per cent, indicating that significant efforts have been made in this subregion to improve enrolments under SDG 4's implementation period.

Looking at the country data (Figure 16), among 24 of the 44 countries and economies (56 per cent), at least eight out of ten children attended some form of learning programmes. It is also noted that around 8 countries out of 44 (18 per cent) of the countries have participation rate lower than 50 per cent.

Figure 16: SDG 4 Indicator 4.2.2 – Adjusted net attendance rate, one year before the official primary entry age, 2023 or the latest year available



Box 11: Mongolia striving for universal early childhood care and education

The nurturing and development of young children stands at the heart of **Mongolia’s** values, with its cultural wisdom encapsulated in the proverb: ‘From child to man, from foal to horse’. Mongolia takes pride in a deep-rooted commitment to fostering the growth and well-being of children from an early age and the country strives to ensure universal access to preschool education for children starting at the age of two, with dedicated one-year preschool training for children aged at least three until primary school enrolment, with both regular and alternative educational pathways.

To achieve early childhood care and education for all, the state covers 100 per cent of normative expenditures per child for preschool education, irrespective of the facility’s ownership. This commitment has earned Mongolia international acclaim. Despite being classified as a low-income nation, it has been recognized for its strides in preschool education, holistic child development and robust public funding in this sector.

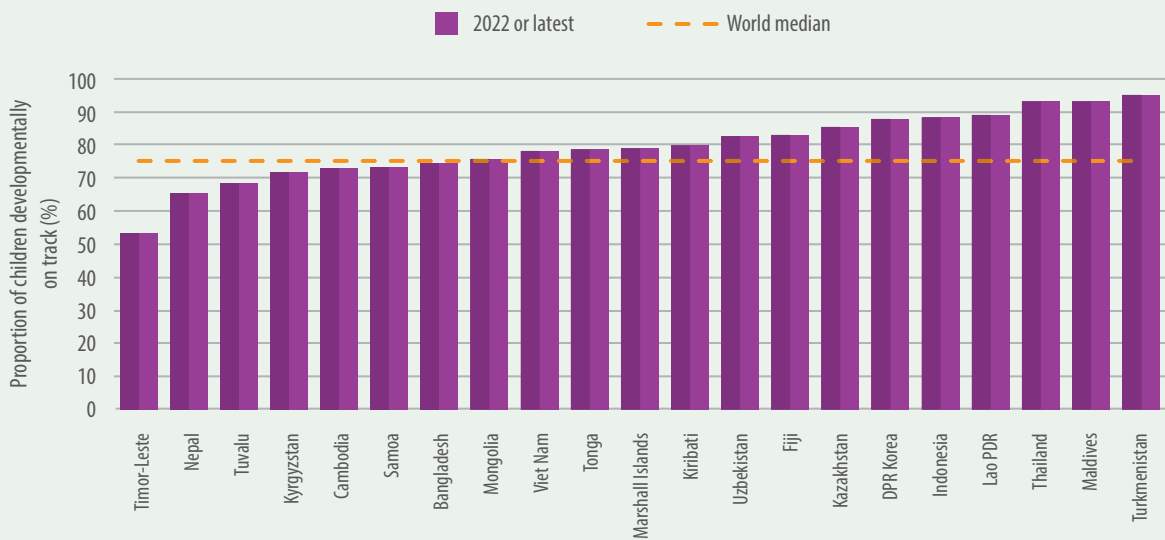
The content of the preschool curriculum supports the physical, cognitive, and social development of young children through programmes on ‘Movement’, ‘Health’, ‘Linguistics’, ‘Simple Mathematical Concepts’, ‘Nature and Environment’ and ‘Music and Fine Arts’. The success of each area of study is determined at three levels based on the age and developmental characteristics of a child. Level One is designed for two-year-olds, Level Two is for three to four-year-olds and Level Three is dedicated to five-year-olds.

Source: Ministry of Education and Science, 2022. *Mid-term Progress Report of Sustainable Development Goal 4 in Mongolia (2016-2021)*. Government of Mongolia, Ulaanbaatar.

5.2 A healthy childhood development with limitations in lower-income economies

Looking at the available data in the domains of i) Health – indicated through gross and fine motor development and self-care; ii) Learning – indicated through expressive language, literacy, numeracy capacities; and iii) Psychosocial well-being – indicated through emotional and behavioural skills, the average development of children in Asia-Pacific countries is relatively high, with 72 per cent of countries being at or above the world median of 75 per cent (Figure 17).

Figure 17: SDG 4 Indicator 4.2.1 – Proportion of children aged 24-59 months who are developmentally on track in health, learning and psychosocial well-being, countries with available data, 2022 or the latest year available

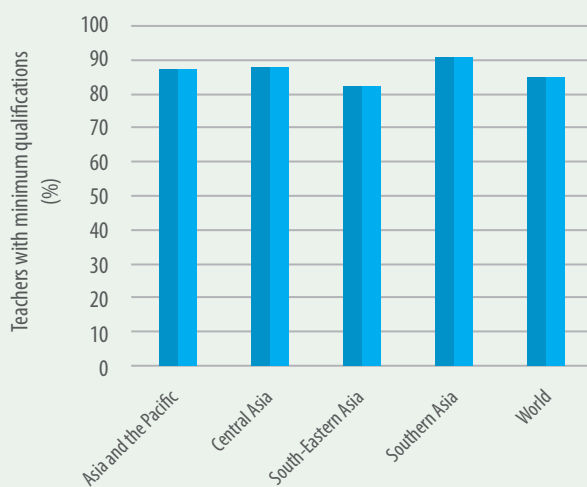


Source: UIS database, November 2023.



5.3 Early childhood teachers are mostly but not always trained and qualified

Figure 18: SDG 4 Indicator 4.c.1 – Proportion of pre-primary teachers with the minimum required qualifications, 2022 or the latest year for both sexes



Source: UIS database, November 2023.

More than 12 per cent of the teachers in pre-primary except for South Asia, do not have required minimum qualification. However, this is still higher than the global average. (Figure 18).

South-Eastern Asia is slightly behind this figure at 83 per cent – or four in five of its teachers are formally qualified by pre- or in-service training. Central Asia, at 88 per cent, and Southern Asia, at 91 per cent, indicate an average nine in ten teachers have qualifying training for pre-primary education.

5.4 Early childhood education is most needed in countries of lower economic development

Progress has been made nonuniformly in different sub-regions in the Asia-Pacific in enrolling children into ECE. While Central Asia has shown notable progress since at least 2015, upping their pre-primary participation rates, Southern Asia, South-Eastern Asia and Oceania, excluding Australia and New Zealand, though comparatively higher, have remained at stagnant levels since 2015. Lower-income countries lean towards lower ECE attendance, declining from three in four, to one in ten children.

Research shows that the social and economic success of investment in human capital in later childhood and adolescence will be influenced by the cognitive and non-cognitive skills children acquired from a quality early learning period. Children with higher levels of the prerequisite skills will benefit more than disadvantaged children and early intervention increases the efficiency of later interventions.¹³

Looking at the available data of the development of children in Asia-Pacific countries across three domains: health, learning, and psychosocial well-being, nearly three in four children aged 24 to 59 months are, on average, developmentally on track. On the other hand, countries like Nepal, Timor-Leste and Tuvalu have shown lower proportions of children on track, which could have long-lasting effects and negative impacts on children's later education stages, with shortcomings in cognitive learning readiness and other behavioural challenges.

While the Asia-Pacific region as a whole is slightly ahead of the global average in terms of the proportion of ECE teachers with the minimum required qualifications, discrepancies are more apparent when comparing the proportion of ECE teachers who are formally trained with those holding nationally acknowledged qualifications. While in some countries fewer pre-primary teachers meet national qualification standards, in other countries the exact opposite was observed, with teachers not having the formal qualifications, but they had undergone training.

¹³ Baker-Henningham, Helen and López Bóo, Florencia, *Early Childhood Stimulation Interventions in Developing Countries: A Comprehensive Literature Review*. IZA Discussion Paper No. 5282. Access: SSRN: <https://ssrn.com/abstract=1700451> or <http://dx.doi.org/10.2139/ssrn.1700451>



6

Learning Pathways beyond Basic Education

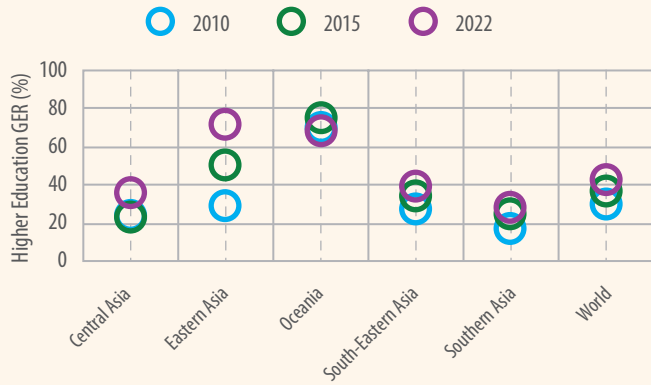
6.1 Higher Education continues to gain steam while TVET remains underutilized

Higher education is regarded 'highly' by countries in the Asia-Pacific in terms of the desirable formation of its citizens for positive economic returns to the country, as well as by families for aspiring high-prestige professions.^{14,15} In the region, many, if not most young learners, aspire to continue their basic education on the higher education path.

¹⁴ UNESCO & UIS, 2014, *Higher Education in Asia: Expanding Out, Expanding Up. The rise of graduate education and university research*. Access: <https://uis.unesco.org/sites/default/files/documents/higher-education-in-asia-expanding-out-expanding-up-2014-en.pdf>

¹⁵ Choi, Jae-Hyuk & Nieminen, Timo. (2012). *Factors influencing the higher education of international students from Confucian East Asia*. Higher Education Research & Development - HIGH EDUC RES DEV. 32. 1-13. 10.1080/07294360.2012.673165. Access: https://www.researchgate.net/publication/254267307_Factors_influencing_the_higher_education_of_international_students_from_Confucian_East_Asia

Figure 19: SDG 4 Indicator 4.3.2 – Gross enrolment ratio for higher education, by subregion, for 2010, 2015, 2022

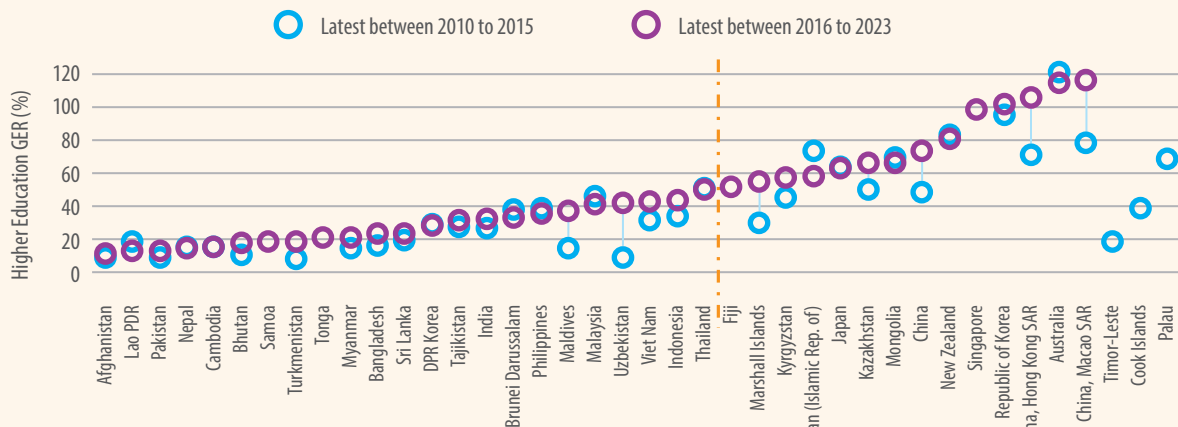


Source: UIS database, November 2023.

All the sub regions except for the Oceania, the tertiary enrolment has been showing positive trend over the period most discernible in Eastern Asia (Figure 19) which increased its enrolment ratio from 29 per cent in 2010 to 50 per cent in 2015 and 71 per cent in 2022.

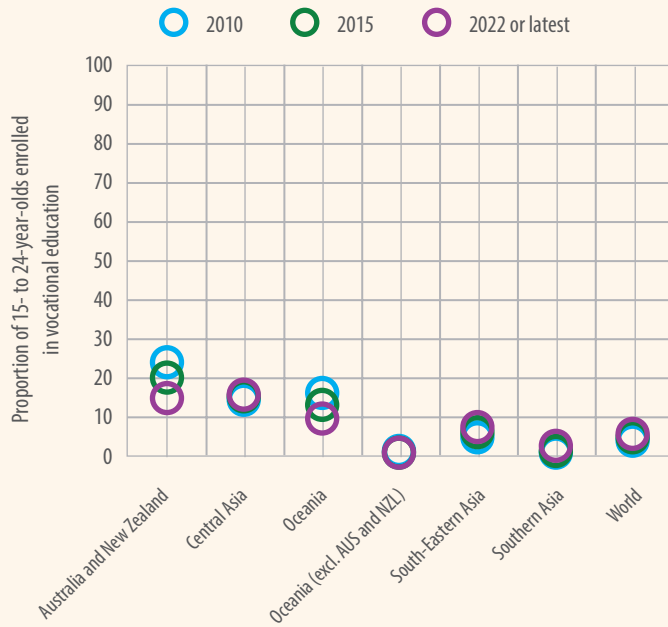
Looking into the country data, more than 42 per cent of the countries in the region for which data are available have achieved more than 50 per cent of GER for tertiary education and 55 per cent of the countries have at least 40 per cent of GER in the level.

Figure 20: SDG 4 Indicator 4.3.2 – Gross enrolment ratio for higher education, by country, for 2010-2015 and 2016-2023 or the latest year available



Source: UIS database, November 2023.

Figure 21: SDG 4 Indicator 4.3.3 – Proportion of 15- to 24-year-olds enrolled in vocational education, by subregion, 2010, 2015, and 2022 or latest year



Source: UIS database, November 2023.

The TVET education has been considered as second-class education in many countries in the region and not able to draw much attention of the general population as it should be.

Southern Asia has seen an uptick in TVET enrolments by only two percentage points since 2010 and South-Eastern Asia by only three percentage points. Oceania, excluding Australia and New Zealand, has remained at 1 per cent, while with both economies it decreased by nine percentage points since 2010 to 15 per cent by 2022. Irrespective of the country, vocational education has remained an underappreciated pathway of post-basic education.

Thematic SDG 4 indicator and Asia-Pacific benchmark indicator



Box 12: Countries strengthening Technical Vocational Training and Education participation

Indonesia's government – via the Directorate General of Vocational Education, of the Ministry of Education, Culture, Research and Technology – launched the SMK Center of Excellence program (SMK PK) to boost vocational secondary schools in terms of quality and performance through partnerships with businesses, industry and local governments. The SMK PK focuses on the key sectors of machinery and construction, creative economy, hospitality, care services and other priorities related to foreign cooperation or maritime and agriculture sectors. SMK PK schools become reference points and hubs for surrounding schools, driving overall performance and quality improvements. This programme coordinates with vocational universities as mentors to ensure that vocational education in Indonesia becomes more integrated with the industrial world and in accordance with the needs of the labour market.

Source: Ministry of Education, Culture, Research & Technology, Ministry of National Planning & Development, National Secretary of SDGs, National Bureau of Statistics, 2023. SDG 4 Mid Term Review. Indonesia. Government of Indonesia, UNESCO, and UNICEF)

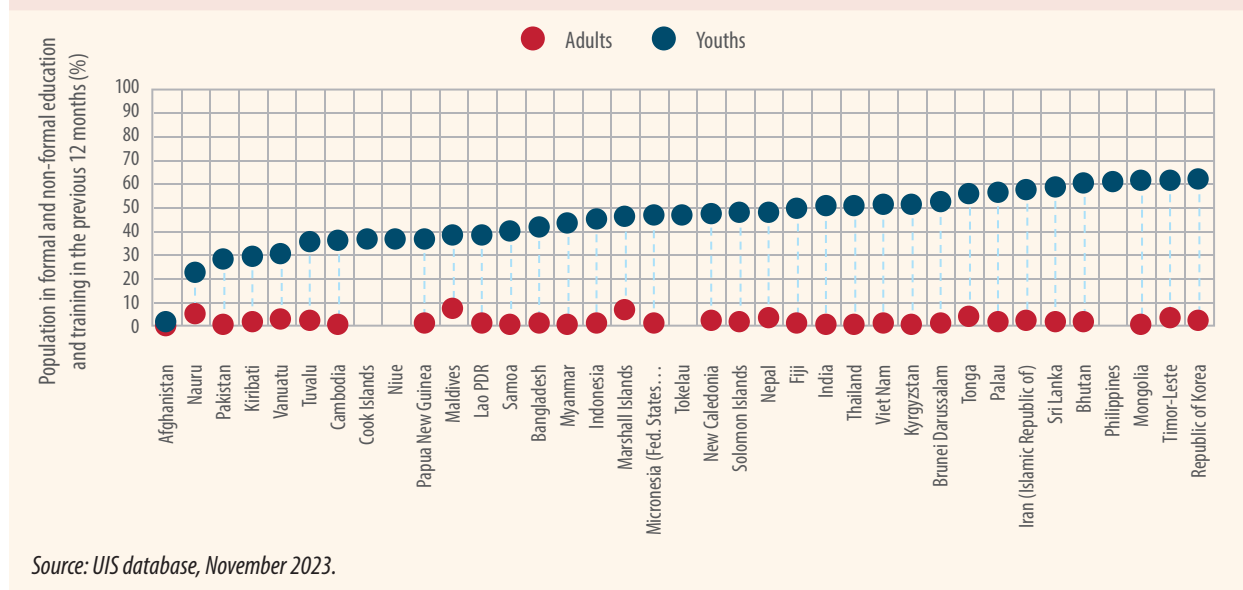
In 2017, **Kazakhstan** initiated the 'Free TVET for All' project, providing young people with a vocational qualification without any cost, in a bid to bring about socio-economic changes in the country. This initiative has been implemented since in response to a growing demand for skilled workers. Since its inception, the initiative has been instrumental in benefiting over 300,000 young people to secure their foundational vocational specialties. The programme seeks to support, especially socially vulnerable youth by offering services such as hot meals, stipends and complimentary transportation. There has been a notable decline in the dependence on unskilled labour, and a drop in youth unemployment rates. To further amplify these efforts, the national budget has been committed to expanding educational offerings to reach an additional 225,000 training slots, with a phased increase year by year. Moreover, recognition centres now validate learning outcomes derived from both formal and informal educational centres, as mandated by Kazakhstan's professional qualifications law in 2023.

Source: Ministry of Education of the Republic of Kazakhstan, 2023. National Mid-Term Review Report on SDG 4. Government of the Republic of Kazakhstan).



The participation of youths and adults in all forms of education, formal or non-formal, in the previous 12 months from the year of data availability shows a relatively high participation rate for the youth group (Figure 22). Two third of the countries for which data are available have at least 40% of their youth (15-24 years age) have participated in formal, informal and training programmes in last 12 months. Correspondingly, only two per cent of adults aged over 24 are, on average, involved in any form of education. This clearly shows that after passing the formal education age, population in the countries in the Asia and Pacific do not have a viable access to learning opportunities.

Figure 22: SDG 4 Indicator 4.3.1 – Participation rate of youth (aged 15 to 24) and adults (aged 25 to 64) in formal and non-formal education and training in the previous twelve months, for countries with available data, 2022 or the latest year



Source: UIS database, November 2023.

Global SDG 4 indicator and Asia-Pacific benchmark indicator

6.2 Rethinking the benefits of university and vocational pathways

Higher education is highly valued as a means for individuals to advance their careers and lives in the Asia-Pacific, which explains the notable increase in enrolment in universities over the past decade in this region. Central Asia, Southern Asia, and South-Eastern Asia have seen positive growth in the higher education enrolment rate.

On the other hand, vocational education remains an undervalued option in the Asia-Pacific compared to higher education, with enrolment rates staying in single digits for most subregions and showing no significant increase over the past decade. Given TVET’s crucial role in upskilling the workforce and in promoting sustainable development, as well as its relatively lower cost per student, it is worthwhile for governments to put more effort in promoting TVET and other practical training as viable alternatives to higher education. In some cases, there might be a misunderstanding on skills imparted through TVET programmes, which leads to scepticism about the efficacy and relevance of TVET.

ODA, in the form of scholarships, has been monitored as an aid from developed nations to support economic and social progress in developing countries. Although international reporting concluded at the end of 2020, attention to this form of education aid should not be discarded given its meaning for potential opportunities for those in less affluent countries, with added learning opportunities internationally.



7

The Digital Divide and Missing ICT Skills facing the Digital Transformation

7.1 Upper secondary leading in the provision of ICT services and facilities

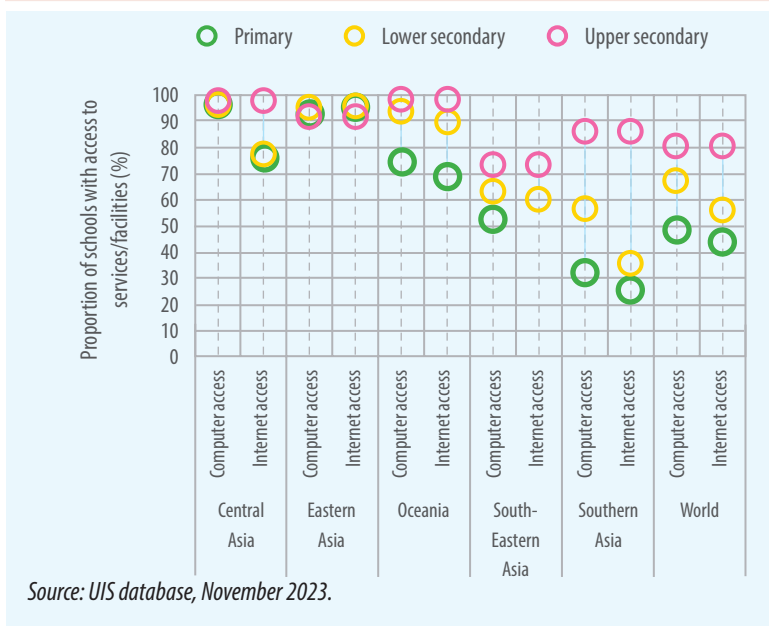
After the global COVID-19 pandemic instigated a radically different approach to education delivery, digital education transformation has been high on national and international agendas. Most, if not all, countries seek to integrate digital approaches into education, either by acknowledging the pedagogical potential or in anticipation that such a need could arise again.

Kazakhstan reported in its national SDG 4 midterm review that the digital transformation of education has been spurred by COVID-19, with long-term delivery effects. Educational institutions have been given the opportunity to transfer students to distance learning, regardless of their forms and courses of study. Students have the opportunity to study remotely, not exceeding 20 per cent of the time for the entire period of study, in accordance with the working curriculum.

It has become clear that digital innovation in education complements, enriches and transforms pedagogy. It can significantly expand the access of education in developing countries, reaching marginalized populations and thereby strengthening inclusion.¹⁶ Digital transformation was raised as an important thematic action track at TES in 2022, seeking to mobilize new commitment and leveraging existing initiatives to harness the advantages of digital technology for education.

School Connectivity for teaching and learning

Figure 23: SDG 4 Indicator 4.a.1 – Proportion of schools with access to basic services and facilities (computers and the Internet) for pedagogical purposes, by subregion, 2022 or the latest year



There has been improved trends in school connectivity for pedagogical purposes in the region. The Central Asia and East Asia both have high proportions of schools using computers and internet for pedagogical purposes for all the levels. Oceania at least for upper secondary have almost universal levels of using internet and computers for teaching learning processes (Figure 23).

In South-Eastern Asia and South Asia and lower proportion of schools using internet and computer for pedagogical purposes compared to east Asia and Central Asia. However, it is common that compared to primary levels, use of technology becoming for prominent in many of the countries in the Asia and Pacific.



¹⁶ UNESCO, 2022. UNESCO-Huawei Funds-in-Trust: Technology-enabled Open Schools for All project. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000382572>

7.2 The skills divide in higher-and lower-income economies

Other than access to the necessary hardware, raising students' and teachers' digital literacy is another foundation for the digital transformation of education. In today's rapidly evolving digital era, ICT skills form part of social interaction, personalized ways of self-discovery and expression, as well as economic activities in almost every industry. To prepare students for the labour market, navigating the digital world of information and proficiency in ICT is no longer a luxury, it is a necessity.

Investigating youths' (aged 15 to 24) and adults' (aged 25 to 74) ICT skills, Figure 24 shows that the proportion is overall particularly low among adults, with significant ranges among youth in the Asia-Pacific. Across the type of skill and country, about one-third of youth and adults possess the relevant ICT skills.¹⁷ The easier and more routine type of skills, such as editing content by means of copying and pasting in a document or managing emails, are typically higher than the arguably more difficult process of connecting a device and setting up software or writing a computer programme.

Across the 'basic skills', in almost all of the countries in Asia, with the available data, at least half of the youth populations possessed the relevant skills, with notable shortcomings in Pakistan and the Islamic Republic of Iran. Notably, this pertains to executing basic productivity tasks involving the copying of information contained in digital documents and sending emails.

Regarding adults, the most basic skills are only present in around half of this age group. Across the next higher level 'standard skills', the youth group also falls short to at best half of them having 'standard skills' and this is primarily related to downloading software. This skill set decreases dramatically among adults, with only the Republic of Korea showing an adult group of above four in five able to download and install software, comparable to their youth counterparts.

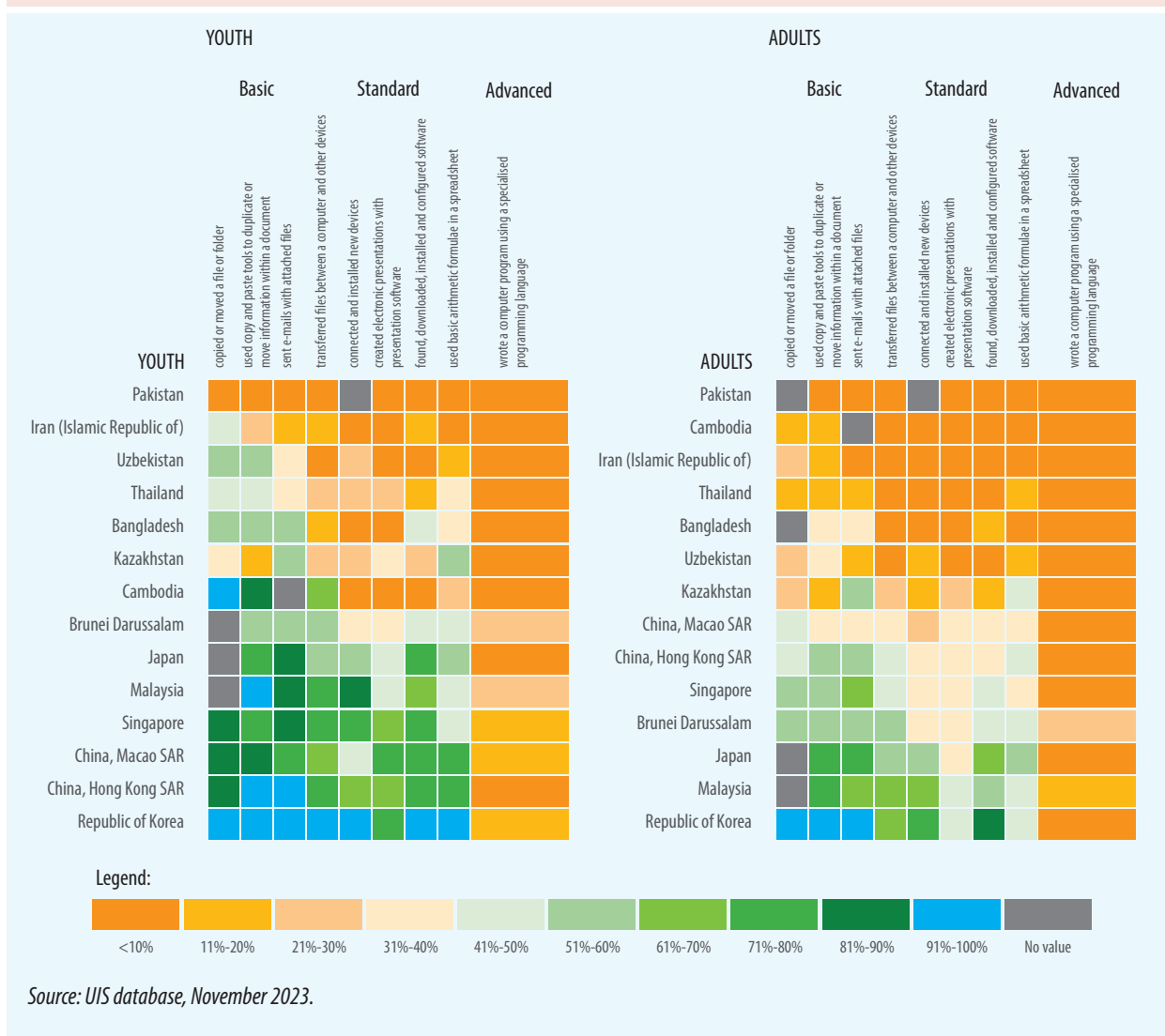
Box 13: China promoting digital literacy

In China's evolving educational landscape, information technology education is being emphasized in primary and secondary education. It seeks to sculpt informed, innovative and responsible digital citizens poised to thrive in an increasingly interconnected world. As described in the Information Technology Curriculum Requirements for Compulsory Education (2022), all students in compulsory education are required to study information technology subjects to cultivate digital skills early on. Central to this curriculum are four qualities aiming at: 1. Establishing correct values and forming information awareness; 2. Gaining the preliminary ability to solve problems and develop computational thinking; 3. Improving the ability of digital cooperation and exploration and enhancing the spirit of innovation; 4. Abiding by the laws and regulations of the information society and fulfilling information society responsibilities.

Ministry of Education, 2023. 2030 UN Agenda for Sustainable Development. China's Progress Report on SDG 4 – Education 2030. Government of China, Beijing.

¹⁷ The International Telecommunications Union categorised ICT skills as: (i) Basic skills: to copy or move a file or folder, to use copy and paste tools to duplicate or move information within a document, to send e-mails with attached files and to transfer files between a computer and other devices; (ii) Standard skills: to use basic arithmetic formula in a spreadsheet, to connect and install new devices, to create electronic presentations with presentation software, to find, download, install and to configure a software; (iii) Advanced skill: to write a computer programme using a specialized programming language. ITU, 2022: Facts and Figure 2021. Access: <https://www.itu.int/itu-d/reports/statistics/facts-figures-2021/>

Figure 24: SDG 4 Indicator 4.4.1 – Proportion of youth (aged 15–24) and adults (aged 25–74) with ICT skills by level of skills, for countries with the available data, 2022 or the latest year



7.3 Leveraging ICT for educational transformations depends on resource availabilities

The Asia-Pacific region has shown a relatively wide access to computers for pedagogical purposes on campuses across all levels of education, although some disparities between sub-regions still exist. For access to the Internet for pedagogical purposes on campus, a similar trend is observed.

In Central and Eastern Asia, a high percentage of schools across all levels are equipped with computers, while Oceania shows significant adoption at the secondary level. However, there is a stark contrast in South-Eastern Asia and Southern Asia where access varies significantly across different school levels. Eastern Asia boasts high Internet access in schools, while Central Asia shows high Internet adoption at the upper secondary level. A gradual increase in Internet access is noted across school levels in other regions, with a marked discrepancy in Southern Asia, reflecting the uneven digital infrastructure across urban and rural areas.

More obvious disparities between countries can be found when looking at the digital skills and literacy of youth and adults. Overall, the proportion of youth and adults with various ICT skills remained low in most of the countries. It was found that high-income economies have typically larger populations with the relevant ICT skills. Fostering ICT competencies is needed not just for optimizing educational delivery, but also for cultivating a tech-savvy generation ready to spearhead future innovations and challenges.

To address the emphasis on digital transformation in education, there is a need to focus on the disparities in technological infrastructure across different countries and locations within a country, as well as at school levels, which needs to be addressed first. Ample evidence has suggested that ICT skills are highly interconnected with completing a university education.¹⁸ This indicates that young generations only benefit if, and when they reach university. Therefore, exploring the teaching of digital and technology skills in basic education and TVET needs closer attention.

In today's evolving knowledge society, teachers need to be equipped with adequate ICT capacity and digital literacy so they can pass this knowledge onto their students and equip them with the necessary technical ability and ICT skills to compete successfully in a high-tech world.¹⁹

¹⁸ Maya T. W, UNESCAP, 2023. *Leaving No One Behind: ICT Skills in Asia and the Pacific*, Working Paper Series. Access: <https://www.unescap.org/kp/2023/leaving-no-one-behind-ict-skills-asia-and-pacific>

¹⁹ UNESCO, 2018, *UNESCO ICT Competency Framework for Teachers, version 3*. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000265721>



Box 14: Japan will continue promoting the digital transformation in education and the development of digitally skilled human resources

Building upon existing initiatives like the GIGA School Program, which provides one device for one student, Japan will continue its plan of digital transformation of all levels of education system. To cultivate information literacy and ethics positioned as qualities and competencies that form the foundation of learning in the National Curriculum Standards, effort will be made to promote the daily utilization of devices established through the GIGA School Program. Emphasis will be placed on how to discover and solve problems using information technology, the role and impact that informatization plays in society, the roles and responsibilities of the individuals, and the ability to examine the authenticity of information, etc.[]

Japan will also improve teachers' teaching skills by comprehensively promoting the provision of examples for ICT, training to enhance programming education from elementary school to high school, and publication of the results of information literacy surveys, to foster teachers' information literacy. Highly specialized outside personnel will be utilized, and measures will be taken to improve the teaching skills of teachers to improve the quality of classes in the high school subject "Information Technology."

On higher education level, Japan will promote the development of digitally skilled human resources by supporting activities to deploy model curricula and teaching materials of mathematics, data science, and AI in higher education institutions across Japan, and promote the fostering of human resources with the basic skills to apply mathematics, data science, and AI to their specialties, regardless of the humanities and sciences, through a system of government recognition of excellent educational programs conducted at each university.

Source: Ministry of Education, Culture, Sports, Science and Technology (MEXT), 2023. Fourth Basic Plan for the Promotion of Education. Government of Japan, Tokyo.



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8

Sustainability for Education and Education for Sustainability

8.1 Education with social and environmental responsibility in mind

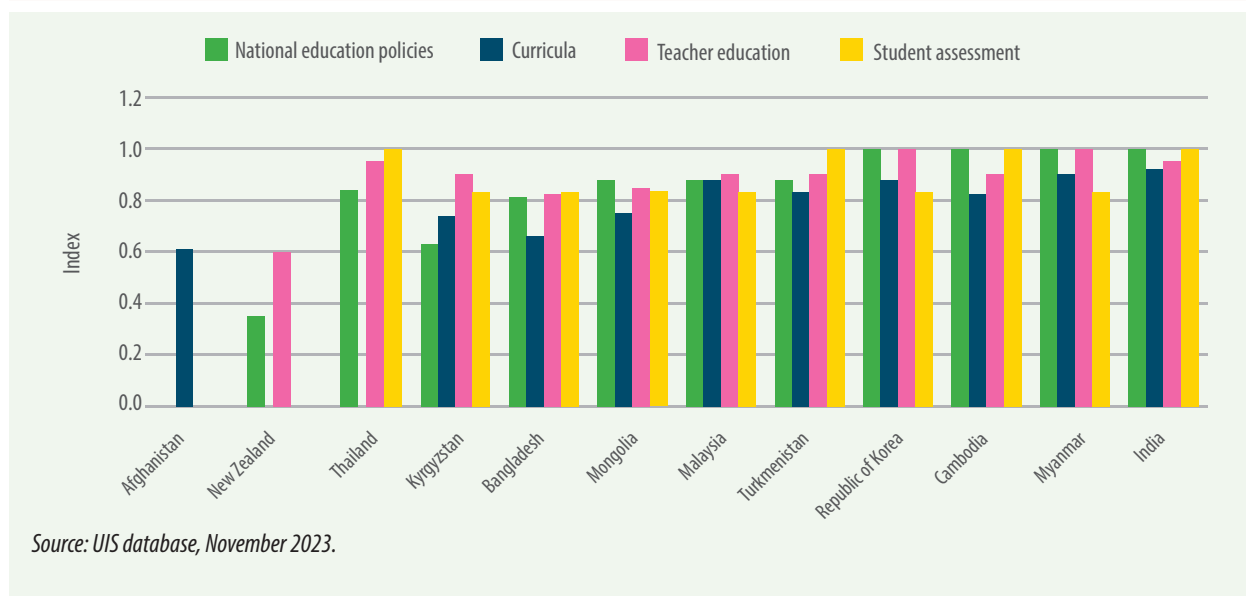
Education is a key driver of sustainable development and is heavily interlinked with the other SDGs. Education delivered correctly empowers people to improve their lives and contribute to the well-being of their communities, their country and the planet. Education is on one hand about acquiring knowledge and skills, and on the other hand about developing values and attitudes that foster environmental and social awareness, as well as respect for diversity in society and nature. In brief, education is a steward for social and environmental responsibility.²⁰

²⁰ Greening Education Partnership, 2023. *Declaration of the Common Agenda for Education and Climate Change at COP28*. This declaration was drafted based on input from Greening Education Partnership member countries, stakeholders, as well as the partner countries of the Global Partnership for Education, with the support of the UK as an Advisory Group member of the Greening Education Partnership and the host of COP26. Access: <https://www.unesco.org/sites/default/files/medias/fichiers/2023/11/Declaration-on-education-and-climate-change-en.pdf>

Mainstreaming concepts pertaining to ESD and GCED have been widely debated topics in the Asia-Pacific, with governments typically supporting the majority, though not all the concepts behind the underlying indicator.²¹ Since the inception of SDG 4, monitoring the extent to which both ESD and GCED are being integrated into the components of national policy, curriculum, teacher education and student learning assessments have been imprecise, impeding a more effective evaluation.

As the methodology for collecting data – via the questionnaire for monitoring the implementation by UNESCO Member States of the 1974 Recommendation Concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms evolved over the past eight years²² – the first data became available for 2020 for 12 countries in the Asia-Pacific (Figure 25). Addressing ESD and GCED relevant concepts appears to be present in predominantly more than three domains.

Figure 25: SDG 4 Indicator 4.7.1 – Extent to which (i) Global citizenship education and (ii) Education for sustainable development are mainstreamed in national education policies, curricula, teacher education and student assessments, for countries with the available data, 2020



Global SDG 4 indicator

The comparatively high mainstreaming efforts visible in, for example, Bangladesh and Mongolia are also evident in the submitted national SDG 4 midterm review. Through medium-term education development plans until 2030, both Bangladesh and Mongolia have established national commitments with strategic policies, plans and working modalities to further expand the transformation of education towards a holistic sustainability and global citizenship approach.

²¹ Benavot, Aaron, et al. UNESCO APCEIU, 2021. *Feasibility Study on Monitoring Global Citizenship Competence in the Asia-Pacific Region (2021)*. Access: <https://www.unescoapceiu.org/post/4084>

²² In 1974, UNESCO Member States adopted the Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms, which encapsulates many of the aims of the SDG targets; 4.7.1. Every four years countries report on the implementation of the Recommendation. Based on these reports, each component of the indicator is assessed on a scale of zero to one from a range of criteria. The closer to one, the better mainstreamed ESD and GCED are in that component. Subsequently, the score of each component is summed into one index, with a maximum value of four. Access: <https://tcg.uis.unesco.org/wp-content/uploads/sites/4/2021/09/Metadata-4.7.1.pdf>

Recognizing the intertwined nature of education and sustainability, Mongolia has been mainstreaming the ESD and GCED in a comprehensive, lifelong learning system approach encompassing formal, non-formal and informal education. The country approaches education for sustainable development through inter-sectoral collaboration with public-private entities, international organizations, civil society groups and individual collaborators through the Medium-Term Development Plan for the Education Sector (2021-2030).²³

Bangladesh has introduced a revised national curriculum from pre-primary to Grade Seven to align with the demands of the 21st century, the Fourth Industrial Revolution, Vision 2041, and environmental challenges set to implement in 2023. This curriculum emphasizes global citizenship education and sustainable development, aiming to shape young learners into informed global citizens by enhancing teacher capabilities and fostering awareness among students, parents, and communities.²⁴

The Sri Lankan Ministry of Education, National Institute of Education, implemented several programmes on environmental conservation through the development of the GCED curriculum and the integration of 14 environmental topics into the Science Stream curriculum for Grades Six to Eleven. Furthermore, the Environmental Pioneer Program led by the Central Environment Authority seeks to foster a heightened sense of environmental appreciation and responsibility among students.²⁵

8.2 Adult skills sustain lifelong learning

Another key aspect of education reinforcing the social and environmental sustainability of a country is the promotion of skills among its adult population in literacy and numeracy. Literacy and numeracy among adults²⁶ goes beyond minimum proficiencies to manoeuvre the curriculum in primary and secondary education and refers to foundational skills that enable people to access, understand and use information, communicate effectively and solve problems in their daily lives.

The spectrum where adult literacy and numeracy skills are relevant range from personal circumstances, such as processing information on health, to information regarding the household financial situation, to information relevant in legal and political contexts. It even harks back to digital or ICT literacy, as more complex information is available online in various multimedia forms that require contextual understanding and evaluation. Adults with greater proficiency in literacy, numeracy and problem solving in technology-rich environments tend to have better outcomes in the labour market than their less proficient peers. They are more likely to be employed and, if employed, to earn higher wages. Proficiency in literacy, numeracy and problem solving is also positively associated with several aspects of societal benefits, including better trust, more volunteering, better political efficacy and self-assessed health.²⁷

²³ Source: Ministry of Education and Science, 2022. Mid-term Progress Report of Sustainable Development Goal 4 in Mongolia (2016-2021). Government of Mongolia.

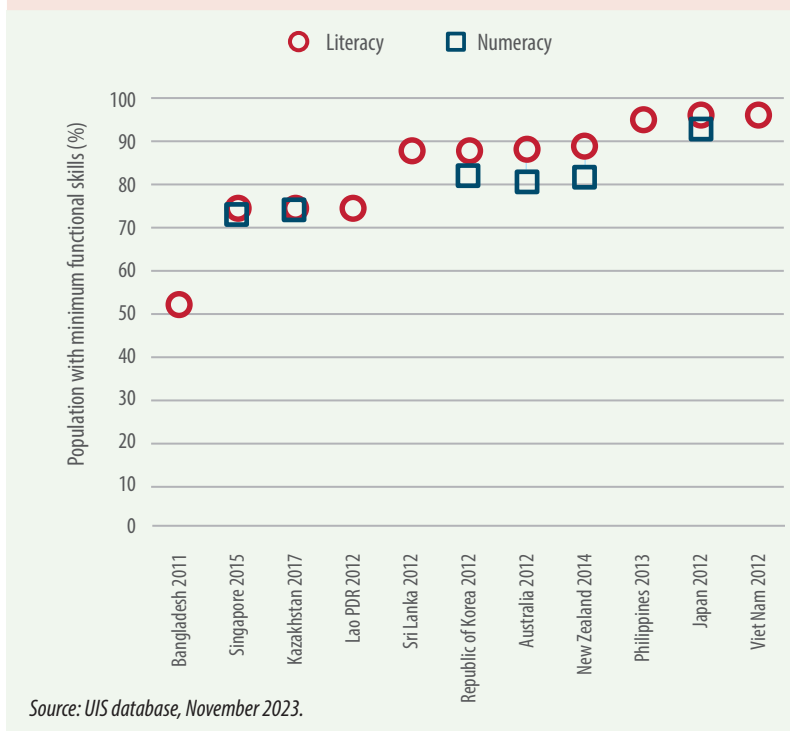
²⁴ Source: Ministry of Education, 2023. National SDG 4 Midterm Review: Bangladesh. Government of Bangladesh.

²⁵ Source: National Education Commission, 2023. Sri Lanka National SDG 4 Midterm Review. Government of Sri Lanka and UNESCO

²⁶ 'Adult' refers to the population aged 15 years and above.

²⁷ OECD, 2019, Skills Matter: Additional Results from the Survey of Adult Skills, OECD Skills Studies, OECD Publishing, Paris. Access: <https://doi.org/10.1787/1f029d8f-en>.

Figure 26: SDG 4 Indicator 4.6.1 – Proportion of population achieving at least a fixed level of proficiency in functional literacy and numeracy skills, by country with the available data, for the latest year available



Data on minimum contextually-relevant literacy and numeracy skills is collected via skills assessment surveys of youth and adult populations.²⁸ Functional literacy and numeracy are related to context, thus survey programmes have needed continuous development in order to frame questions in a way that are meaningful to different economic and social settings and these could be more efficient to reflect the population level of skills.

In consequence of the underlying methodologies having required continuous adaptation, only a few countries which participated in the relevant and comparable survey initiatives are available, with data only being available from 2011 to 2017 (Figure 26).

While some data may be outdated, it does provide a snapshot of capacities on a societal level. As these assessments were centred around

populations of an adult age and post-basic education who participate in society from an age where their development can be considered complete, the skills they acquired up to this point in their life determine their contribution and integration into society.

Given that the skills competencies are based on an assessment framework, as opposed to self-reported estimations, it becomes apparent that developing economies like Lao PDR and Sri Lanka are relatively on par with high-income or upper middle-income economies, such as Singapore and Kazakhstan, on above 70 per cent in numeracy and/or literacy. In contrast, Bangladesh showed that only half of its population had the minimum contextually-functional literacy skills. The divide will be further pronounced for the most marginalized and vulnerable groups, such as women, rural populations, ethnic minorities, refugees and migrants and persons with disabilities.²⁹ As reported in Timor-Leste’s SDG 4 midterm review, a notable shortcoming in literacy skills is observed when distinguishing subnational regions. In its capital city,

²⁸ This indicator is collected via skills assessment surveys of the adult population, for example, the Programme for the International Assessment of Adult Competencies (PIAAC), the Skills Towards Employment and Productivity (STEP) Measurement Programme, the Literacy Assessment Measurement Programme (LAMP) and national adult literacy and numeracy surveys. Only PIAAC measures both skills. Both PIAAC and STEP surveys can be put on a common scale as they are linked psychometrically by design.

Literacy: At this level, the medium of texts may be digital or printed and texts may comprise continuous, noncontinuous, or mixed types. Tasks at this level require respondents to make matches between the text and information and may require paraphrasing or low-level inferences. Some competing pieces of information may be present. Some tasks require the respondent to cycle through or integrate two or more pieces of information based on criteria; compare and contrast or reason the information requested in the question; or navigate within digital texts to access and identify information from various parts of a document.

Numeracy: Tasks at this level require the respondent to identify and act on mathematical information and ideas embedded in a range of common contexts where the mathematical content is fairly explicit or visual, with relatively few distractors. Tasks tend to require the application of two or more steps or processes involving calculations with whole numbers and common decimals, percents and fractions; simple measurement and spatial representation; estimation; and interpretation of relatively simple data and statistics in texts, tables and graphs.

²⁹ UNESCO Institute for Lifelong Learning, 2021. *Counting the cost: achieving literacy in countries of the Global Alliance for Literacy*. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000378822>

self-reported literacy rates account for about nine in ten citizens, while in other regions the rates decline down to about half of all citizens.³⁰ Whether these skill levels will remain, improve or deteriorate will be influenced by the upcoming generations of learners currently being equipped in schools with the minimum skills.

Box 15: India implementing literacy and numeracy formation among adults

India's National Education Policy (NEP) 2020 has set out to emphasize the development of new national curriculum frameworks, targeting different education programmes across the education sector, with one focusing on adult education. In line with the NEP 2020, the Government of India launched the New India Literacy Programme (NILP) for initial implementation between 2022 to 2027. The initiative targets all adult non-readers, aiming to transition them to learners within the five-year span under the Foundational Literacy and Numeracy segment. This concerted effort is anticipated to elevate adult literacy and numeracy rates in support of ensuring comprehensive literacy and numeracy among all youth and a significant portion of adults, encompassing both genders to achieve the 2030 literacy and numeracy objectives.

Source: Ministry of Education, 2023. *Midterm Review of SDG 4: Progress status India*. Government of India, New Delhi.

8.3 Many countries are not following the expenditure recommendations

Achieving a quality education for environmentally and socially responsible development across several forms and sectors, while making education access and its continuation sustainable requires a robust public financing apparatus that minimizes direct household expenditures, especially for households at the economic margins of society. As per the first of its kind assessment for the Asia-Pacific, the financing of the Education 2030 Agenda is not universally aligned with either GDP or total public expenditure targets, although many countries have made adjustments since the inception of SDG 4.³¹ ECE and TVET, including non-formal education programmes, tend to receive the least funding. In basic education, the primary level typically garners the most financing which is often more than lower and upper secondary education combined, although secondary should arguably be more resource-intensive given the complex and advanced skills that it requires of teachers.³²

As laid out in the Education 2030 Agenda Framework for Action and reinvigorated with the benchmarking process, education should be financed with at least four per cent of national GDP and/or at least 15 per cent of total spending on the public sector.

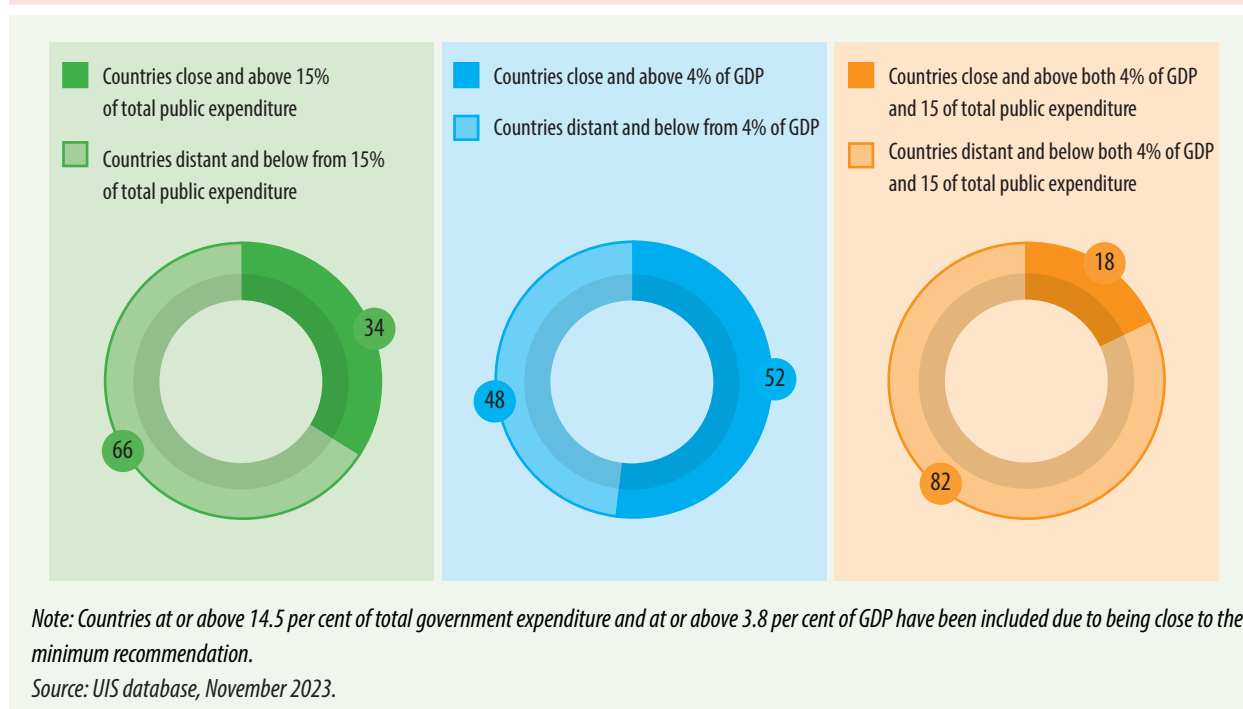
³⁰ Government of Timor-Leste, 2023. *The Second Voluntary National Review Report on Progress of the Implementation of the SDGs, 2023 (Timor-Leste VNR-2): People-Centred Sustainable Development: Leaving No One Behind*. Dili.

³¹ UNESCO and UNESCO Institute for Statistics, 2022. *Education Financing in Asia-Pacific*. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000383745>

³² Ibid.

In relation to the proportion of total government expenditure, 14 out of 44 countries and economies with the available data can demonstrate exceeding the minimum recommendation of 15 per cent to be spent on education, with an added three countries being in close proximity above 14 per cent (Figure 27). Compared to national GDP, 23 countries spend more than 4 per cent of their gross domestic product on education. Out of the 44 countries and economies, 7 countries exceed both the minimum benchmarks of 4 per cent expenditure of national GDP and 15 per cent expenditure on education in relation to expenditure on the total public sector, representing 18 per cent of countries which are currently fully in line with the Education Framework for Action recommendations.

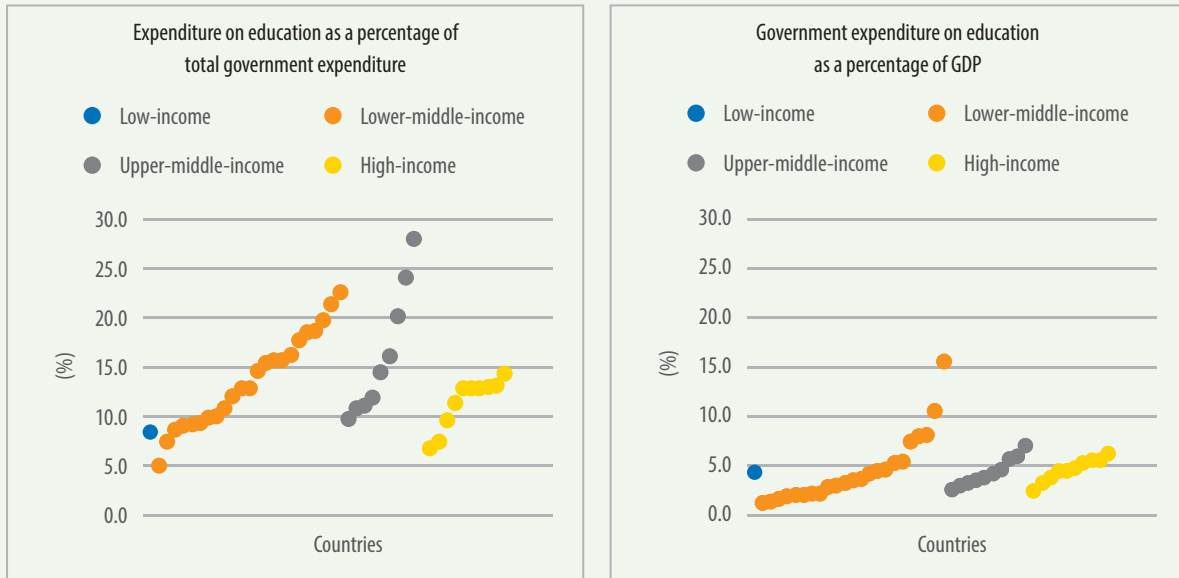
Figure 27: Framework for Action Indicator 1.a.2 – government expenditure on education as a percentage of total government spending, and 1.a.GDP – government expenditure on education as a percentage of GDP, 2023 or the latest year, by percentage of countries



All high-income economies in the region are below the recommended 15 per cent benchmark in public spending in education, whereas some middle-income economies spend above the recommended 15 per cent by far (Figure 28). The reason for this phenomenon may be attributed to high-income economies also having expenditures on other social sectors which may either be underfinanced in middle-income countries or be absent from financing all together. As a result, the high public sector proportionate expenditure on education must be interpreted with caution.

Contrasting the expenditure on education by economy and as a percentage of GDP indicates that upper-middle income economies are closer aligned to high-income economies in terms of education expenditure. In this comparison, however, lower-middle income economies show that comparatively high expenditure from economic activities is invested into the education sector.

Figure 28: Framework for Action Indicator 1.a.2 – government expenditure on education as a percentage of total government spending (left), and 1.a.GDP – government expenditure on education as a percentage of GDP (right), 2023 or the latest year, by income economy



Source: UIS database, November 2023.



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8.4 National planning and policymaking need to be built on statistics

Lastly, data and statistics play a key role in sustaining national education planning and policymaking. At its core, data is required to gather traceable characteristics for policymaking and planning to address. From data, statistics are created that present over time the expected or deviating observations, at best through recurrent collections, or as one of a situational assessment.

For national education systems, data provides a solid basis to reveal the strengths of plans and policies, as well as weaknesses that can be addressed through effective planning. By collecting data and producing meaningful statistics, policymakers can make better informed decisions to enhance educational access, quality and equity.

For instance, if statistics reveal a decline in literacy rates in a particular region, policymakers can allocate resources specifically to address this issue, be it through teacher training, curriculum reforms or infrastructure development. Additionally, longitudinal data can track the effectiveness of implemented policies over time, ensuring accountability and fostering a culture of continuous improvement.

Progress monitoring at global and regional levels can facilitate peer learning among countries in terms of best practices and effective solutions to achieving SDG 4, as the preceding part of this publication has demonstrated. This requires internationally comparable data and statistics on various aspects of national educational systems, in particular those underlying the SDG 4 indicators. Countries in the region have come a long way in investing in the production, analysis and dissemination of timely, reliable and internationally comparable education data and statistics, which makes possible the types of analyses as presented in this report. For instance, countries in the region have either launched national large-scale student learning assessment projects or have been participating in various regional and global student learning assessment initiatives as Pacific Islands Literacy and Numeracy Assessment (PILNA), Southeast Asia Primary Learning Metrics (SEA-PLM), the Programme for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS), and Progress in International Reading Literacy Study (PIRLS), etc. These initiatives provide information on how well school systems equip students with the required knowledge and skills, a priority for educational policy across the region.

On the other hand, the region needs to make efforts in producing sufficient and quality education data and statistics required for planning and decision making. The analyses presented in this publication highlighted several areas with large data deficits. For instance, the region has overall large data gaps on learning outcomes and skills development, despite educational quality being a priority policy issue. In addition, data on equity and inclusion, such as the participation of marginalized groups in education, is often incomplete or outdated. Monitoring access to basic infrastructure and services like clean water, electricity, and internet in schools is challenged by inconsistent data collection. This makes it difficult to address gaps and improve learning environments. There are also gaps in data regarding teacher training and qualifications, which are crucial for improving educational outcomes. Inconsistent data collection hampers the ability to ensure that teachers are adequately prepared.

Country and partner efforts to improve the availability of data and statistics for SDG 4 monitoring can benefit from the insights of the UIS Statistical Performance Indicator Index. The index contains five components: learning assessment, administrative data, survey population system, expenditure on education, and review and monitoring, which are essential building blocks of a country's education data ecosystem for collecting and using effectively the variety of data sources required for policymaking and the overall governance of the education sector.³³ As can be seen in Table 4, out of a total of 100 points, countries in Central and Southern Asia scored 77 in administrative data, and 72 in review and monitoring, higher than the other sub-regions as well as the rest of the world. The sub-region scored 63 points in survey population system, also relatively high. Eastern and South-eastern Asia scored 69 on learning assessment, 63 in administrative data and 63 in review and monitoring, reflecting results of efforts that the countries in these regions have made to enhance quality and availability of education data. Overall, however, countries in Central and Southern Asia scored 47, Eastern and Southeastern Asia 55, and Oceania 44, leaving much room for improvement.

Table 4: Capacity of National Education Data Ecosystems to Monitor SDG 4: Statistical Performance Indicator Index

Region	Learning assessment	Administrative data	Survey population system	Expenditure on education	Review & monitoring	Overall
Asia						
Central and Southern Asia	13	77	63	40	72	47
Eastern and South-Eastern Asia	69	63	36	15	63	55
Oceania	44	58	39	36	29	44
Europe and Northern America	68	65	52	56	50	61
Latin America and the Caribbean	69	68	55	56	50	62
Northern Africa and Western Asia	11	61	36	21	43	33
Sub-Saharan Africa	35	54	41	23	54	42

Note: The indicator value ranges from 0 to 100 with higher values representing strong capacity.

Source: UIS, 2024. LASER for Education Information Ecosystem.

Planning and making decisions for SDG 4's themes has been a journey that has spurred national education planners and statistics producers to boost their SDG 4 relevant data collections, given that ushering in SDG 4 has brought about many new data requirements. To date, national education monitoring in many countries has not adjusted to encompass the majority of the SDG 4 indicators, including, with notable confusion, which indicators pertain to which SDG 4 target areas.

As time has progressed, data for SDG 4 has become more readily available, though not universally. Enrolment and related indicators, such as completion and out-of-school rates, as well as infrastructure and service-related data, are most commonly available as they pertain to the administrative monitoring system, or Education Management Information System (EMIS), that feeds into resource planning. Indicator data addressing skills development remains under-collected, especially for international comparison.

Incorporating the monitoring of learning outcomes into education statistical systems is the challenge going forward towards the remaining time until 2030 and this will likely remain a key topic in the future.

³³ UIS (2023). Data for Education: A Guide for Policymakers to Leverage Education Data; LASER for Education Information Ecosystem.

Countries that invest in the monitoring of learning outcomes early are likely to reap the benefits of improved skills and knowledge development for developmental progress.

Box 16: Mongolia's comprehensive administrative education data collection

EMIS has been progressively integrated across **Mongolia's** educational sectors since 2013, aiming for a comprehensive digital transformation of educational services. Established with the core objectives of consolidating data into one unified database, ensuring swift citizen access to vital information and standardizing data collection methodologies, EMIS plays a pivotal role in streamlining decision-making, coordination, monitoring and evaluation within the education sector. While it debuted in general education in 2015, its reach expanded to encompass preschool education by 2018 and higher education by 2019. As a demonstration to its significance, platforms like www.esis.edu.mn have become indispensable for preschool and secondary education, whereas www.hemis.edu.mn serves the higher education domain. These platforms archive information spanning human resources, student achievements, enrolments trends, digital record-keeping, academic progression, state examinations, graduation metrics, educational documentation, statistical insights and streamlined report generation.

Source: Ministry of Education and Science, 2022. Mid-term Progress Report of Sustainable Development Goal 4 in Mongolia (2016-2021). Government of Mongolia, Ulaanbaatar.

Box 17: Japan recognizes the need for standardization of, and analysis and utilization of educational data

Japan recognizes the increasing need for the utilization of educational data, and is committed to educational data standardization by aligning the meaning and definition of educational data to ensure interoperability and distribution so that educational data can be exchanged, stored, and analysed. Japan is promoting the development of national and public infrastructure tools for mutual use of questions and sharing common knowledge at schools and other institutions across Japan. Currently, the MEXT CBT System (MEXCBT), which enables online learning and assessment at schools and homes, is being promoted, and its widespread use in everyday use and nationwide and local academic ability surveys will be promoted.

Japan also recognizes the importance of effectively analysing and utilizing educational data and utilizing advanced technology to enable rapid and appropriate policy making and the early detection of students needing support. Measures will be taken to develop common and necessary datasets and analysis formats for schools. Support will also be extended to faculty, staff, and students to help them use educational data. Additionally, as a prerequisite for data use, rules will be established to ensure the safe and secure handling of personal information. In addition, MEXT will also promote the use of advanced technologies such as sensing, metaverse, AR, VR, and AI to solve educational issues facing schools.

Source: Ministry of Education, Culture, Sports, Science and Technology (MEXT), 2023. Fourth Basic Plan for the Promotion of Education. Government of Japan, Tokyo.

8.5 Education must be sustainable to deliver values of social and environmental sustainability

Education for sustainable development (ESD) and global citizenship, the sustainable financing of education and sustained adult skills in literacy and numeracy are interrelated and are reinforcing sustainable development and the sustainability of education itself.

Getting children in school and equipping them with basic reading and mathematics skills are only the first steps in making education qualitatively valuable. Achieving sustainability through and in education on the topics of community, national, regional and global responsibility are the cornerstone to achieve the SDGs and these were cited as the call outs for action at TES in 2022. A well-informed population with functional skills and socio-emotional competencies to process information as contextually required in their daily lives is crucial for eradicating poverty, without sacrificing the environment and while establishing harmonious social interaction.

ESD and GCED have always been highly regarded as important umbrella concepts to advance national development, as per a country's most pressing needs – yet they face challenges in practical implementation in the classroom. Over the course of SDG 4, all countries have addressed at least one of these education concepts in its strategic planning to some extent, indicating that the efforts are there, but they require long-term implementation until these concepts are ready to become a routine in pedagogy.

Adequate investment must provide the resources required in delivering the relevant education in the form of learning materials, classroom equipment and knowledgeable teachers. As noted regionally, low investment in the secondary levels reflects on the quality of teaching and amplifies the likelihood of students not continuing through this level. As ESD and GCED are concepts requiring reflective thinking and alternative forms to rote learning, secondary education needs greater investment in the region if it wants to ensure capable and knowledgeable citizens and labour market participants.³⁴

To retain and enhance adult literacy and numeracy skills, their formation should be integrated with other programmes of learning, such as vocational and technical education, civic and citizenship education, environmental or science education and even health education, to ensure adults acquire the relevant and holistic competencies they need to cope with the changing demands and opportunities of the 21st century. Adult literacy and numeracy education should be aligned with the principle of lifelong learning for sustainable development and global citizenship.

³⁴ UNESCO and UNESCO Institute for Statistics, 2022. Education Financing in Asia-Pacific. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000383745>



9

Impacts of COVID-19 Pandemic on Education

The education of more than 800 million students across Asia was disrupted due to school closures in response to the COVID-19 pandemic from early 2020, affecting 400 million in Southern Asia, 260 million in Eastern Asia and 140 million in South-Eastern Asia.³⁵ Asia-Pacific countries reacted to the pandemic with, and without school closures of different extents. Some countries closed their education down for long period of time. For example, Bangladesh closed its schools during most of 2020 and 2021, and Nepal closed its schools during the first half of 2020, followed by partial closures during the second half of 2020 until into the first quarter of 2021. Schools in Nepal later were hit by yet another closure during the second quarter and going into the third quarter of 2021, with a renewed but short closure period at the end of 2021.

Other countries closed schools for short periods of time, such as Kyrgyzstan or the Federated States of Micronesia from early 2020 up until the third quarter of the same year, followed by a few months of partially reopening until fully reopening from 2021 onwards.³⁶ During the most uncertain time when little information about the disease was available, nearly every student was affected by a temporary school closure in March, April and May 2020.

³⁵ UNESCO, 2021. *The future of 800 million children across Asia at risk as their education has been severely affected by the COVID-19 pandemic*. 19 October 2021, Bangkok. Access: <https://bangkok.unesco.org/content/future-800-million-children-across-asia-risk-their-education-has-been-severely-affected>

³⁶ UIS, 2022. *COVID-19 Education Response. Country Dashboard*. Access: <https://covid19.uis.unesco.org/global-monitoring-school-closures-covid19/country-dashboard/>

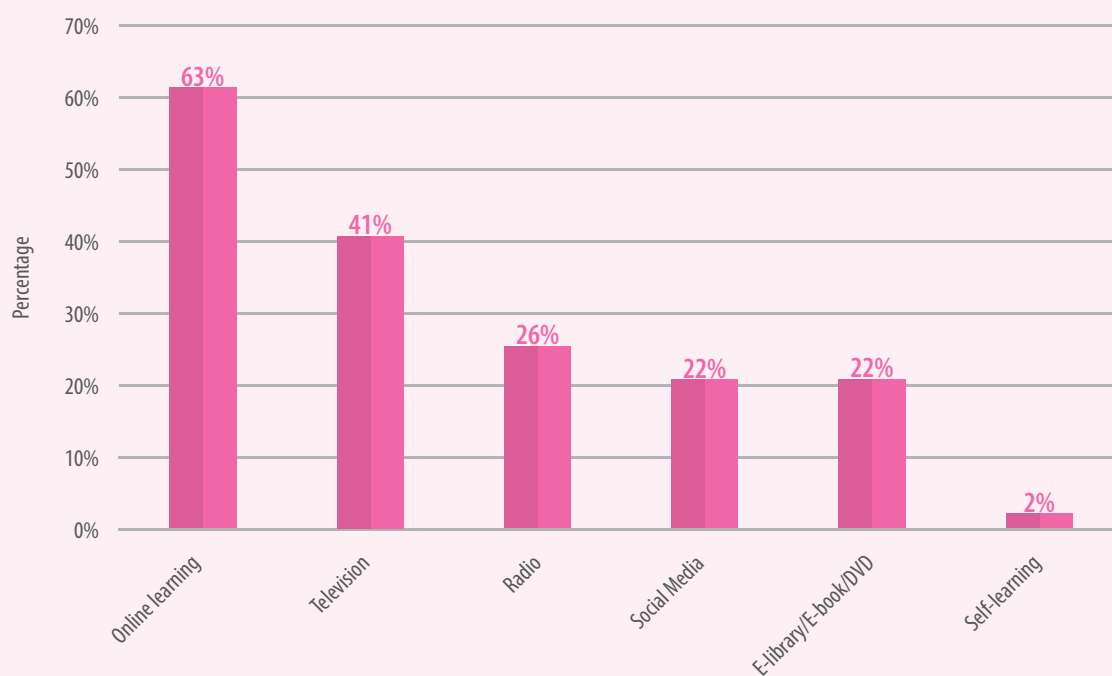
These disruptions meant that, throughout the region, students were deprived of face-to-face learning for a significant period of time, with students in South Asian countries spending the longest time away from school.³⁷ The different closure periods, and in particular long closure periods, caused concern about learners losing access to or voluntarily opting out of the education system.

9.1 Country's response to continue learning

While the world has shut down schools in order to slow down the spread of COVID-19, International and national agencies, governments and non-government agencies have been developing various strategies and plans to ensure continued learning for all children and youth through alternative channels. Most of the countries have developed different learning modules, programmes and platforms to continue teaching learning. Such programmes include very basic self-learning textbook distribution to very high-tech online learning platforms.

Among the 46 countries in Asia Pacific region, 36% of the countries have used online learning platform to continue learning for students. 15 of the countries have developed radio programmes and 23% are using Television broadcasting to reach to the student during the school closure. Other countries are using social media, offline Apps and e-libraries, e-books etc to reach to students. It should be noted that majority of the countries have used more than single platforms/methods to continue learning activities for students.

Figure 29: Percentage of countries in the Asia-Pacific region adopting different methods of remote learning (%)



Note: Majority of the countries have used more than single platforms/methods to continue learning activities for students.

Source: UIS, 2021. School closures and regional policies to mitigate learning loss due to COVID-19: A focus on the Asia-Pacific.

³⁷ Ibid.

9.2 Country Resilience in Education Access and Participation despite Loss of Learning Days

On average, students in the Asia-Pacific region lost over 101 days by September 2020—nearly half of the academic year. Students in Southern Asia experienced the most significant loss, with 127 days missed, followed by South-Eastern Asia (89 days) and Eastern Asia (76 days). Oceania has had the least disruption of learning, with just over 45 days of school closure on average. This substantial loss of learning days has heightened the risk of student dropouts and declining proficiency levels in reading, mathematics, and other subjects. An estimated 6.7 million students, from pre-primary to secondary levels, were at risk of dropping out across Asia and the Pacific.

Despite a decline in enrolment during the early stages of the pandemic due to prolonged school closures and lack of face-to-face instruction, countries demonstrated resilience in addressing these challenges. A comparison of pre- and post-pandemic values of selected indicators (see figure 30) reveals that, in terms of education access and participation, all sub-regions have returned to, or in some cases surpassed, pre-pandemic levels. This reflects the strong commitment of countries to ensuring equitable access and participation in education at all levels.

Figure 30: Key education indicators' 2019 values vs. 2022 values, by sub-regions (%)



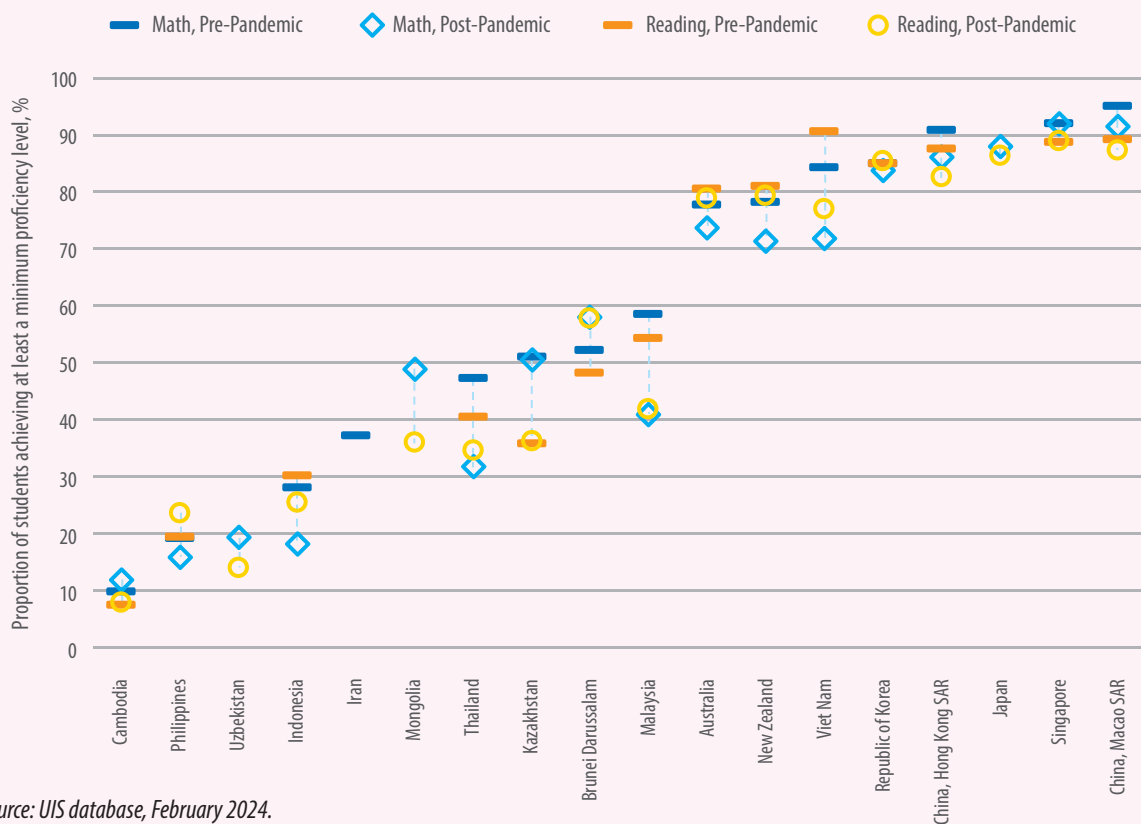
Source: UIS database, February 2024.

9.3 Understanding the scale of learning loss using minimum proficiency level

The different duration of the learning day loss due to the pandemic could have different impact on student's learning. Though countries immediately responded through appropriate approaches to continue learning, due to the long closure of the schools and students deprived from face-to-face instructions, the pandemic has serious impact on student learning. It was estimated that without proper remedial programmes, by 2030, the first grader will lose 0.74 years of learning in 10 years which will have huge impact on their learning outcomes.

Evidence from non-representative surveys at the local level suggests that the disruption to education caused by the pandemic has impeded learning progress for most students, with younger students and those from marginalized backgrounds most affected.³⁸ In Lao PDR and Vanuatu, preliminary results from surveys of case study schools found that most teachers reported that students forgot the lessons when school reopened.³⁹ In the Republic of Korea, teachers have reported widening achievement gaps between learners from higher socio-economic brackets and those from lower socio-economic brackets as a result of online learning.⁴⁰

Figure 31: Proportion of students at the end of lower secondary education achieving at least a minimum proficiency level in 1) reading, 2) mathematics, countries in Asia-Pacific region, pre-pandemic vs. post-pandemic, both sexes



Source: UIS database, February 2024.

³⁸ UNESCO & IEA, 2022, *The impact of the COVID-19 pandemic on education: international evidence from the Responses to Educational Disruption Survey (REDS)*. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000380398>

³⁹ Australia Council for Educational Research, 2023. *Teacher development multi-year study series. Multi-country report*. Access: <https://research.acer.edu.au/eas/69>

⁴⁰ UNESCO & UNICEF. 2021. *Republic of Korea Case Study: Situation Analysis on the Effects of and Responses to COVID-19 on the Education Sector in Asia*. Access: <https://www.unicef.org/eap/media/9416/file/Republic%20of%20Korea%20Case%20Study.pdf>

9.4 Marginalized population were the hardest hit

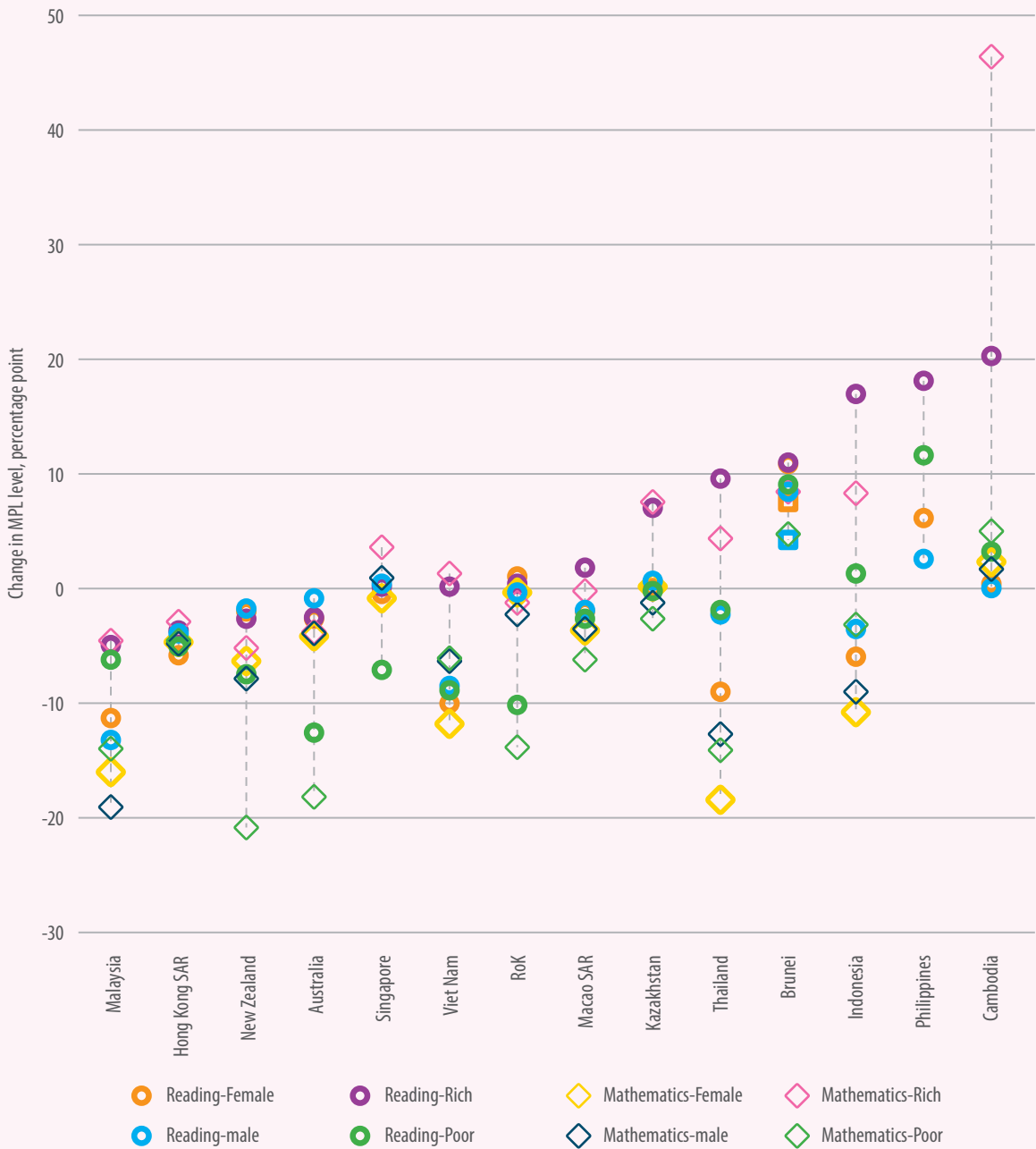
The education of marginalized populations has been hardest hit by the pandemic. The population who has historically been difficult to reach due to socio-economic and geographical barriers, now face heightened risks of exacerbated inequities in education.

Children from low-income households, children with disabilities and girls in countries where boys' attendance has been historically prioritized, were less likely to access remote learning than their peers. This was often due to a lack of accessible technologies and the availability of electricity, connectivity and devices, in conjunction with discrimination stemming from ingrained gender norms. Younger students also had less access to remote learning and were more affected by learning loss than older students, especially among preschool-aged children.

Disaggregated level analysis of the proportion of students meeting MPL in reading and mathematics at the end of lower secondary level clearly shows that the proportion of students with MPL have been dropped for both male and female in post-pandemic assessment compared to pre-pandemic. At the same time, drop can also be seen among the students from poorest families. However, not only did learners from the richest quintile experience a smaller drop in MPL in both subjects across most countries in the region compared to learners from the poorest quintile, but their MPL proportion actually increased from pre-pandemic levels in more than 60% of the countries with available. In order to mitigate the learning loss, countries in the region should develop appropriate remedial programmes including learning enhancement and learning support programmes to the students at various levels of education, prioritizing students from the marginalized population.



Figure 32: Change in percentage point in the proportion of students at the end of lower secondary education achieving at least a minimum proficiency level before and after pandemic, by gender and family income, by subject, in percentage point



Source: UIS database, February 2024.



Recommendations and the way forward



10 Recommendations



10

Recommendations

1. Leverage global and regional benchmarking to translate collective vision into country actions

Asia and the Pacific has made impressive progress in establishing national targets using a set of global benchmark indicators. This was particularly the case with share of public expenditure devoted to education and several other indicators, including deploying qualified teachers in primary, lower secondary and upper secondary education.

It is also commendable that the region utilizes benchmark indicators to monitor progress and provide stakeholders with feedback for reflecting on achievements, identifying gaps, and making recommendations, as demonstrated in this report. Examples like this one are essential to solidifying the achievements that the region has already made in benchmarking, demonstrating the value of investing resources in benchmarking, and encouraging exchanges of lessons learnt in setting national targets on the benchmark indicators. The various regional and subregional stakeholders are encouraged to continue using the benchmark indicators for progress monitoring, including facilitating dialogues and peer learning among countries.

On the other hand, the region still needs to finish that “last mile” of having all countries to set national targets on the global benchmark indicators. Finishing this last mile will be key to enhancing national accountability to the commitments that governments have made to their people, and aligning national, regional, and global efforts. Some countries have not set targets on one or more of the benchmark indicators, due to lack of established appropriate mechanisms to produce the necessary data to monitor these indicators. It is crucial that countries are advocated for and provided with the necessary support to integrate benchmark indicators into their national frameworks, with appropriate mechanisms and processes to regularly generate data. Global and regional partners should develop appropriate strategies to support countries in this endeavour.

2. Prioritize the completion of secondary education with tangible learning outcomes while paying attention to a shifting gender divide

The Asia-Pacific region has achieved notable advances in expanding access to basic education, with high completion rates at primary and increasingly at lower secondary levels. In contrast, upper secondary completion remains a concern, especially among disadvantaged populations. Ensuring universal access to a quality secondary education is crucial for social cohesion and breaking poverty cycles and it is aligned with the other SDGs. Yet, significant disparities exist in educational quality, with high-income countries outperforming low-income nations in learning outcomes.

This quality discrepancy will influence the social and economic developmental trajectory, highlighting the urgency for targeted investments to boost learning proficiency. Given the perceived regional aspiration of higher education being the end goal within education completion, ensuring the full cycle of secondary education completion with the essential skills and knowledge to proceed to a higher form of specialization is the bottleneck for every developing country. While many countries have made progress in providing conducive learning environments in terms of infrastructure and teaching provision, there is a need for further inclusivity, especially for economically weak households and boys’ and girls’ inclusion, depending on a country’s context.

Addressing wealth disparities is crucial for the region to control dropout rates among vulnerable groups during, or by the end of the lower secondary level. Special attention also goes to the shifting gender disparities which have become most pronounced by the end of basic education. While girls do face barriers in countries in Southern Asia historically, it is commonly boys who face increased dropout rates in the Asia-Pacific.

Wealth is emerging as the decisive factor. It is essential to provide the necessary support infrastructure for equal educational opportunities for both girls and boys from marginalized households who are facing cultural and socio-economic barriers. The Asia-Pacific region needs to prioritize completion rates at the secondary levels to ensure adolescents, particularly from poor backgrounds, complete at least lower secondary education with the prospects of moving on to upper secondary and perhaps beyond.

Additionally, investments need to be significantly redirected towards elevating learning outcomes and paired with proficient teacher qualifications that warrant those outcomes. Equipping students with foundational skills in reading and mathematics by the end of lower secondary education not only encourages continued learning, this also empowers individuals for future life challenges. This task demands a competent teaching force that is adept at imparting these essential competencies through guided curriculum and pedagogy experiences. Teaching teachers how to teach must be paramount to improving learning outcomes.

3. Approach early childhood development with guided health, learning and household contexts in mind

Early childhood education is particularly crucial for Asia-Pacific countries with lower economic development. Generally, lower-income countries exhibit lower attendance in ECE programmes. Countries like Nepal, Timor-Leste and Tuvalu lag behind in the physio-cognitive development of their youngest children – posing potential challenges in learning readiness and behavioural development. Although the Asia-Pacific region surpasses the global average in ECE teachers meeting minimum qualifications, discrepancies arise in training versus qualifications among instructors, potentially indicating a mismatch of practical skills versus theoretical knowledge.⁴¹

To enhance early childhood development outcomes among children, in particular in economically weak countries, a holistic approach is essential in encompassing professional expertise – from educators to health care workers – with a guiding curriculum for early childhood development centres and pre-primary schools that are comprehensive enough to address the developmental domains of motoric, cognitive and behavioural development. These is also a need for these to be tailored to address the unique needs of younger children in their personal context.

This entails ensuring age-appropriate physio-cognitive learning outcomes that facilitate a seamless transition from home environments to care centres, pre-primary schools and subsequently, to be ready for primary schools. Concurrently, there should be a concerted effort to amplify parental involvement in learning adequate caregiving and teaching at home to ensure a cohesive and effective early childhood development ecosystem.

4. Address the looming implications of university overemphasis and vocational education underutilization

There has been a significant rise in university enrolment in the Asia-Pacific region over the past decade. Meanwhile, vocational education has remained underutilized, with low enrolment rates across most sub-regions. Despite its importance in workforce upskilling and sustainable development, vocational education is often undervalued compared to traditional higher education. The situation is further complicated when realizing that many students do not complete secondary education to qualify for university entry and in turn do not receive a vocational education as an alternative.

With a significant rise in university enrolment, but low emphasis on vocational education, a mismatch between the skills acquired through traditional higher education and the skills demanded by the labour market may be on the horizon for the region.

The fact that many students do not complete secondary education to qualify for university or vocational paths suggests systemic issues within the education system. This could widen educational disparities and hinder social mobility for young people.

⁴¹ For ECE teacher competency guidelines: UNESCO and SEAMEO, 2018. Pursuing quality in early learning, vol. 1: Early childhood care and education (ECCE) teacher competency framework for Southeast Asia (SEA). UNESCO and SEAMEO, Bangkok. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000265271?posInSet=1&queryId=94d03254-cb4d-4522-9d4f-b32b150484c0>; UNESCO and RC4ECCE, 2018. Pursuing quality in early learning vol. 2: early childhood care and education (ECCE) teacher competency framework for Pacific Small Island Developing States (Pacific SIDS). UNESCO and PR4ECCE, Bangkok. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000266089?posInSet=3&queryId=94d03254-cb4d-4522-9d4f-b32b150484c0>

The underutilization of vocational education means that many young people may exit formal basic education without the specific skills and training required for certain jobs. The high emphasis on university education, in contrast, means that many young people exit higher education and enter a labour market that is oversaturated with discipline specialists competing for limited positions.

Both of the latter cases lead to unemployment or underemployment. There may then be increased pressure and competition for places in universities, reinforcing the examination culture in learning or potentially leading to overcrowded universities with a diluted education quality.

If this mismatch is not addressed through education, by aligning education outcomes and qualifications with labour market needs, countries will face challenges in achieving economic sustainability, as there may be a shortage of skilled workers in vital sectors.

The TVET system requires strategies ranging from upskilling vocational teachers, to advocating and integrating young people, especially women, to coordination with the labour market for a smooth transition from school to work.⁴²

5. Devise coordinated policies that integrate technology into the teacher and student educational phases

Access to computers and the Internet for educational purposes is relatively widespread in the Asia-Pacific region, although disparities do exist. Central and Eastern Asia lead in computer-equipped schools across all levels, while in contrast South-Eastern and Southern Asia display varying access across school levels.

However, disparities in technological infrastructure persist, especially in rural or remote areas which are typically difficult to connect to the required infrastructure. Furthermore, the region struggles with significant gaps in ICT skills among its youth and adults.

While high-income economies tend to have a more ICT-skilled populace, most countries lag in this aspect. Addressing these technological and skills disparities is essential not only for improving educational outcomes, but also for nurturing a generation equipped for an increasingly tech-driven society and therein economy. Socio-economic factors, such as gender and wealth, will likely further influence who benefits from a tech-driven society and more importantly who does not.

For the digital transformation to be successful, teachers and the school leadership must be equipped with the necessary ICT skills and competencies themselves, before these skills can be imparted onto the next generation of learners in standard ICT skills. An integrated approach to training, encompassing digital proficiencies and innovative pedagogies using ICTs through continuous professional development and support, as well as digital skills curricula and assessment packages, is essential in concurrent teacher education, irrespective of the specialization.⁴³

⁴² UNESCO, 2018. 4th Asia-Pacific Meeting on Education 2030 (APMED2030) (12-14 July 2018, Bangkok, Thailand): final; Regional Recommendations for Action on SDG Targets 4.3 and 4.4. UNESCO. Bangkok. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000266135?posInSet=2&queryId=N-EXPLORE-9723e703-652b-4f73-b481-af987e08d232>

⁴³ UNESCO, 2018. 4th Asia-Pacific Meeting on Education 2030 (APMED2030) (12-14 July 2018, Bangkok, Thailand): final; Regional Recommendations for Action on SDG Targets 4.3 and 4.4. UNESCO. Bangkok. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000266135?posInSet=2&queryId=N-EXPLORE-9723e703-652b-4f73-b481-af987e08d232>

Furthermore, clear guidelines for the procurement of computer resources and digital applications, in collaboration with the private sector, are required to ensure standardized implementation across educational institutions.⁴⁴ In this effort, it is apparent that public and private stakeholder collaborations are required to enhance digital access within schools, as recognized by the Qingdao Declaration.⁴⁵ These collaborations should prioritize equitable access, uphold public accountability and ensure long-term viability of resources.

6. Optimize education financing mechanisms with formula and equity-based approaches

The Transforming Education Summit called for improved education financing through three key areas: 1) Mobilizing more resources, especially domestic; 2) Increasing efficiency and equity of allocations and expenditures; and 3) Improving education financing data, covering action on all levels of education, all geographies, all excluded groups and linking education sector planning. All financial sources that fund education to some extent, such as foreign aid or community funds, as well as different ministries and departments with a stake in education, need to be integrated into and recorded under the education budgeting system in order to account for a country's full education cost and the required expenditures. Conducting household surveys to investigate how much families are spending on their children in each level of public and private education will provide any missing information on education funding needs. Education ministries need to work with other ministries to obtain this information.⁴⁶

Though enrolment numbers and length of programmes in each education level affect the per-student costs, the per-student expenditure per year should be revised. In particular, as is expected that every child enrolling at the latest in primary education should also complete secondary education and that every further level in education will require higher expenditure on a per student-basis. To adequately allocate resources by education subsector and level, per-capita school budget formulas showed to be effective⁴⁷

Additionally, an equity budget for marginalized and underserved populations from difficult to reach areas should be established. To adjust for socio-economic inequalities, the formulas should consider additional cost coverage for students with disabilities, ethnic minorities, low-income households and other marginalized groups, as highlighted within SDG 4. It is also necessary to correct any obvious over- or under-spending on learners, for example, where secondary students receive a fraction of the investment of students of other levels.

⁴⁴ Ibid.

⁴⁵ UNESCO, 2015. Qingdao Declaration (2015). Leveraging ICT for Achieving Education 2030. UNESCO, Paris. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000233352>

⁴⁶ UNESCO, 2022. Education Financing in Asia-Pacific. UNESCO, Bangkok. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000383745?posInSet=3&queryId=b585d017-bd94-4bf1-a344-66c9e4be8a3b>

⁴⁷ Ibid.

7. Advance the teaching profession to address learning challenges

The acquisition of socio-behavioural and cognitive competencies at any education level is intrinsically linked to receiving guided learning instructions. This requires mentor figures with increasingly complex competencies of their own to be able to teach the socio-behavioural values and cognitive competencies which enable the upcoming citizenry to integrate meaningfully into society during and beyond their formal education phases.

As there is an inherent need to ensure teachers are trained and qualified across a range of pedagogical methods that includes teaching methods and content that meets an always evolving society, it is crucial to ensure teachers enjoy a well-perceived status of their profession by offering cross-labour market competitive salaries for a decent life, a structured career path, with growth opportunities and decent working conditions.

To bring learning outcomes to the next level, training methods need modernization away from examination preparation and rote learning, towards reflective discovery methods that emphasize thinking processes, open communication and classroom collaboration environments.

Teachers must also be provided with access to an advisory and counselling support network within and beyond the teaching profession to address students' emotional and psychological needs, especially when dealing with students from challenging household environments. Though teachers are recognized inarguably as the backbone of every society, their financial status and career support is a common shortcoming in the Asia-Pacific's developing countries. The future of learning depends on teachers.

8. Increase investment in data collection and statistics production

With the rapid increase in applied technology in every aspect of society, keeping track of education access, participation and progression has long bypassed the days of pen-and-pencil-based national data collection approaches. The increased demand of data collection for the monitoring of the Education 2030 Agenda indicators necessitates an education sector holistic perspective on statistics production procedures, encompassing the integration of data submissions from the school and household level into one database. This data integration under the SDG 4 umbrella further necessitates other ministerial data submissions in charge of education subsectors, such as the often-separated submissions for ECE, TVET and higher education. A starting point for countries to tackle the deficits in data and statistics for SDG 4 monitoring is to incorporate the global and regional benchmark indicators in national planning (see Recommendation 1). This is because the regular data and statistics programmes of governments are likely to focus on data production on issues and areas that are considered policy priorities. This would include the institutional arrangements, policy commitments, as well as allocation of financial and human resources that are essential to guaranteeing the production and dissemination of such data and statistics in a sustained manner.

Outside of data and statistics for national education planning, among several countries there remains a misconception of what constitutes the SDG 4 monitoring indicators or which indicator pertains to which SDG 4 target, such as counting basic education enrolments or TVET statistics under SDG 4 Target 4.1 to just name one target example.

While national education monitoring is encouraged to include nationally relevant indicators, they should not be mistaken for the internationally reported SDG 4 indicators. To make national data processing for international reporting more efficient and effective, the relevant ministries overseeing indicator productions are required to reassess and match their national monitoring indicators frameworks against the SDG 4



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monitoring indicator framework.

Asia-Pacific countries need to strengthen their national education data collection system by not only investing financial, but also targeted technical and human resources at each base of data submission. This system must be supported by precise and detailed data collection and statistics production policies which guide collection and reporting mandates and data should be shared through privacy-protected data collection practices.

All involved individuals from education institutions to government officials at every level must receive appropriate training on education statistics, indicators, methodologies and reporting and be able to use a variety of software and hardware as adequate for their responsibilities. Examples of such resources include such tools as LASER for assessing national education data ecosystems in view of SDG 4 monitoring,⁴⁸ technical and training materials for training to raise awareness on using data for curriculum and resources planning, to policymaking, to advocacy.⁴⁹

⁴⁸ See LASER for Education Information Ecosystem. Access: <https://tcg.uis.unesco.org/laser/>

⁴⁹ For training relevant source materials tailored to SDG 4 in the Asia-Pacific, there is a regional capacity development resource book on monitoring SDG 4-Education 2030 in the Asia-Pacific, compiled by UNESCO and UNICEF, Bangkok. Access: <https://unesdoc.unesco.org/ark:/48223/pf0000372228?posInSet=14&queryId=3eef478f-14f4-4c2e-9c74-12368ff117c3>

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Annex

Education 2030 Agenda – SDG 4 Monitoring Indicators Overview

Target	Concept	Indicator	Distinction levels /items*	Education 2030 FFA – SDG 4 Monitoring Level	Benchmark Indicator Monitoring level
4.1	Learning	4.1.1 Minimum proficiency in a) reading and b) mathematics	Grade 2/3 End of primary (e.g. G6) End of lower Secondary (e.g. G10)	Global	Global
	Completion	4.1.2 Completion rates	Primary (ISCED 1) Lower Secondary (ISCED 2) Upper Secondary (ISCED 3)	Global	Global
	Participation	4.1.3 Intakes to the last grade	Primary (ISCED 1) Lower Secondary (ISCED 2)	Thematic	
	Participation	4.1.4 Out-of-school rates	Primary (ISCED 1) Lower Secondary (ISCED 2) Upper Secondary (ISCED 3)	Thematic	Global
	Participation	4.1.5 Over-age children	Primary (ISCED 1) Lower Secondary (ISCED 2) Upper Secondary (ISCED 3)	Thematic	-
	Provision	4.1.6 Administration of a national learning assessments	Grade 2/3 End of primary (e.g. G6) End of lower Secondary (e.g. G10)	Thematic	-
	Provision	4.1.7 Legally a) free and b) compulsory basic education	Number of free education in years/grades Number of compulsory education in years/grades	Thematic	-
4.2	Readiness	4.2.1 Children developmentally on track	health learning psychosocial well-being	Global	-
	Participation	4.2.2 Participation in pre-school	One year before entering primary education (Grade 1) (ISCED 02)	Global	Global
	Provision	4.2.3 Children in positive and stimulating home learning	Below age of 5	Thematic	-
	Participation	4.2.4 ECE enrolment	early childhood educational development (ISCED 01) pre-primary education (ISCED 02) Net enrolment (Gross enrolment)	Thematic	-
	Provision	4.2.5 Legally a) free and b) compulsory pre-primary education	Number of free education in years/grades Number of compulsory education in years/grades	Thematic	-

Target	Concept	Indicator	Distinction levels /items*	Education 2030 FFA – SDG 4 Monitoring Level	Benchmark Indicator Monitoring level
4.3	Participation	4.3.1 Youth and adults in formal and non-formal learning	formal + non-formal education/training in the previous 12 months (any education) for: age 15+ / age 15-24 / age 25-64	Global	Asia-Pacific
	Participation	4.3.2 Higher Education enrolment	Short cycle programme, bachelor, master, doctoral (ISCED 5, 6, 7, 8)	Thematic	Asia-Pacific
	Participation	4.3.3 Technical and vocational education participation	Age 15-24 (youth)	Thematic	Asia-Pacific
	Completion	STEM graduates**		-	Asia-Pacific
4.4	Skills	4.4.1 Youth and adults with information and communications technology skills	age 15+ The International Telecommunications Union categorized ICT skills as: (i) Basic skills: to copy or move a file or folder, to use copy and paste tools to duplicate or move information within a document, to send e-mails with attached files and to transfer files between a computer and other devices; (ii) Standard skills: to use basic arithmetic formula in a spreadsheet, to connect and install new devices, to create electronic presentations with presentation software, to find, download, install and to configure a software; (iii) Advanced skill: to write a computer programme using a specialized programming language. (ITU, 2022: Facts and Figure 2021. Access: https://www.itu.int/itu-d/reports/statistics/facts-figures-2021/)	Global	-
	Skills	4.4.2 Youth/adults with minimum proficiency in digital literacy	age 15+ / age 15-24 / age 25-64 / age 25+	Thematic	-
	Completion	4.4.3 Youth and adult educational attainment	age 15+ / age 15-24 / age 25-64 / age 25+ ISCED 0 - 8	Thematic	-

Target	Concept	Indicator	Distinction levels /items*	Education 2030 FFA – SDG 4 Monitoring Level	Benchmark Indicator Monitoring level
4.5	Equity	4.5.1 Parity indices	All indicators where possible: Most important Lower and Upper Secondary	Global	Global
		4.5.2 Children whose home language is the language of instruction	early grades end of primary end of lower secondary	Thematic	-
		4.5.3 Funding mechanisms for disadvantaged populations		Thematic	-
		4.5.4 Education expenditure per student	government (central, regional, local), private (households and other private) and international sources Early Childhood Education (ISCED 01 - 02) Primary (ISCED 1) Lower Secondary (ISCED 2) Upper Secondary (ISCED 3) Post-secondary non-tertiary (ISCED 4) Tertiary (ISCED 5-8)	Thematic	-
		4.5.5 Education aid allocated to least developed countries	Early Childhood Education (ISCED 01 - 02) Primary (ISCED 1) Lower Secondary (ISCED 2) Upper Secondary (ISCED 3) Post-secondary non-tertiary (ISCED 4) Tertiary (ISCED 5-8)	Thematic	-
4.6	Skills	4.6.1 Proficiency levels in a) literacy and b) numeracy	age 15+ / age 15-24 / age 25-64 / age 25+	Global	-
	Skills	4.6.2 Youth and adult literacy rates	age 15+ / age 15-24 / age 25-64 / age 25+	Thematic	-
	Participation	4.6.3 Youth and adults in literacy programmes	age 15+ / age 15-24 / age 25-64 / age 25+	Thematic	-

Target	Concept	Indicator	Distinction levels /items*	Education 2030 FFA – SDG 4 Monitoring Level	Benchmark Indicator Monitoring level
4.7	Provision	4.7.1 Education for Sustainable Development and Global Citizenship Education mainstreamed across education	national education policies curricula teacher education student assessment	Global	-
	Provision	4.7.2 HIV and sexuality education in school	Primary (ISCED 1) Lower Secondary (ISCED 2) Upper Secondary (ISCED 3)	Thematic	-
	Provision	4.7.3 World Programme on Human Rights Education in national programmes		Thematic	-
	Skills	4.7.4 Students understanding global citizenship and sustainability	Lower Secondary (ISCED 2)	Thematic	-
	Skills	4.7.5 Students with proficiency environmental and geo-science	Lower Secondary (ISCED 2)	Thematic	-
	Provision	4.7.6 Skills recognised to be enhanced in national education		Thematic	-
4.a	School environment	4.a.1 Basic service access in schools	ISCED 1-3 electricity internet for pedagogical purposes computers for pedagogical purposes adapted infrastructure and materials for students with disabilities basic drinking water, single-sex basic sanitation, basic handwashing facilities (WASH)	Global	TES (Internet)
		4.a.2 Students experiencing bullying	in the previous 12 months primary (ISCED 1) Lower Secondary (ISCED 2)	Thematic	-
		4.a.3 Attacks on students, personnel and institutions		Thematic	-
4.b	Scholarships	4.b.1 Development assistance flows for scholarships	finished 2020	Global	-

Target	Concept	Indicator	Distinction levels /items*	Education 2030 FFA – SDG 4 Monitoring Level	Benchmark Indicator Monitoring level
4.c	Teachers	4.c.1 Trained teachers (in the past 12 months)	Early Childhood Education Primary Lower Secondary Upper Secondary	Global	Global
		4.c.2 Pupil-trained teacher ratio		Thematic	-
		4.c.3 Nationally qualified teachers		Thematic	-
		4.c.4 Pupil-qualified teacher ratio		Thematic	-
		4.c.5 Relative teacher salary		Thematic	-
		4.c.6 Teacher attrition rate		Thematic	-
		4.c.7 Teacher in-service training		Thematic	-
1.a	Financing	1.a.2 Percent of government expenditure on education	Total Early Childhood Education (ISCED 01 - 02) Primary (ISCED 1) Lower Secondary (ISCED 2) Upper Secondary (ISCED 3) Post-secondary non-tertiary (ISCED 4) Tertiary (ISCED 5-8)	Global	Global
		1.a.GDP Government expenditure on education (% of GDP)			Global

*Note: *Every indicator also requires distinction by sex where applicable. **STEM graduates have been added to this list as they are closest to TVET and Higher Education. STEM graduates is not an SDG 4 indicator, but it has been adopted as an Asia-Pacific relevant benchmark indicator.*



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Asia-Pacific Education 2030

SDG 4 Midterm Review

This publication marks the conclusion of the collaborative national midterm reviews of SDG 4 achievement in the Asia-Pacific. More importantly, it represents the beginning of the final sprint to the 2030 finish line. It also serves as a comprehensive analytical and policymaking tool for all stakeholders in the region to reflect and be better prepared for the second half of the journey.

At the midway point of implementing the Education 2030 Agenda, we are observing both challenges and progress in achieving Sustainable Development Goal 4 (SDG 4) in the Asia-Pacific. The region, overall, has made advances in reaching the globally and regionally most important targets under SDG 4, yet it is still far from delivering the common commitment of the Education 2030 Agenda, to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'.

Eight years into implementation, the Asia-Pacific has shown progress, especially in improving access to lower levels of basic education, as well as expanding early childhood education (ECE). Across most subregions of Asia and the Pacific, over 95% of primary school students complete primary education within the expected timeframe, while more than 80% of children one year before the official primary entry age are enrolled in organized early childhood education.

However, participation in education is only one part of the puzzle, and the quality of learning, evidenced by limited data for the Asia-Pacific region on learning outcomes, remains concerning. More than half of students in Eastern and South-Eastern Asia do not reach the minimum proficiency level in mathematics at the end of lower secondary education.

Overall and from a regional perspective, with priorities having accelerated in ECE, primary education reaching universal participation, and higher education being consistently regarded as prestigious to accomplish, secondary education is currently the weakest link apart from the chronically undervalued technical vocational education and training path.

Fulfilling our commitment to the Education 2030 Agenda and leaving no one behind is not an easy endeavour and we need everyone on board in this unprecedented, yet necessary feat. This publication is meant to facilitate taking stock of the current situation and accelerate focused advances on the most relevant education topics for the Asia-Pacific region.

Stay in touch

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