

THE STATE OF EDUCATION IN ASEAN

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THE STATE OF EDUCATION IN ASEAN

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Message from the ASEAN Senior Officials Meeting on Education (SOM-ED) Chair

It is my honour, on behalf of the ASEAN Senior Officials Meeting on Education (SOM-ED), to present *The State of Education in ASEAN* report. This publication comes at a pivotal moment for our region. ASEAN stands at the crossroads of profound transformation marked by demographic shifts, rapid technological change, climate risks, and evolving skills demands that are reshaping the future of learning for more than 670 million people across Southeast Asia. In this context, a clear and evidence-driven understanding of our education landscape is not only valuable, but also indispensable.

This report offers the most comprehensive and data-rich assessment of education in ASEAN to date. It brings together national data, regional analyses, policy insights, and country case studies to illuminate both our achievements and the challenges that remain. The findings reaffirm the remarkable progress that Member States have made in expanding enrolment, strengthening learning environments, improving teacher development, and advancing higher education, TVET, and lifelong learning. At the same time, it highlights persistent disparities in access, quality, and equity particularly for disadvantaged children, youth, and communities that must continue to guide our collective efforts.

As Chair of SOM-ED, I am encouraged by the clarity with which this report aligns education evidence to ASEAN's broader ambitions. Its insights will directly inform the formulation of the next ASEAN Work Plan on Education beyond 2025, helping us set strategic priorities that are forward-looking, inclusive, and responsive to the changing needs of our societies. Importantly, this report underscores that education is not only a sectoral concern; it is the backbone of ASEAN human development and is essential to achieving the aspirations of the ASEAN Community Vision 2045 – a peaceful, sustainable, resilient, and future-ready region.

I wish to commend the 11 ASEAN Member States for their valuable inputs, and whose ministries of education and national statistics authorities contributed the data, analysis, and country perspectives that form the foundation of this report. Your strong commitment to evidence-based policymaking and regional cooperation ensures that this publication reflects both national realities and ASEAN's shared priorities.

I also acknowledge the invaluable technical support of the UNESCO Institute for Statistics, whose expertise has strengthened the report's methodological rigour and analytical depth. We extend our appreciation to the peer reviewers for their thoughtful contributions, as well as to the UK Mission to ASEAN (FCDO) through the ASEAN-UK SAGE Programme for enabling the preparation and publication of this report.



As we look ahead, let this report serve as both a mirror and a guide, showing us where we stand today and illuminating the pathways toward stronger, more equitable, and more resilient education systems. Together, we must continue to invest boldly in ASEAN's greatest strength: its people.

A handwritten signature in blue ink, consisting of a stylized 'S' followed by a horizontal line and a small flourish.

H.E. Dr. Suthep Kaengsanthia
Permanent Secretary, Ministry of Education
Kingdom of Thailand



Message from the Director of UNESCO Institute for Statistics

Education lies at the core of the 2030 Agenda for Sustainable Development, reflecting a shared global commitment to inclusive and equitable quality education and lifelong learning for all. In ASEAN, education is likewise central to advancing human development and to realising the aspirations of the ASEAN Community Vision 2045 for a peaceful, sustainable, resilient, and future ready region. Achieving these ambitions requires not only strong policy leadership and sustained investment, but also reliable and comparable data to enable transparent and accountable monitoring of progress.

With just under five years remaining until the 2030 deadline for achieving the Sustainable Development Goals, a rigorous and comprehensive review of the education landscape is particularly timely and strategic. Such a review can help assess progress, inform the development of relevant and responsive policies and programmes, and identify priority areas for accelerated action towards SDG 4. The State of Education in ASEAN report provides a comprehensive and timely regional synthesis at this critical juncture. It documents notable progress across all levels of education, including the steady expansion of pre-primary participation, sustained gains in access to primary and lower secondary education, and rising enrolment in higher education as well as technical and vocational pathways. Improvements in school infrastructure, basic facilities, and teacher availability have further strengthened the foundations of learning across much of the region. Building on these achievements, it is now imperative that expanded access be accompanied by sustained improvements in learning outcomes, inclusion, and overall system effectiveness.

Robust and internationally comparable data are indispensable to this effort. By aligning its analysis with the monitoring framework of Sustainable Development Goal 4 and drawing on authoritative international and national education statistics, the report strengthens the link between policy ambition and measurable results. It also underscores the need for continued investment in education data systems, particularly in areas where information remains limited, including learning outcomes, equity dimensions, teacher development, lifelong learning, and emerging domains such as digital transformation and climate resilience. Reliable measurement, supported by rigorous statistical standards and strengthened national data systems, is not a technical afterthought; it is fundamental to accountability, transparency, and effective education reform.

The UNESCO Institute for Statistics is proud to have partnered with the ASEAN Secretariat and its Member States in the preparation of this report. This collaboration reflects a shared commitment to evidence-based policymaking and to strengthening national capacities in education statistics and analysis. We firmly believe that the report and its findings, including policy recommendations grounded in rigorous analysis, will make a valuable contribution to advancing education development across the region. As ASEAN moves its education agenda forward beyond 2025, UIS remains committed to supporting efforts to enhance data quality, improve international comparability, and strengthen the measurement of equitable learning outcomes and lifelong learning opportunities for all.



Ultimately, education systems are defined not only by the scale of participation, but by the capabilities they nurture and the opportunities they create across the life course. When every learner acquires the competencies, skills, and confidence to participate fully and thrive in society, education fulfils its promise as a cornerstone of human dignity and shared prosperity. Guided by evidence and centred on learners, ASEAN is well positioned to continue strengthening education systems that are equitable, resilient, and forward looking. The UNESCO Institute for Statistics stands ready to support this collective endeavour.

A handwritten signature in black ink, located below the main text and above the name.

Mr. Svein Østtveit
Director a.i.
UNESCO Institute for Statistics



Acknowledgements

The State of Education in ASEAN report fulfils a strategic commitment under the ASEAN Work Plan on Education 2021–2025. Coordinated by the ASEAN Secretariat and principally developed by the UNESCO Institute for Statistics (UIS), the report takes stock of educational development and progress across the region, drawing on internationally comparable data, national policy analysis, and regional consultations. It examines achievements, persistent challenges, and emerging priorities shaping education in ASEAN, and serves as a foundational resource for the development of the ASEAN Work Plan 2026–2030.

We gratefully acknowledge the Government of the United Kingdom for its generous support to the preparation of this report, made possible by funding from the Foreign, Commonwealth and Development Office (FCDO) via the UK Mission to ASEAN and the ASEAN-UK Supporting the Advancement of Girls' Education (SAGE) Programme.

This report was developed and made possible through the technical expertise and knowledge shared by many individuals and organisations, whom we thank:

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Finally, we extend our sincere thanks to the core report preparation team, Dr. Roshan Bajracharya (UIS, Team Leader), Mr. Bohong Nie (UIS Consultant), Mr. Shailendra Sigdel (UIS Statistical Adviser) and Ms. Jingxuan Wang (UIS Intern), whose dedication and sustained efforts were central to the completion of this report.



Executive Summary

Introduction: Purpose, Scope and Approach

ASEAN is a dynamic and increasingly integrated regional community. Education plays a central role in its vision of inclusive growth, social cohesion, and economic competitiveness. Over time, Member States have strengthened cooperation through shared frameworks, peer learning, and regional platforms that reinforce national reforms.

The State of Education in ASEAN is the first ASEAN-wide education situation analysis covering the full education continuum. This report has been prepared to inform the development of ASEAN's post-2025 education agenda, strengthen the evidence base for policymaking, and reinforce regional cooperation in pursuit of shared strategic objectives.

The analysis draws on quantitative data from the UNESCO Institute for Statistics, ASEANstats, the World Bank, and national statistical authorities, complemented by literature reviews, qualitative case studies, national policy analyses, and consultations with ministries, educators, and development partners. It provides a common evidence base for senior regional officials, national authorities, and the regional institutions responsible for shaping ASEAN's education priorities.

ASEAN is entering a period of deeper education transformation, shifting its focus from expanding access to strengthening learning outcomes, equity, and system effectiveness. The region does so with a strong foundation built on expanded participation, institutional development, and deepening regional collaboration.

However, the challenges ahead are more complex. Expanding access and reaching the unreached remain essential, but enrolling more learners is no longer enough; systems must now ensure that participation leads to meaningful learning, reduced disparities, and readiness for rapid technological, demographic, environmental and economic change. Access has grown, yet improvements in learning quality and inclusion have yet to keep pace.

A Region Confronting Structural Pressures and Emerging Opportunities

Education systems across ASEAN are being reshaped by economic, demographic, technological, and environmental shifts that create both challenges and openings for reform. Economic growth and rising human development have improved the enabling environment for learning; however, persistent inequality, health disparities, and digital divides continue to influence who benefits from education. Labour markets are moving rapidly toward services, digitalisation, and green growth, increasing demand for higher-order and transferable skills that current systems are still adapting to deliver.

Demographic change is pulling countries in different directions: ageing societies must reorient toward lifelong learning and system efficiency, while younger, higher-fertility countries face pressure



to expand early childhood and upper secondary provision. Climate change is disrupting learning continuity and exposing weaknesses in school safety and infrastructure resilience, particularly for disadvantaged communities. At the same time, digital transformation is opening new possibilities for access, innovation, and teacher support, even as it risks widening divides without targeted investment. Together, these forces create a moment of strategic opportunity for ASEAN to advance its education systems, strengthen resilience, and align learning more closely with the region's economic and social ambitions.

Sector-wide Performance Review



Early Childhood Education (ECE): Participation has increased, yet provision for children under 3 remains extremely limited. Governance is fragmented, the workforce faces shortages and low professional status, and public financing is insufficient. Children from disadvantaged households, those who benefit most from early intervention, are least likely to access high-quality services. ECE remains a relatively underdeveloped and fragmented area of the education system in many ASEAN contexts and the region's great opportunity for equity and long-term learning.



Basic Education: Primary and lower secondary access has expanded, but exclusion has shifted upward. Upper secondary education now accounts for more than half of out-of-school adolescents and youth. Economic pressures, limited rural provision, early labour-market entry, and weak pathways contribute to dropout. Foundational literacy and numeracy remain the most urgent challenge, with persistent gaps by income, location, and language of instruction.



TVET and Higher Education: TVET (technical and vocational education and training) participation is relatively high by global comparison, though quality and relevance vary widely. Employer engagement is inconsistent, work-based learning opportunities are limited, and pathways to higher-level qualifications are unclear. High NEET rates signal weak school-to-work transitions.

Higher education has expanded rapidly across the region; however, completion rates continue to lag behind enrolment. While ASEAN countries are producing substantial numbers of graduates in STEM disciplines (science, technology, engineering, and mathematics), female students remain underrepresented in these fields, and alignment with evolving labour-market needs remains an emerging concern. Limited availability of disaggregated data further constrains a comprehensive understanding of equity patterns within higher education.



Lifelong Learning: Youth literacy is near universal, but older adults record substantially lower literacy levels. Adult participation in skills development is extremely low, revealing a structural imbalance between youth-focused systems and the growing need for reskilling and upskilling. Non-formal education remains under-resourced and weakly integrated into qualifications frameworks. Lifelong learning is the most underdeveloped dimension of ASEAN's education systems.



Learning environments: Learning environments have improved, but disparities persist in infrastructure quality, climate resilience, and digital readiness. Rural and disadvantaged schools are more likely to lack safe buildings, basic services, and connectivity. Inclusive infrastructure for learners with disabilities remains limited.



Teachers: Teachers remain the most important determinant of education quality. Challenges persist in preparation, subject specialisation, deployment, and continuous professional development. Early childhood educators face more constrained conditions.



Education financing: Education financing is a structural constraint. Public expenditure shares have stagnated or declined, often below international benchmarks. Early childhood, disadvantaged schools, non-formal education, and adult learning remain systematically underfunded, reinforcing inequities.



Equity and inclusion: Socioeconomic status, gender, geographic location, disability, migration status, and ethnicity constitute structural determinants of participation and learning outcomes across education subsectors. Poor rural boys face the highest dropout risk in many countries, while poor rural girls face compounded disadvantages in others. Children with disabilities, migrant and stateless learners, and linguistically diverse students face systemic barriers. Equity challenges are embedded in system design and require sustained, targeted action.

Strategic Directions for ASEAN's Post-2025 Education Agenda

The evidence presented in this report points to the need for a coherent sector-wide reorientation. Building on gains in access, ASEAN's post-2025 agenda must prioritise quality, equity, system alignment, and long-term resilience across all levels of education.

- Early childhood education should be firmly established as the foundation of the education system through strengthened legal entitlements, expanded and sustained public investment, reinforced quality assurance mechanisms, and the professionalisation of the early childhood workforce.
- Foundational learning must become a non-negotiable system priority. This requires improving early-grade pedagogy, strengthening teachers' assessment literacy, expanding formative assessment practices, and embedding structured learning recovery strategies within mainstream policy frameworks.
- Upper secondary education systems should focus on improving retention and strengthening transitions. Diversified pathways, greater permeability between general and vocational streams, expanded flexible and second-chance opportunities, and enhanced student support services are essential to reducing dropout and improving progression.
- Technical and vocational education and training must be more closely aligned with labour-market transformation. Enhancing programme quality and relevance, deepening employer engagement, expanding work-based learning, and integrating foundational, digital, and green skills will be critical to improving employability and adaptability.



- Higher education systems should strengthen quality and equity by improving completion rates, addressing field-of-study imbalances, reinforcing quality assurance frameworks, and widening participation among underrepresented groups.
- Lifelong learning systems require systematic development. Integrating non-formal education into national qualifications frameworks, strengthening recognition of prior learning, and expanding targeted support for low-skilled and older populations are essential to fostering adaptability across the life course.
- Education financing must be reaffirmed as a core public investment priority. Increasing the share of public expenditure allocated to education, improving spending efficiency, and adopting needs-based funding formulas are necessary to sustain progress and reduce disparities.
- Equity and inclusion must be embedded across all reforms. Strengthening early identification of learning risks, expanding targeted financial support mechanisms, and improving the availability and use of disaggregated and intersectional data are central to ensuring that system expansion benefits all learners.
- System-wide readiness for the ethical and equitable integration of artificial intelligence should be strengthened through coherent national strategies, teacher upskilling, equitable access to digital tools, and robust governance frameworks.
- Finally, strengthening education data systems and deepening regional cooperation are essential to evidence-based policymaking. Modernising education management information systems, closing persistent data gaps, and harmonising regional indicators will enhance monitoring of SDG 4 and emerging post-2025 priorities.

A Strategic Inflection Point

ASEAN has demonstrated that sustained commitment, deliberate policy efforts, and regional cooperation can expand educational opportunity at scale. The next stage of progress calls for deeper structural reform to ensure that expanded access leads to meaningful learning, that learning translates into relevant skills, and that skills drive inclusive and sustainable development across the region.

The post-2025 agenda is not simply about expansion. It is about coherence, resilience, and equity. By consolidating foundational learning, strengthening teacher systems, investing strategically, expanding flexible pathways, advancing digital transformation and climate resilience, and embedding inclusion across all reforms, ASEAN can build education systems that are not only larger but stronger. These systems must be capable of equipping all learners, at every stage of life, to navigate an increasingly complex and interconnected future. Ultimately, ASEAN's ambitions can only be fulfilled through education systems that are both future-ready and resilient, supported by sustained regional cooperation that amplifies national efforts.



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Glossary

Acronyms of ASEAN Member States

BRN	Brunei Darussalam
IDN	Indonesia
KHM	Cambodia
LAO	Lao People's Democratic Republic
MMR	Myanmar
MYS	Malaysia
PHL	The Philippines
SGP	Singapore
THA	Thailand
TLS	Timor-Leste
VNM	Viet Nam

Other Acronyms

AMPL	Assessment for Minimum Proficiency Level
API	Adjusted Parity Indices
AQRF	ASEAN Qualifications Reference Framework
ASEAN	Association of Southeast Asian Nations
ASEANstats	ASEAN Statistics Division
AUN	ASEAN University Network
COVID-19	coronavirus disease 2019
CLMV countries	Cambodia, Lao PDR, Myanmar, and Viet Nam
DEFA	Digital Economy Framework Agreement
ECCE	Early Childhood Care and Education
ECD	Early Childhood Development
ECED	Early Childhood Educational Development
ECE	Early Childhood Education
ESD	Education for Sustainable Development
GAML	Global Alliance to Monitor Learning
GDP	Gross Domestic Product
GEM	Global Education Monitoring



GER	Gross Enrolment Ratio
GPIA	Adjusted Gender Parity Index
HEIs	Higher Education Institutions
ICT	Information and Communications Technology
ISCED	International Standard Classification of Education
LMIC	Lower Middle-Income Country
LPIA	Adjusted Location Parity Index
MOE	Ministry of Education
MPL	Minimum Proficiency Level
NEET	Not in Employment, Education or Training
NER	Net Enrolment Rate
NFE	Non-formal Education
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OOSCY	Out-of-school Children and Youth
OOSR	Out-of-school Rates
PISA	Programme for International Student Assessment
PLCs	Professional Learning Communities
PQTR	Pupil-Qualified Teacher Ratio
PTTR	Pupil-Trained Teacher Ratio
SDG	Sustainable Development Goal
SEAMEO	Southeast Asian Ministers of Education Organization
SEA-PLM	Southeast Asia Primary Learning Metrics
STEM	Science, Technology, Engineering, and Mathematics
TES	Transforming Education Summit
TGE	Total Government Expenditure
TIMSS	Trends in International Mathematics and Science Study
TVET	Technical and Vocational Education and Training
UIS	UNESCO Institute for Statistics
UNDP	United Nations Development Programme
UN ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UMIC	Upper Middle-Income Country
WASH	Water, Sanitation and Hygiene
WPIA	Adjusted Wealth Parity Index



Chapter 1

Introduction



This first chapter sets the stage by providing the background and rationale for the report, outlining its key objectives, and describing the methodology used to prepare it. It also examines the scope and limitations of the analysis, offering essential context for interpreting the findings presented in subsequent chapters. Together, these elements introduce the purpose and structure of *The State of Education in ASEAN* report and prepare readers for the detailed assessment that follows.

1.1 Background and Rationale

The Association of Southeast Asian Nations (ASEAN) is one of the world's most dynamic regions, characterised by sustained economic momentum and deepening regional integration. The bloc has also strengthened its economic position, rising from the eleventh-largest economy in 2000 to the fifth-largest in 2023 (OECD, 2024). In 2022, the combined population of the ASEAN Member States stood at 671.7 million, reaffirming ASEAN's position as the third most populous region in the world after India and China (ASEAN Secretariat, 2023a). With a significant proportion of this population comprising children and young people, the region stands at a demographic crossroads. Realising the potential of this demographic dividend will require sustained and strategic investment in education, not only to expand individual opportunity, but also to secure inclusive growth, social cohesion, and long-term regional competitiveness. Without such investment, this demographic advantage risks translating into widening inequality, skills mismatches, and uneven development across and within Member States.

Education has long been recognised within ASEAN as a fundamental human right and a cornerstone of socio-economic development, resilience, regional integration, and global competitiveness. It is central to the region's aspirations for human capital development and social cohesion, functioning both as a driver and an outcome of sustainable development. At the same time, ASEAN is characterised by significant diversity in socio-economic conditions, demographic profiles, institutional capacity, and education system design. This diversity is a source of strength, but it also introduces complexity, requiring education development to be pursued through a shared regional vision that remains responsive to national contexts.



Over the past two decades, ASEAN Member States have made substantial progress in expanding access to education, strengthening learning environments, and investing in teacher development. These efforts have been supported by sustained national reforms and growing regional cooperation, including through the ASEAN Work Plan on Education 2021–2025, which has provided a common framework for advancing collaboration across education subsectors. Despite these achievements, substantial challenges persist. Disparities in access, quality, and relevance of education remain evident both within and between countries, often reflecting deeper structural inequalities linked to income, geography, gender, disability, and migration status. In several contexts, learning outcomes have not improved at the pace required to meet national development ambitions, while post-pandemic recovery remains uneven. These disparities risk undermining social mobility, labour-market alignment, and regional integration if not addressed in a coordinated and sustained manner.

These challenges are further intensified by evolving regional and global dynamics. The lasting effects of the COVID-19 pandemic, rapid technological change, climate-related risks, and shifting demographic patterns are reshaping education systems and altering the skills and competencies required for social participation and employment. As ASEAN prepares to articulate the next phase of its regional education cooperation beyond 2025, there is a clear imperative to take stock of current conditions, assess progress achieved, and identify remaining gaps. While national education reviews provide valuable insights, a regional synthesis offers added value by identifying shared structural trends, benchmarking progress against common commitments, and facilitating mutual learning across diverse systems. At a moment when ASEAN is shaping its post-2025 education agenda, a consolidated evidence base is essential to support strategic priority setting, strengthen policy coherence, and enhance collective action across Member States.

In response to this need, the Regional Situation Analysis of Education in ASEAN project was launched to provide a comprehensive and policy-relevant assessment of education systems across the region. Endorsed by the ASEAN Senior Officials Meeting on Education (SOM-ED) in December 2024, the project is jointly implemented by the UNESCO Institute for Statistics (UIS) and the ASEAN Secretariat, with financial support from the UK Mission to ASEAN, Foreign, Commonwealth and Development Office (FCDO) under the ASEAN-UK Supporting the Advancement of Girls' Education (SAGE) Programme. The main output of the project, *The State of Education in ASEAN* report, represents the first comprehensive ASEAN-wide education situation analysis, providing a shared evidence base to support the region's future education agenda.

1.2 Objectives of the Report

The State of Education in ASEAN report aims to provide a comprehensive, evidence-based assessment of education across the region, offering a consolidated analysis of trends, challenges, and policy responses to inform regional cooperation and guide future planning, including the post-2025 ASEAN Work Plan on Education.

More specifically, this analysis seeks to:



- provide an authoritative, data-driven overview of the education landscape across ASEAN;
- present a consolidated regional picture of education status and trends across the education continuum;
- examine progress made, as well as persistent gaps, in ensuring access to equitable and high-quality education;
- analyse how socio-economic, demographic, and technological shifts are shaping education systems and outcomes;
- review the effectiveness of selected national and regional policies and programmes;
- identify emerging challenges and opportunities and draw out policy-relevant insights; and
- contribute evidence to inform regional dialogue and future education cooperation.

Together, these objectives position the report as a regional synthesis designed to strengthen evidence-based policymaking, mutual learning, and collaboration among ASEAN Member States.

1.3 Methodology

The analysis adopts a mixed-methods approach, combining quantitative data analysis with a qualitative and policy-oriented review to ensure a comprehensive understanding of education in ASEAN. This approach allows the report to capture both regional patterns and country-specific contextual factors. The project was implemented over a period of approximately one year, from early 2025 through January 2026, encompassing literature review, data analysis, consultations, and expert peer review to produce the final report.

Key steps involved are provided below:

Literature and Document Review

A literature review established the contextual and policy backdrop, drawing on global, regional, and national frameworks, education strategies, academic research, and statistical reports. This review provided the foundation for understanding system structures, policy priorities, and emerging challenges.

Quantitative Analysis

A quantitative analysis drew primarily on the UNESCO Institute for Statistics (UIS) database, which provides the most comprehensive and comparable education data across ASEAN. This core dataset was supplemented with indicators from ASEANstats, World Bank Open Data, and national statistical authorities to ensure coverage of demographic, economic, and system-level variables not captured by UIS. Together, these sources enabled a multidimensional review of education system performance. All indicators were selected and organised in alignment with the SDG 4 monitoring framework, allowing the analysis to benchmark regional progress against global commitments while highlighting persistent gaps and emerging trends across ASEAN. Indicators were specifically selected to reflect key dimensions of SDG 4, including access, participation, completion, learning outcomes, teacher availability and qualifications, learning environments, and education financing.



Stakeholder Consultations

Stakeholder consultations formed an integral part of the methodology. Engagement with ministries of education, school leaders, teacher associations, civil society organisations, youth representatives, and development partners was undertaken through focus group discussions and bilateral consultations. These exchanges fostered shared responsibility and ownership of the report, ensuring that the analysis captures multiple perspectives and reflects the realities of those working within and benefiting from education systems.

Thematic Review

The analysis integrates thematic reviews of selected countries and sub-regions, providing concrete illustrations of challenges and innovative responses. A comparative thematic review was also conducted to assess the extent to which national strategies align with regional frameworks and global commitments, while identifying persistent gaps.

Case Studies and Best Practices

Throughout the report, short case studies and best practices are presented in dedicated boxes to illustrate and substantiate key points. These examples were identified through a review of available reports and publications, with additional cases recommended by experts and relevant officials from ASEAN Member States. Together, they offer concrete illustrations of effective approaches, emerging innovations, and promising initiatives across the region.

Multi-stage Review and Validation

The draft report subsequently underwent a multi-stage review and validation process. Education officials from ASEAN Member States reviewed the analysis for data accuracy, interpretation, and contextual relevance, followed by revisions based on their feedback. Preliminary findings of the report were presented at a meeting of the ASEAN Senior Officials Meeting on Education (SOM-ED), providing education focal points from ASEAN Member States with an opportunity to review key analytical messages and offer initial feedback.

A regional consultation was subsequently convened jointly by UIS and the ASEAN Secretariat, bringing together education focal points from ASEAN Member States to review updated findings, exchange perspectives, and ensure that the analysis reflects regional priorities and country contexts.

Following this, the revised draft was subjected to external expert review by regional and international specialists in education policy, planning, and statistics. Their comments contributed to further refinement of the analysis, strengthening methodological clarity, interpretive rigour, and policy relevance. The report was updated again to reflect these expert inputs, ensuring both technical robustness and regional ownership.

Throughout the process, care was taken to ensure consistency, transparency, and comparability, while respecting national contexts and data constraints.



1.4 Scope and Analytical Framework

The report is a sectoral review covering the entire education continuum across ASEAN. It provides a broad and integrated understanding of education, covering the full learning continuum, from early childhood education through basic and secondary education to technical and vocational education and training (TVET), higher education, adult learning, and literacy. It also considers the conditions that enable effective education delivery, including learning environments, teacher development, education financing, and system governance.

Analytically, the report is anchored in the global Sustainable Development Goal on education (SDG 4), which calls for inclusive and equitable quality education and lifelong learning opportunities for all. While SDG 4 serves as the primary monitoring anchor, the report adopts a broader systems perspective, examining not only outcomes and participation indicators, but also the structural, institutional, and policy conditions that shape education performance across the region. At the same time, the analysis is closely aligned with regional policy frameworks, including the ASEAN Work Plan on Education and SEAMEO's strategic priorities, ensuring relevance to regional cooperation and policymaking.

Rather than ranking countries, the report focuses on identifying regional trends, highlighting diversity across national contexts, and drawing attention to structural factors that influence education outcomes. Particular attention is given to equity, recognising that national averages often conceal deep disparities linked to income, gender, location, disability, migration status, and other forms of disadvantage.

1.5 Limitations

Several methodological and data-related limitations should be considered when interpreting the findings of this report.

Data availability and coverage

Despite improvements in regional data systems, gaps remain in certain areas, particularly under SDG target 4.7 (education for sustainable development and global citizenship education) and in emerging domains such as digital education and technology integration. Limited availability of internationally comparable data in these areas constrains the depth of quantitative analysis and restricts the ability to provide comprehensive regional assessments. In some instances, proxy measures or partial datasets are used, which may not capture the full picture of these themes.

Use of qualitative and country-specific information

The report incorporates selected case studies and policy examples to illustrate promising practices and reform trajectories. These insights and supporting data are drawn primarily from national documentation and publicly available sources, and some are collected directly from countries and are context specific. They are intended to provide illustrative examples rather than exhaustive coverage of national efforts. Differences in scope, documentation practices, and reporting standards



mean that such examples should not be interpreted as directly comparable across countries, nor as definitive assessments of overall system performance.

Temporal discrepancies in data

Due to the nature of international data collection cycles and varying national submission timelines, the analysis may draw on data from different reference years across countries. While the most recent available data have been used in each case and data prior to 2015 are generally excluded from analysis, year-to-year variations may affect comparability and trend interpretation. Readers are therefore encouraged to exercise caution when comparing values across countries or interpreting short-term changes.

Overall, these limitations reflect structural constraints inherent in regional synthesis based on internationally reported data and secondary sources. While they may restrict the level of precision in certain analyses, they do not diminish the report's value as a comprehensive overview of education trends, policy orientations, and system characteristics across ASEAN.

1.6 Intended Use and Audience

The *State of Education in ASEAN* report is intended to serve multiple audiences. For regional policymakers, it provides an evidence base to inform collective priority setting and the development of the post-2025 ASEAN Work Plan on Education. For national governments, it offers comparative insights that can support policy refinement and reform design. For development partners, it highlights regional trends and investment priorities to guide programming and technical cooperation. For researchers and the wider public, it presents a consolidated and accessible overview of education developments across ASEAN.

Ultimately, the report seeks not only to document the current state of education in the region, but also to support informed dialogue, strategic decision-making, and collective action. By bringing together comparable data, policy analysis, and contextual insights, it aims to contribute to stronger, more equitable, and more resilient education systems across ASEAN.

1.7 Structure of the Report

The report is structured to guide readers from the broader regional context into progressively deeper layers of analysis, before concluding with forward-looking reflections. It opens with this Chapter 1, which introduces the purpose, rationale, and methodological foundations of the study. From there, Chapter 2 situates education within ASEAN's wider social and economic landscape, offering the contextual backdrop necessary to understand system performance and policy choices.

Building on this foundation, Chapter 3 provides an overview of the region's education architecture, describing the policy frameworks, governance arrangements, and system structures that shape how education is organised across Member States. The narrative then moves into its analytical core in



Chapter 4, which examines the education continuum in detail – from early childhood education through basic, technical and vocational, higher, and adult learning – while also assessing the enabling conditions that support or constrain progress, such as teachers, financing, and learning environments.

With this comprehensive picture in place, Chapter 5 turns to the question of equity, exploring who benefits most from current systems and who continues to be left behind. This is followed by Chapter 6, which assesses ASEAN's progress toward SDG 4 benchmarks, providing a clear sense of how the region is advancing toward global commitments and where further effort is required.

The report concludes with Chapter 7, which synthesises the key findings and major insights from the analysis and reflects on the policy implications for the future of education cooperation in ASEAN.

All in all, these chapters provide a comprehensive and interconnected analysis of education systems across ASEAN. At a pivotal moment for regional education cooperation, this report seeks not only to assess the current state of education in ASEAN, but also to inform the region's strategic choices for the years ahead. By combining comparative data, policy analysis, and contextual insights, it aims to support more coherent, equitable, and forward-looking education systems capable of responding to demographic shifts, technological change, and evolving development priorities.



Chapter 2

Social and Economic Contexts of ASEAN



This chapter frames education in ASEAN within its broader social, economic, demographic, technological, and environmental contexts. It examines recent economic performance and labour-market trends, demographic shifts affecting education demand, and progress in health and human development alongside persistent disparities. The chapter also explores digital transformation and its implications for equity and learning, before concluding with climate change as a critical factor shaping education systems and the role of education in resilience and sustainable development.

2.1 Macro-economic and Labour-market Context

ASEAN has emerged as one of the world's most vibrant and fastest-growing economic regions, recording an annual GDP growth rate of 4.8 per cent in 2024. The region's combined GDP reached USD 3.9 trillion, positioning ASEAN as the world's fifth-largest economy, with an average GDP per capita of USD 5,759 (ASEAN Secretariat, 2025a). Over the past decade, economic expansion has been accompanied by measurable improvements in socio-economic outcomes across Member States. According to *ASEAN Key Figures 2025*, the proportion of the population living below national poverty lines has declined in most countries with available data compared with 2016 levels, and income inequality, as measured by the Gini ratio, has decreased in most economies. These trends indicate that growth has increasingly translated into broader welfare gains, even as income levels and development trajectories vary across the region.

Indonesia remains ASEAN's largest economy, with a GDP of nearly USD 1.4 trillion, while Singapore records the highest GDP per capita at USD 90,690, in 2024. Growth performance also differs across countries, with Cambodia expanding by 5.6 per cent, Malaysia by 5.1 per cent, the Philippines by 5.6 per cent, and Viet Nam by 7.1 per cent in 2024. Together, these patterns underscore both the region's overall momentum and the persistent heterogeneity that shapes ASEAN's economic landscape.

Alongside sustained growth, ASEAN economies are undergoing structural transformation with significant implications for labour markets and human capital development. Employment across most Member States is increasingly concentrated in the services sector, which accounts for the largest share of total employment, and reflects the expanding role of services in driving economic activity. The region has also maintained relatively high labour force participation, and unemployment remained low at 3.6 per cent in 2024, supported by robust growth, deeper regional integration, and rising investment flows. As labour demand shifts toward more service- and



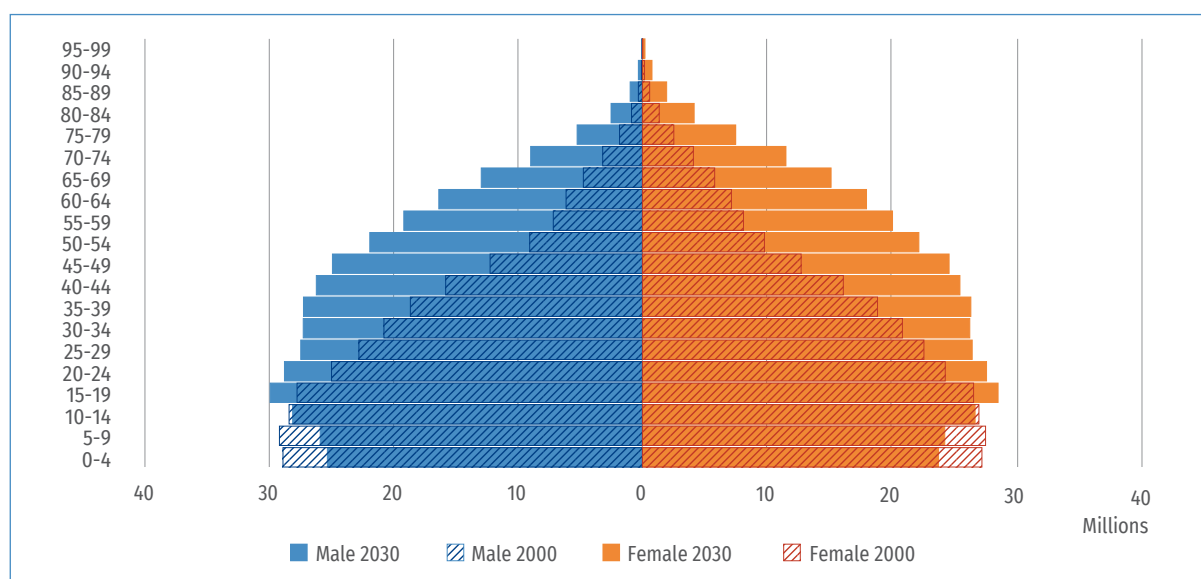
knowledge-intensive activities, the alignment between education and training systems and evolving labour-market needs becomes increasingly critical to sustaining productivity gains and ensuring that workers can access emerging opportunities.

2.2 Demographic Shifts in ASEAN and its Implications for Education

ASEAN's population structure has undergone profound changes over the past few decades. Historically, many ASEAN Member States were characterised by youthful populations, with high fertility rates and a large share of children and youth. This demographic profile supported economic growth by expanding labour supply and generating favourable dependency ratios. As fertility rates have declined and life expectancy has increased, demographic patterns are shifting, gradually reducing the scope for income growth driven primarily by labour-force expansion. In this evolving context, further improvements in living standards will increasingly depend on inclusive development pathways that prioritise human capital development, raise productivity, and foster innovation.

Figure 1 illustrates this transition clearly: in 2000, the ASEAN population structure had a broad base, with children aged 0–14 accounting for a large share of the total population. By 2030, the base is projected to narrow significantly, reflecting sustained declines in fertility. At the same time, the upper age groups widen substantially, indicating ageing across the region. The proportion of older persons is rising steadily across the region, especially in countries such as Thailand and Singapore. In Thailand, nearly 30 per cent of the population is projected to be over 60 by 2050 (ERIA, 2021), while Singapore continues to experience a rapid pace of population ageing: according to government statistics, 20.7 per cent of Singaporeans were aged 65 and above, up from 13.1 per cent in 2015, and this is projected to reach approximately 24 per cent by 2030 (National Population and Talent Division, 2025).

Figure 1. Population structure of ASEAN by sex, 2000 and 2030 (projections)



Source: UN Population Division Data Portal (Accessed September 2025).

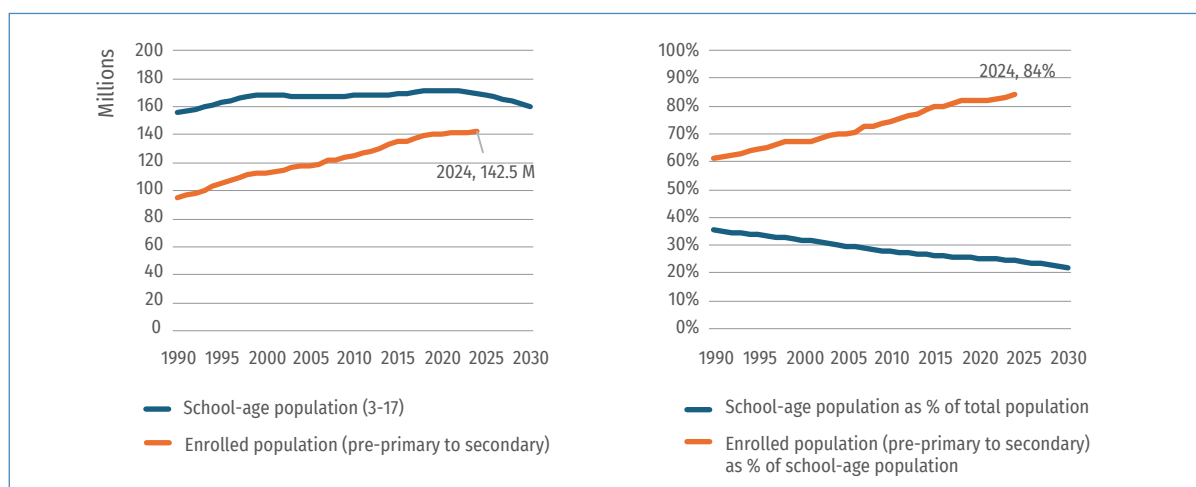


While the regional trajectory clearly points towards declining fertility rates and fewer births, it is also important to recognise the substantial variation in demographic dynamics across ASEAN Member States. According to UN Population Division data, all eleven countries have experienced declines in total fertility rates between 2000 and 2023, yet they remain at different stages of the demographic transition. Broadly, ASEAN Member States can be grouped into three clusters. A first group has very low fertility levels (below 1.9 births per woman, total fertility rate under 1.9), including Singapore, Thailand, Malaysia, and Brunei Darussalam, where population ageing and shrinking cohorts of school-age children are already prominent. A second group comprises countries with total fertility rates around replacement level (approximately 2.1), notably Viet Nam, the Philippines, Myanmar, and Indonesia, where demographic pressures are more balanced and transitions are still unfolding. A third group, including Lao PDR, Cambodia, and Timor-Leste, continues to record higher fertility rates (above 2.4), implying ongoing growth in school-age populations and sustained demand for expansion of education services. Recognising this heterogeneity is essential for interpreting regional trends and for understanding how demographic change translates into differentiated implications for education planning, financing, and system capacity across ASEAN.

ASEAN's demographic transition is also reflected in trends in the school-age population and enrolment. As shown in Figure 2, the number of children aged 3–17 (most common ages for pre-primary to secondary education) remained relatively stable between 1990 and 2020, fluctuating around 155 to 170 million, before peaking at about 171.6 million in 2021. Projections suggest that this cohort will begin to decline gradually towards 2030, driven by slowing population growth and lower fertility rates. At the same time, enrolment from pre-primary to secondary education has expanded markedly. The enrolled population increased from around 95 million in 1990 to 142.5 million in 2024, converging closely with the total school-age population. This reflects the region's strong progress in extending education opportunities over the past three decades.

The share of school-age children, adolescents, and youth in the overall population has also declined significantly, falling from about 35 per cent in 1990 to a projected 22 per cent by 2030. This shift underscores the broader demographic transition underway in ASEAN, with younger cohorts representing a shrinking proportion of society. By contrast, the enrolment rate as a share of the school-age population has risen steadily, from roughly 61 per cent in 1990 to 84 per cent in 2024.

Figure 2. Demographic change in school-age population (aged 3–17) and enrolment in ASEAN, 1990–2030



Source: UN Population Division Data Portal and UIS Database (Accessed January 2026).



The changing population structure carries significant implications for education systems across ASEAN. Declining fertility and smaller school-age cohorts reduce demand at the lower levels of education, resulting in under-enrolled schools and, in some cases, prompting school consolidation or closure. While this trend may help optimise resources and enable greater investment in teaching and learning quality, it also creates new challenges for equity and access. Smaller schools, particularly in rural and remote areas, are often the first to face consolidation, which can increase the distance children must travel and limit access for the most disadvantaged.

Thailand provides a clear illustration of the potentially disruptive effects of demographic decline on education systems. The number of births has fallen sharply, from 1.22 million in 1971 to just 461,421 in 2024, placing sustained downward pressure on school enrolment. As a result, more than 1,200 schools were consolidated nationwide between 2017 and 2023, highlighting the scale of adjustment required in response to shrinking student cohorts (The Bangkok Post, 2025). However, evidence suggests that such consolidation is not necessarily detrimental if managed strategically. A World Bank study (2015) found that the majority of small schools in Thailand, defined as enrolling fewer than 120 students, were located within a 20-minute travel distance of another school. The report further suggested that school closures, when accompanied by careful planning and adequate support, can create opportunities for consolidation into fewer but larger and better-resourced schools, with potential gains in facilities, teacher deployment, learning resources, and overall efficiency of public education spending.

These shifts highlight the dual challenge facing ASEAN Member States: balancing efficiency gains from demographic change with the imperative to safeguard equitable access, particularly for vulnerable groups. At the same time, the transition offers an opportunity to reorient education policy towards improving quality and relevance, preparing learners with the skills needed for rapidly evolving economies and ageing societies.

2.3 Improved Health Outcomes and Human Development Index in ASEAN

With rapid economic development, ASEAN countries have experienced notable improvements in healthcare provision, health security, and overall longevity. Domestic government health expenditure per capita has risen substantially across the region.¹ For instance, Thailand's per capita spending increased from USD 34 in 2000 to USD 269 in 2022, while Viet Nam's grew from USD 8.65 to USD 82 over the same period. The most pronounced increase occurred in Singapore, where spending rose more than eightfold, from USD 289 in 2000 to USD 2,450 in 2022. Nevertheless, in several ASEAN Member States, government health expenditure per capita remained below USD 15 in 2022, underscoring persistent disparities in public investment. The availability of physicians has also generally improved, reflected in rising numbers of doctors per 1,000 population, although significant shortages remain in some countries where access to medical professionals is still limited.

¹ Domestic general government health expenditure data retrieved from the World Health Organization (WHO) Global Health Expenditure database.



Health outcomes for children have seen remarkable progress. In 2023, eight out of eleven ASEAN Member States recorded under-five mortality rates lower than the global average of 36.7 per 1,000 live births. Singapore, Malaysia, Thailand, and Brunei Darussalam lead the region, with fewer than 10 deaths (before reaching the age of 5) per 1,000 live births, highlighting significant advances in child survival. Improved health systems have also contributed to gains in life expectancy at birth across the region, reinforcing broader progress in human development. All eleven ASEAN Member States have recorded increases since 2000, consistent with expanded access to essential health services, improvements in maternal and child health, and sustained investments in public health infrastructure. However, data from the *World Bank World Development Indicators (2023)* show that life expectancy levels continue to vary widely across countries, pointing to differing stages of health-system development and demographic transition within the region.

These improvements in longevity are mirrored in the region's Human Development Index (HDI) trajectory. According to the latest HDI release by the United Nations Development Programme (2025), ASEAN has maintained a generally upward trend in HDI over the past two decades, shifting from a predominantly medium-HDI profile in the early 2000s to a more diverse profile today, spanning very high, high, and medium HDI categories. Although gaps between the highest- and lowest-HDI countries have narrowed gradually, notable disparities persist.

Overall, gains in population health outcomes have been a consistent feature of socio-economic change across ASEAN and are reflected in gradual HDI improvements, with longevity serving as a core component. While regional trends point to continued progress, cross-country differences in life expectancy remain substantial, indicating that improvements in health outcomes have not been uniform across the region.

2.4 Technological Development and its Implications for Education

ASEAN has advanced rapidly in digitalisation, supported by expanding digital infrastructure, growing connectivity, and institutional alignment across Member States (ERIA, 2023). The ASEAN Digital Integration Index, which tracks progress in infrastructure, adoption, and governance, shows that the region is among the fastest in the world in digital uptake (USAID and ASEAN, 2021). Regional initiatives and policy frameworks such as the ASEAN Digital Masterplan 2025, e-commerce agreements, cross-border single windows, and unified QR payment systems, further demonstrate ASEAN's ambition to fully harness the benefits of digital transformation.

At the same time, the region has made significant strides in technological manufacturing and energy transition. Member States are positioning themselves as hubs for green technologies, including electric vehicle supply chains, battery manufacturing, and renewable power systems, while committing to the decarbonisation of the power sector (Chekkera, 2024). Cross-border grid interconnections, such as the ASEAN Power Grid, rising renewable capacity, and the deployment of emerging energy and storage technologies, underline the region's growing role in sustainable technology development (IEA, 2024).

Many ASEAN Member States are pursuing a transition from traditional economic structures toward higher value-added industries, increasingly prioritising innovation and digital transformation as



key strategies to sustain competitiveness. A cornerstone of this effort is the ongoing negotiation of the *Digital Economy Framework Agreement* (DEFA), the world's first region-wide digital economy agreement. DEFA aims to harmonise digital trade rules, strengthen data governance, and unlock the potential of ASEAN's digital economy, projected to double to USD 2 trillion by 2030, under optimal conditions (Boston Consulting Group, 2024). Beyond trade facilitation, DEFA provides a roadmap for deepening ASEAN's integration in the digital sphere, helping the region attract investment, improve resilience, and leverage new technologies such as artificial intelligence and advanced manufacturing (Dušek, 2025).

In parallel, many ASEAN Member States are advancing national strategies and plans to harness digital technologies for education transformation (Pascua-Valenzuela, 2025). These policies aim to modernise teaching and learning, expand access to quality resources, and strengthen system resilience, including through blended and remote learning platforms. Governments are investing in digital infrastructure for schools, teacher training in digital pedagogy, and localised digital content development to ensure that technology supports inclusive and relevant learning.

At the regional level, ASEAN has adopted a number of landmark initiatives to guide digital education transformation. The Declaration on the Digital Transformation of Education Systems in ASEAN (2022) reaffirmed Member States' commitment to promoting safe, inclusive, and equitable access to digital learning, while the *ASEAN Digital Masterplan 2025* sets broader targets for connectivity, digital literacy, and cross-border collaboration. In addition, regional discussions on emerging technologies have been further informed by the ASEAN Guide on AI Governance and Ethics (2024), which outlines shared principles for the responsible and human-centric use of artificial intelligence across sectors, including those relevant to education and skills development.

National level reforms further illustrate this momentum. Programmes such as SkillsFuture in Singapore, the Malaysia Education Blueprint 2013-2025, and ongoing digital curriculum reforms in Viet Nam (VNIIES, 2023) and Thailand (Ministry of Education, Thailand, 2024) demonstrate efforts to align education systems with emerging technological trends. Collectively, these initiatives underscore a shared regional recognition that digital technologies are critical to advancing lifelong learning, future-ready skills, and more equitable access to education.

Despite notable progress in expanding access to technology and connectivity, significant challenges remain in ensuring that technological development translates into equitable and effective learning opportunities across ASEAN. A substantial share of the region's population continues to live in rural areas, where access to high-speed internet and affordable digital devices remains limited. These constraints contribute to persistent disparities in connectivity and digital literacy, creating structural barriers to equitable technology use in education and leaving disadvantaged learners at greater risk of exclusion (Rashid et al., 2025). Regional averages can also mask wide variations across Member States. For example, while 57 per cent of students in ASEAN have access to the internet at home, national rates range from as low as 16 per cent to as high as 98 per cent (UNESCO, 2023).

Digital exclusion in ASEAN therefore extends beyond the absence of computers or internet connectivity. It affects a wide range of marginalised populations, including learners from low-income households, remote and island communities, ethnic minorities, migrants, learners with disabilities, and those facing barriers related to digital literacy or language of instruction. Recent research highlights that effective digital integration does not necessarily depend on expanding infrastructure, but also on designing solutions that align with existing connectivity, devices, and



users' skill levels, such as offline-capable platforms, mobile-based learning, and low-bandwidth applications (EdTech Hub, 2025). At the same time, while many ASEAN Member States are actively integrating technology into teaching and learning, systematic evidence on the effectiveness and learning impact of these interventions remains limited. This constrains policymakers' ability to assess what works, for whom, and under what conditions, underscoring the need for more inclusive, context-sensitive, and evidence-informed approaches to digital transformation in education across the region.

Looking ahead, closing the digital divide will be critical to ensuring that all learners can benefit from ASEAN's digital transformation. This will require not only investments in infrastructure and affordability, but also capacity development for teachers, stronger governance frameworks, effective monitoring and evaluation on impact, and policies that promote safe and effective digital learning environments (UNICEF EAPRO, 2024). By addressing these challenges, ASEAN countries can better leverage technological development to foster more personalised, flexible, and equitable education systems that prepare learners for the demands of the future economy.

2.5 Climate Change and the Role of Education

Environmental degradation and climate change have emerged as escalating global threats, and the ASEAN region is among the most affected. The Asia-Pacific Disaster Report 2023, a regional flagship prepared by UN ESCAP, highlights that climate-related hazards in the region are becoming more frequent, severe, and complex, with disasters increasingly deviating from historical patterns. Asia and the Pacific continues to account for nearly half of global disaster events and is home to many of the world's most disaster-prone countries. Without immediate action, the average annual economic losses from hazards such as droughts, floods, heatwaves, tropical cyclones, tsunamis, and earthquakes are estimated at USD 924 billion, equivalent to about 2.9 per cent of regional GDP, with the heaviest burden falling on vulnerable communities reliant on agriculture and natural resources (UN ESCAP, 2023b). Beyond the economic toll, the human costs are also profound. UNICEF estimates that in 2024 alone, at least 242 million students worldwide, including more than 50 million students across East Asia and the Pacific, experienced education disruptions due to climate hazards (UNICEF EAPRO, 2025). These compounding risks underscore the urgency of building climate-resilient education systems that safeguard learning, protect children, and strengthen community resilience.

Southeast Asia is among the most climate-exposed subregions in the world, facing a convergence of risks from sea-level rise, extreme heat, flooding, and increasingly destructive tropical cyclones. Rising seas pose a particular danger to coastal communities, heightening risks of displacement and social disruption. Seasonal and prolonged droughts and floods further strain water resources and food systems, with major implications for rural livelihoods and urban food security. Disaster risk in ASEAN is not only intensifying but also shifting geographically, affecting areas previously considered less vulnerable. With large populations concentrated in low-lying deltas and coastal zones, countries such as Cambodia, Myanmar, the Philippines, Thailand, and Viet Nam face acute risks of displacement, livelihood loss, and disruption of essential services. Building resilience in ASEAN therefore requires stronger governance systems, investment in resilient infrastructure, and integration of risk reduction into development planning, including the education sector (UN ESCAP, 2024).



Education in ASEAN stands at the frontline of the climate crisis. Schools are often among the first facilities affected when disasters strike, suffering damage to infrastructure, prolonged closures, and disruption of essential services (See Box 1). These impacts disproportionately harm the most disadvantaged learners, widening existing inequalities and threatening progress toward inclusive and equitable education (UNICEF EAPRO, 2025). At the same time, education is also one of the most powerful enablers of climate resilience and adaptation. By ensuring continuous and safe learning environments, education systems can protect children's right to learn even in times of crisis. Equally important, by integrating climate change and sustainability into curricula and skills development, they can equip learners with the knowledge, competencies, and values needed to adapt to environmental challenges and contribute to mitigation efforts (UNESCO GEMR Team, 2024). Strengthening the dual role of education, both as a sector requiring protection and as a driver of long-term resilience, will be critical for ASEAN to safeguard learning today and prepare future generations for climate challenges ahead (UNEP, 2021).



Box 1. How disasters affect education in ASEAN

Educationsystems across ASEAN are increasingly disrupted by climate-related and natural disasters, with impacts that are frequent, severe, and unevenly distributed across countries. Recent UNICEF reporting shows that more than 4.1 million children in Southeast Asia had their schooling disrupted in late 2025 alone due to typhoons, floods, and storms, affecting Indonesia, Viet Nam, Thailand, the Philippines, and Malaysia. These events force children into evacuation centres, damage school infrastructure, interrupt learning for weeks at a time, and heighten risks to children's safety and well-being.

The Philippines, Indonesia, and Viet Nam – among the world's most disaster-prone countries – experience repeated school closures as floods, typhoons, and landslides destroy classrooms, learning resources, and essential services. In Indonesia, for example, over 2,000 education facilities were affected by flooding in 2025, leaving more than 180,000 students out of class. In Viet Nam, 3 million students saw their education disrupted by storms and floods in the same period, while nearly 920,000 children in the Philippines were unable to attend school due to severe flooding and winds.

Beyond immediate disruptions, disasters exacerbate long-standing vulnerabilities. Research from ADBI highlights that disasters disproportionately affect poorer households, rural communities, and children with limited access to resilient infrastructure, deepening inequalities in learning opportunities and outcomes. Schools in hazard-prone areas often lack climate-resilient buildings, safe water and sanitation, and emergency preparedness systems, making them highly susceptible to damage and prolonged closure during extreme events. Repeated shocks also reduce families' ability to recover, increasing the dropout risk as children are required to support household livelihoods or relocate.

At a systemic level, disasters strain education budgets, divert resources toward reconstruction, and disrupt the continuity of teaching and learning. They also impact teachers, many of whom face displacement, loss of resources, and challenges in delivering instruction during emergencies. As climate events become more frequent and intense, ASEAN countries face growing pressure to strengthen school safety, invest in resilient infrastructure, and integrate disaster risk reduction and climate education into curricula.



Overall, the evidence shows that disasters in ASEAN are not isolated events but a recurring and escalating threat that undermines children's right to education, widens inequities, and challenges the resilience of national education systems. Building climate-resilient schools and preparedness systems is therefore essential to safeguarding learning across the region. These systems include constructing and retrofitting hazard-resistant school buildings; ensuring reliable access to safe water, sanitation, and electricity during emergencies; integrating early-warning systems and evacuation plans; and establishing continuity-of-learning strategies, such as remote or blended modalities. Preparedness also involves training teachers and school leaders in disaster risk reduction, strengthening coordination with local authorities, and engaging communities in school safety planning. Together, these measures help protect students and staff, minimise disruptions, and build education systems capable of adapting to increasingly frequent and severe climate-related events.

ASEAN countries are increasingly taking proactive steps to strengthen the resilience of their education systems in the face of growing climate-related risks. Governments are investing in hazard-resistant school infrastructure, updating building codes, and prioritising the retrofitting of schools in high-risk areas to withstand floods, typhoons, and earthquakes. Several countries, including the Philippines, Indonesia, and Viet Nam, have expanded school-based disaster risk reduction programmes, integrating emergency drills, early-warning systems, and community-based preparedness planning. Ministries of education are also developing continuity-of-learning strategies, such as remote learning protocols and the pre-positioning of learning materials, to ensure instruction can continue when schools close. In parallel, teacher training on emergency response and psychosocial support is being strengthened, reflecting a growing recognition that preparedness must address both physical safety and learner well-being. These efforts signal a shift from reactive recovery to more systematic, forward-looking resilience planning across the region.

Source: UNICEF. (2025). *Millions of children in Southeast Asia affected by relentless climate-related disasters*; ADB. (2025). *Are Natural Disasters Disastrous for Education? Evidence from Seven Asian Countries*.



Box 2. Monitoring greening education with the Greening Curriculum Indicator (GCI)

Greening education involves, first and foremost, the greening of education policy and curricula. The integration of environmental, sustainability, climate change, and biodiversity-related content across subject areas and education levels, particularly in primary and secondary education, represents a key step in rethinking the purposes and content of formal schooling. By embedding green themes within national curricula, education systems signal an intention to influence teaching and learning processes and to foster learners' knowledge, attitudes, values, and actions related to sustainability. While the presence of green content in curriculum frameworks does not in itself determine classroom implementation, curriculum- and policy-based measures provide an important system-level input that can be related to outcome measures, such as student knowledge and values. Reflecting the growing global emphasis on climate action and sustainable development in education, and following deliberations initiated after the 2022 UN Transforming Education Summit, the *Greening Curriculum Index* (GCI) was formally adopted in 2024 as a second measure of SDG indicator 4.7.1, strengthening international monitoring of progress in education for sustainable development.



GCI focuses on the curriculum and policy dimensions of greening education and is derived from systematic content analysis of national curriculum documents. Specifically, it draws on two types of sources: (i) National Curriculum Frameworks, which outline overall curricular priorities and structures; and (ii) science and social science subject curricula at Grades 3, 6, and 9, which provide guidance on subject content and pedagogy at key stages of primary and lower secondary education. The GCI assesses the extent to which three core themes (Environment and Sustainability, Climate Change, and Biodiversity) are reflected in these documents. Measurement is based on the presence of selected, internationally comparable keywords associated with each theme, identified to ensure conceptual relevance, linguistic translatability, and sufficient prevalence across curriculum documents. As such, the GCI provides a standardised, policy-oriented measure of the inclusion of green content in national curricula, rather than an assessment of classroom practice or learning outcomes.

Figure 3. Percentile ranking of ASEAN Member States in the Greening Curriculum Indicator (GCI), by thematic domain

	Environment and Sustainability	Climate Change	Biodiversity	Overall	
Viet Nam					Highest Quintile Second Quintile Third Quintile Fourth Quintile Lowest Quintile
Thailand					
Philippines					
Malaysia					
Indonesia					
Myanmar					
Timor-Leste					

Note: The figure presents countries' percentile rankings in the Greening Curriculum Indicator (GCI), which measures the extent to which environmental and sustainability themes are integrated into national curricula across education levels. The indicator forms part of the monitoring framework for SDG 4.7.1 on mainstreaming education for sustainable development (ESD). Percentile rankings are calculated relative to all countries with available data worldwide, allowing international comparison. Higher percentiles reflect stronger integration of environmental, climate-change, and biodiversity content within national curricula. Data availability is subjected to successful compilation of documents needed (Grade 3, 6, and 9 subject curricula, and National Curriculum Framework). Singapore is not represented due to methodological considerations, such as the holistic integration of sustainability across the total curriculum, in both subjects and student development activities, rather than in specific curriculum subject areas only.

Source: UIS Database (Accessed September 2025).

Available GCI data indicate a mixed but emerging picture across ASEAN Member States. Relatively strong integration of environmental and sustainability themes in national curricula is observed, while performance in the more specific domains of climate change and biodiversity shows greater variation. Among the eight countries with available data, five are situated within the top 40 per cent globally in overall GCI performance, and several are within the top 20 per cent in one or more thematic domains. Overall, the distribution of results underscores both the progress made in embedding sustainability-related themes in curricula across parts of the region and the scope for further strengthening and balancing thematic coverage within curriculum reforms in ASEAN.

Source: UNESCO Institute for Statistics & Monitoring and Evaluating Climate Communication and Education Project (MECCE), (2025). *SDG Target 4.7 and a Greening Curriculum Indicator Methods of Data Collection and Analysis*.



Box 3. Singapore's Eco Stewardship Programme Nurtures Students through Knowledge, Values and Action

Singapore's Eco Stewardship Programme (ESP) is the Ministry of Education's national flagship initiative for sustainability education in all schools, from the preschool to pre-university level. The initiative aims to nurture sustainability conscious mindsets and habits in students, encouraging them to care about and for the environment, and take positive action to contribute to a sustainable Singapore and world. The ESP integrates sustainability concepts, values and applied learning across the total curriculum, connecting classroom learning with activities, outdoor education, student leadership, co-curricular programmes and community-based action. Through this approach, sustainability education is designed not only to build knowledge, but also to shape attitudes and everyday behaviour.

The ESP is structured around the *4Cs Framework*: Curriculum, Campus, Culture and Community which are interconnected.

- Through **Curriculum**, students learn about sustainability topics and issues in ways that are connected to the real-world and local context through a range of subjects.
- Through **Campus**, school facilities and infrastructure are enhanced with sustainability features, such as solar panels, energy-efficient appliances, and greenery integrated with environmental education spaces, so that the lived environment makes students' learning more authentic and fosters daily habits.
- Through **Culture**, schools adopt green policies and encourage responsible daily habits to make sustainability a way of life in school including through reducing food and energy waste, conserving water, recycling, minimising disposables and keeping the school environment clean.
- Through **Community**, students extend their learning and contribute beyond school through partnerships, volunteering, conservation activities and engagement with their local community.

The programme, which was formally launched in 2021, strengthens what was done in schools over the years through a more holistic and integrated approach. There are positive outcomes through visible changes in student behaviour and school culture. Students are not only learning about environmental issues, but also applying sustainability principles through hands-on activities such as maintaining edible gardens and hydroponic farms, monitoring energy and water use, reducing food waste, recycling, composting and promoting biodiversity. Some school-based initiatives also encourage students to make more sustainable consumption choices, such as considering packaging, food origins, and the need to avoid unnecessary purchases. More importantly, these practices extend beyond the school setting, with students bringing sustainability messages home and influencing household routines, including grocery choices, waste reduction and use of electricity. While such changes are gradual and context-specific, they point to the value of the ESP in translating sustainability education into habits. By making sustainability visible in lessons, school spaces, peer activities and community engagement, the ESP supports students to move from awareness to daily practice, and from individual habits to a broader culture of eco-stewardship. Singapore's strong TIMSS 2023 results in environmental knowledge, with the highest average scores among participating systems at both Grade 4 and Grade 8, further point to strengthened student understanding of environmental issues.

Source: Ministry of Education, Singapore. (2026). *Singapore MOE's Eco Stewardship Programme*; CNA. (2023). *Rooftop solar panels, hydroponics farms: Climate education picks up pace in Singapore schools*; The Straits Times. (2025). *Hydroponics, upcycling projects among initiatives recognised at School Green Awards*; TIMSS & PIRLS International Study Center. (2024). *TIMSS 2023 International Results in Mathematics and Science*.



2.6 Positioning Education within the Changing Regional Context

ASEAN's rapidly evolving social, economic and environmental landscape shapes the operating environment of education systems across the region. The trends outlined in this chapter carry important implications for how education systems function, adapt and contribute to broader development trajectories.

Education systems must be re-aligned to meet the demands of a fast-changing labour market shaped by services, digitalisation, and green growth

This requires strengthening the curricula relevance, expanding skills-oriented pathways, and ensuring that learners acquire adaptable, transferable competencies. Closer engagement with industry, stronger TVET-higher education linkages, and more coherent national skills strategies will be essential to prepare learners for emerging economic opportunities.

Demographic divergence across ASEAN calls for differentiated system responses

Ageing societies need to prioritise school consolidation, quality improvement, and robust lifelong learning systems, while high-fertility countries must expand system capacity, strengthen teacher supply, and invest in early childhood education. Countries in mid-transition will need to balance expansion with quality enhancement. Tailoring policies to demographic realities is critical to ensuring efficient resource allocation and equitable outcomes.

Persistent health disparities highlight the need for integrated approaches that link education with school health, nutrition, and learner well-being

Strengthening cross-sectoral coordination, particularly for disadvantaged populations, can improve attendance, learning outcomes, and long-term human capital development. Investments in school-based health and nutrition programmes remain essential to reducing inequities.

Digital transformation must be pursued through an equity-driven strategy that addresses infrastructure gaps, affordability, and teacher digital competencies

Uneven access to devices, connectivity, and digital literacy risks deepening existing inequalities. Expanding digital infrastructure, developing localised digital content, and equipping teachers to use technology effectively, especially in low-bandwidth environments, are critical to ensuring that digitalisation enhances, rather than undermines, equity and learning.

Climate change requires education systems to embed resilience and adaptation into planning, infrastructure, and curriculum

With climate-related disruptions already affecting millions of learners, countries must invest in risk-informed school infrastructure, strengthen Education in Emergencies capacity, and integrate climate literacy and green skills into teaching and learning. Building climate-resilient education systems is essential to safeguarding continuity of learning.

Deepening regional cooperation is vital to addressing shared challenges and leveraging ASEAN's collective strengths

Collaboration on digital governance, green skills, climate adaptation, and data harmonisation can accelerate progress and reduce disparities across Member States. Aligning national reforms with regional priorities will help ensure that learners are equipped not only to participate in the future economy, but to shape it.



Chapter 3

The Education Landscape in ASEAN



This chapter provides a broad overview of the education landscape in ASEAN, focusing on the policy frameworks that guide education development and the structures through which education is delivered. It reviews regional and national education strategies, highlighting the roles of ASEAN and SEAMEO in shaping shared priorities and directions, and examines how these frameworks align with global education commitments, including Sustainable Development Goal 4 (SDG 4). This chapter also outlines the organisation of education systems across the region, describing the main pathways through formal, vocational, and non-formal education, as well as the provision of free and compulsory education as a foundation for expanding access. By offering a system-wide and policy-oriented perspective, this chapter establishes the contextual backdrop for the subsequent situational analysis of specific education sub-sectors.

3.1 Education Policy Frameworks

3.1.1 Regional Education Frameworks and Their Alignments with SDG 4

In Southeast Asia, regional cooperation has long played a central role in advancing education agendas. Both ASEAN and the Southeast Asian Ministers of Education Organization (SEAMEO) serve as key regional platforms shaping education policy directions and cooperation, working closely with Member States to align their priorities and strategies with the global Sustainable Development Goal 4 (SDG 4) framework. These efforts not only help identify shared regional priorities that are consistent with global targets, but also foster policy and programme harmonisation to accelerate progress towards inclusive and equitable quality education for all.

Within this regional landscape, SEAMEO's strategic direction is guided by the SEAMEO Strategic Plan 2021–2030, which provides an overarching framework for SEAMEO's regional cooperation in education, science, and culture. Building on lessons learned from the COVID-19 pandemic and long-standing structural challenges, the Strategic Plan outlines 167 flagship programmes organised under three focus areas – education, science, and culture – each structured around seven priority areas. For education, the Strategic Plan confirms the continued relevance of the seven priority areas, which were endorsed by the SEAMEO Council and have guided implementation since 2015 (SEAMEO, 2021),



while reaffirming alignment with SDG 4 and its relevance to the region's evolving needs. Under the education focus area, SEAMEO's programmes for 2021-2030 concentrate on: (i) achieving universal early childhood care and education, (ii) addressing barriers to inclusion, (iii) promoting resiliency in the face of emergencies, (iv) strengthening technical and vocational education and training (TVET), (v) revitalising teacher education, (vi) advancing harmonisation in higher education and research, and (vii) adopting a 21st-century curriculum. Collectively, these priority areas are interlinked with multiple SDG 4 targets, creating a regional framework that complements and reinforces global commitments.

At the regional level, ASEAN serves as the principal intergovernmental platform for regional cooperation and integration in Southeast Asia. Across its political, economic, and socio-cultural pillars, ASEAN advances collective efforts to promote peace, development, and social progress, with education embedded as a core component of its broader community-building agenda. Within the ASEAN Socio-Cultural Community, education is guided by the ASEAN Socio-Cultural Community Blueprint 2025, and implemented through the ASEAN Work Plan on Education 2021-2025, which outlines eight sub-goals translated into nineteen priority areas and seventy activities (ASEAN Secretariat, 2020b). These include strengthening ASEAN awareness, expanding access and quality in basic education, advancing digital transformation and ICT in education, enhancing TVET and lifelong learning, promoting education for sustainable development, improving higher education quality assurance, deepening university-industry partnerships, and building capacities of teachers and communities. While the Work Plan places particular emphasis on higher education and TVET as drivers of economic growth and regional integration consistent with ASEAN's broader with broader economic community objectives, it also addresses a range of cross-cutting priorities aligned with SDG 4, including equity, inclusion, and lifelong learning.

Table 1. Aligning SDG 4 targets with regional policy frameworks

SDG 4 Target	ASEAN Work Plan 2021-2025	SEAMEO Priority
 TARGET 4.1 Basic education	Output 2.2. Enhanced regional and national education policy and technical capacities in ensuring and providing learning opportunities, including for Out-of-school Children and Youth (OOSCY) Output 2.3. Improved learning effectiveness and inclusiveness at basic education and secondary levels through the promotion of 21st-century skills, learning metrics, digital transformation and teacher competency framework	Priority 2. Addressing barriers to inclusion Priority 7. Adopting a 21st-century curriculum
 TARGET 4.2 Early childhood	Output 2.1. Regional policy, partnership, and monitoring mechanisms are in place to support wider access to quality early childhood care and education, school readiness and comprehensive Early Childhood Care and Education (ECCE) services	Priority 1. Achieving universal early childhood care and education



SDG 4 Target	ASEAN Work Plan 2021-2025	SEAMEO Priority
TARGET 4-3  Technical, vocational & tertiary education	Output 3.1. Strengthened role of Higher Education Institutions (HEIs) in lifelong learning through the provision of flexible, innovative, multi-disciplinary, cross-border education and research collaboration	
	Output 3.2. Sustained and strengthened ASEAN capacity in higher education harmonisation through strategies, mechanisms, and scholarship provision	Priority 6. Promoting harmonisation in higher education and research
	Output 4.1. Strengthened regional cooperation and exchanges on TVET governance and TVET systems reform	Priority 4. Promoting technical and vocational education and training (TVET)
TARGET 4-4  Skills for employment	Output 4.2. Engaged private sector to support TVET in planning, programme development and implementation as well as resource mobilisation	Priority 4. Promoting technical and vocational education and training (TVET)
	Output 4.3. Improved TVET quality through quality assurance, personnel capacity building, innovations, and mobility for the changing labour-market demands	
TARGET 4-5  Equity	Output 2.2. Enhanced regional and national education policy and technical capacities in ensuring and providing learning opportunities, including Out-of-school Children and Youth (OOSCY)	Priority 2. Addressing barriers to inclusion
TARGET 4-7  Education for sustainable development	Output 1.1. Knowledge on ASEAN is updated and strengthened through school curricula and media campaigns	
	Output 1.2. Resilience, including mental health and wellbeing of teachers and students, and environmentally responsible practices through education are promoted	Priority 3. Promoting resiliency in the face of emergencies
		Priority 7. Adopting a 21 st -century curriculum
TARGET 4-A  School environment		Priority 3. Promoting resiliency in the face of emergencies



SDG 4 Target	ASEAN Work Plan 2021-2025	SEAMEO Priority
TARGET 4-B  Scholarships	Output 3.2. Sustained and strengthened ASEAN capacity in higher education harmonisation through strategies, mechanisms, and scholarship provision	Priority 6. Promoting harmonisation in higher education and research
TARGET 4-C  Qualified teachers	Output 2.3. Improved learning effectiveness and inclusiveness at basic education and secondary levels through the promotion of 21 st -century skills, learning metrics, digital transformation and teacher competency framework	Priority 5. Revitalising teacher education

In conclusion, the education frameworks of ASEAN and SEAMEO demonstrate strong regional ownership of the education agenda, while ensuring coherence with global commitments under SDG 4 (UIS, 2021). This dual alignment reflects a shared commitment among ASEAN Member States to pursue inclusive and equitable quality education, while leveraging regional collaboration to address common challenges and opportunities. Several common priorities emerge across both frameworks. These include expanding access to education at all levels and lifelong learning through formal, non-formal, and informal pathways. They also include improving the quality of teaching and learning through curriculum enhancement and teacher development, strengthening vocational education and skills training in line with economic growth, and advancing higher education systems to build human capital. In addition, the frameworks emphasise upgrading school facilities and connectivity to support more effective learning environments; and promoting education for sustainable development, global citizenship, and climate resilience. Taken together, these shared priorities underscore ASEAN's collective vision of education as both a foundation for human development and a driver of sustainable regional integration and growth.

3.1.2 National Education Policies, Strategies, and Plans

ASEAN Member States have progressively localised the SDG 4 agenda within their national contexts, embedding global goals into education sector strategies and plans. In 2019, for example, Cambodia launched its Education 2030 Roadmap, which outlines five national priorities: (i) ensuring access to quality early childhood and basic education for all girls and boys; (ii) expanding completion of upper secondary education and access to affordable, quality TVET; (iii) promoting equal access for women and men to quality tertiary education; (iv) advancing youth and adult literacy and lifelong learning opportunities; and (v) strengthening education governance and management at all levels. Similarly, Lao PDR has revised its education development and monitoring framework to reflect SDG 4 commitments, with these adaptations clearly articulated in its Education and Sports Sector Development Plan 2021-2025.



A review of education development strategies across the region shows that all ASEAN Member States have adopted national education plans aligned with the SDG 4 goals and targets. The timeframes of these plans vary, ranging from five-year medium-term strategies in Cambodia and Lao PDR to longer-term frameworks, such as Malaysia's 13-year education blueprint and Thailand's 20-year strategy. Across these frameworks, a strategic shift is evident: while earlier plans emphasised access and participation, more recent strategies place a stronger focus on improving quality, developing 21st-century skills and competencies, and preparing learners for lifelong learning. However, implementation capacity varies significantly across Member States, influencing the pace of reform.

Governments have also broadened the scope of their education vision, now encompassing the full continuum from early childhood through tertiary education and beyond. Almost all national plans explicitly reference SDG 4, with concrete strategies and activities articulated to achieve its targets.

Analysis of national education strategies highlights several common areas of focus:

- **Access, Participation, and Equity.** All countries prioritise expanding access and participation at all education levels, including early childhood education. Many strategies, including those of Thailand, the Philippines, and Lao PDR, include programmes that provide non-formal and alternative pathways to reach marginalised and out-of-school children and youth. Equity measures often target ethnic minorities, disadvantaged groups, and other vulnerable populations to ensure equal opportunities for all learners.
- **Learning Quality and Student Competencies.** Improving the quality and outcomes of learning is a central priority across all national plans. Countries are reforming curricula to emphasise competency-based approaches, early grade learning, STEM education, critical thinking, and bilingual or multilingual learning. Assessment reforms are also underway in many countries, shifting toward formative, performance-based, and more balanced systems that combine academic and non-academic indicators to better monitor and support student learning.
- **TVET and Skills Development.** Member States are strengthening TVET systems to better align with labour-market needs. Key strategies include building stronger partnerships with industries, reforming governance and quality assurance, and developing more robust monitoring systems for the TVET subsector.
- **Teacher Professional Development.** There is a strong emphasis on teacher development in the countries' strategic plans. Initiatives include establishing teacher competency frameworks, enhancing pre-service and in-service training, and expanding professional development opportunities to strengthen pedagogical skills and improve teaching quality.
- **Higher Education.** Expanding and improving higher education is another common priority across national plans. Governments emphasise enhancing access, quality, and internationalisation through such measures as strengthening research capacity, promoting joint studies and partnerships, increasing student mobility, and fostering global collaboration.
- **Digital Transformation.** Digitalisation is a cross-cutting priority in all strategies. Programmes include investments in digital infrastructure, the rollout of e-learning platforms, and efforts to integrate technology into teaching and learning, with the aim of building resilient and future-ready education systems.



Overall, the localisation of SDG 4 within national education plans reflects a strong regional commitment to inclusive, equitable, and quality education. While priorities vary according to national contexts, there is clear convergence across ASEAN Member States in pursuing reforms that expand opportunities, enhance quality, and prepare learners with the skills and competencies needed for the future.

3.2 Education Systems

3.2.1 Education Pathways and Structures in the Region

ASEAN Member States have progressively expanded education pathways including formal, non-formal, and TVET pathways to extend education opportunities and respond to the diverse needs of their populations. This broader vision of education enables systems to reach different groups of learners, offering flexible routes for participation and progression.

Early childhood education (ECE): ECE in ASEAN typically encompasses pre-primary programmes for children aged 3 to 5, as well as early childhood development programmes targeting younger children. However, public provision remains uneven particularly for children under 3. While programme duration and the extent of public provision vary across Member States, there is a shared regional recognition of the importance of early learning. Recent efforts have focused on expanding access through public, private, and community-based provision, alongside strengthening curriculum frameworks, workforce capacity, and quality assurance mechanisms.

Formal general education: The organisation of formal education across the region reflects both shared goals and national adaptations to local contexts. Basic education is generally structured into three levels: primary, lower secondary, and upper secondary. While there is broad consensus on the overall duration of basic education, countries differ in how years are distributed across levels. Primary education typically spans five to six years (with most countries providing six years), followed by six to seven years of secondary education.

Vocational pathways: In addition to general academic tracks, vocational education constitutes an important route for learners to acquire practical and occupational skills. In most countries, vocational programmes are introduced at the upper secondary level. These pathways are designed to prepare students for direct entry into the workforce or for further education at post-secondary vocational institutions. Although the scope and quality of vocational provision vary, the regional trend highlights a strong emphasis on diversifying pathways to better meet labour-market demands and to serve learners whose aspirations extend beyond traditional academic streams.

Alternative and non-formal education: Many countries have also developed alternative and non-formal programmes to provide second-chance opportunities for youth and adults who have left the formal system prematurely. These initiatives range from equivalency and bridging schemes to other second-chance programmes, but they all share the common aim of enabling learners to complete basic education and, in many cases, continue to higher levels. Efforts are being made to ensure equivalency and recognition so that graduates can pursue further studies or access improved employment opportunities.



Post-secondary and higher education. Beyond upper secondary education, ASEAN countries provide a variety of post-secondary and higher education programmes to build skilled human capital for national development and economic competitiveness. While universities remain the primary providers of tertiary education, post-secondary non-tertiary programmes, largely geared towards labour-market needs, are also delivered by technical and vocational institutions, universities, and private providers. This diversified post-secondary landscape reflects a regional emphasis on expanding opportunities for advanced learning while aligning with evolving labour-market needs.



Box 4. Singapore's Full Subject-Based Banding (Full SBB)

Education has long been a national priority in Singapore, viewed as the foundation of the country's human capital and economic development. In 2023, nearly 160,000 students were enrolled in secondary education, with a further 25,000 in pre-university programmes. To provide more personalised and flexible learning opportunities, Singapore's Ministry of Education has fully implemented Full Subject-Based Banding (Full SBB) from the 2024 Secondary 1 cohort, ensuring that education better reflects each student's strengths, interests, and learning needs.

Before the reform, secondary education was structured into three distinct streams: Express, Normal (Academic), and Normal (Technical). Placement was determined at the end of primary school through the Primary School Leaving Examination (PSLE). While this system enabled differentiated pacing, it also created clear divisions between groups of students. By 2023, more than 60% of secondary students were enrolled in the Express stream, with the remainder divided between the two Normal streams.

Under Full SBB, these stream labels have been phased out. Instead, students may now choose their subjects at three subject levels, G1, G2, and G3 (where 'G' stands for General), mapped from the former Normal (Technical), Normal (Academic), and Express standards, respectively. This approach allows students to take each subject at a level that matches their ability, with flexibility to adjust over time. Beyond curriculum differentiation, students continue to learn together in mixed-form classes for common subjects, such as character and citizenship education, fostering stronger inclusion and peer interaction.

The benefits of Full SBB are both educational and social. It reduces the stigma of streaming, ensures that students are not labelled by a fixed track, and encourages strength-based learning by allowing each subject to be pursued at the most suitable level. Students can also adjust subject levels as they progress, ensuring that later improvements in performance open up additional opportunities. By learning together across different subject levels, students benefit from mixed-ability interaction, building more inclusive school communities.

After completing their secondary education, students still progress to the familiar post-secondary pathways: Junior Colleges and Millennia Institute (leading to GCE A-Levels), Polytechnics (diploma programmes), or Institutes of Technical Education (ITE, offering Nitec and Higher Nitec). What changes under Full SBB is the basis of progression: eligibility is determined by performance across subjects, rather than being constrained by a stream label. This provides greater permeability across pathways, as Full SBB mitigates early streaming closing off options entirely.



Overall, Full SBB represents a significant step in making Singapore's secondary education system more equitable, flexible, and future-ready. It exemplifies how national reforms can align with ASEAN and SDG 4 priorities on equity and inclusion, ensuring that every learner has the opportunity to pursue pathways that match their abilities and aspirations.

Source: Ministry of Education, Singapore, (2026). *Full Subject-Based Banding*; Ministry of Education, Singapore, (2024). *Education Statistics Digest 2024*.

3.2.2 Provision of Free and Compulsory Education

ASEAN Member States have progressively strengthened their legal commitments to free and compulsory basic education, in line with the first target of SDG 4, which calls for all girls and boys to complete free, equitable, and quality primary and secondary education. Across the 11 countries in the region, the median number of years of legally guaranteed free primary and secondary education has nearly doubled, rising from about five years in 2000 to nine years in 2023. A similar pattern is observed for years of compulsory primary and secondary education, where the median number of years guaranteed in legal frameworks also increased from five to nine years over the same period.

Thailand, Indonesia, and the Philippines each guarantee 12 years of free primary and secondary education. More broadly, seven countries guarantee at least nine years of free basic education, and a similar number have legislated nine or more years of compulsory primary and secondary schooling. These provisions reflect commitments to expanding access, reducing financial barriers for households, and formalising educational entitlements, supported by complementary policies aimed at strengthening participation and retention.

By contrast, legal guarantees at the pre-primary level remain less widespread. This gap has implications for early learning equity and school readiness. Only a few countries have incorporated free and/or compulsory pre-primary education into national policy frameworks. The Philippines provides one year of pre-primary education that is both free and compulsory, Thailand guarantees three years of free pre-primary education, and Viet Nam mandates one year of compulsory pre-primary education.

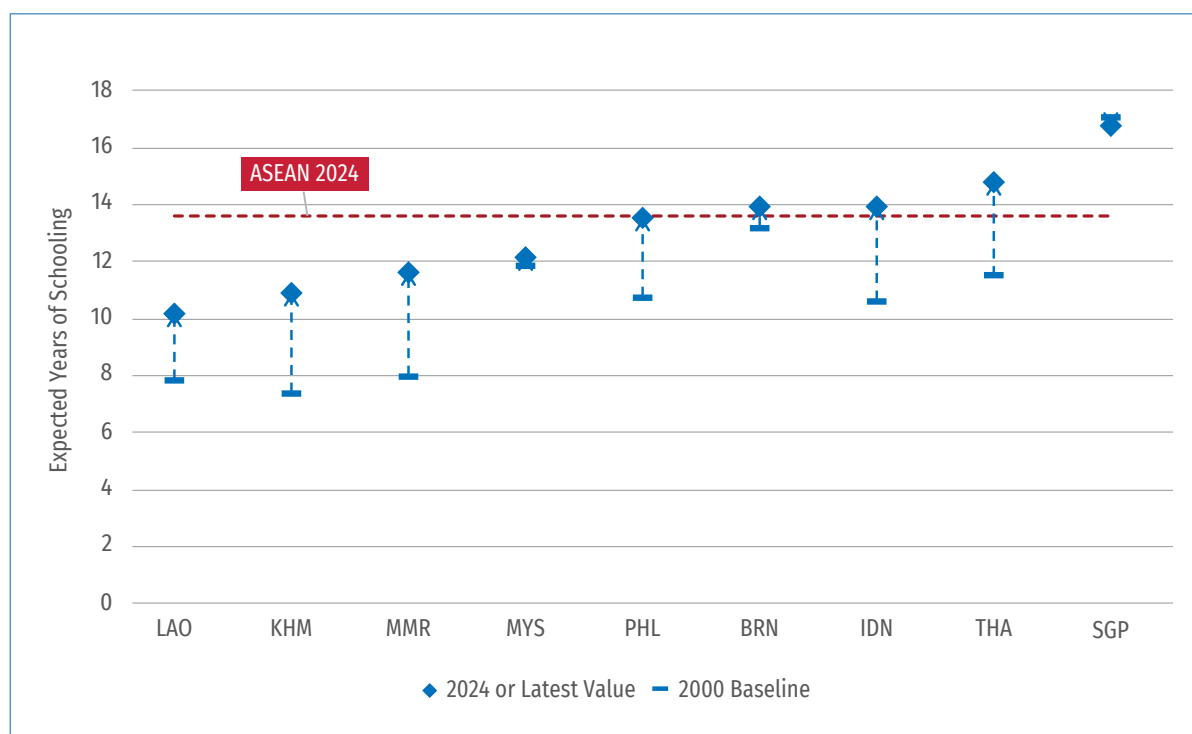
Overall, ASEAN Member States are progressively aligning their education systems with the global aspiration of universal basic education. The priority moving forward is to strengthen implementation and ensure that legal guarantees are translated into the delivery of quality and equitable learning opportunities, so that all children can realise these rights established in law. Encouragingly, these commitments have translated into longer educational trajectories for children and youth in the region. According to the most recent UIS estimates, the ASEAN regional average school life expectancy from primary to tertiary level reached 13.58 years in 2023, up from 10.46 years at the beginning of the 21st century.² The upward trajectory across nearly all Member States

² School life expectancy is the total number of years of schooling that a person of a certain age can expect to receive in the future, assuming that the probability of his or her being enrolled in school at any particular age is equal to the current enrolment ratio for that age. It shows the overall level of development of an educational system in terms of the average number of years of schooling that the education system offers to the eligible population, including those who never enter school. Source: UIS Data Browser Glossary.



illustrates broad regional efforts to expand educational opportunities and promote sustained school participation.

Figure 4. School life expectancy, primary to tertiary education (2000 baseline vs. 2024 or latest value)



Note: Viet Nam and Timor-Leste are not shown, as the most recent available data predate 2015.

Source: UIS Database (Accessed September 2025).

Some countries stand out for their significant progress. Thailand, for instance, increased its school life expectancy from around 11 years in 2000 to almost 15 years in 2024, supported by policies such as the 15-Year Free Education Policy. Indonesia also recorded notable gains, rising from about 11 years in 2000 to nearly 14 years in 2023, reflecting policy measures to expand access and extend the duration of free and compulsory education. Similarly, the Philippines advanced from approximately 11 years in 2000 to more than 13 years in 2024, underpinned by the expansion of free and compulsory basic education and sustained reforms in access and equity. At the upper end, Singapore has consistently maintained the highest school life expectancy in the region, reaching more than 16 years in 2024, highlighting strong participation through the tertiary level.

The overall gains in school life expectancy demonstrate the impact of sustained education reforms across Southeast Asia. However, continued efforts are needed to address persistent disparities, particularly in countries where expected years of schooling remain below the regional average. Moreover, extending the duration of schooling must be accompanied by improvements in learning quality to ensure that longer participation translates into meaningful learning outcomes and enhanced life opportunities for all learners.



3.3 Emerging Directions in the Regional Education Landscape

ASEAN's evolving education landscape reflects both strong regional alignment and varying national capacities in translating commitments into practice. The developments reviewed in this chapter highlight a set of emerging system-level directions that characterise education reform across the region, shaping how Member States organise, prioritise and strengthen their education systems in alignment with regional frameworks and global commitments, including SDG 4.

Deepen regional implementation mechanisms

ASEAN and SEAMEO have successfully fostered regional coherence around shared education priorities. The next phase should focus on strengthening implementation through structured peer learning, technical assistance, and institutionalised monitoring mechanisms to ensure that regional commitments result in measurable national improvements in equity, access, and learning outcomes.

Strengthen institutional capacity for SDG 4 delivery

The widespread localisation of SDG 4 demonstrates strong political commitment across ASEAN. However, uneven reform capacity requires targeted support in sector planning, sustainable financing, teacher development, data systems, and digital readiness to ensure that national strategies are effectively operationalised and sustained.

Consolidate the shift from access to learning quality

With participation rates rising and legal guarantees for free and compulsory education expanding, improving learning quality must become the central system objective. Sustained investment in teacher capacity, curriculum reform focused on competencies, and balanced assessment systems, combining national benchmarks with strong formative practices, is essential to translate access gains into meaningful learning outcomes.

Expand and equalise early childhood education provision

Early childhood education (ECE) remains uneven in legal coverage and public investment. Expanding access to quality ECE, strengthening regulatory frameworks, and ensuring adequate financing should be prioritised, given the long-term impact of early learning on equity, school readiness, and later academic achievement.

Enhance regional collaboration in TVET, higher education, and skills mobility

The uneven development of TVET and higher education systems calls for stronger regional cooperation on quality assurance, industry engagement, and cross-border recognition frameworks. Strengthening these mechanisms is critical for supporting labour mobility, regional economic integration, and responsiveness to evolving labour-market demands.

Ensure sustainable financing and inclusive digital transformation

Expanded legal entitlements must be matched by sustainable financing frameworks to maintain quality while broadening access. At the same time, digital transformation strategies should prioritise equitable infrastructure expansion, teacher digital competencies, and inclusive technology integration to prevent widening disparities and to build more resilient education systems.



Chapter 4

Situation Analysis of Education in ASEAN



This chapter examines ASEAN's education sector through a dual lens, analysing education by level and by key system components. It covers early childhood education, basic education (including primary and secondary education), technical and vocational education and training (TVET), and tertiary education and assesses access, progression, completion, and learning outcomes across the education continuum. It then examines cross-cutting system components, including teacher education and deployment, education financing, governance and institutional arrangements, data and monitoring systems, and responses to recent shocks, to provide an integrated assessment of progress, persistent challenges, and policy priorities for strengthening quality, equity, and system coherence in ASEAN education systems.

Taken together, this chapter offers readers a structured, region-wide understanding of education in ASEAN: where progress has been made, where setbacks are emerging, and which policy levers are most critical for ensuring that all children, from birth through adolescence and youth, benefit from inclusive, high-quality learning opportunities.

4.1 Early Childhood Education

Early childhood education (ECE)³ plays a foundational role in setting children on a path toward healthier, more equitable, resilient, and prosperous lives (UNICEF EAPRO, 2018). Within the ASEAN region, the relevance of ECE has become increasingly pronounced in light of rapid socio-economic transformation, persistent educational inequities, and a growing recognition of the long-term benefits of investing in the early years (ASEAN Secretariat, 2023b). Quality early learning not only supports children's cognitive, emotional, and social development, but also improves readiness for formal schooling, reduces repetition and dropout rates, and yields significant returns in terms of human capital development (UNESCO, 2021).

³ Note: For clarity and consistency, the term ECE has been used throughout this report to refer to holistic early childhood education and development. While alternative terms, such as ECCE and ECED, are commonly used across the region, their usage varies by country depending on programme scope and coverage.



This significance is further amplified by ASEAN's demographic profile. Several countries in the region, such as Cambodia, Lao PDR, and Myanmar, continue to experience high birth rates and a young population structure, presenting a critical window of opportunity to leverage the demographic dividend (UNFPA, 2020). To fully realise this potential, countries must ensure that young children, especially those from disadvantaged backgrounds, have equitable access to quality ECE. Early investments in learning are therefore critical to boosting long-term productivity and socio-economic development (UN ESCAP, 2023a).

Despite growing awareness and policy commitments, challenges remain in expanding ECE equitably across ASEAN. Participation gaps persist due to limited access and affordability, especially for children from low-income families, rural areas, and ethnic minority communities. Strengthening ECE systems through legal guarantees, public financing, and professional development for educators will be key to ensuring that every child in ASEAN enters primary school healthy, prepared, and ready to learn. As such, ECE is not merely a preparatory stage, but a strategic investment in the region's future resilience and inclusive development.

4.1.1 Participation Trends in Early Childhood Education

ECE in the context of international education monitoring is classified into two programme types, as defined under ISCED 2011.⁴ The first category is pre-primary education (ISCED level 02), which refers to structured, school-based programmes designed to support early learning for children typically aged 3 years and above. These programmes are primarily intended to prepare children for entry into primary education. The second category, early childhood educational development (ECED) programmes (ISCED level 01), refers to more holistic, play-based, or care-oriented interventions that cater to younger children, often from infancy to age 2 or 3. These programmes emphasise cognitive, physical, and socio-emotional development and are commonly delivered through less formal settings, such as community centres or family-based services.

Global evidence on education effectiveness increasingly points to the high returns of early investment in learning. In particular, quality pre-primary education for children aged 3–5 has been consistently identified as a cost-effective intervention in low- and middle-income contexts, with substantial evidence linking it to positive impact on learning outcomes and cognitive development (GEEAP, 2023). Against this backdrop, most ASEAN Member States have made significant strides in expanding access to pre-primary education.

As shown in the figure below, the net enrolment rate in pre-primary education has increased in the majority of Member States since 2015, with several countries approaching near-universal coverage. The ASEAN regional average is estimated at 58.1 per cent in 2024, about 4 percentage points above the world average. Viet Nam and Singapore now exceed 90 per cent enrolment, while Thailand, Malaysia, and the Philippines report rates above the regional average. These gains reflect strong policy commitment to integrating pre-primary education into national education systems, alongside investments in infrastructure, workforce development, and school readiness initiatives. Since 2015,

⁴ The International Standard Classification of Education (ISCED) is the internationally agreed comprehensive framework for classifying education programmes and related classifications. It allows the comparison of education systems across countries and the production of cross-nationally comparable data. More information available at: <https://isced.uis.unesco.org/>

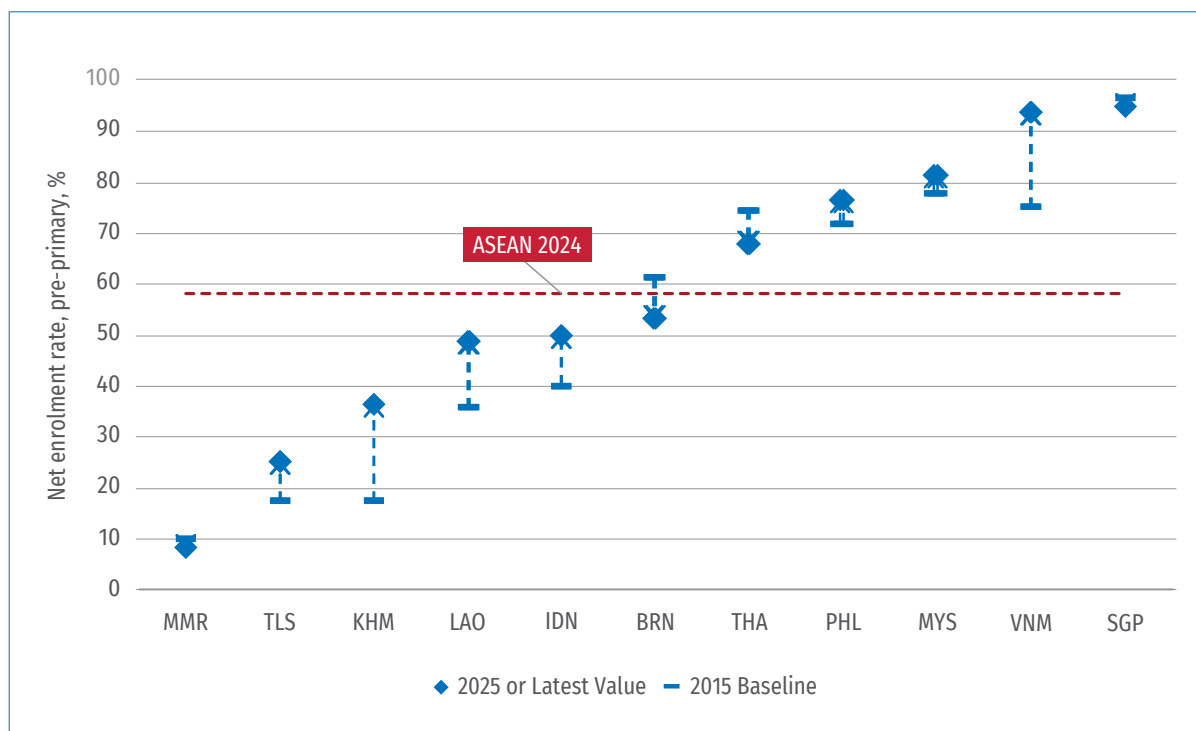




nearly every country has shown improvement, with several registering double-digit percentage point increases in enrolment rates.

However, progress remains uneven. Three countries continue to report rates below 40 per cent, indicating that large proportions of young children still lack formal early learning opportunities. These disparities underscore the need for sustained efforts to expand equitable access, particularly for children from disadvantaged households, rural communities, and ethnic minority groups.

Figure 5. Net enrolment rate, pre-primary, both sexes, 2025 or latest value vs. 2015 baseline (%)



Source: UIS Database (Accessed September 2025).

In contrast to the more rapid progress observed in pre-primary education enrolment, participation in early childhood educational development (ECED) programmes for children under age 3 remains modest across ASEAN. Singapore is the only Member State with a high net enrolment rate in ECED programmes, at 75 per cent in 2023, followed by Thailand at 21 per cent in 2025, while most other countries remain below 10 per cent. This pattern suggests that, although governments are increasingly prioritising pre-primary education for older children, formal ECED provision for infants and toddlers remains limited. Early learning does not begin at the point of pre-primary entry; it is an inherent developmental process. Consequently, opportunities for early learning are critical for children's cognitive and socio-emotional development and for laying the groundwork for later success in school (WHO, UNICEF, World Bank Group, 2018). Data coverage for enrolment in ECED programmes is also more limited than for pre-primary education, as only a small number of ASEAN Member States have submitted sufficient national data to the UIS to report on this indicator.



Box 5. Cambodia is strengthening early childhood care and education through integrated policy action

Cambodia's National Action Plan on Early Childhood Care and Development (2022–2026) sets out a comprehensive framework to improve the quality, inclusiveness, and coordination of early childhood services, addressing learning, health, nutrition, and protection. Its implementation is reinforced through the ECCE component of the Education Strategic Plan 2024–2028, which prioritises expanding public pre-schools by integrating them into primary schools and upgrading community preschools, establishing community-based childcare centres, and adopting inclusive approaches for children with disabilities and those facing language barriers. The Plan also advances school-based health and nutrition programmes, with a focus on hygiene, sanitation, and basic health services in early learning environments.

Source: UNICEF Cambodia. (2022). *New National Action Plan on Early Childhood Care and Development launched to ensure no child is left behind*; Ministry of Education, Youth and Sport, Kingdom of Cambodia. (2025). *Education Strategic Plan 2024-2028*.

Several factors contribute to these low participation rates. In many ASEAN countries, families continue to rely heavily on parents or extended kin networks for childcare in the earliest years, reflecting longstanding cultural and social preferences (UNICEF EAPRO, 2018). In addition, most national education frameworks concentrate on pre-primary services for children aged 3–5, with fewer formal policy provisions for younger children. Where infant and toddler services do exist, they are often provided by private operators at a cost that limits access for lower-income households (World Bank Group, 2022). A large proportion of children also attend informal, unregistered, or community-based childcare settings that may not be systematically captured in official statistics (World Bank Group, 2024). Finally, early childhood education services span education, health, and social protection, so responsibility is frequently divided across multiple ministries, which can lead to fragmentation in service provision, regulation, and monitoring (Bianchi et al., 2022).

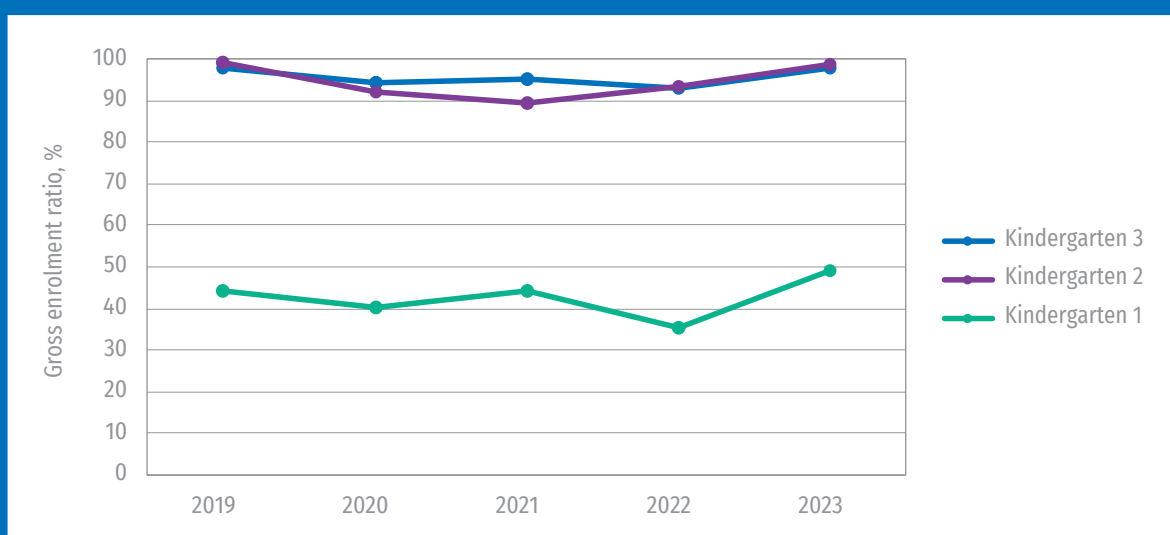
These factors, combined with gaps in data coverage, suggest that current enrolment rates may underrepresent the full spectrum of care and learning environments experienced by children in their first 1,000 days. Looking ahead, expanding opportunities for early childhood development and pre-primary education will require sustained public investment and stronger policy coordination across education, health, and social protection sectors. Strengthening national data systems to capture diverse forms of provision, alongside expanding equitable access to affordable services, will be critical to ensuring that all children in ASEAN benefit from nurturing care and quality early learning, laying the foundation for lifelong development (UNESCO, 2021).



**Box 6. Thailand's 15-Year Free Education Policy and Challenges at Kindergarten Entry**

Thailand has been among the regional frontrunners in promoting access to education, including ECE, recognising its critical role in preparing children for lifelong learning. A testament to that is the 15-Year Free Education with Quality Policy introduced in 2009 to reduce the financial burden on households and promote universal access to quality education. The programme provides five categories of subsidy, three administered by schools (for teaching and learning activities, schoolbooks, and student development) and two provided directly to parents (for student uniforms and learning materials). Coverage extends from three years of pre-primary education (Kindergarten 1 to 3) through 12 years of basic education. More recently, the National Early Childhood Development Act B.E. 2562 (2019) has strengthened the policy foundation by mandating national standards for early childhood centres, promoting integrated services across education, health, and social sectors, and establishing coordination mechanisms to ensure consistent, high-quality provision for children from birth to 8 years old.

Figure 6. Gross enrolment ratio by grade of pre-elementary education in Thailand, both sexes, 2019-2023 (%)



Source: Education Statistics 2023, Ministry of Education, Thailand.

The impact of these policies is visible in enrolment trends across education levels. Participation remains strong throughout the system, with above-95 per cent gross enrolment ratios (GERs) from Kindergarten 2 through the end of primary education in 2023. The main exception appears at Kindergarten 1 (age 3), where considerable gaps remain between the number of children enrolled in formal education at that level and the total population of the age group. Between 2019 and 2023, while K2 and K3 GERs have constantly surpassed 90 per cent, the GER for K1 remained below 50 per cent.



The comparatively lower enrolment at age 3 raises important questions. Although comprehensive research on this issue is still limited, several possible factors may contribute. Some parents may prefer to keep younger children at home or under family care until they are older, reflecting perceptions of age-related readiness. On the supply side, certain schools may not open Kindergarten 1 classes due to space, staffing, or demand constraints, resulting in more widespread provision beginning at Kindergarten 2. Finally, it is important to note that the data capture only enrolment in formal education; children attending non-formal or community-based early childhood programmes are not included, which may also explain the lower figures observed for Kindergarten 1.

Together, these factors suggest that while Thailand's policy framework strongly supports ECE access, expanding opportunities for the youngest learners remains an area for continued attention. Ensuring equitable enrolment from the earliest pre-primary year could be critical to achieving the full potential of ECE as a foundation for lifelong learning.

Source: Thailand, Office of the Education Council. (2019). Early Childhood Development Act B.E. 2562 (2019); Thailand, Bureau of Information and Communication Technology, OPS, MoE, (2023). Education Statistics 2023.

4.1.2 School Readiness of Young Children

Ensuring that all children enter primary school developmentally ready is a central objective of SDG target 4.2, which calls for universal access to quality early childhood development, care, and pre-primary education. A key measure of school readiness under this target is SDG Indicator 4.2.1, defined as the proportion of children aged 24–59 months who are developmentally on track in health, learning, and psychosocial well-being. This indicator is derived from the Early Childhood Development Index 2030 (ECDI2030)⁵, which measures the share of children in this age group who have achieved the minimum number of developmental milestones expected for their age. Developed to address the need for nationally representative and internationally comparable data on early childhood development, collected in a standardised manner, the ECDI2030 captures children's attainment of key developmental milestones across three broad domains – learning, psychosocial well-being, and health – based on responses to 20 caregiver-reported items describing children's behaviours, skills, and competencies in everyday situations.

While the ECDI2030 is designed for integration into existing national data collection systems, most available data in ASEAN currently derive from large-scale international household survey programmes, notably the UNICEF-supported Multiple Indicator Cluster Surveys (MICS) and the Demographic and Health Surveys (DHS). As shown in Table 2 below, available evidence from ASEAN Member States suggests encouraging levels of developmental readiness. In Indonesia, data from the 2018 RISKESDAS (Basic Health Research Survey) indicate that nearly nine in ten children are assessed as developmentally on track. Thailand, Viet Nam, the Philippines, and Cambodia—drawing on MICS and DHS data—also report proportions exceeding 70 per cent. However, data availability remains limited. As of this report, only seven ASEAN Member States have reported values for SDG indicator 4.2.1, and for each of these countries, indicator values are based on a single survey year. These gaps constrain regional comparability and limit the ability to track trends over time.

⁵ For more information about ECDI2030, including the Technical Manual of the index, please access the UNICEF Data website at: <https://data.unicef.org/resources/early-childhood-development-index-2030-ecdi2030/>





Strengthening national data systems to measure early childhood development outcomes more systematically will therefore be essential. More frequent nationally owned data collection will support evidence-based policy design, enable more precise targeting of interventions, and enhance monitoring of progress toward the commitments under SDG target 4.2.

Table 2. Proportion of children aged 24–59 months who are developmentally on track in health, learning, and psychosocial well-being, both sexes, ASEAN Member States with available data (% , year of data source in parentheses)

KHM (2014)	TLS (2016)	IDN (2018)	VNM (2021)	PHL (2022)	THA (2022)	LAO (2023)
73.10	53.20	88.30	78.20	76.80	79.50	58.70

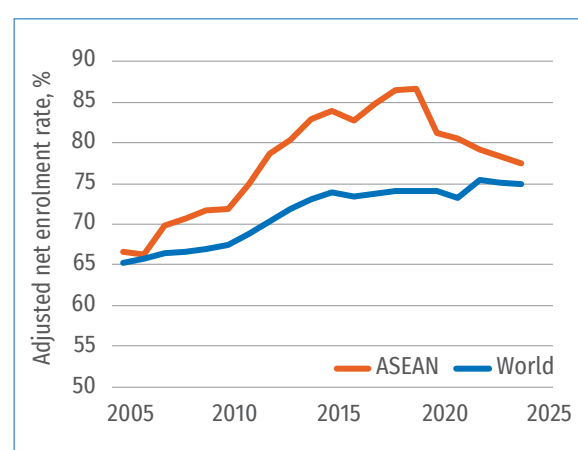
Source: UIS Database (Accessed September 2025).

Another critical measure of school readiness is the adjusted net enrolment rate in organised learning for children one year before the official primary entry age (SDG indicator 4.2.2). This indicator captures the extent to which young learners participate in structured early learning opportunities before entering primary school. As illustrated in Figure 7, the ASEAN regional average has consistently exceeded the global average since the early 2000s. From roughly comparable levels of about 65 per cent in 2005, ASEAN countries accelerated progress over the next two decades, reaching a peak of 87 per cent in 2019, well above the global average of around 74 per cent in the same year.

However, enrolment has declined after 2019, coinciding with the onset of the COVID-19 pandemic. While the initial drop is likely linked to pandemic-related disruptions to early learning services (Sullivan, 2021), the continued decline in subsequent years is more concerning, even though regional levels remain above the global average. This trend points to the need for renewed policy attention to school readiness, particularly for vulnerable children who may have missed early learning during school closures. Reversing this decline will be essential to ensure that all children in ASEAN can start primary school with the foundational skills and social-emotional competencies needed to succeed.

National level data further highlight the uneven progress across ASEAN in ensuring that children participate in organised learning before entering primary school. As shown in Figure 8, five out of the eleven countries report rates above 80 per cent, with Singapore, Thailand, Viet Nam, and Indonesia leading the region, each approaching or surpassing 90 per cent. These high levels reflect long-term investments in pre-primary infrastructure, workforce development, and universal early education policies.

Figure 7. ASEAN regional average of adjusted net enrolment rate in organised learning for children one year before official primary entry age, vs. world average, 2005 - 2024, both sexes (%)



Source: UIS Database (Accessed September 2025).

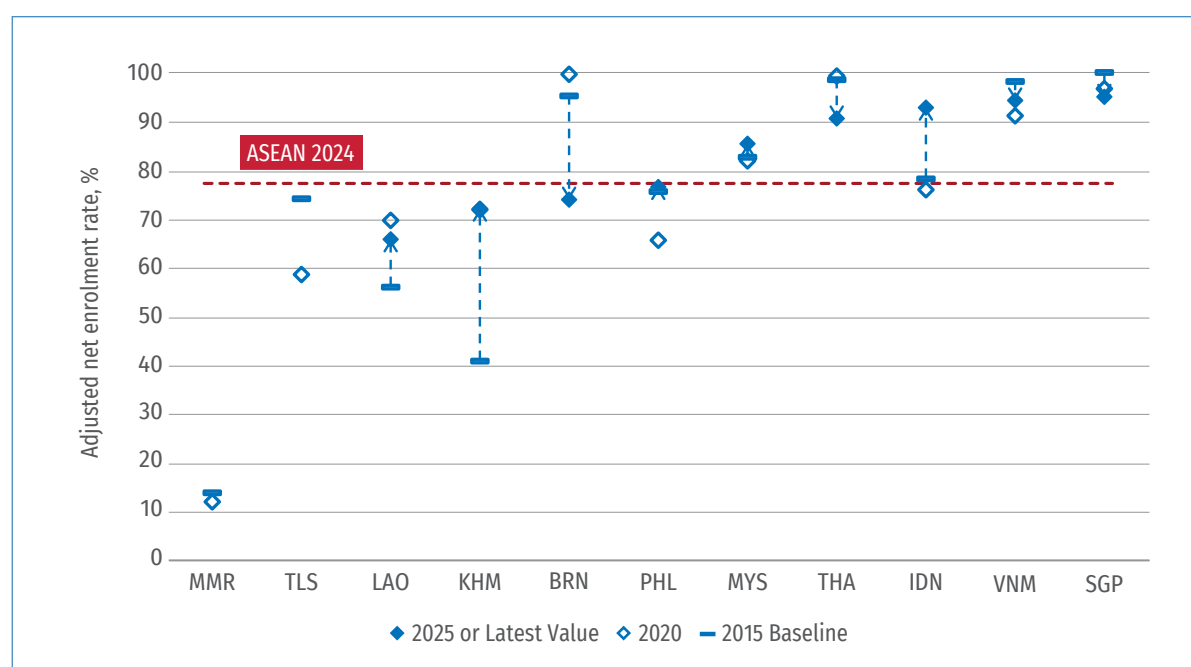


Several countries have made notable gains since 2015. Cambodia, Lao PDR, and Indonesia all recorded substantial improvements, especially from previously low baselines. However, progress in Lao PDR has reversed since peaking in 2020, echoing a broader regional concern about sustaining momentum after the disruptions of the COVID-19 pandemic. Similarly, Brunei Darussalam and Thailand have also seen declines in enrolment compared to their 2020 levels, as rate dropped from near 100 per cent in 2020 to 74 per cent in 2023 in Brunei Darussalam. In Myanmar, the adjusted net enrolment rate has remained very low and largely stagnant, with the latest data still unavailable. This is an especially concerning situation given the country's ongoing conflicts and instability.

These enrolment patterns point to deeper structural constraints within ECE systems, particularly the limited supply of centres and qualified teachers needed to sustain progress. First, the supply of ECE centres, especially public and affordable provision, lags behind demand, particularly in rural, remote, and disadvantaged urban areas (Brinkman, et al., 2016; World Bank, 2024a & 2024b). Expansion has often relied heavily on private or community-based providers, resulting in uneven geographic coverage and variable quality. This reliance limits access even where policy commitments to universal or expanded ECE exist.

Second, workforce constraints and weak professionalisation persist. ECE systems across the region face shortages of trained and qualified teachers, compounded by low wages, limited career pathways, and high turnover. In several countries, ECE educators are not fully integrated into national teacher frameworks, leading to inconsistent training standards and limited professional development opportunities. These workforce constraints directly affect both the scale and quality of provision.

Figure 8. Adjusted net enrolment rate, one year before the official primary entry age, both sexes, 2025 or latest value vs. 2020 and 2015 values (%)



Source: UIS Database (Accessed September 2025).





While enrolment trends provide an important indication of access, the quality and inclusiveness of ECE programmes are equally critical to ensuring that all children benefit and are adequately prepared for later stages of learning. Key dimensions of quality include the availability of well-trained and supported early childhood educators; developmentally appropriate curricula; safe, stimulating, and accessible learning environments; and targeted measures to reach children with disabilities, those from linguistic minority backgrounds, and those living in hard-to-reach areas. Strengthening quality assurance frameworks, alongside effective monitoring and evaluation mechanisms, remains essential for ASEAN Member States to ensure that ECE fulfils its potential in promoting equitable and meaningful early learning outcomes for all children.

4.1.3 Governance of ECE

Across Southeast Asia, governance arrangements for early childhood education (ECE) vary considerably, ranging from highly fragmented, multi-ministerial systems to more integrated and coordinated models (UNESCO Bangkok, 2016). Fragmentation is most evident in countries such as Cambodia, Lao PDR, Indonesia, the Philippines, and Myanmar, where responsibilities for ECE are divided among ministries of education, social welfare, health, and local government. In these contexts, education ministries often oversee pre-primary education, while childcare services for younger children fall under social or welfare agencies, resulting in parallel systems with differing standards, workforce requirements, and financing mechanisms. Decentralisation further exacerbates fragmentation, as subnational authorities exercise significant discretion over implementation, contributing to uneven quality and access across regions.

By contrast, Singapore represents a comparatively well-coordinated governance model, with strong central stewardship and clear institutional leadership over the ECE sector. While ECE remains multi-sectoral in nature, governance has been consolidated through dedicated agencies with clearly defined mandates, enabling coherent regulation, quality assurance, workforce development, and financing across both childcare and kindergarten services. This coordination has supported consistent quality standards, professionalisation of early childhood educators, and systematic monitoring of outcomes. Malaysia and Thailand occupy an intermediate position: although ECE governance remains shared across ministries, recent reforms have strengthened inter-ministerial coordination, national standards, and policy coherence, particularly in relation to curriculum frameworks, teacher development, and school readiness.

Overall, the regional picture suggests that fragmented governance remains the norm rather than the exception, with coordination challenges posing a significant constraint on the effectiveness and equity of ECE systems. At the same time, examples of more integrated governance demonstrate that clearer institutional leadership and coordination mechanisms can significantly enhance system coherence, offering valuable lessons for policy reform and regional cooperation aligned with SDG 4.2.

Public financing for ECE remains relatively low compared to other education levels in many Southeast Asian countries. Where funding is fragmented across ministries or devolved to local governments without adequate fiscal capacity, service provision becomes uneven and dependent on household contributions, reinforcing inequities in access and quality.



Socioeconomic status (SES) shapes both access to and the quality of early childhood education, which in turn limits the benefits children can gain from these opportunities. Children from higher-SES families are more likely to enrol in early learning programmes, attend centres with better-trained teachers and richer learning environments, and receive additional support at home. By contrast, children from low-SES households often face barriers such as cost, distance, limited availability of services, and lower programme quality. These disparities mean that early learning, while highly effective, does not reach all children equally, and those who could benefit the most are often the least likely to receive it.

4.1.4 Policy Implications for Early Childhood Education

Protecting and sustaining progress in pre-primary enrolment

Most ASEAN Member States have made notable gains in expanding access to pre-primary education, with net enrolment rates rising steadily since 2015. Some countries are now approaching near-universal coverage. However, recent declines in enrolment in organised learning for children one year before primary entry, both at the regional level and in several individual countries, signal a potential reversal of progress. Sustaining gains will require renewed attention to early participation, particularly by protecting and prioritising early childhood investment within broader education sector planning.

Ensure coordinated, cross-sectoral action across education, health, and social protection systems

Achieving equitable access to education cannot be addressed through the education sector alone, particularly in the earliest years of life when learning outcomes are most strongly shaped by health, nutrition, caregiving practices, and household stability. Evidence from developmental science and global education research consistently shows that disparities in cognitive, linguistic, and socio-emotional development emerge well before children enter formal schooling, often reflecting unequal access to healthcare, adequate nutrition, parental support, and safe living conditions. Fragmented service delivery, where education, health, and social protection systems operate in silos, limits the effectiveness of early interventions and disproportionately affects children from disadvantaged backgrounds. Coordinated, cross-sectoral action is therefore essential to ensure that young children and their caregivers receive integrated support during the critical early years, laying a strong foundation for school readiness, sustained learning, and long-term equity in educational outcomes.

Mitigating SES-driven inequities in early childhood education through targeted interventions

Socioeconomic status operates as a double-edged sword in ECE: children from higher-SES families are more likely to access and benefit from quality early learning opportunities, while those from lower-SES backgrounds face barriers that limit participation and reduce the developmental gains ECE can provide. These disparities mean that early learning, despite its proven effectiveness, reinforces rather than reduces existing inequities when access is uneven. Policy action should focus on reducing the influence of socioeconomic status by expanding publicly funded ECE provision, lowering or eliminating cost barriers for low-income families, prioritising service expansion in underserved communities, and implementing targeted outreach to disadvantaged households.





Strengthening governance, quality assurance, and data systems for early childhood educational development

While enrolment in pre-primary education has grown, participation in early childhood development programmes remains limited in much of the region, especially for children aged 0 to 3. As early childhood development programmes are often run by the private sector in many countries, public service provision and national quality standards are likely to be underdeveloped, and low data coverage limits the ability to track progress and coordinate services. For the most part, early childhood education and care in Southeast Asia is governed through fragmented institutional arrangements, with responsibilities dispersed across multiple ministries and agencies. This fragmentation contributes to inconsistent standards, uneven quality, and gaps in access, particularly for disadvantaged children. Strengthening governance coherence through clearer institutional leadership, improved inter-ministerial coordination, and unified ECE policy frameworks should be a critical policy priority to ensure quality, equity, and effective service delivery and to accelerate progress toward SDG 4.2. Strengthening governance, quality assurance, and data systems for early childhood educational development can help ensure that all children benefit from comprehensive and well-coordinated early learning opportunities.

Improving measurement of school readiness to guide early interventions

Encouraging results on school readiness are emerging in countries that collect the data, but reporting remains incomplete across the region. Without a fuller picture, it is difficult to assess whether children are equally prepared for the transition to primary education. Expanding and harmonising school readiness assessments will enable countries to identify gaps, target interventions, and support more equitable early learning outcomes.

Professionalising the early childhood workforce to improve quality and system resilience

Shortages of trained early childhood educators, combined with low wages and limited career pathways, constrain both access and quality. Professionalising the workforce through competency-based training, harmonised qualification frameworks, and improved employment conditions will be central to raising quality and enabling systems to expand equitably. Strengthening workforce development is also essential to reducing disparities between public and private providers and ensuring that all children benefit from developmentally appropriate, inclusive early learning environments.

4.2 Basic Education

Basic education⁶ is the backbone of national education systems and a fundamental driver of inclusive and sustainable development. It is central to SDG target 4.1, which commits all countries to ensuring that every child completes free, equitable, and quality primary and secondary education, leading to relevant and effective learning outcomes. ASEAN has embedded this ambition into its regional policy agenda through key instruments such as the ASEAN Work Plan on Education 2021–2025 and the ASEAN Declaration on Strengthening Education for Out-of-school Children and

⁶ For consistency and clarity, this report uses the term *basic education* to encompass primary (ISCED level 1), lower secondary (ISCED level 2), and upper secondary (ISCED level 3) education.



Youth. These frameworks recognise that investing in strong, inclusive basic education is critical not only for individual empowerment but also for regional integration, resilience, and long-term competitiveness.

Over the past two decades, access to basic education has expanded across ASEAN, with most Member States achieving near-universal enrolment at the primary level and continued improvements in lower- and upper secondary participation. Many countries have adopted 12-year education systems that guarantee free or tuition-subsidised education across all three levels, supported by constitutional mandates, national education acts, and large-scale public financing programmes aimed at eliminating cost barriers for families. Yet, as highlighted in many other regional publications, challenges persist in ensuring universal completion, particularly at the upper secondary level (SEAMEO Secretariat and EdTech Hub, 2024). Dropout patterns remain concentrated among disadvantaged groups, especially students in rural and remote areas, ethnic minorities, and children from low-income families, raising persistent concerns about equity and social inclusion (ACER, 2024).

Equally critical is the question of whether students are acquiring foundational competencies during their time in school. Despite sustained progress in expanding access to basic education, learning outcomes across ASEAN remain uneven. The 2024 results from the Southeast Asia Primary Learning Metrics (SEA-PLM) assessment underscore the urgency of this challenge. At the regional level, modest improvements are observed in primary-level learning outcomes, yet the evidence continues to point to persistent learning gaps and systemic challenges related to equity, access, and the quality of learning (UNICEF and SEAMEO Secretariat, 2025). By the end of lower secondary education, learning outcomes show signs of further decline across much of the region, and the proportion of students attaining minimum proficiency remains low in many systems. This learning crisis (World Bank, 2018) risks undermining progress towards the Education 2030 Agenda, which places equal emphasis on the quality and relevance of learning alongside expanded participation.

As ASEAN navigates its demographic shifts, technological change, and evolving labour-market demands, ensuring that all learners complete a full cycle of basic education with strong foundational skills is more urgent than ever. It is not only a moral and legal obligation, but a strategic imperative that underpins workforce development, civic participation, and regional cohesion. Empirical evidence from both within the region and globally consistently demonstrates positive associations between foundational learning and improved individual earnings, economic growth, child survival, and sustained school progression (Crawford, 2025; Kaffenberger et al., 2025). The World Bank's (2023) *Fixing the Foundation* report also underscores that, without strong foundational learning in the early years, students cannot acquire the higher-order skills needed for productivity and economic growth. Basic education is where the foundations for lifelong learning, gender equality, innovation, and sustainable growth are laid, making it one of the most vital investments for achieving both the *ASEAN Community Vision 2045* and advancing the broader SDG objectives.

4.2.1 Participation of School-age Children in Basic Education

Over the past two decades, ASEAN has made steady progress in reducing out-of-school rates (OOSR) and expanding inclusion across all levels of basic education. As shown in Figure 9, the regional average primary school OOSR declined from about 14 per cent in 2000 to 5 per cent in 2023, driven by the expansion of compulsory education, the abolition of tuition fees, and targeted social





protection schemes such as conditional cash transfers. Beyond these system-wide reforms, ASEAN countries have also introduced a range of alternative learning pathways to reach out-of-school children and youth, including community-based learning centres, flexible modular programmes, equivalency education, and accelerated learning schemes that allow learners to re-enter formal schooling or obtain recognised certification. These initiatives have been particularly important for migrant children, working youth, ethnic minorities, and learners in remote areas, helping to reduce exclusion even where formal school participation remains difficult.

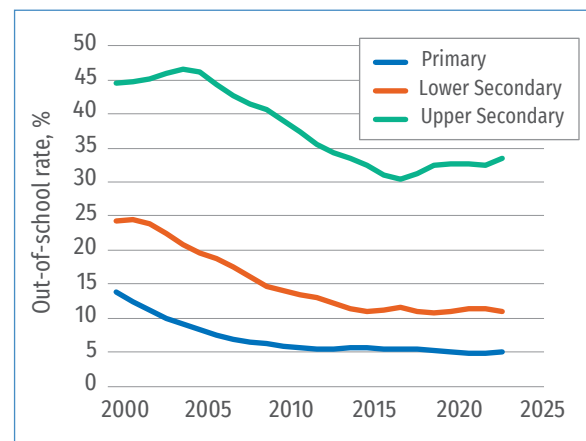
Since around 2010, however, progress has levelled off, with the rate stabilising between 5 per cent and 6 per cent. At the lower secondary level, the regional OOSR fell from 24 per cent to about 11 per cent over the same period, signalling advances in extending the coverage of basic education beyond the primary cycle. Yet here too, progress has slowed in the past decade, with the rate remaining virtually unchanged since 2013.

In comparison, trends at the upper secondary level have been less consistent. The OOSR declined from a peak of 47 per cent in 2004 to around 33 per cent in 2023, but gains have partly reversed in recent years. Since 2017, the regional average has risen again from its lowest point of 30 per cent, underscoring the persistent structural barriers that continue to limit participation at this level.

This reversal may be partly due to the challenges that older adolescents and youth face in sustaining their education. For many, the opportunity costs of remaining in school increase with age, as household income needs and family responsibilities compete with study, leading to negative learner and caregiver attitudes towards education (SEAMEO Secretariat and EdTech Hub, 2024). Participation is also deeply stratified: students from rural and low-income households are far more likely to leave school before completing upper secondary, while in some contexts, gendered expectations such as boys' entry into the labour market and girls' early marriage or caregiving roles, further reinforce these vulnerabilities (Smith et al., 2021).

These patterns are echoed in recent empirical evidence from the Philippines, which highlights how work status and marriage, alongside household income, are associated with being out of school (PIDS, 2025). Economic pressures push many learners, especially older children, to engage in work or assume caregiving responsibilities, while the indirect costs of schooling remain prohibitive for low-income families. Geographic isolation, disability-related barriers, and health and nutrition challenges also contribute to irregular attendance or dropout, particularly in rural, remote, and conflict-affected areas. School-related issues such as bullying, safety concerns, and perceived low relevance of schooling add to these risks. The digital divide during prolonged school closures intensified these vulnerabilities, leaving many students unable to participate in remote learning and less likely to re-enrol once schools reopened. Together, these dynamics suggest that while access has broadened, retaining students through the end of upper secondary remains a pressing challenge for education systems in the region. Addressing these intertwined drivers of

Figure 9. ASEAN regional average out-of-school rate, by levels of education, both sexes, 2000 to 2023 (%)



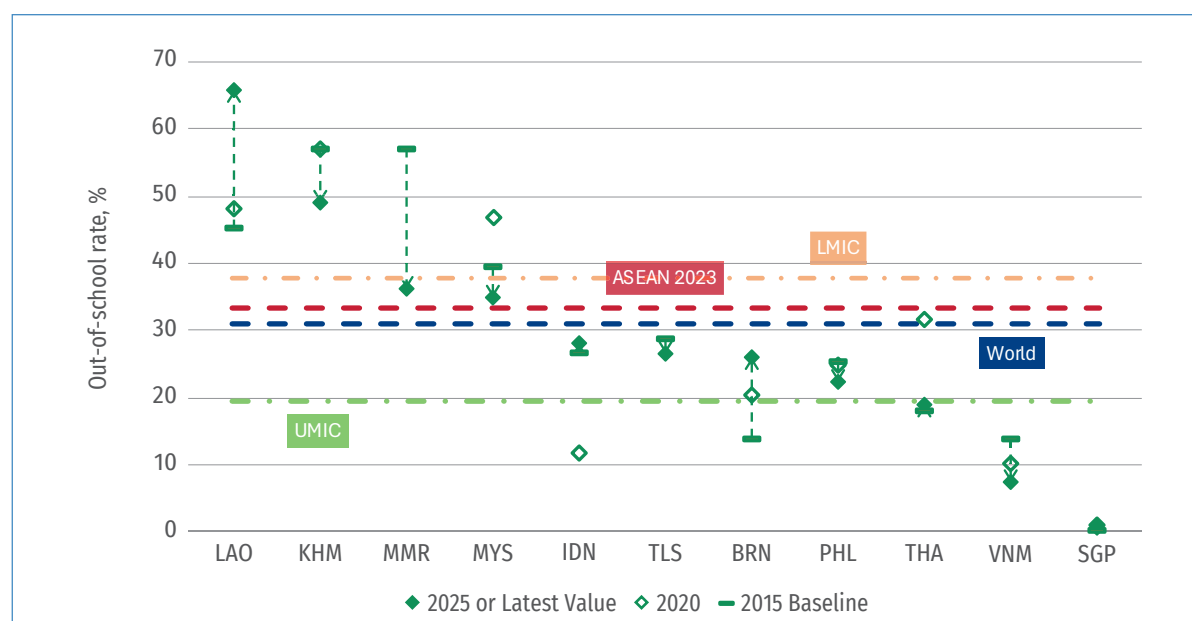
Source: UIS Database (Accessed September 2025).



non-attendance will require multiple, coordinated strategies that tackle economic, academic, and accessibility barriers at the same time. At the national level, OOSRs for upper secondary school-age youth reveal persistent disparities across ASEAN, with some countries making significant progress while others continue to face entrenched challenges. As shown in Figure 10, the ASEAN regional average outperforms the lower middle-income country (LMIC) average of approximately 38 per cent, but remains well above the upper middle-income country (UMIC) average of 19.4 per cent.⁷ Nine out of eleven ASEAN countries outperform the LMIC average, and among them, Singapore, Viet Nam, and Thailand stand out, approaching or exceeding the UMIC average. Their performance reflects relatively strong secondary systems and successful transition mechanisms from lower to upper secondary.

In contrast, Lao PDR and Cambodia report OOSRs near or above 50 per cent, suggesting that more than half of upper secondary-aged youth are not enrolled in formal education. The situation in Lao PDR is particularly concerning: its OOSR has risen by nearly 20 percentage points since 2015, with the pace of deterioration accelerating after 2020. This sharp increase likely reflects compounding constraints, including limited upper secondary school availability, affordability barriers, competing economic opportunities, and high dropout rates following lower secondary education (Boualaphet and Goto, 2020). Myanmar presents a different challenge. Although the country last reported a below-40 per cent OOSR in 2018, representing improvement from its 2015 level, no recent data are available, which is cause for concern. Given the country's ongoing conflicts and political instability, the absence of updated data obscures the true scale of exclusion and makes it difficult to determine whether progress has stalled or reversed.

Figure 10. Out-of-school rate for youth of upper secondary school age, both sexes, 2025 or latest value vs. 2020 and 2015 values (%)



Note: Due to the lack of more recent data, the latest available values for Myanmar (2018) and Timor-Leste (2020) are used.

Source: UIS Database (Accessed September 2025).

7 Based on the World Bank grouping of countries by income as of July 2025.





Overall, the data show that progress is underway but remains uneven across the region. Six out of the eleven countries in the region have reduced upper secondary OOSRs since 2015, pointing to long-term improvements in access and retention. However, when comparing the latest values to 2020, only five countries show continued improvement, while the rest have either stagnated or regressed. This slowdown underscores how fragile upper secondary participation remains, particularly amid economic pressures and the lingering effects of the pandemic. Sustaining and accelerating progress will require targeted investments, inclusive policy reforms, and stronger monitoring systems to ensure that no adolescent is left behind at this critical stage of education.



Box 7. National education reform and regional disparities: The case of the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM)

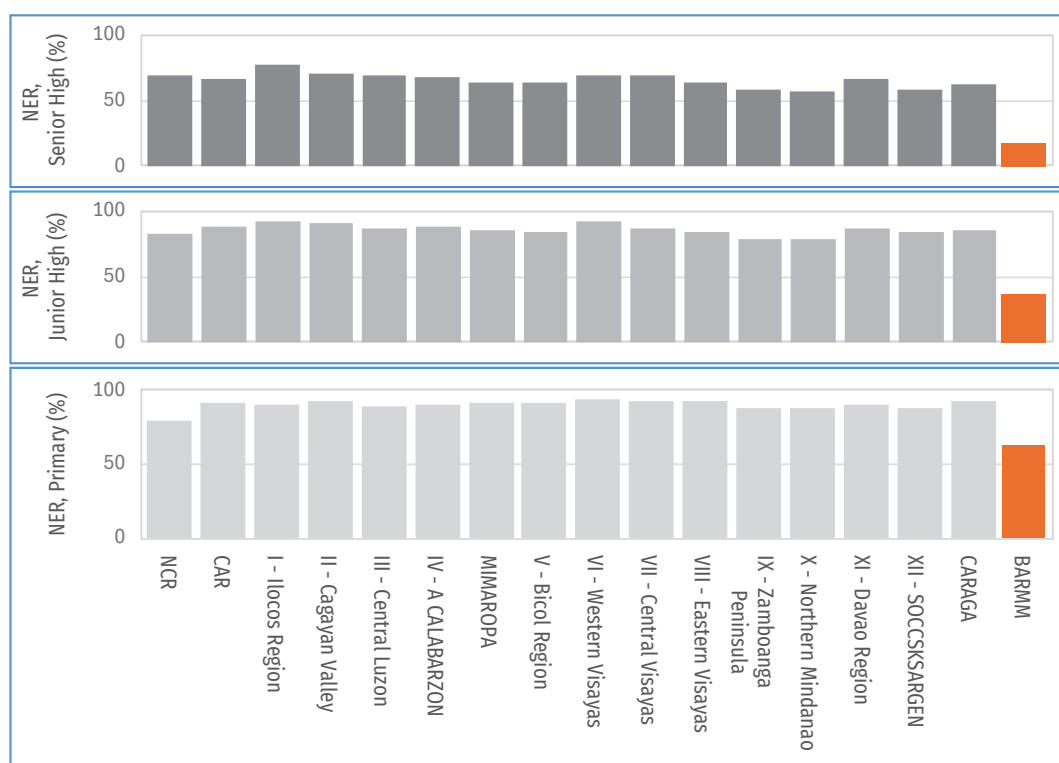
The Philippines has introduced major reforms to strengthen its education system and align it with international standards. The K to 12 Education Reform, institutionalised by the Enhanced Basic Education Act of 2013, extended the cycle from ten to twelve years and made kindergarten through senior high school compulsory. This reform established a one-year kindergarten, six-year primary, and six-year secondary structure, alongside curriculum enhancements at all levels. Complementary policies have also been adopted to promote inclusion and learner welfare: Republic Act No. 11650 guarantees access to quality education for learners with disabilities; the National Indigenous Peoples Education Policy Framework (DepEd Order No. 62, s. 2011) supports culturally relevant education for indigenous communities; and the National Feeding Programme (Republic Act No. 11037) provides meals and health services to undernourished children in early learning and primary schools, helping improve attendance and learning outcomes.

Against this backdrop of nationwide reforms, the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) continues to face some of the most serious education challenges in the country. Decades of conflict, high poverty, and weak institutional capacity have contributed to persistent disparities between BARMM and the rest of the Philippines. Many children in the region start school late, leave before finishing, or never enrol at all, leaving fewer able to continue into higher levels of education. High poverty limits household capacity to support schooling, while conflict and displacement have repeatedly disrupted education services. Language barriers in the early grades and limited learning infrastructure further compound these difficulties, making it harder for children to stay in school and succeed.

As shown in Figure 11, net enrolment rates across all three levels of basic education in 2023 place BARMM as an outlier with the lowest participation nationwide. While most regions record primary net enrolment close to or above 90%, BARMM lags significantly behind, and the gap widens further in junior and senior high school. This pattern underscores how inequities in access emerge early and accumulate as students move through the system. The participation gap is reflected in other indicators: student-teacher ratios in BARMM are among the highest in the country, reaching 67 students per teacher in senior high, compared with the national average of 35. Learning outcomes are also weaker: in the 2022–2023 national achievement test, grade 12 students in BARMM recorded a mean percentage score of 38.5, below the national average of 41 across five learning areas.



Figure 11. Net enrolment rate in public and private schools in the Philippines, by regions and levels of education, 2023 (%)



Source: 2024 Philippine Statistical Yearbook, Philippine Statistical Authority.

Several initiatives are underway to address these gaps. The Philippine Department of Education operates the Alternative Learning System (ALS) nationwide, including in BARMM, to provide second-chance learning opportunities for out-of-school youth and adults. Since 2019, the Bangsamoro Government, through the Ministry of Basic, Higher and Technical Education (MBHTE), has introduced reforms to strengthen teacher deployment, integrate madrasah education, and localise curriculum development. Development partners have also supported targeted interventions: UNICEF and its partners, including the BDO Foundation, are expanding ALS opportunities in BARMM. While these efforts remain at an early stage, they represent important steps toward narrowing education gaps and promoting more equitable outcomes in the region.

Source: MBHTE (2025), 5 Ways We've Strengthened Madrasah Education in BARMM; UNICEF Philippines. (2025). UNICEF Philippines and BDO Foundation launch partnership for the benefit of youth in Bangsamoro region; and World Bank Group. (2019). Unlocking the Potential of the Bangsamoro People through the Alternative Learning System.

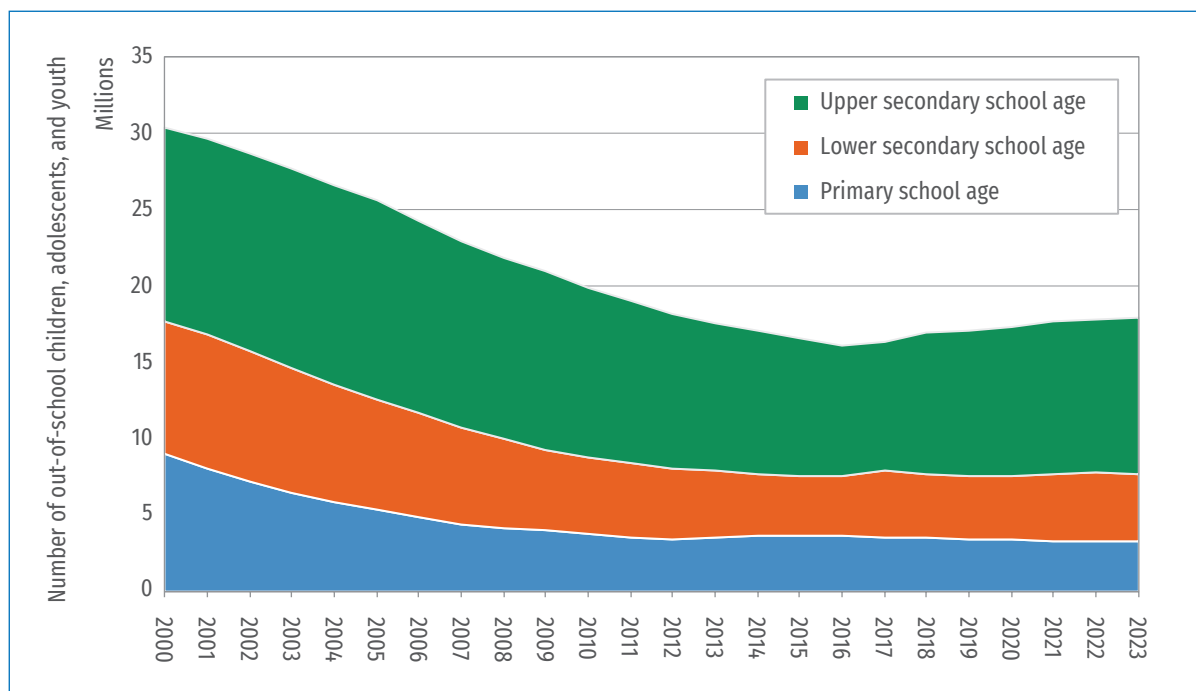




While OOSRs indicate the proportion of children and youth not participating in education, examining the absolute number of out-of-school learners highlights the scale of the challenge facing education systems in ASEAN. As shown in figure below, secondary-school-aged adolescents and youth make up the vast majority of the out-of-school population in ASEAN, underscoring the persistent difficulties in retaining learners through the end of basic education. In 2023, an estimated 18 million children and youth of basic education age were out of school in ASEAN, with less than 20 per cent of them in the primary school age group and more than half of them in the upper secondary. This pattern reflects a combination of factors, including limited access to upper secondary schools, early entry into the labour market, and socio-economic barriers that intensify as learners grow older.

Nearly half of ASEAN countries are estimated to have at least one million school-age children and youth out of formal education at the primary and secondary levels combined, underscoring the scale of exclusion even in countries with relatively high enrolment rates. Indonesia, partly due to its large population, has the highest number of out-of-school learners, particularly at the secondary level. In the Philippines, the comparatively high number of out-of-school children at the primary level signals early exclusion from formal education and highlights the need to strengthen early grade retention efforts.

Figure 12. Number of out-of-school children, adolescents, and youth of primary, lower secondary, and upper secondary school age in ASEAN, both sexes, 2000–2023 (millions)



Source: UIS Database (Accessed September 2025).

Inequities linked to income, gender, disability, ethnicity, and geographic location continue to constrain progress in several ASEAN countries, underscoring the need for sustained, data-informed, and equity-focused interventions. Member States will need to expand alternative and flexible education pathways, provide targeted financial assistance for marginalised learners, and



increase access to upper secondary and TVET opportunities, particularly in underserved provinces. Strengthening cross-sectoral coordination between education, social protection, and labour ministries will also be critical to reducing dropout and supporting the reintegration of out-of-school youth, ensuring that no learner is left behind in the region's pursuit of SDG 4 (UNESCO GEMR Team, 2020).

As ASEAN shapes its post-2025 education agenda, broadening participation in basic education, particularly at the upper secondary level, remains an important aspiration linked to the *ASEAN Community Vision 2045*, the *Education 2030 Framework for Action*, and national development strategies. Although the region has made notable progress, further gains will depend on sustained political commitment, careful prioritisation of resources, and continued attention to equity and inclusion. Ensuring that more learners are able to complete a full cycle of basic education and fully benefit from the opportunities it provides will be essential to advancing human capital development and realising the region's long-term social and economic goals.



Box 8. ASEAN Declaration on Strengthening Education for Out-of-School Children and Youth (OOSCY)

The *ASEAN Declaration on Strengthening Education for Out-of-School Children and Youth* was adopted in September 2016 by ASEAN Member States during the 28th ASEAN Summit. The Declaration reflects a shared regional commitment to advancing inclusive education for children and youth as part of ASEAN's broader socio-cultural and human development agenda.

Guided by principles of inclusivity, equity, accessibility, continuity, flexibility, and sustainability, the Declaration underscores the importance of legislation, policies, and related action plans to support retention and completion of education. It also aligns with the *Education 2030 Framework for Action* and SDG 4 to promote inclusive and equitable quality education for all.

As a regional normative instrument, the Declaration complements ASEAN education policy frameworks and supports coordinated action at national and regional levels.

Source: ASEAN Secretariat, 2016.



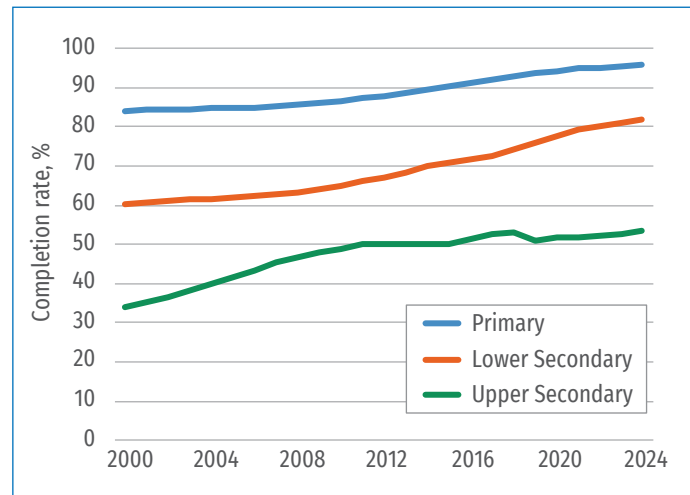
4.2.2 Completion across Different Levels of Education

Significant progress has been made in expanding access to education in ASEAN so that now growing attention is being directed toward ensuring that learners complete each level of schooling. Completion rates serve as a critical indicator of education system performance, capturing not only access but also sustained participation through the final grade. Figure 13 presents the median completion rates across ASEAN Member States from 2000 to 2024 for primary, lower secondary, and upper secondary education. Median values are used to represent regional trends by reducing the influence of outliers and accounting for cross-country variability in data availability.



The data indicate that primary education completion is approaching universality across the region, with the median completion rate rising steadily from 84 per cent in 2000 to more than 95 per cent by 2024. Lower secondary education has also seen marked improvement, with the median rate increasing from around 61 per cent to more than 80 per cent during the same period, suggesting greater success in retaining students through the end of this level, which marks the completion of compulsory education in many ASEAN countries. Upper secondary education, however, remains a challenge, with median completion rising from just 34 per cent in 2000 to about 55 per cent in 2024. Progress at this level has been relatively modest in recent years, with signs of stagnation after 2016.

Figure 13. Median completion rates in primary, lower secondary, and upper secondary education across ASEAN Member States, by levels of education, both sexes, 2000–2024 (%)



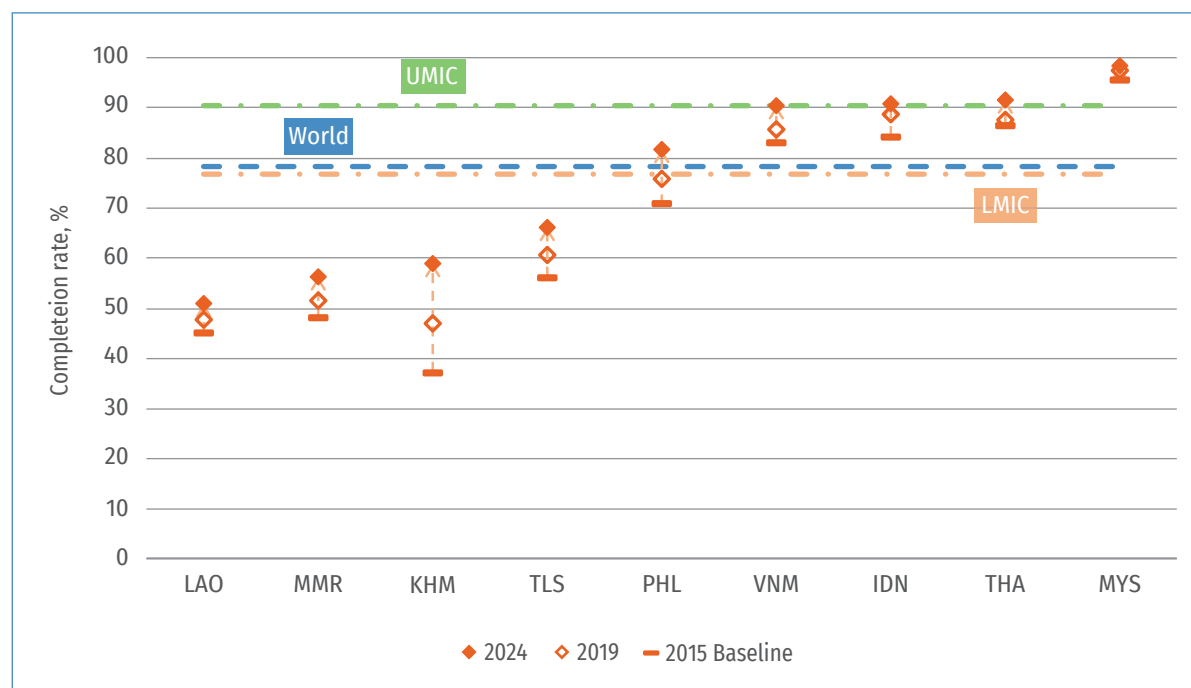
Source: UIS Database (Accessed September 2025).

Upper secondary completion has risen only slowly across ASEAN and began to plateau just as the SDG 4 period started, reflecting a structural mismatch between policy ambition and system capacity. While governments in ASEAN successfully expanded primary and lower secondary education, upper secondary requires far more intensive investment, such as specialised teachers, diversified academic and TVET pathways, and greater per-student spending, which many systems were not yet prepared to scale up. At the same time, policy attention and financing remained concentrated on primary and lower secondary education, leaving upper secondary reforms incremental rather than transformative. Socio-economic pressures also intensified at this level: older adolescents face higher opportunity costs, labour-market pull factors, and persistent geographic and income barriers that schooling alone cannot offset. These dynamics meant that when SDG 4 raised expectations for universal upper secondary completion, countries were still operating with policies, budgets, and institutional arrangements designed for earlier stages of expansion, resulting in the stagnation observed after 2016.

At the national level, modelled data on lower secondary completion rates provide important insight into how well education systems in ASEAN are supporting learners through the full cycle of basic education. As shown in Figure 14, Malaysia, Thailand, Indonesia, and Viet Nam have reached or exceeded the upper middle-income country (UMIC) average of 90.2 per cent, signalling strong system performance in retention and progression through the lower secondary level. Encouragingly, all ASEAN countries with available data have shown progress since 2015, though at varying rates. This upward trend reflects broader regional investments in lower secondary participation, including targeted interventions such as scholarship schemes, school meal programmes, and lower secondary school expansion.



Figure 14. Completion rate, lower secondary, both sexes, 2024 vs. 2019 and 2015 values (modelled data) (%)



Note: Brunei Darussalam and Singapore are not shown due to the absence of available data.

Source: UIS Database (Accessed September 2025).

Nonetheless, significant challenges remain, and disparities in progress exist across countries. At least three ASEAN Member States – Lao PDR, Myanmar, and Cambodia – report lower secondary completion rates below 60 per cent, placing them well below both the global average and the lower middle-income country (LMIC) average. However, Cambodia stands out for its notable progress, recording an increase of more than 20 percentage points since 2015. Continued support and targeted policy attention will be essential to ensure that all learners in the region are not only able to access lower secondary education but also are able to complete it with equitable opportunities for further learning.



Box 9. Dropout trends and challenges in Lao PDR

Reducing student dropout is central to achieving SDG 4, as it directly affects student completion and the ability of education systems to deliver equitable learning opportunities. ASEAN countries have made considerable progress in ensuring that children remain in school until the last grade of primary education. As shown in UIS data, countries like Singapore and Thailand report very high survival rates for primary education, at 99.4 per cent and 98.5 per cent, respectively. However, challenges persist in Lao PDR, where the primary survival rate is considerably lower, at 82.1 per cent. This means that nearly one in five students leaves school before completing primary education.





Looking more closely at student dropout patterns in the region, rates are generally higher for males than for females, except in Singapore and Malaysia. In Lao PDR, however, gender patterns are more complex and vary by grade: girls face higher dropout risks in Grade 7, Grade 8, and Grade 12, while in most other grades, boys show higher rates.

Figure 15. Dropout rates by grade and gender in Lao PDR, school year 2023-2024

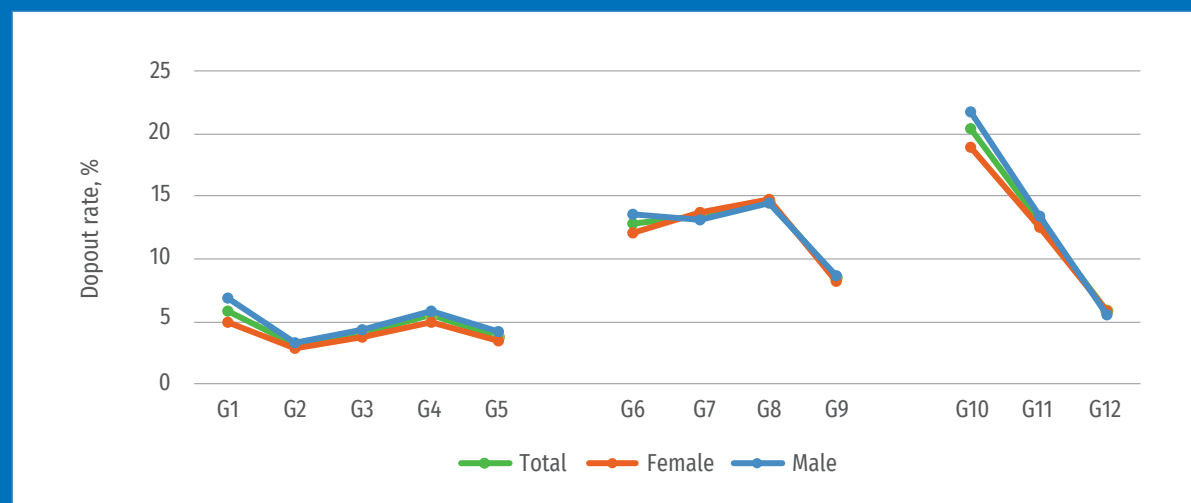
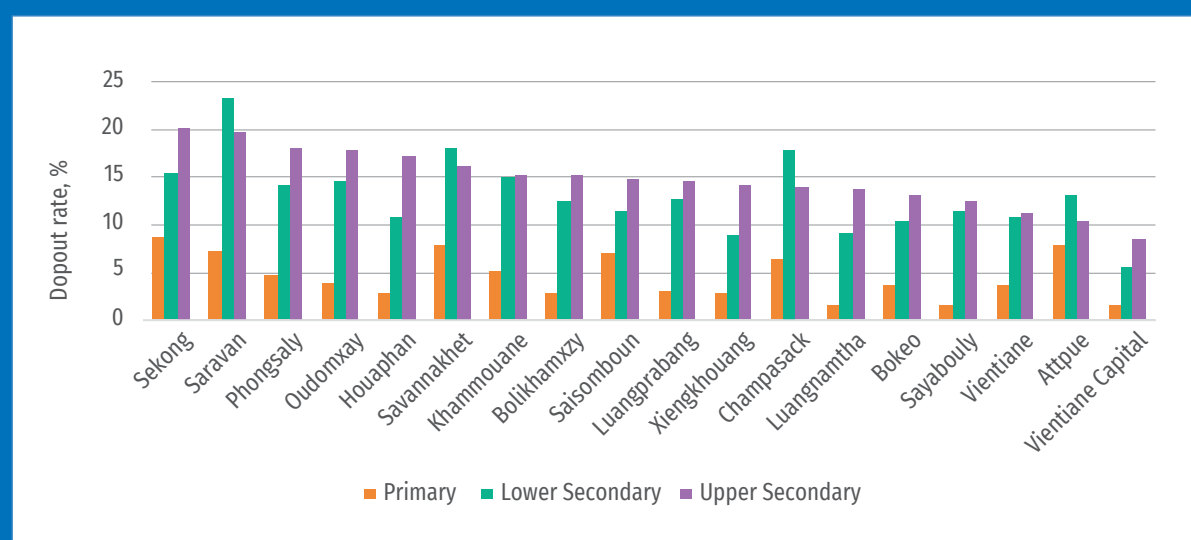


Figure 16. Provincial dropout rates across levels of basic education in Lao PDR, school year 2023-2024



Source: Annual school survey for school year 2023-2024, Lao PDR.

Sub-national data from Lao PDR further highlight wide disparities across provinces. More than half of the provinces report dropout rates above or around 15 per cent for upper secondary education, and in five provinces, even the lower secondary level rate exceeds 15%, with Saravan reaching 23.3 per cent at the lower secondary level, while Vientiane Capital has the lowest dropout rates across all levels. This reflects the persistent rural-urban divide in student retention.



It is also notable that in nearly 80 per cent of the provinces, dropout rates are highest at the upper secondary level compared with primary and lower secondary. At the lower secondary level, dropout rates show an upward trend during the first three grades but drop noticeably in Grade 9. A striking pattern is the sharp gap between the final grade of one education level and the entry grade of the next, highlighting the challenge of educational transition. For instance, dropout rates surge to 20.4 per cent in Grade 10, nearly 12 percentage points higher than in Grade 9, making it the most critical point of attrition across the education cycle. These findings highlight upper secondary as a bottleneck, where both the transition from lower secondary and increasing socio-economic pressures, particularly in rural areas, contribute to higher dropout.

In the policy context, Lao PDR has long implemented measures to improve student retention. Since 2009, the Progressive Promotion Policy has allowed students to advance to higher grades without the requirement of passing a final exam. The policy was introduced to encourage learners to stay in school until graduation and to complete their studies within five years. By reducing the pressure of high-stakes examinations, it provides students with a smoother pathway through basic education and aims to reduce dropout risks at critical transition points. While challenges remain, such measures illustrate ongoing national efforts to support student retention and promote completion across the education system.

Source: Annual school survey for school year 2023-2024, Department of Planning, Ministry of Education and Sports, Lao PDR.

While completion rate measures whether learners eventually finish the final grade, it does not fully capture whether they progress without interruption or delay. Dropout and grade repetition are two key factors that undermine timely progression and completion, often creating inefficiencies in the education system as additional resources and investments are needed. These disruptions affect not only whether students complete their education, but also when they do so, contributing to a higher incidence of over-age learners at each level of schooling.

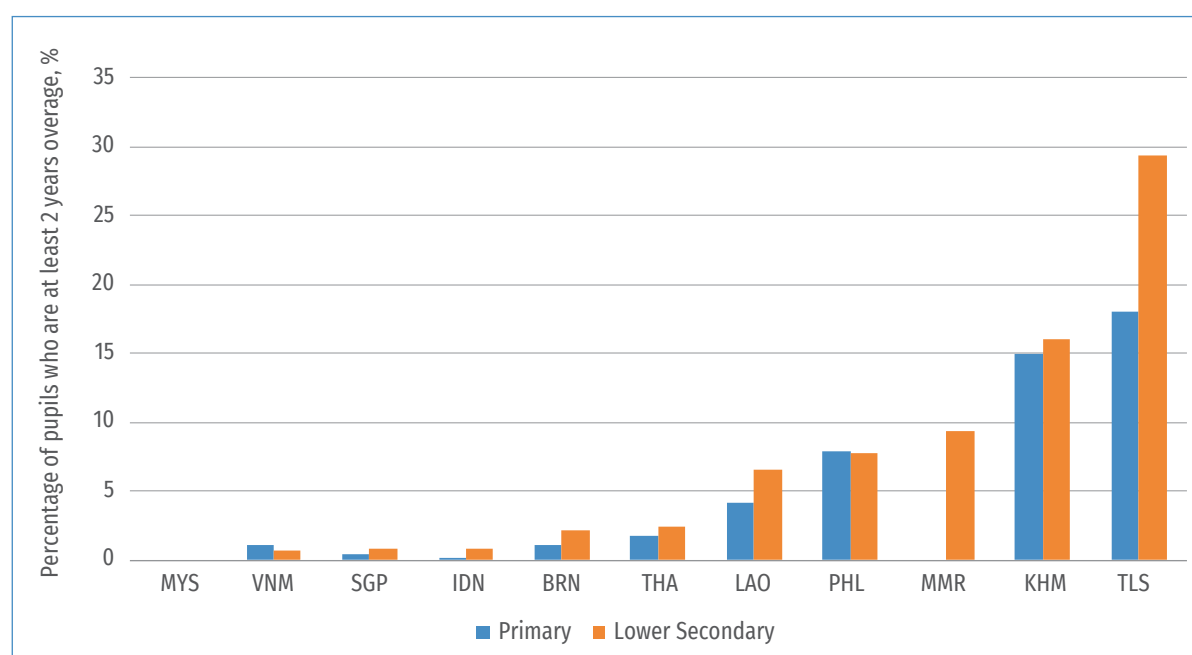
Figure 17 highlights another important dimension: the rate of over-age enrolment in primary and lower secondary education, defined as the percentage of students who are at least two years older than the expected age for their grade. This indicator reflects challenges related to late entry, repetition, and irregular progression, all of which can compromise learning outcomes and reduce the likelihood of completion (UIS, 2012).

Six out of eleven ASEAN countries, including Malaysia, Singapore, and Viet Nam report very low over-age rates for both primary and lower secondary levels (under 5 per cent), indicating timely enrolment and progression through the education system. In contrast, Timor-Leste and Cambodia show much higher levels of over-age enrolment, often associated with weak foundational learning or inflexible school policies on repetition and re-entry. Encouragingly, almost all countries, including those initially with high over-age rates, have made progress since 2015. Significant reductions in such countries as Lao PDR, the Philippines, and Timor-Leste point to improvements in internal efficiency and more effective support for learners' progression.





Figure 17. Percentage of pupils enrolled in primary education and lower secondary general education who are at least 2 years over-age for their current grade, both sexes, 2025 or latest value (%)



Note: Myanmar lower secondary value is not shown, as the most recent available data predates 2015.

Source: UIS Database (Accessed September 2025).

Taken together, these trends suggest that while most children in ASEAN now reach the end of primary education, completion and timely progression through lower and upper secondary remain uneven. Improving completion rates will require strengthening learning in the early grades, supporting smooth transitions between education levels, and providing remedial pathways for over-age learners. Ensuring that all children not only stay in school but complete basic education with the necessary skills will be essential for achieving SDG 4.1 and advancing the ASEAN Education Agenda.



Box 10. Issue of timely enrolment in Timor-Leste

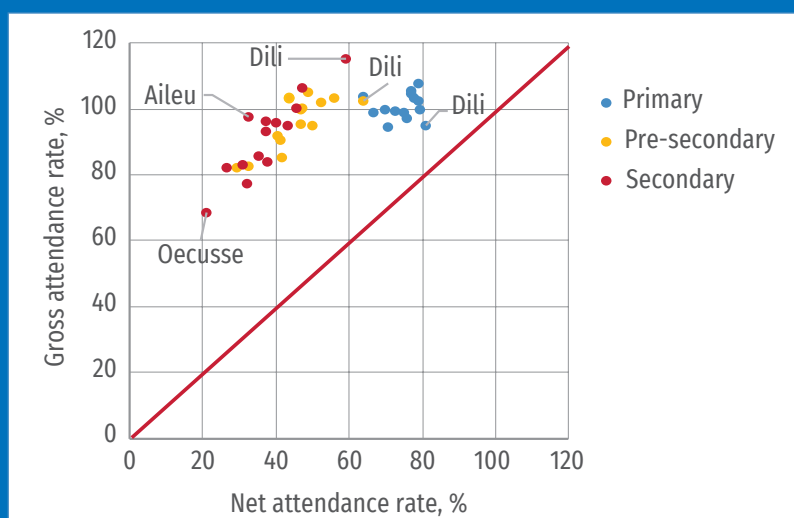
Ensuring students are enrolled at the right time is a persistent challenge in Timor-Leste's education system, with many students progressing through school later than the official age for their grade. According to UIS data, in 2020, nearly one in three pupils (29.3 per cent) in lower secondary general education were at least two years over-age, while, at the primary level, almost one in five (18 per cent) were over-age. Historically, repetition has been a major factor, with rates in primary education peaking at around 20 per cent in 2010 before gradually declining in recent years. The legacy of high repetition, combined with delayed entry and uneven progression, continues to create significant age-grade mismatches, undermining efficiency and contributing to higher dropout risks in later years.

The chart below compares gross and net attendance rates for each municipality, with colours distinguishing education levels (blue = primary, orange = pre-secondary, red = secondary). In Timor-Leste, pre-secondary corresponds to lower secondary, while secondary refers to upper secondary.



By definition, net attendance measures the share of children of official school age who are enrolled, while gross attendance includes all enrolled students, regardless of age. The difference between the two highlights the extent of the age–grade mismatch.

Figure 18. In all municipalities of Timor-Leste, gross attendance rates are substantially higher than net attendance rates, with gaps widening at higher levels of education,—evidence of widespread overage enrolment beyond the intended age group.



Note: In Timor-Leste's education system, pre-secondary corresponds to lower secondary, while secondary refers to upper secondary. Diagonal red line (45°): where Net Attendance Rate = Gross Attendance Rate, meaning no overage or underage students.

Data Source: Timor-Leste Population and Housing Census 2022, National Institute of Statistics Timor-Leste.

When plotted for each municipality, the results reveal striking gaps: all points lie well above the diagonal line, indicating that the difference between gross and net attendance is substantial across all levels of schooling. A clear pattern also emerges as education level increases: the dots shift farther from the equilibrium line, showing that over-age enrolment becomes more pronounced in higher grades. For example, the three points for Dili demonstrate relatively high attendance across primary, pre-secondary, and secondary education, but the gap widens sharply at the secondary level, underlining the accumulation of over-age enrolment as students progress. Similar trends are evident in other municipalities, where over-age enrolment compounds over time and is especially acute at the secondary level.

These patterns highlight that over-age enrolment is not a marginal issue but a systemic challenge in Timor-Leste, linked to delayed entry, repetition, and slow progression. They also signal inefficiencies in the system and reduced opportunities for students to complete secondary education on time. Efforts to encourage on-time entry, reduce early-grade repetition, and provide flexible pathways for overage learners, such as accelerated or bridge programmes, could support progress. Strengthening data systems to track age–grade patterns more systematically would also help identify where interventions are most needed and inform targeted responses.

Source: Timor-Leste Population and Housing Census 2022, Thematic Report – Education. Dili, Timor-Leste National Institute of Statistics (INETL), May 2024.





4.2.3 Achievement of Expected Learning Outcomes across Education Levels

Achieving relevant and effective learning outcomes for all students is a cornerstone of SDG target 4.1 and a key priority under the ASEAN Community Vision 2045. These outcomes are monitored through SDG indicator 4.1.1, which uses the concept of minimum proficiency levels (MPLs), internationally benchmarked standards established by UIS through the Global Proficiency Framework, developed in collaboration with the Global Alliance to Monitor Learning (GAML). The MPLs describe the essential knowledge and skills that students should demonstrate to be considered proficient in reading and mathematics at key stages of schooling. These benchmarks were derived through a rigorous technical process that harmonises results from major regional and international assessments using statistical linking and expert validation, enabling countries to compare learning outcomes on a common scale. In practice, students performing at or above an MPL are those who can apply foundational competencies, such as locating explicit information in short texts or solving basic mathematical problems in familiar contexts, reflecting the global minimum standard for effective learning.⁸

Despite notable improvements in access and completion, learning outcomes in ASEAN remain uneven, with wide disparities across countries and education levels. As shown in Figure 19, the proportion of students achieving at least the minimum proficiency level in reading and mathematics varies considerably, underscoring persistent challenges in delivering quality and equitable learning for all.

At the end-of-primary level, only a few countries (Singapore, Viet Nam, and Malaysia) report more than half of students meeting MPL standards, with Singapore nearing universal proficiency in both reading and mathematics. Viet Nam also performs strongly, particularly in mathematics, where more than 90 per cent of primary students reach the MPLs. In contrast, in several other countries, including Lao PDR, Myanmar, and Cambodia, fewer than 20 per cent of primary students achieve minimum proficiency, revealing deep foundational learning deficits that require urgent attention.

At the end of the lower secondary level, learning outcomes decline further across much of the region, and the overall attainment of minimum proficiency remains low in many systems. Singapore continues to lead the region, with over 80 per cent of students meeting MPLs in both reading and mathematics. Viet Nam and Brunei Darussalam also demonstrate relatively strong outcomes, with more than half of students achieving MPLs in reading and mathematics. In contrast, most other countries, including Malaysia, Thailand, Indonesia, the Philippines, Cambodia, and Myanmar, report that fewer than half of lower secondary students reach the minimum proficiency threshold in either reading or mathematics. In several cases, the share of students meeting MPLs is below 30 per cent, indicating serious gaps in foundational learning by the end of compulsory education. These results underscore the urgent need to strengthen the quality of instruction and student support mechanisms at the lower secondary level, where learning disparities become more pronounced and educational pathways begin to diverge.

While a few systems demonstrate improved MPL attainment at the lower secondary level, the broader trend across the region shows a decline in learning outcomes as students progress through

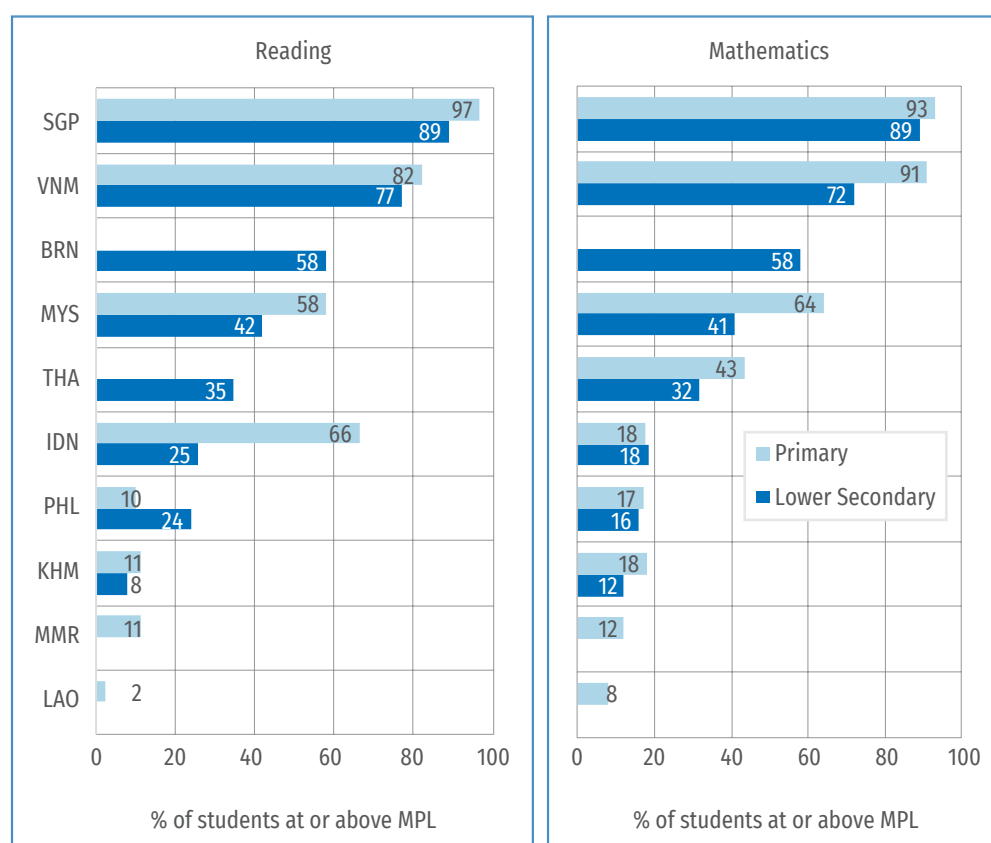
⁸ For more information about Minimum Proficiency Levels, please access this document developed by UIS and ACER: *Minimum Proficiency Levels Unpacked*. Available at: https://www.uis.unesco.org/sites/default/files/medias/fichiers/2025/08/WG_GAML_4_MPLs-Unpacked_ACER.pdf



the education cycle. In most countries where data for both levels are available, primary students tend to outperform their lower secondary counterparts. This suggests that many education systems struggle to sustain learning gains beyond the early grades. For countries where only lower secondary data are shown, the absence of primary-level results reflects data availability limitations rather than stronger performance at the secondary level.

In addition to these gaps at primary and lower secondary levels, no ASEAN country has yet reported data on early grade learning outcomes, specifically, the proportion of students achieving at least minimum proficiency in reading and mathematics by the end of Grade 2 or Grade 3, as called for under SDG indicator 4.1.1a. This absence of data leaves a critical blind spot in monitoring students' foundational skills at the point where they should be acquiring basic literacy and numeracy. Without systematic measurement of early learning, it becomes difficult to identify learning deficits at their onset or to implement timely interventions before they compound over time. Strengthening early-grade assessment and reporting systems is therefore essential to improving learning trajectories and ensuring that all children acquire the foundational competencies needed for future success.

Figure 19. Proportion of students achieving minimum proficiency in reading and mathematics, by level of education and country (%)



Note: Due to the lack of more recent data, the latest available values for Indonesia primary reading MPL (2011) and Thailand primary mathematics MPL (2011) are used. Timor-Leste is not shown due to the absence of available data.

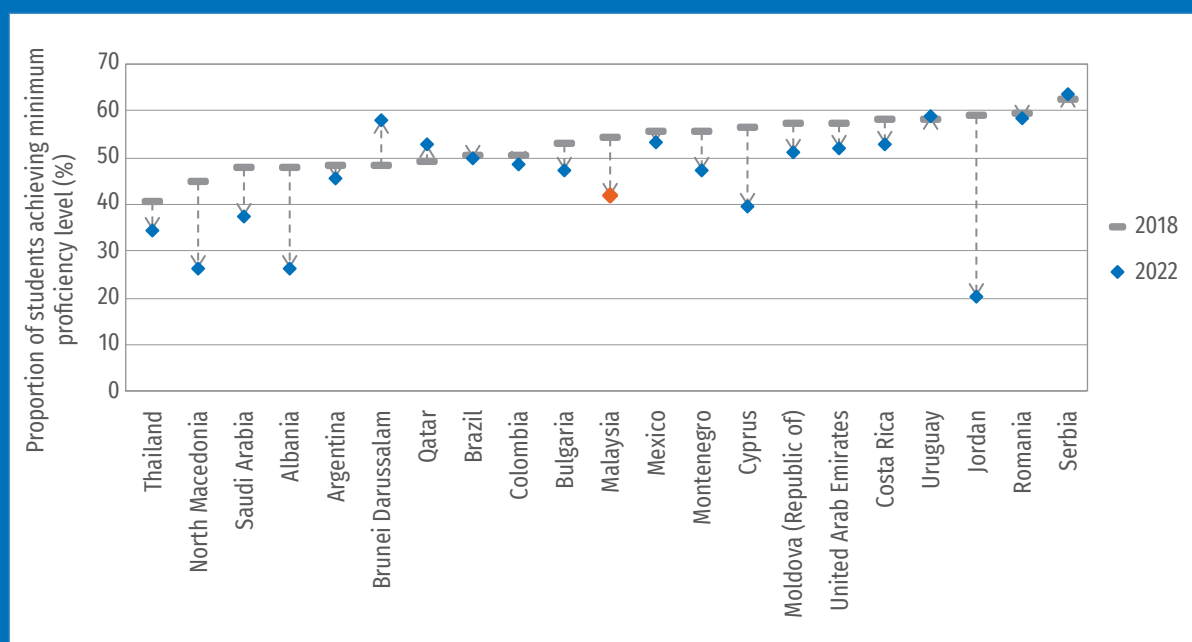
Source: UIS Database (Accessed February 2025).



**Box 11. Inculcating higher order thinking skills in Malaysia**

Malaysia's education reform agenda, guided by the Malaysia Education Blueprint 2013–2025, sets a long-term vision to raise the quality and relevance of learning. A central pillar of this agenda is the Initiative to Cultivate Higher Order Thinking Skills (HOTS) in 21st Century Learning, designed to equip students with such competencies as critical thinking, problem-solving, innovation, and creativity. The Revised Standard-Based Curriculum for primary (KSSR) and secondary (KSSM) schools, introduced in 2017, reinforced this shift by embedding HOTS into teaching and assessments, marking a deliberate move away from rote learning toward more applied and analytical approaches. The initiative also prioritises teacher and school leader competence and empowers state and district education offices to sustain HOTS-focused practices. By strengthening pupils' mastery of literacy in science, mathematics, reading, and financial literacy, Malaysia aims to prepare learners for global skills demands and to position itself among the top third of countries in international assessments by 2025.

Figure 20. Proportion of students achieving minimum proficiency in reading at the end of lower secondary, Malaysia and countries at similar levels in 2018, compared between 2018 and 2022 (%)



Source: UIS Database (Accessed September 2025).

As shown in Figure 20, Malaysia's proportion of students achieving minimum proficiency in reading declined between 2018 and 2022, a pattern also observed in many countries that started from a similar level, underscoring the urgency of strengthening learning through higher-order thinking initiatives. Since 2022, Malaysia has intensified its efforts through targeted programmes for teachers and students. The Competency and Literacy Assessment (Pentaksiran Kompetensi dan Literasi, PKL) was introduced in primary and secondary schools to benchmark pupils' readiness for international assessments. Nationwide HOTS workshops in science and mathematics exposed teachers to modules on problem-solving, decision-making, and creativity, generating 500 assessment items across reading,



mathematics, science, and financial literacy. In parallel, the Standard Assessment Instrument for the Inculcation of HOTS (Instrumen Standard Penilaian Pembudayaan KBAT, ISPPK) was rolled out to measure how schools integrate HOTS into teaching, leadership, and co-curricular activities. By the end of 2022, more than 306,000 teachers had been evaluated through ISPPK, with over 96 per cent rated at good or excellent levels in HOTS-based instruction.

In 2023, the focus shifted toward refining teacher competence in developing assessment items to international standards. More than 700 teachers across key subjects participated in workshops that produced a further 500 HOTS-based items for inclusion in the PKL. The ISPPK was disseminated more widely, with school leaders and HOTS coordinators receiving structured guidance supported by training-of-trainers programmes at state and district levels. To prepare pupils directly, the Ministry launched an interactive PKL module for primary and secondary schools, aimed at strengthening skills in answering computer-based HOTS questions and familiarising learners with formats used in international assessments, such as TIMSS and PISA. Taken together, these initiatives reflect a systematic approach that aligns curriculum, teacher development, and assessment practices to cultivate higher-order thinking and enhance Malaysia's competitiveness in global learning outcomes.

Moving forward, Malaysia plans to deepen the integration of higher-order thinking skills across teaching and learning in both primary and secondary schools. Priorities include improving classroom approaches that embed HOTS, strengthening the competencies of lecturers and teachers in developing and applying HOTS-based items, and raising the thinking skills of secondary pupils. Efforts will also focus on preparing students to tackle high-level, computer-based questions, further aligning national learning with the demands of international assessments.

Source: Malaysia, Ministry of Education. 2023 Annual Report; 2022 Annual Report of Malaysia Education Blueprint 2013–2025.

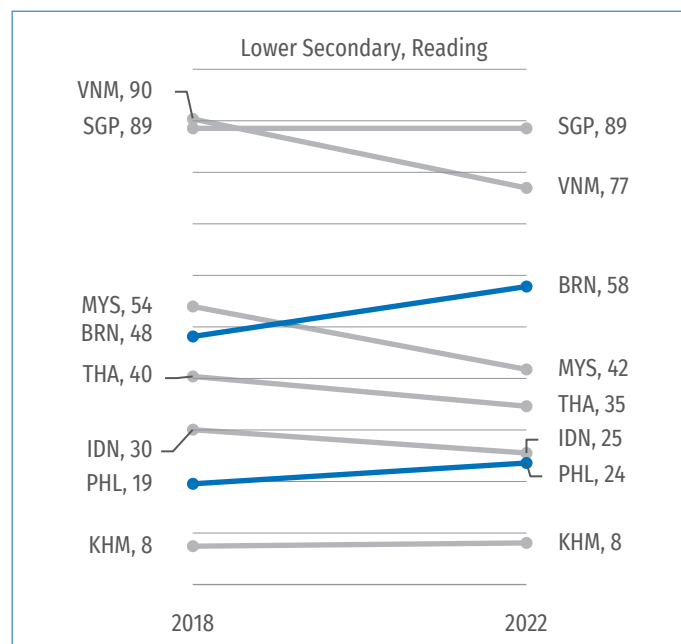
Across ASEAN, most countries remain some distance from ensuring that the majority of students complete schooling with at least minimum proficiency in reading and mathematics, at both primary and lower secondary levels. Even among middle-performing systems, such as Thailand, Indonesia, and the Philippines, fewer than half of students achieve minimum proficiency in both reading and mathematics. These outcomes point to persistent systemic challenges, ranging from curriculum misalignment and uneven instructional quality to gaps in teacher preparedness, inadequate educational facilities, and limited student support mechanisms. In many cases, attending school does not necessarily translate into meaningful learning, as students advance through the system without acquiring foundational skills. While some countries have made efforts to improve access and equity, progress in learning outcomes has been slow, and in some instances, stagnant or declining. Slow, stagnant, or even declining progress in learning outcomes underscores the need for deeper, system-level reforms that go beyond expanding participation to ensuring that every year of schooling translates into real learning.





Figure 21 further illustrates the slow pace of progress. Among the eight countries in the region with available data, only two – Brunei Darussalam and the Philippines – recorded improvements in the proportion of students achieving MPLs in lower secondary reading between 2018 and 2022 (Reading MPLs at the end of lower secondary education was chosen for this analysis because of strongest data availability). All other countries either stagnated or experienced declines, in some cases exceeding 10 percentage points. Viet Nam, despite remaining a regional leader, saw a decline of over 13 percentage points, from 90 per cent in 2018 to 77 per cent in 2022. These setbacks may be partially attributed to COVID-19-related learning disruptions, but they also reflect deeper systemic challenges. In countries already struggling with low learning levels, further backsliding risks widening existing inequalities and undermining the gains made in school participation.

Figure 21. Proportion of students at the end of lower secondary education achieving at least a minimum proficiency level in reading, both sexes, 2018 baseline vs. 2022 value (%)



Source: UIS Database (Accessed February 2025).

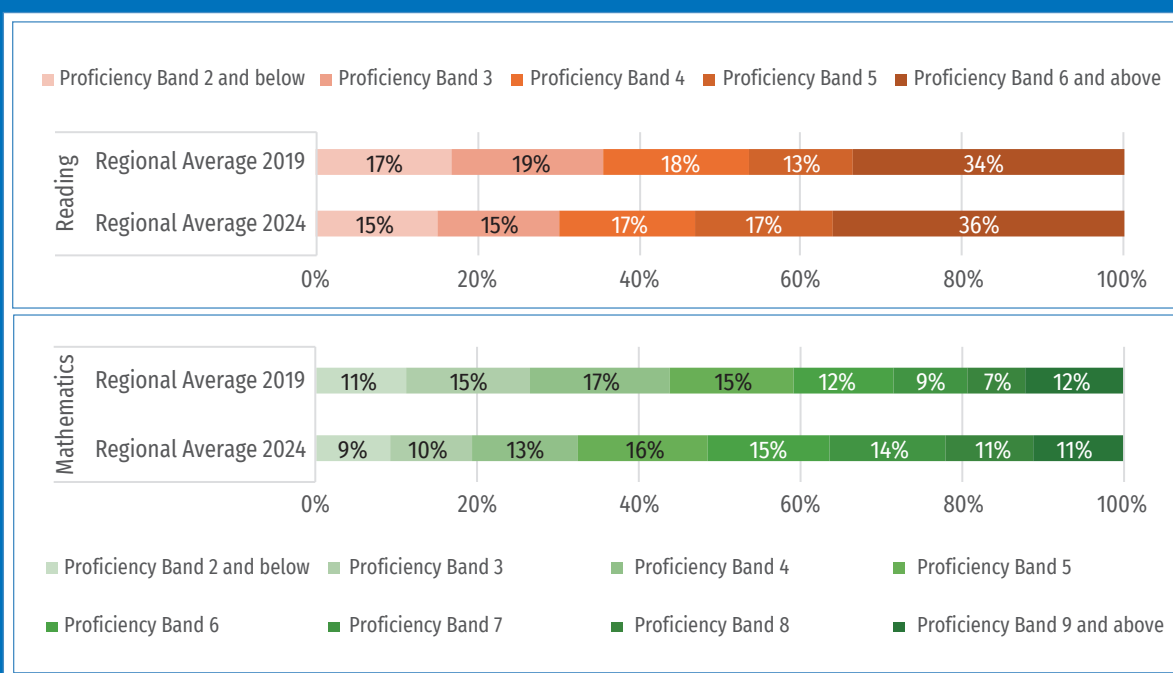
The patterns underscore the urgency for ASEAN governments to re-centre learning quality in their national education agendas by strengthening systemwide supports for learning. Policy efforts must focus on improving learning outcomes and foundational skills and ensuring that students are monitored and supported consistently throughout their learning journey. Strategies such as remedial programmes, early-grade reading and numeracy initiatives, teacher training reforms, and investment in classroom assessment tools can help close persistent learning gaps. Strengthening the use of national assessments that are aligned with MPL monitoring will also be crucial for generating actionable data and identifying where additional support is needed. Ultimately, ensuring that all students can achieve effective and relevant learning outcomes is not only a technical requirement, but it is a moral and developmental imperative central to achieving equity, efficiency, and excellence across ASEAN education systems



Box 12. SEA-PLM 2024: Foundational learning trends in Southeast Asia

The Southeast Asia Primary Learning Metrics (SEA-PLM) is a regional large-scale learning assessment and capacity-building initiative designed to generate comparable evidence on Grade 5 students' foundational competencies. Launched in 2014, SEA-PLM completed its first assessment cycle in 2019, followed by a second cycle in 2024. Both cycles covered six participating countries: Cambodia, Lao PDR, Malaysia, Myanmar, the Philippines, and Viet Nam. Beyond measurement, SEA-PLM also strengthens national assessment systems and promotes evidence-informed dialogue on foundational learning.

Figure 22. Percentage of Grade 5 children in the SEA-PLM proficiency band, by learning domain and survey year (%)



Note: Percentages are rounded to the nearest whole number; therefore, totals may not equal 100 per cent.

Source: SEA-PLM 2024 Main Regional Report.

The 2024 results, currently undergoing technical validation and alignment with global minimum proficiency standards, allow comparison across cycles using SEA-PLM's own proficiency scales and bands (Figure 22 above). The distribution of students across proficiency bands confirms that foundational learning challenges persist in the region. In reading, the overall distribution remains largely unchanged between 2019 and 2024. The share of students at the highest proficiency band (Band 6 and above) increased slightly from 34 per cent to 36 per cent, while the proportion at very low proficiency (Band 2 and below) declined modestly from 17 per cent to 15 per cent. In mathematics, improvement is somewhat more visible. The proportion of students in the lowest band (Band 2 and below) decreased from 11 per cent to 9 per cent, while the proportion of students in higher bands (Band 6 and above) recorded moderate gains.





Cambodia and Myanmar stood out for positive improvements between 2019 and 2024, with a larger share of Grade 5 students reaching higher proficiency bands in reading and mathematics. In Cambodia, the upward shift across bands was particularly evident and equitably spread across the proficiency bands, indicating that gains were observed not only among higher-performing students, but also among those previously at lower proficiency levels.

Taken together, the results point to gradual but insufficient recovery in foundational learning. The wide distribution across proficiency bands points to systemic issues in equity, access, and quality of recovery from post-pandemic disruptions and other external shocks. The persistence of sizeable shares of students at low proficiency levels, combined with only modest expansion at the top end, underscores the need for accelerated and targeted interventions, particularly for learners at the bottom of the distribution. Without sustained improvements in foundational literacy and numeracy, gains in access and completion will not fully translate into strengthened human capital across ASEAN.

UNICEF and SEAMEO Secretariat. 2025. *SEA-PLM 2024 Main Regional Report, Children's Learning in 6 Southeast Asian Countries*. Available at: <https://www.seaplm.org/index.php/sea-plm-2024/regional-results-2024>.

4.2.4 Policy Implications for Basic Education Reform

Closing persistent gaps in learning outcomes

Despite gains in school access, far too many students in ASEAN complete primary and lower secondary education without acquiring basic literacy and numeracy skills. In many countries, fewer than half of learners reach minimum proficiency levels in reading and mathematics at the end of lower secondary education. This is an alarming indicator that much of the region's school systems are struggling to translate attendance into actual learning. Addressing the learning crisis calls for targeted investments in teacher development, curriculum alignment, and early interventions to ensure that schooling translates into meaningful learning for all.

Strengthening completion and progression across education levels

While primary completion rates are high across the region, disparities remain in lower- and upper secondary completion, often linked to socio-economic conditions, geographic isolation, low levels of learning performance and other contextual barriers. These factors can delay progression or cause dropout during the later years of basic education. Policies that combine targeted support for disadvantaged learners, flexible learning pathways, improved transition mechanisms, and strengthened school-to-work transition or school-to-TVET bridges can help keep more students on track toward completing a full cycle of basic education.

Reinvigorating efforts to reduce out-of-school rates

Long-term progress in lowering out-of-school rates has slowed in recent years, with some countries seeing reversals, especially at the upper secondary level. Economic pressures, widespread disruptions caused by the COVID-19 pandemic, early entry into the workforce, and limited access to schools continue to challenge sustained participation. Renewed attention to retention strategies, including financial incentives, community engagement, targeted social protection, and expanded local provision, will be essential to maintaining participation through to the end of secondary education.



Strengthening early grade assessments and reporting to guide timely interventions

Across ASEAN, no country has yet reported data on early grade learning outcomes at an international level, specifically, the proportion of students achieving minimum proficiency in reading and mathematics by the end of Grade 2 or Grade 3, as required under SDG 4.1.1a. This gap creates a critical blind spot in understanding whether children are developing foundational skills at the point when they should be acquiring basic literacy and numeracy. Without systematic early grade assessment, learning difficulties often go undetected until they become more entrenched and costly to address. Strengthening early grade assessment and reporting systems is essential to identify learning deficits early, guide timely interventions, and ensure that all children build the foundational competencies needed for successful progression through the education system.



4.3 Higher Education

Higher education plays a critical role in advancing ASEAN's aspirations for inclusive growth, innovation, and regional integration. As countries pursue knowledge-based development strategies and adapt to rapidly evolving labour-market demands, tertiary education systems are under increasing pressure to expand access, enhance quality, and ensure alignment with societal and economic priorities (ASEAN Secretariat, 2022b). Advancing higher education is also central to achieving the ASEAN Community Vision 2045, which underscores the need for a highly skilled, resilient, and regionally connected workforce.

In recent years, ASEAN has witnessed steady progress in expanding access to higher education, with enrolment rising and more learners pursuing tertiary qualifications. However, ensuring that increased participation translates into successful graduation outcomes remains a challenge. Understanding these patterns is essential for addressing system inefficiency and supporting learners to complete their academic pathways.

At the same time, the distribution of tertiary graduates by field of study provides important insights into how education systems are responding to national priorities and global competitiveness. While business-related disciplines continue to dominate in many countries, the growing emphasis on science, technology, engineering, and mathematics (STEM) reflects a regional pivot toward innovation-driven development. This shift is supported by both policy initiatives and labour-market demand, although persistent gender disparities in STEM participation remain a concern.

As ASEAN deepens regional cooperation in education, patterns of international student mobility offer insights into the region's global positioning and intra-ASEAN connectivity. While some countries are emerging as regional education hubs, others continue to experience high outbound mobility. Understanding these dynamics will be essential for fostering a more integrated, equitable, and sustainable higher education ecosystem across ASEAN. This section of the report examines these trends in access, completion, fields of study, and student mobility to provide a clearer picture of how ASEAN's higher education systems are evolving and where further policy attention is needed.

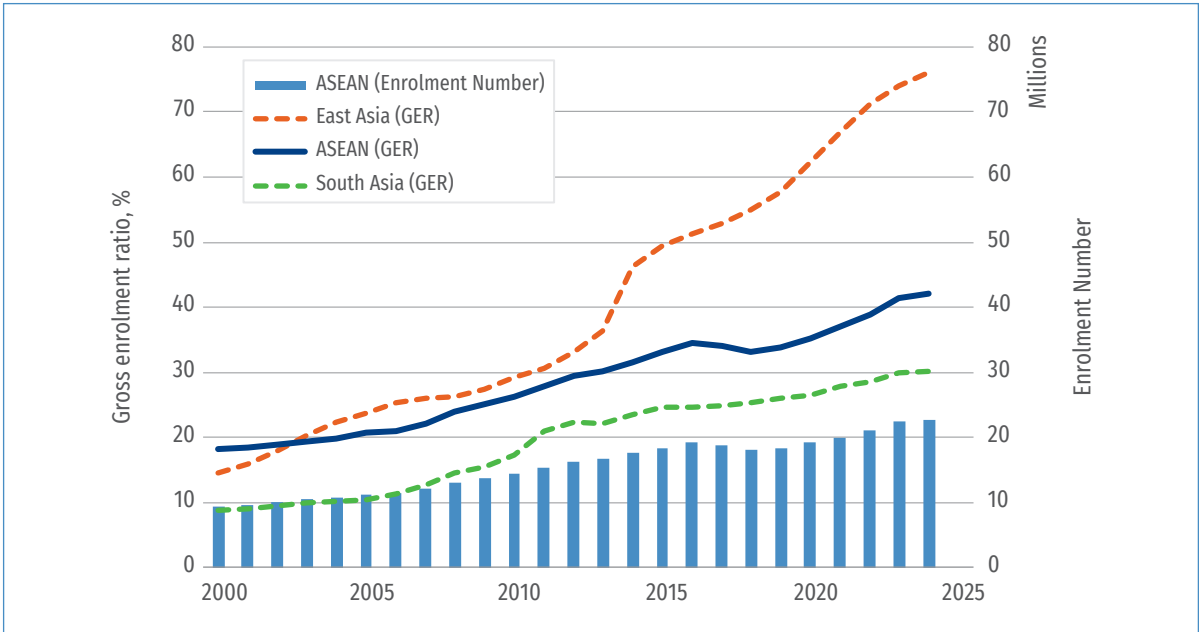


4.3.1 Trends in Tertiary Education Access and Graduation

Over the past two decades, tertiary education in the ASEAN region has undergone sustained and significant expansion in access. As shown in the figure below, the gross enrolment ratio (GER) for tertiary education rose from around 18 per cent in 2000 to more than 42 per cent in 2024, reflecting continuous progress in widening higher education opportunities across the region. This growth underscores ASEAN’s expanding investment in tertiary capacity and the rising social demand for advanced skills and qualifications.

The expansion is equally evident in absolute terms. The total number of tertiary students in ASEAN more than doubled between 2000 and 2024, increasing from approximately 9.3 million to 22.7 million. This rapid growth has been driven by rising upper secondary completion, population dynamics, increased institutional capacity, diversification of higher education providers, and the growing demand for tertiary qualifications as pathways to employment and social mobility. The trajectory has not been entirely uniform. A moderate slowdown between 2016 and 2018 was observed, although both enrolment and GER have rebounded strongly since 2018, signalling renewed momentum and continued commitment to expanding higher education access across the region.

Figure 23. Gross enrolment ratio and total enrolment number (for all tertiary-education programmes, ISCED 5-8) in ASEAN, East Asia, and Southern Asia, 2000–2024



Source: UIS Database (Accessed September 2025).



ASEAN's tertiary participation expansion has grown at a steady but comparatively moderate rate within the wider Asia-Pacific region. The region's GER stands below East Asia's level yet above South Asia's, placing ASEAN between the two. While ASEAN's enrolment rate was slightly higher than East Asia's in the early 2000s, the separation between the two regions' trajectories became evident after 2013 and has widened since, as East Asia entered a period of accelerated higher education expansion, particularly in China, the Republic of Korea, and Japan.

The post-2013 acceleration of higher education enrolment in East Asia reflects a combination of shared policy strategies and country-specific initiatives that gave China, South Korea, and Japan a comparative edge over many ASEAN systems. Across all three, governments treated higher education as a strategic instrument for economic competitiveness, demographic management, and regional influence, backing this with sustained public investment, strong central coordination, explicit expansion targets, and regulatory flexibility. China's advantage lay in its scale-driven, state-led expansion and consolidation of universities, reinforced by funding concentration and aggressive international student recruitment. South Korea gained momentum through a deliberate pivot to internationalisation, using scholarships, visa liberalisation, and post-study work pathways to compensate for domestic demographic declines. Japan, facing similar demographic pressures, relied on selective deregulation, institutional differentiation, and the expansion of English-medium and globally branded programmes. By contrast, many ASEAN countries expanded access under more fragmented governance and cautious regulatory regimes, limiting the speed and coherence of enrolment growth, despite rising demand (Ho et al., 2025).

In short, these developments place ASEAN on a distinct upward trajectory that mirrors the broader Asia-Pacific trend, albeit with a more gradual and balanced expansion aligned with national capacities. The consistent rise in tertiary participation highlights expanding opportunities for youth and underscores the growing importance of universities and colleges in supporting the transition toward knowledge-based economies.

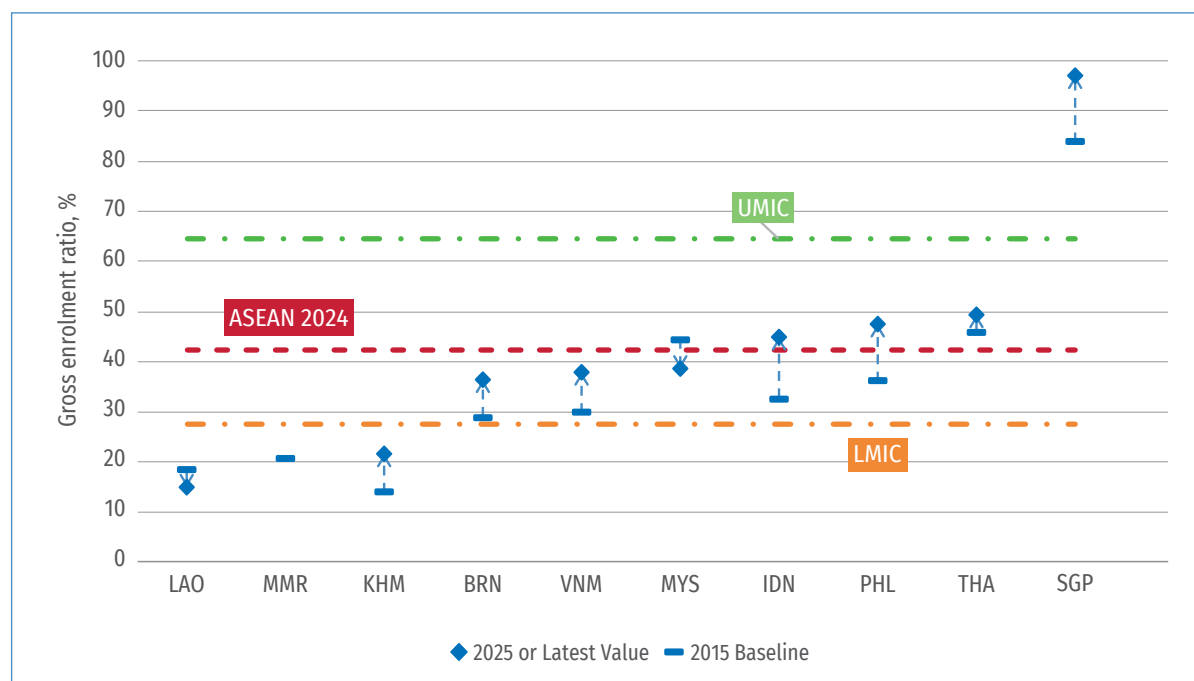
While the regional average tells a story of steady advancement, Figure 24 reveals substantial variation in tertiary education enrolment across ASEAN Member States. The chart compares GERs for 2025 (or the most recent available year) against 2015 baselines, highlighting the uneven pace of progress in expanding access to higher education. Some countries have made considerable gains, while others have experienced slower growth or stagnation, reflecting differences in system capacity, demographic pressures, and national policy priorities.

Between 2015 and 2025, 70 per cent of ASEAN countries recorded an increase in their tertiary education GERs, reflecting improved system capacity and greater opportunities for youth to access higher education. As a result, the regional average GER has risen to 42 per cent, placing ASEAN slightly below the Asia-Pacific average and the global average. Notably, four ASEAN countries, including Singapore, Thailand, Indonesia, and the Philippines, have reached or surpassed the Asia-Pacific regional average, while Malaysia, Viet Nam, and Brunei Darussalam are approaching that level.





Figure 24. Gross enrolment ratio for tertiary education, both sexes, 2025 or latest value vs. 2015 baseline (%)



Note: Timor-Leste is not shown due to the absence of available data.

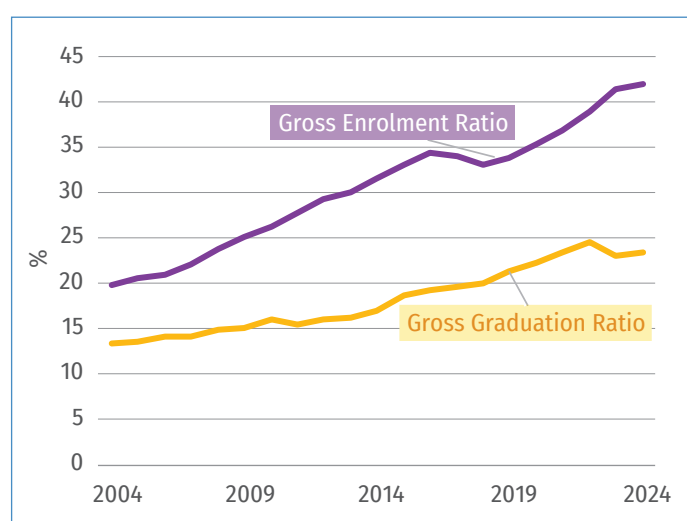
Source: UIS Database (Accessed September 2025).

Among ASEAN Member States, the most significant progress in tertiary enrolment has been observed in Singapore, Indonesia, and the Philippines. Singapore's gross tertiary enrolment rate is now close to 100 per cent, reflecting high levels of participation in a diversified post-secondary system. Indonesia and the Philippines also made significant gains compared to their 2015 baselines, driven by rising upper secondary completion rates and efforts to increase enrolment across both public and private universities. Most ASEAN countries now surpass the lower-middle income country (LMIC) average of 27.4 per cent; however, several continue to lag behind, underscoring persistent disparities in access due to financial constraints, capacity limitations, and the uneven distribution of higher education institutions.

While enrolment has expanded across ASEAN, it is equally important to examine how well students are progressing through and completing their studies. The gross graduation ratio for first-degree programmes (ISCED 6 and 7), as defined by UIS, measures the number of graduates, regardless of age, as a percentage of the population at the theoretical age of graduation. This indicator helps assess the capacity of higher education systems not only to admit students but also to support them through to successful completion.

Over the past two decades, the gross graduation ratio in tertiary education has risen steadily across ASEAN, increasing from around 14 per cent in the early 2000s to 23.5 per cent by 2024 (Figure 25). This upward trend points to gradual improvements in student retention and system efficiency. However, the pace of progress in graduation has not fully kept up with the region's rapid expansion in enrolment. The gap between gross enrolment and graduation ratios has widened over time, indicating that a growing number of students are entering tertiary education but not completing it within the expected time frame or in some cases, not completing at all.

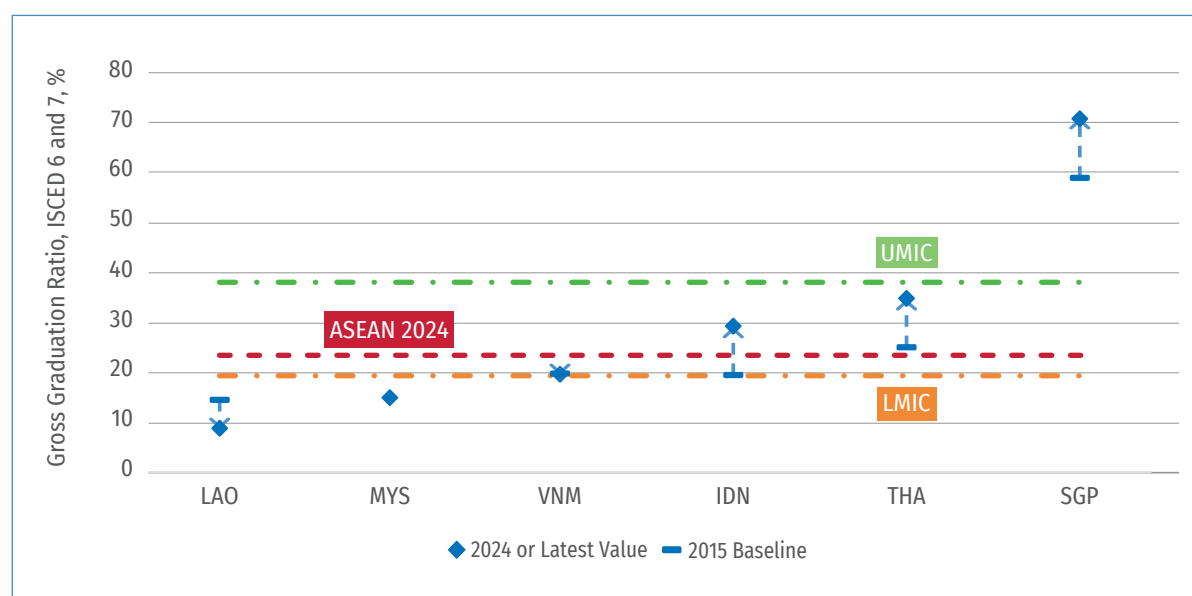
Figure 25. Gross enrolment and graduation ratios in tertiary education, both sexes, ASEAN, 2004–2024 (%)



Source: UIS Database (Accessed September 2025).

To better understand this dynamic, it is important to examine country-level patterns in graduation outcomes. National data reveal significant variation in tertiary graduation ratios across ASEAN Member States, shaped by differences in programme duration, student support mechanisms, and overall system performance. As shown in Figure 26, Singapore leads the region with a graduation ratio above 70 per cent, far exceeding both the ASEAN and the Asia-Pacific averages. Indonesia and Thailand also report graduation ratios above the ASEAN average, and have shown clear improvement since 2015, reflecting gains in institutional capacity and student support systems.

Figure 26. Gross graduation ratio from first-degree programmes (ISCED 6 and 7) in tertiary education, both sexes, 2024 or latest value vs. 2015 baseline (%)



Note: Brunei Darussalam, Cambodia, Myanmar, the Philippines, and Timor-Leste are not shown, as the most recent available values predate 2015.

Source: UIS Database (Accessed September 2025).

In contrast, some countries remain closer to the lower middle-income country (LMIC) average, despite progress in enrolment. This points to a potential disconnect between access and completion, suggesting that efforts should also focus on improving completion, reducing dropout, and supporting student progression. These challenges are even more acute in Malaysia and Lao PDR, where graduation ratios fall below both regional and LMIC averages, underscoring the need for targeted policy interventions to strengthen completion outcomes.





Notably, only a few ASEAN countries have demonstrated clear gains in graduation ratios since 2015, while others have stagnated or made only marginal progress. This reflects a broader regional trend: although the ASEAN average for gross enrolment in tertiary education is roughly on par with the Asia-Pacific average, the gross graduation ratio still lags behind by nearly seven percentage points, indicating that completion remains a weak point in the region's higher education systems. Moving forward, bridging the gap between enrolment and graduation must be a strategic priority to ensure that tertiary education contributes meaningfully to national development, workforce readiness, and lifelong learning.

Although enrolment has expanded across the region, available data do not yet allow a clear assessment of which groups are benefiting most from this growth. In the absence of disaggregated evidence, concerns remain that participation gains may be unevenly distributed, particularly for learners from lower-income households, rural communities, and first-generation backgrounds. These groups often face higher financial barriers, limited academic preparation, and reduced proximity to higher education institutions, which may constrain their ability to access and complete tertiary programmes. For policy purposes, strengthening data systems to capture participation by socio-economic status, geographic location, and first-generation status will be essential to ensure that future expansion translates into more equitable opportunities across ASEAN.

Private universities have played an indispensable role in Southeast Asia's higher education landscape, as public systems remain unable to absorb rising demand. Across such countries as the Philippines, Indonesia, Malaysia, Viet Nam, and Cambodia, private institutions now account for a substantial share of enrolment and serve as the primary mechanism for system expansion. Taken together, private institutions account for well over half of all higher education institutions across Southeast Asia, exceeding 80 per cent in large systems, such as Indonesia, Malaysia, the Philippines, and Thailand, and forming a majority in most other ASEAN countries, underscoring the region's structural reliance on private provision to absorb higher education demand. Recent studies highlight that this role has only intensified: UNESCO's 2021 background paper on private higher education in East and Southeast Asia notes that private providers remain central to massification efforts, particularly where public funding is constrained. A number of structural pressures – population growth, labour-market shifts, and rising household aspirations – push students toward private and transnational institutions. As private universities take on a larger share of enrolment, however, several challenges become more pronounced, including uneven quality assurance, limited financial resilience in tuition-dependent institutions, and governance models that vary widely in transparency and accountability. These pressures highlight the need for stronger regulatory frameworks and sustainable financing mechanisms (UNESCO GEMR Team, 2021).

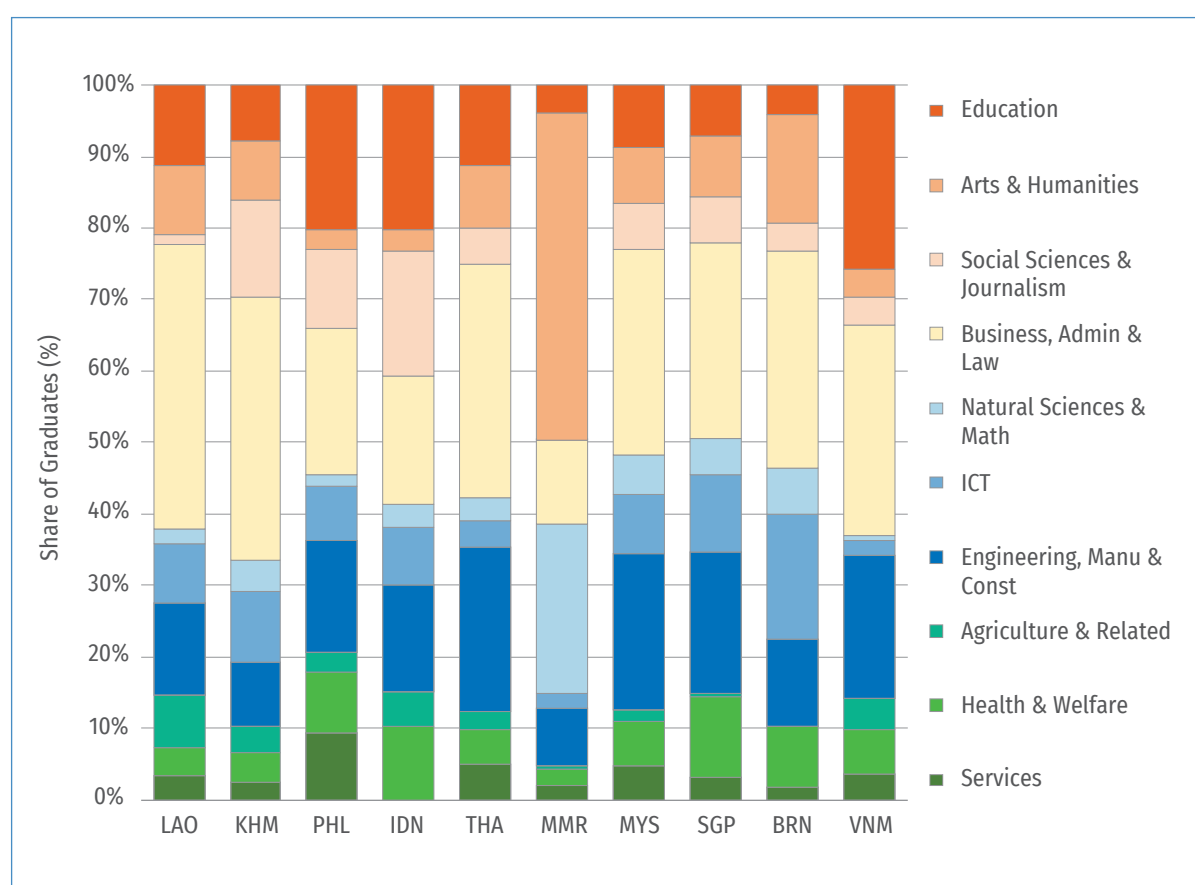
4.3.2 Distribution of Tertiary Graduates by Field of Study

The composition of tertiary graduates by field of study provides important insights into how education systems across ASEAN are responding to national priorities, labour-market demands, and regional development goals. Across the region, graduates remain heavily concentrated in fields such as business, administration and law, while STEM disciplines, including engineering, ICT, and natural sciences, account for a growing share.



Figure 27 presents the latest available data across ASEAN countries, revealing variation in the distribution of graduates across different disciplines. While Business, Administration and Law is the most common field of study for tertiary graduates in many countries, accounting for nearly 40 per cent in Lao PDR, which represents the highest share among ASEAN members, and over one-third in Cambodia, other countries exhibit markedly different patterns. In Myanmar, for example, Arts and Humanities account for 45.7 per cent of all graduates, making it an outlier in the region. Fields such as Engineering, Manufacturing and Construction, Education, and Health and Welfare also feature prominently in several Member States, reflecting diverse tertiary education trajectories and the varying emphasis placed on different disciplines.

Figure 27. Distribution of tertiary graduates by field of study in ASEAN countries, 2025 or latest year (%)



Note: Timor-Leste is not shown due to the absence of available data.

Source: UIS Database (Accessed September 2025).

Beyond business and humanities-related disciplines, STEM fields, including natural sciences and mathematics, information and communications technology (ICT), and engineering, manufacturing, and construction, also account for a substantial share of tertiary graduates across the region. Among these, engineering, manufacturing, and construction consistently makes up the largest proportion of STEM graduates in nearly all ASEAN countries, underscoring strong regional demand for industrial and applied skills. This pattern reflects the continued importance of engineering-related sectors in ASEAN economies, as well as national efforts to expand the supply of graduates equipped for infrastructure development, manufacturing, and technology-driven growth.

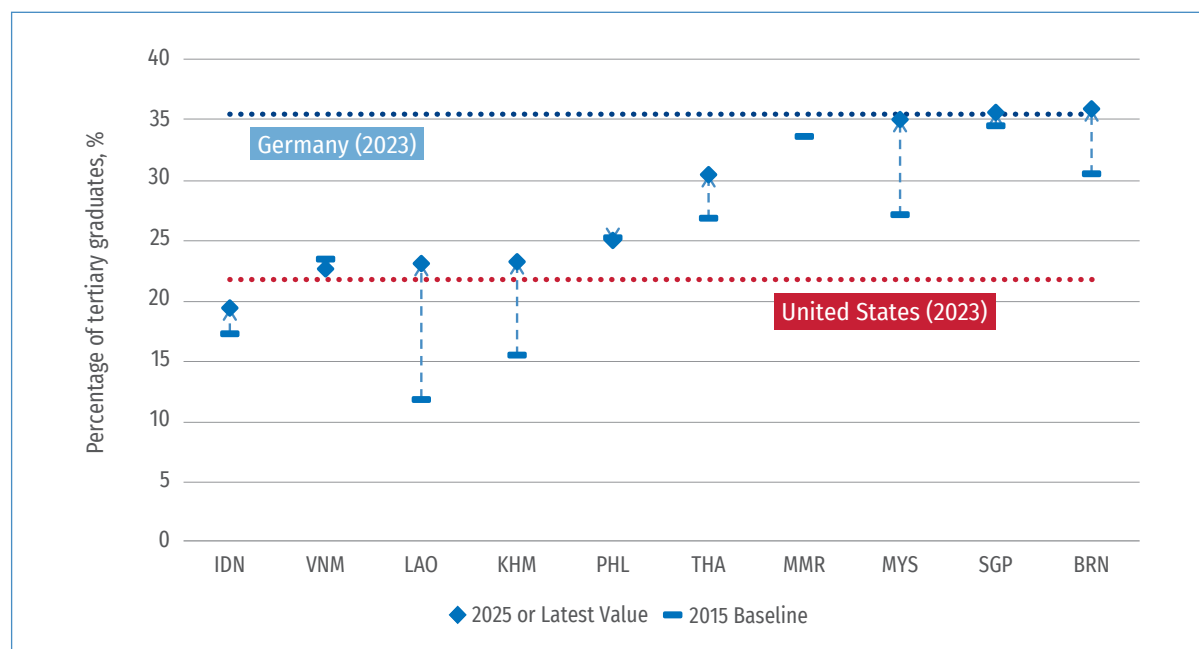




Overall, the figure above shows that ASEAN countries continue to produce the largest share of tertiary graduates in business, administration, and law, followed by engineering, manufacturing, and construction. Health- and education-related fields account for a smaller but steadily growing proportion of graduates in several countries. STEM fields, particularly engineering and ICT, feature prominently in countries such as Malaysia, Singapore, Thailand, and Viet Nam, while social sciences and humanities remain more dominant in others. The distribution also highlights substantial cross-country variation: some systems have diversified their graduate output across multiple fields, whereas others remain heavily concentrated in one or two areas. In sum, the figure suggests that while ASEAN's tertiary systems are expanding, graduate profiles remain uneven, with implications for labour-market alignment and regional skills development.

To assess how the share of STEM graduates has evolved, Figure 28 compares the percentage of tertiary graduates in STEM fields in 2025 (or the latest year available) with 2015 baselines. The data show that two-thirds of ASEAN countries with available data have increased the proportion of graduates in STEM fields over the past decade. This upward trend signals a gradual but clear shift in higher education priorities toward fields that are increasingly critical for economic growth, industrial development, and digital transformation. Several countries now report that over 30 per cent of all tertiary graduates come from STEM programmes, reflecting sustained investments in technical and scientific education and laying a stronger human capital foundation for the digital economy and the Fourth Industrial Revolution.

Figure 28. Percentage of graduates from STEM programmes in tertiary education in ASEAN countries, both sexes, 2025 or latest value vs. 2015 baseline (%)



Note: Timor-Leste is not shown due to the absence of available data.

Source: UIS Database (Accessed September 2025).



Notably, all but one ASEAN country with available data report a higher share of tertiary graduates in STEM fields than the United States, one of the world's leading destinations for international higher education. Several ASEAN Member States have also matched or exceeded the STEM graduate share of Germany, which records the highest among OECD countries. This strong performance underscores the region's commitment to advancing STEM education and its growing capacity to contribute to the global science and technology workforce. Within the broader Asia-Pacific context, ASEAN Member States stand out prominently, with Malaysia, Singapore, and Brunei ranking among the top five countries in terms of STEM graduate share, and five ASEAN countries appearing within the top eleven. Such regional leadership reflects ASEAN's emerging role as a hub for high-skill technical talent, particularly as demand for digital and engineering competencies continues to accelerate across the global economy.

The strong representation of STEM graduates across ASEAN reflects deliberate policy choices, alignment with labour-market needs, and active regional collaboration. Many Member States have implemented national strategies to strengthen pathways into STEM fields, enhance instructional quality, and align higher education with innovation-driven development agendas. Malaysia's National Science, Technology and Innovation Policy (NSTIP) 2021–2030 envisions a science-based economy built on robust STEM capacity. Thailand's Thailand 4.0 strategy positions STEM education at the centre of efforts to drive digital transformation and industrial upgrading. Indonesia's Merdeka Belajar–Kampus Merdeka initiative grants universities greater flexibility to collaborate with industry and modernise STEM curricula, while Singapore's SkillsFuture movement channels substantial investments into scholarships, research, and workforce training in emerging technological sectors.

Despite this strong policy momentum, labour-market demand is rising even faster: rapid digitalisation, the expansion of advanced manufacturing, and the emergence of new technology sectors require highly specialised competencies that take time for universities to build, scale, and deliver. Many institutions still face constraints in faculty expertise, laboratory capacity, and industry-aligned training, creating a lag between economic transformation and the higher education system's ability to produce job-ready technical talent. As a result, ASEAN's STEM output is growing, but the pace of technological change continues to outstrip supply, keeping skills shortages a persistent challenge across the region. To close this gap, ASEAN countries will need to deepen industry partnerships, expand high-quality STEM teaching capacity, and strengthen pathways that equip graduates with both advanced technical skills and practical, work-based experience.

Complementing these national reforms, regional mechanisms have reinforced national policy and collaboration across ASEAN. The ASEAN Work Plan on Education 2021–2025 promotes higher education harmonisation, academic mobility, and mutual recognition in STEM-related disciplines. Initiatives, such as the ASEAN University Network (AUN) and the ASEAN Cyber University, further support joint programme development, particularly in digital, engineering, and technology-intensive fields. Together, these efforts have positioned ASEAN countries as regional leaders in STEM education, enhancing both workforce readiness and the region's capacity to sustain innovation-driven growth.

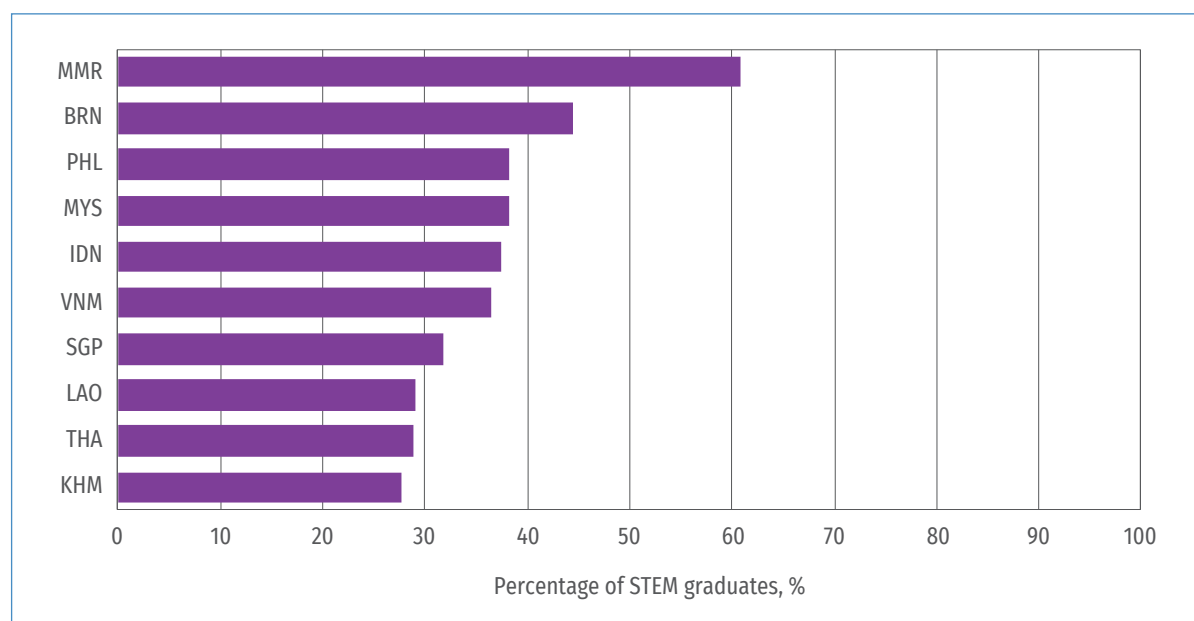
Despite this progress, gender disparities within STEM disciplines persist. Across all countries with available data, the proportion of male tertiary graduates in STEM fields consistently exceeds that of females. In Malaysia, Singapore, and Thailand, for instance, close to half of all male tertiary graduates hold degrees in STEM-related fields, compared to around 15 to 25 per cent among female graduates. Similar patterns are observed across other ASEAN countries, suggesting that





men continue to be more represented in STEM disciplines despite overall gender parity or even female advantage in total tertiary enrolment. This imbalance highlights ongoing barriers to women's participation in STEM and underscores the need for more targeted policies to promote gender-inclusive pathways in science, technology, engineering, and related fields.

Figure 29. Percentage of graduates from STEM programmes in tertiary education in ASEAN countries who are female, 2025 or latest value (%)



Note: Timor-Leste is not shown due to the absence of available data.

Source: UIS Database (Accessed September 2025).

This gender gap is also evident in the share of female students among new STEM graduates, shown in the figure above. In nearly all ASEAN countries with available data, women comprise less than half of STEM graduates, and in Cambodia, Thailand, and Lao PDR, their share falls below 30 per cent. This pattern is consistent with findings from the UNDP (2024) study, which reports that female participation in STEM higher education across Southeast Asia remains below parity, particularly in engineering and ICT disciplines. These disparities are shaped by a combination of factors, including subject preferences formed early in schooling, social expectations around gender roles, and the limited representation of women in STEM-related professions (UNDP, 2024). While several countries have introduced policies to encourage female participation in technical fields, the data suggest that gender disparities in STEM education persist across the region, despite improvements in overall access and performance.

Although women in several ASEAN countries graduate from STEM programmes at high rates, their transition into STEM occupations is significantly lower, indicating a persistent 'leaky pipeline' between education and employment. Women's participation in STEM labour markets across ASEAN remains well below their representation in STEM higher education, a pattern highlighted in the UNDP Women in STEM Asia-Pacific Study (2024). While countries such as Malaysia, the Philippines, Thailand, and Viet Nam produce substantial numbers of female STEM graduates, women continue



to be under-represented in core STEM occupations, especially engineering, ICT, and high-tech manufacturing, where they typically account for less than a quarter of the workforce. Available regional data show that women are more likely to enter STEM-adjacent roles in education, health, or administrative technical positions, reflecting persistent barriers, such as gender bias in hiring, limited access to professional networks, and workplace cultures that favour men. Retention is also uneven: women who enter STEM fields often face slower career progression and fewer leadership opportunities, contributing to higher attrition rates. As a result, ASEAN's strong educational pipeline does not translate into equivalent labour-market participation, underscoring a clear and well-documented leaky pipeline between STEM graduation and employment across the region.

4.3.3 Trends and Patterns of International Student Mobility in ASEAN

International student mobility has become an increasingly important dimension of higher education development in ASEAN. This section discusses the trends and patterns of international student mobility using UIS data⁹. The figure below presents inbound and outbound mobility between 2000 and 2023, capturing the evolution of cross-border student flows over two decades. The number of inbound internationally mobile students to ASEAN countries increased nearly fourfold during this period, from about 67,000 in 2000 to over 250,000 in 2023. This steady growth highlights the region's expanding prominence as a higher education destination, supported by national scholarship programmes, regional integration efforts, and strengthened institutional capacity. The upward trend briefly reversed after peaking in 2016, when inbound mobility declined to about 196,000 students by 2019. Since 2019, however, inbound mobility has rebounded, surpassing the 2016 peak in 2023, signalling renewed momentum in regional student flows.

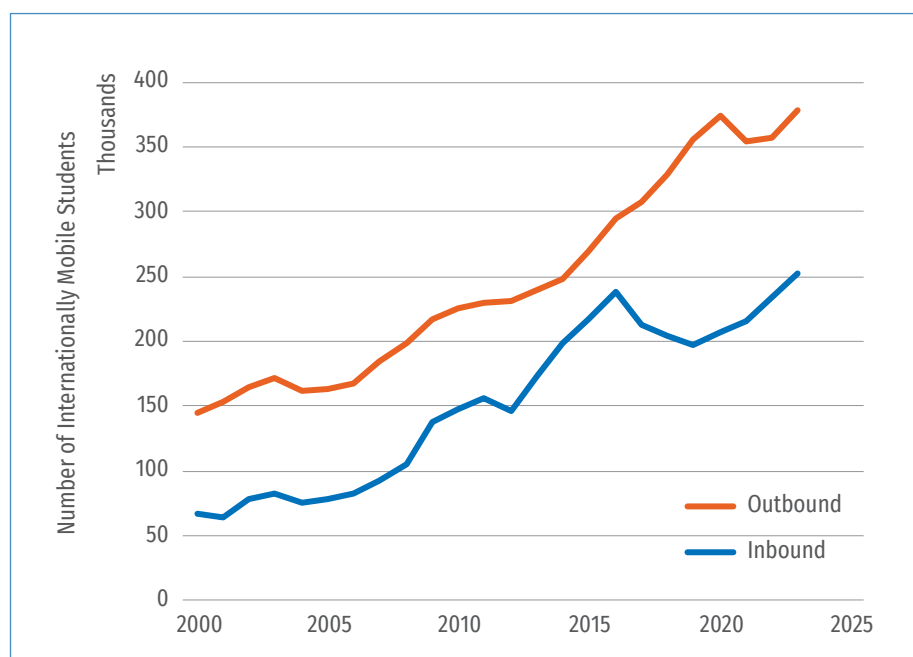
In line with this expansion, most inbound internationally mobile students in ASEAN originate from within Asia, which consistently accounts for the largest share of student mobility into the region. In 2023, more than 158,000 students from other Asian countries crossed borders to study in ASEAN Member States, underscoring strong intra-regional linkages shaped by geographic proximity, cultural ties, and growing institutional recognition. Africa has also emerged as a notable source region, with inbound mobility more than doubling between 2010 and 2016, reaching a peak of over 31,000 before stabilising around 17,000 in 2023. By contrast, inflows from Europe, North America, and Oceania remain relatively limited, suggesting that while ASEAN has positioned itself as a leading destination within the Global South, there is further scope to strengthen its global visibility and attract more diverse cohorts of international students.

⁹ Based on UIS methodology, internationally mobile students are individuals who have physically crossed an international border between two countries with the objective of participating in educational activities in the country of destination, where the country of destination differs from their country of origin.





Figure 30. Number of inbound and outbound internationally mobile students, regional estimation for ASEAN, both sexes, 2000–2023



Note: Data refer to internationally mobile students, defined by UIS as individuals who have physically crossed an international border with the objective of participating in educational activities in the country of destination, where the destination country differs from their country of origin. The regional totals shown here should be interpreted with caution, as students moving between ASEAN Member States are also included in the counts. Therefore, the figures do not imply that all outbound internationally mobile students from ASEAN study outside the region, nor that all inbound students originate from beyond ASEAN.

Source: UIS Database (Accessed September 2025).

The number of outbound internationally mobile students from ASEAN countries has also grown sharply over the same period. Driven by the region's expanding tertiary-school-age population and rising demand for international learning opportunities, the total nearly tripled from about 144,000 in 2000 to close to 380,000 in 2023. The increase accelerated after 2010, supported by rising household incomes, government-sponsored scholarship schemes, and regional and bilateral cooperation agreements that facilitated study abroad. Although mobility was temporarily disrupted around 2020 due to global travel restrictions and pandemic-related uncertainties, it rebounded quickly, reaching a new high by 2023.

North America and Western Europe remain the principal destinations for ASEAN's outbound students. In 2023, more than 142,000 students from the region pursued tertiary education in these areas, reflecting the enduring appeal of their academic and research institutions. Oceania is another preferred destination, attracting over 84,000 ASEAN students in the same year, while East Asia has rapidly emerged as an increasingly attractive option. The number of ASEAN outbound students studying in East Asia more than doubled from 41,000 in 2010 to over 92,000 in 2020, reflecting strengthened regional linkages and the growing recognition of East Asian universities. Together, these trends illustrate ASEAN's expanding engagement in global academic networks, both as a destination and as a source of internationally mobile students, as well as its increasing contribution to international knowledge exchange and workforce development.



Box 13. ASEAN's Emerging Role as Both Sender and Destination in a Diversifying Global Mobility System

Recent shifts in global student mobility show that the traditional 'big four' destinations – the United States, United Kingdom, Australia, and Canada – no longer dominate international education. A wider group of countries, often described as the 'big 14', now competes for international students, including China, Japan, the Republic of Korea, Germany, France, the Netherlands, the United Arab Emirates, Malaysia, Singapore, and New Zealand. As students look for more affordable, accessible, and welcoming study options, several ASEAN Member States are emerging not only as major senders of students abroad, but also as growing destinations in their own right. Countries such as Malaysia, Singapore, Thailand, and Viet Nam are attracting increasing numbers of international students, particularly from within Asia, due to competitive tuition fees, English-medium programmes, improving institutional quality, and strong regional connectivity. At the same time, larger systems, such as Indonesia and the Philippines, are expanding transnational education partnerships and internationalisation strategies that position them to host more inbound students. Together, these developments signal ASEAN's emergence as a regional hub for international education, reflecting both rising domestic capacity and a broader global shift toward more diversified mobility patterns.

Source: de Whit et al., *SRHE News Blog*, 2026.

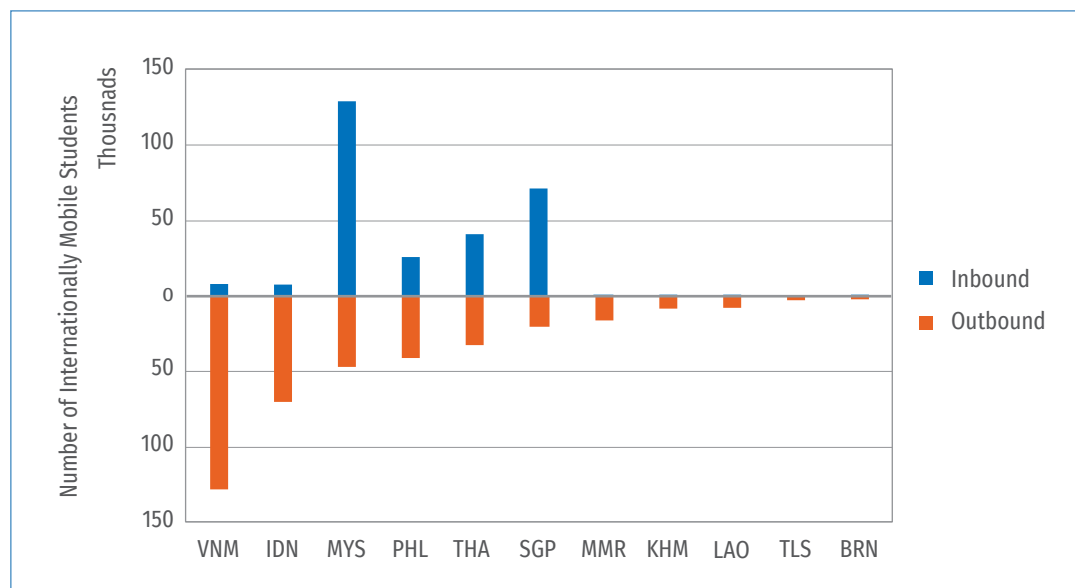
While regional averages provide an overview of ASEAN's overall position in international student mobility, they mask the diversity of national patterns within the region. At the country level, ASEAN Member States exhibit markedly different balances between inbound and outbound students, reflecting variations in higher education capacity, internationalisation strategies, and student demand for overseas study. These differences highlight the heterogeneous nature of higher education systems across ASEAN and underscore the importance of examining mobility trends at both regional and national levels.

Malaysia, Thailand, and Singapore attract the largest numbers of inbound students in the region, together accounting for the majority of ASEAN's international student inflows. Malaysia has emerged as a leading regional education hub, supported by deliberate policies to internationalise its higher education sector (WNER, 2023). Singapore likewise continues to draw students from across the region and beyond, reflecting its strong global reputation for academic excellence and research capacity. Thailand's universities have also diversified their international enrolments in recent years, particularly from neighbouring ASEAN countries, as a result of targeted internationalisation strategies and expanded English-medium programmes (ASEAN Secretariat, 2022b).





Figure 31. Inbound and outbound internationally mobile students by countries, 2024 or latest value (thousands)



Source: UIS Database (Accessed September 2025).

In contrast, most other ASEAN Member States display strong outbound mobility, with substantially more students studying abroad than foreign students hosted domestically. This outward orientation reflects both the growing aspirations of students to access international learning environments and the perceived advantages associated with overseas qualifications. Viet Nam, in particular, records the highest number of outbound students in the region, underscoring rising demand for tertiary education opportunities abroad. Meanwhile, smaller education systems such as Brunei Darussalam, Lao PDR, and Timor-Leste exhibit limited two-way mobility, owing to smaller population sizes, concentrated tertiary sectors, and targeted government scholarship schemes that channel outbound mobility to specific destinations.

Taken together, these patterns reveal a dynamic and uneven mobility landscape in ASEAN, where a few countries have emerged as regional education hubs, while others remain predominantly sending countries. Strengthening intra-regional coordination will be key to promoting more balanced flows and shared benefits. Regional frameworks, such as the *ASEAN Higher Education Space 2025 Roadmap* and the *ASEAN Qualifications Reference Framework (AQR)*, play a vital role in facilitating mutual recognition, institutional collaboration, and mobility within the region. Strengthening these regional mechanisms, together with expanding scholarship opportunities, deepening institutional partnerships, and raising the global visibility of ASEAN higher education, can help foster a more integrated and sustainable mobility ecosystem.

All in all, ASEAN saw rapid expansion of higher education in recent decades; however, several structural challenges continue to constrain system performance and limit the benefits of massification. Quality assurance and accreditation systems have not always kept pace with the scale and diversity of provision, particularly in countries where private and transnational institutions have grown quickly. Regulatory frameworks remain uneven, and many institutions, especially newer or resource-constrained ones, lack the internal mechanisms needed to sustain academic standards.



These gaps contribute to wide variation in programme quality, institutional governance, and public confidence in higher education outcomes.

At the same time, expansion has not resolved persistent skills mismatches or inequities in access. Employers across the region continue to report shortages in technical, digital, and higher-order skills, while many graduates struggle to secure jobs aligned with their qualifications. This reflects slow curriculum reform, limited industry engagement, and uneven opportunities for practical training. Access also remains stratified: students from rural areas, low-income households, and minority groups face significant financial and geographic barriers, particularly in systems with large private sectors and limited financial aid. Together, these issues highlight that widening participation alone is insufficient; without stronger quality assurance, closer alignment with labour-market needs, and more equitable financing, the benefits of expansion will remain unevenly distributed.

4.3.4 Policy Implications for Higher Education Reform

Expanding equitable access to tertiary education across the region

Although tertiary enrolment has grown steadily since 2018, participation remains highly uneven across ASEAN countries, with some approaching massification while others continue to face persistent structural and economic barriers. These disparities mirror broader inequalities in educational opportunity and risk leaving significant segments of the population behind. Expanding access equitably will require targeted measures that address financial, geographic, and socio-cultural barriers, while ensuring that institutions have the capacity to accommodate diverse learners. Promoting greater international student mobility within ASEAN can also broaden opportunities, foster regional integration, and reduce disparities in access to quality higher education.

Strengthening student retention and completion in higher education

Rising access to higher education has not been matched by equivalent gains in graduation rates, resulting in a widening gap between entry and completion. This trend points to challenges in student retention, the adequacy of academic and socio-emotional support, and the alignment of programmes with learner needs. Improving student success will benefit from stronger support systems, flexible learning pathways, and institutional reforms that enhance relevance, quality, and inclusiveness. Strengthening academic advising, expanding bridging and remedial programmes, and improving early-warning systems can help institutions identify and support at-risk learners more effectively.

Advancing gender equity in STEM fields

Despite notable gains in STEM enrolment and graduation across the region, gender imbalances remain a persistent concern. In many ASEAN countries, women continue to be underrepresented in key STEM fields, particularly engineering, ICT, and technology-related disciplines. This underrepresentation reflects ongoing barriers in access, participation, and progression within these disciplines. Promoting gender-responsive policies, mentorship programmes, targeted scholarships, and inclusive learning environments can help close participation gaps and strengthen diversity in STEM education.





Strengthening regional frameworks to promote balanced mobility flows

ASEAN's growing role as a hub for higher education internationalisation is accompanied by uneven mobility patterns across Member States. Advancing more balanced intra-regional mobility will require strengthening quality assurance systems, implementing an ASEAN-branded scholarship, and implementing an ASEAN-wide digital credit transfer system as outlined in the ASEAN Higher Education Space 2025 Roadmap. Ratifying the Tokyo Convention and the UNESCO Global Convention, alongside deeper engagement in APNNIC (Asia-Pacific Network of National Information Centres), will further enhance the portability of qualifications and support a more integrated and globally competitive regional mobility ecosystem.

Ensuring quality and sustainability in a growing private sector

As private universities take on a larger share of enrolment, several challenges become more pronounced, including uneven quality assurance, limited financial resilience in tuition-dependent institutions, and governance models that vary widely in transparency and accountability. These pressures highlight the need for stronger regulatory frameworks, more sustainable financing mechanisms, and more robust quality assurance systems to ensure that private-sector growth supports national goals without compromising quality or equity. Strengthening oversight, improving accreditation processes, and promoting transparent governance will be essential to maintaining system integrity as private provision continues to expand.

4.4 Technical and Vocational Education and Training (TVET), Skill Development, and Lifelong Learning

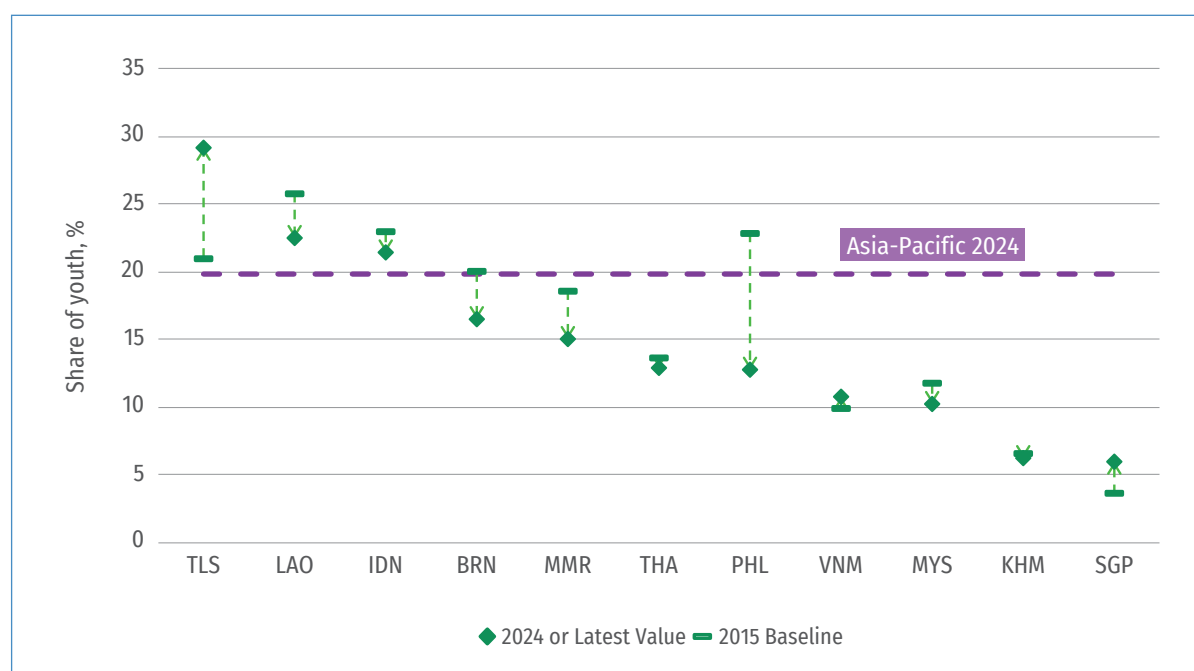
This section presents Technical and Vocational Education and Training (TVET), skills development, and lifelong learning together because they form a single, interconnected continuum that underpins ASEAN's efforts to build a more adaptive and future-ready workforce. TVET provides the core platform for developing job-relevant technical competencies; skills development policies broaden this foundation to include emerging digital, green, and transferable skills; and lifelong learning systems ensure that individuals can continue to upskill and reskill throughout their lives. Treating these areas jointly reflects regional and global policy directions that emphasise flexible learning pathways, stronger alignment with labour-market needs, and inclusive opportunities for all learners across the life course.

As ASEAN economies undergo rapid structural transformation, the demand for a workforce equipped with relevant, adaptable, and practical skills has never been greater. TVET plays a central role in supporting economic diversification, reducing youth unemployment, and ensuring inclusive growth (OECD, 2018). According to the ASEAN TVET Council Term of Reference and Work Plan (2021–2030) (ASEAN Secretariat, 2021), endorsed by ministers across education, economic, and labour sectors, TVET is positioned as a vital mechanism to bridge education and employment and to promote workforce resilience in line with ASEAN's development agenda. The Work Plan outlines regional cooperation to harmonise qualifications, enhance quality assurance, and deepen industry linkages, reinforcing TVET as a key pillar of regional human capital development.



The need for stronger investment in skills development is further underscored by persistent levels of youth disengagement from both learning and work. As shown in Figure 32, a significant share of ASEAN youth aged 15–24 fall into the category of Not in Employment, Education or Training (NEET). This indicator refers to the share of young people who are neither working nor participating in any formal or informal learning activities. High NEET rates reflect barriers to labour-market entry, skill mismatches, or limited access to education and training. Countries such as Timor-Leste, Lao PDR, and Indonesia report NEET rates above 20 per cent, suggesting that more than one in five youth may be at risk of long-term social and economic exclusion. In 9 out of 11 ASEAN countries, the NEET rate remains above 10 per cent, pointing to a widespread under-utilisation of youth potential. These patterns highlight the urgency of strengthening TVET, expanding skills development pathways, and building inclusive lifelong learning systems that can support young people's transition into productive work and sustained participation in dynamic labour markets.

Figure 32. Share of youth aged 15–24 not in employment, education or training (NEET) in ASEAN Member States, both sexes, 2024 or latest value vs. 2015 baseline (%)



Source: ILOSTAT (Accessed June 2025).

The 2023 *OECD Skills Strategy Southeast Asia* highlights that equipping youth and adults with job-relevant, future-ready skills will be essential for building more inclusive and competitive economies in the post-pandemic recovery (OECD, 2023). The report calls for a stronger focus on work-based learning, lifelong upskilling and reskilling, and public-private partnerships in TVET delivery. Across many ASEAN countries, the COVID-19 pandemic exposed both structural weaknesses in training systems and underscored the urgent need to expand access to digital and green skills. TVET systems that are well-aligned with labour-market needs, particularly in high-growth sectors such as manufacturing, healthcare, tourism, and ICT, can help reduce NEET rates and improve employment outcomes for youth.



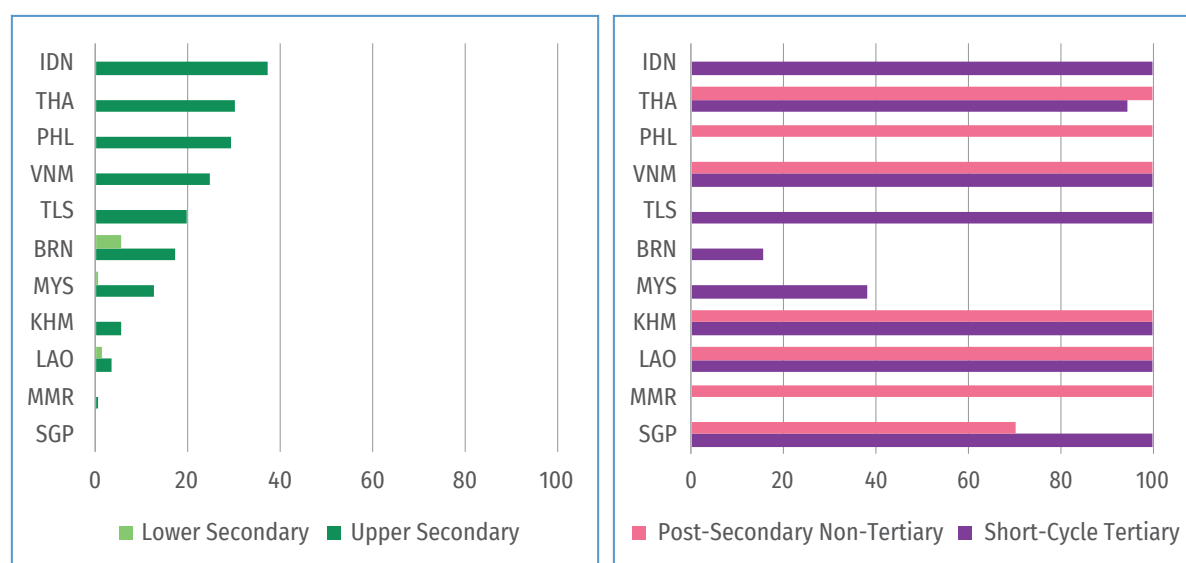


As ASEAN continues to strengthen regional integration, TVET will also play a strategic role in supporting mobility and productivity across borders. Initiatives under the ASEAN Qualifications Reference Framework (AQR) and the efforts to strengthen mutual recognition of skills contribute to the development of a more adaptable and mobile regional workforce. Enhancing TVET systems across ASEAN is therefore not only a national priority but a shared regional agenda, critical for ensuring that young people are equipped with the skills needed to navigate an evolving world of work and contribute to sustainable development across the region.

4.4.1 Participation of School-age Youth in Technical and Vocational Education and Training

Building on the growing recognition of TVET as a strategic pillar for inclusive growth and workforce resilience in ASEAN, it is important to examine how young people are engaging with vocational education and skills development opportunities in practice. Participation levels not only reflect the accessibility and attractiveness of vocational pathways, but also offer insights into the alignment between national education systems and labour-market demands. This section presents a snapshot of enrolment patterns in vocational programmes at the secondary and post-secondary levels and explores broader youth and adult participation in vocational and skills training across the region.

Figure 33. Share of students in secondary and post-secondary levels of education who are enrolled in vocational programmes, both sexes (%)



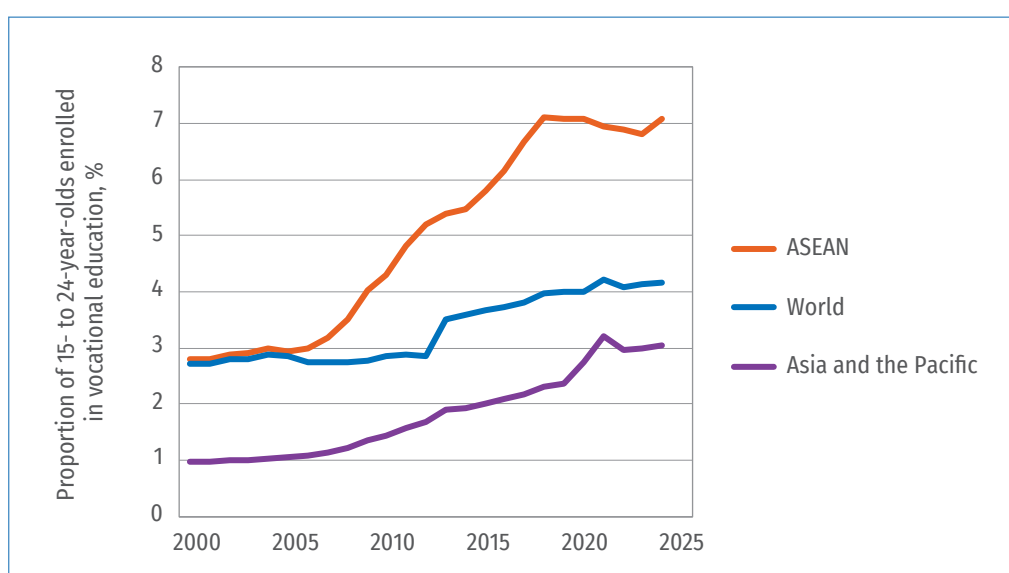
Source: UIS Database (Accessed September 2025).

Across ASEAN, the upper secondary level remains as the primary entry point into vocational education, reflecting national efforts to position TVET as a parallel pathway to academic learning. As shown in Figure 33, enrolment in vocational programmes is considerably more concentrated at the upper secondary level, while participation at the lower secondary level remains minimal in nearly all countries with available data. This structure aligns with most national education systems, where vocational tracks typically begin after lower secondary schooling, allowing students to specialise based on interest, aptitude, or employment orientation.

Among the eleven ASEAN countries with available data, five report that 20 per cent or more of upper secondary students are enrolled in vocational programmes. This participation level is notably high by international comparison and signals a strong regional commitment to diversifying education options. In these systems, vocational pathways are often integrated into national development strategies, aiming to address youth unemployment, skills shortages, and economic diversification.

At the post-secondary level, particularly within post-secondary non-tertiary and short-cycle tertiary programmes, vocational education becomes even more prominent. In most ASEAN countries, the majority of students enrolled in post-secondary non-tertiary and short-cycle tertiary programmes, and in some cases nearly all, are pursuing vocational qualifications, while students in general education tracks typically continue into university-level studies.

Figure 34. Proportion of 15- to 24-year-olds enrolled in vocational education (%) in ASEAN (orange line), Asia-Pacific (purple line), and world average (blue line), 2000-2024 (%)



Source: UIS Database (Accessed September 2025).

When combining enrolment trends of secondary and post-secondary levels, it becomes clear that the share of young people aged 15–24 enrolled in vocational education has risen steadily across ASEAN over the past two decades, reflecting strong regional emphasis on expanding access to TVET. As shown in Figure 34, the regional average increased from around 3 per cent in 2000 to more than 7 per cent by 2024. ASEAN's trajectory has also outpaced both the Asia-Pacific and global averages, which stood at approximately 3 per cent and 4 per cent, respectively, in 2024. This widening gap highlights the region's comparative success in advancing TVET participation, driven by sustained policy attention to skills development and employability, rapid economic transformation, and rising demand for job-relevant technical skills. The most rapid expansion occurred between 2005 and 2018, a period that coincided with intensified national reforms, investments in TVET infrastructure and governance, and stronger partnerships with industry.

Since around 2019, the regional average has stabilised at about 7 per cent, suggesting that expansion is entering a new phase in which progress will depend less on increasing enrolment



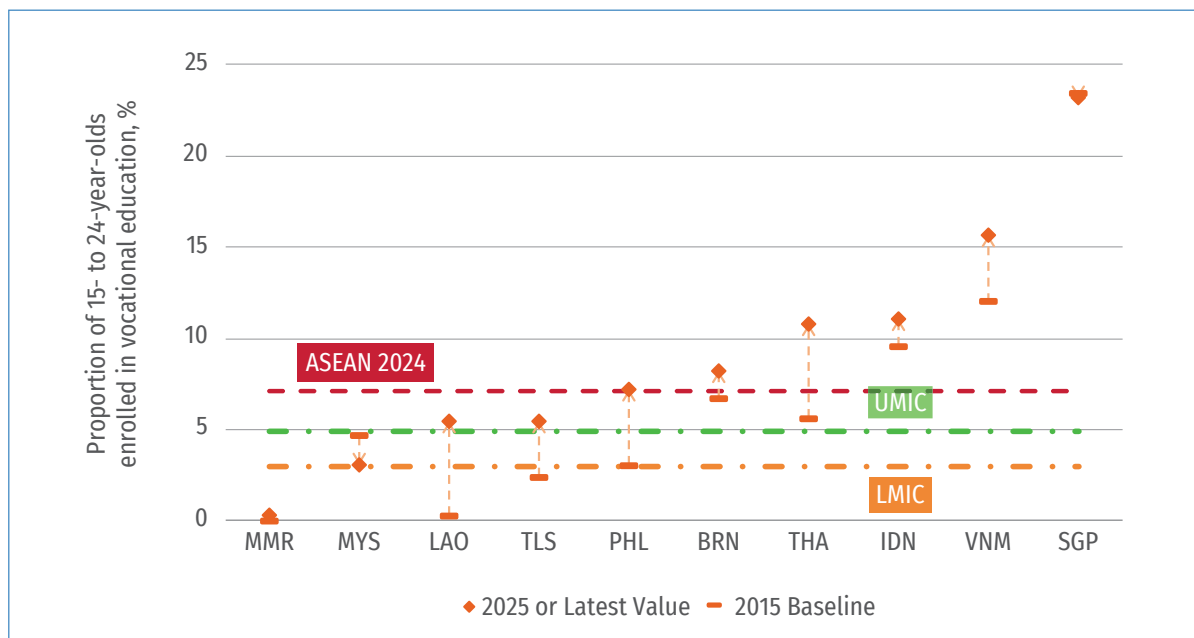


and more on improving programme quality, relevance, and alignment with labour-market needs. This stabilisation also reflects demographic shifts and evolving youth preferences and a broader transition from quantity-driven to quality-focused TVET systems.

The upward trajectory of TVET participation corresponds with broader economic and structural transformations across ASEAN, including industrial diversification, rapid technological change, and a growing demand for job-relevant skills. These developments have encouraged Member States to expand vocational pathways as part of wider strategies to strengthen workforce readiness and resilience. In contrast to relatively flat global and regional trends, ASEAN's progress stands out as a distinct regional achievement, underscoring the region's commitment to equipping young people with the skills necessary for productive employment and lifelong learning (ASEAN TVET Council, 2022).

At the country level, available data reveal a clear pattern of increasing engagement in vocational education. Four out of the ten ASEAN Member States with data, Singapore, Viet Nam, Indonesia, and Thailand, report that more than 10 per cent of youth aged 15–24 are enrolled in vocational programmes, signalling sustained national efforts to elevate the role of TVET in youth development. Lao PDR and Thailand have made particularly significant progress since 2015, each recording gains of over five percentage points. Notably, the majority of ASEAN countries with data outperform the average for upper-middle-income countries, an exceptional result not observed in other education indicators covered in this report. This underscores TVET as a distinct area of strength and policy prioritisation within the region.

Figure 35. Proportion of 15- to 24-year-olds enrolled in vocational education in ASEAN countries, both sexes, 2025 or latest value vs. 2015 baseline (%)



Note: Cambodia is not shown as the most recent available values predate 2015.

Source: UIS Database (Accessed September 2025).



At the same time, several ASEAN countries show stable patterns in youth participation in vocational education. Myanmar, Malaysia, and Singapore have maintained consistent vocational enrolment rates since 2015. While Singapore continues to lead the region in overall participation, largely due to its well-established technical and polytechnic education system, the shares for Myanmar and Malaysia remain comparatively low. In response to these stagnant participation levels, some countries have begun exploring more flexible and context-specific approaches to make vocational education more responsive to evolving labour-market needs. These include area-based and demand-driven models that link training provision to local economic opportunities, enterprise-based education and training schemes that strengthen industry–institution collaboration, and the introduction of micro-credentials to recognise modular learning outcomes within TVET systems. Such measures reflect ongoing efforts across the region to enhance the relevance and adaptability of vocational education without necessarily expanding its overall scale.



Box 14. A system under transition: Viet Nam's vocational education and the challenge of advancing skills

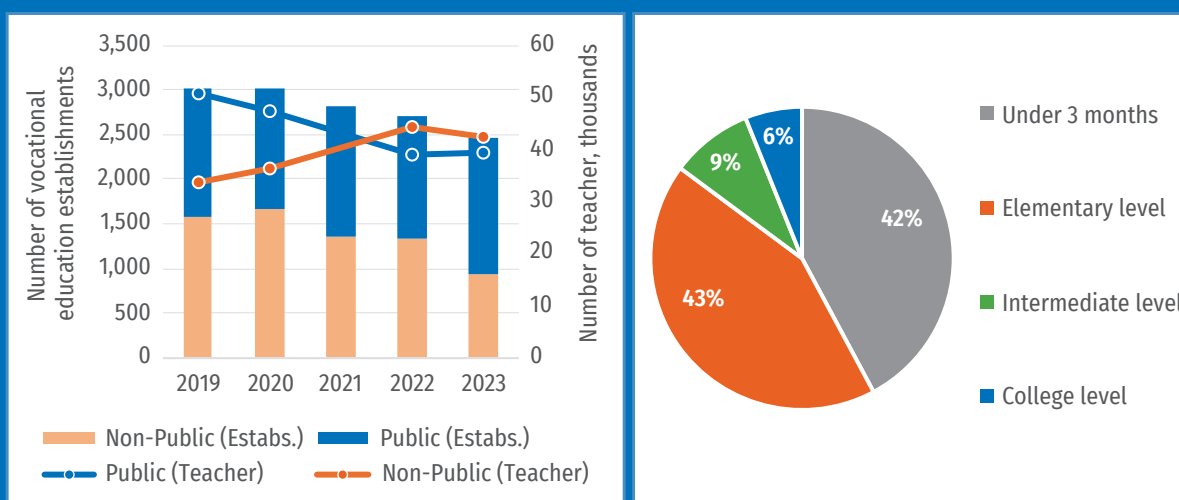
Viet Nam has positioned TVET as a cornerstone of national development, prioritising sectors and occupations with the most acute skills shortages. Since 2017, governance reforms have streamlined the formerly dual TVET tracks into a single system managed by MOLISA's Directorate of Vocational Education and Training (DVET). Building on this consolidation, the Government approved the Vocational Education Development Strategy 2021–2030, with a vision to 2045 (Decision No. 2239/QĐ-TTg, 2021), which seeks to rapidly expand and modernise TVET to meet evolving labour-market needs and to improve the quantity, structure, and quality of skilled human resources. More recently, the adoption of Decision No. 73/QĐ-TTg (2023), which approves the planning of the vocational education and training network for 2021–2030, signals an additional effort to expand and optimise the distribution and quality of institutions nationwide.

Recent national statistics show that the number of vocational education establishments has declined since 2019, mainly due to the contraction of the non-public sector, while public institutions have remained relatively stable. Staffing trends moved in the opposite direction: teacher numbers in public establishments fell modestly, whereas non-public institutions employed more, suggesting consolidation into fewer but larger providers. Teacher qualifications also differ, with over 90 per cent of teachers in public institutions holding a university or postgraduate degree compared to about 73 per cent in the non-public sector. Graduate outcomes reveal a system tilted toward short-cycle training: the total number of graduates fell from 2.2 million in 2019 to 1.59 million in 2023, with the majority completing short-duration (669,000, or 42 per cent) or elementary-level programmes (682,000, or 43 per cent). By contrast, only 139,000 (9 per cent) graduated from intermediate-level and 96,600 (6 per cent) from college-level programmes, underscoring the predominance of lower-level qualifications.





Figure 36. Viet Nam's vocational education: fewer institutions, more non-public teachers, and declining graduates concentrated in lower levels



Note: Viet Nam's formal TVET system is organised into three levels delivered by different types of institutions: TVET centres provide elementary-level training (up to 12 months, certificate); vocational secondary schools offer intermediate-level programmes (1–3 years, certificate); and vocational colleges deliver college-level programmes (1–3 years, diploma). Also, non-formal and informal TVET is available through in-service, correspondence, or guided self-study training across all *levels*.

Data Source: Statistical Yearbook of Viet Nam 2023.

These patterns reflect families' preference for general education and university studies, tighter accreditation under DVET, shifting demand for flexible training, and unequal institutional capacity. Stricter standards have likely reduced weaker non-public providers, while labour-market demand for rapid upskilling continues to drive enrolment in short, low-skilled programmes in such sectors as agriculture, sales, construction, and machine operation. The predominance of short- or elementary-level training meets immediate needs but limits progression into intermediate and advanced programmes. Diversifying entry-level training to connect more systematically with higher levels, alongside raising teacher qualifications, particularly in the non-public sector, will be critical to building a more skilled workforce over the long term.

Overall, Viet Nam's TVET system is undergoing consolidation, with fewer institutions and a declining number of graduates since 2019. Short-term and elementary programmes account for the majority of graduates, while intermediate and college-level pathways remain limited. This pattern raises questions about the system's capacity to build advanced skills and highlights the importance of balancing responsiveness to immediate labour-market needs with longer-term national development goals.

Source: ASEAN-ROK Technical and Vocational Education and Training Mobility (TEAM) Programme – Component 1: 'Enhancing the Competitiveness of Human Resources through Responsive TVET Curriculum Supported by Involvement of Industries and Labor Market Information' – Country Report: Viet Nam, Jakarta, ASEAN Secretariat, July 2022.

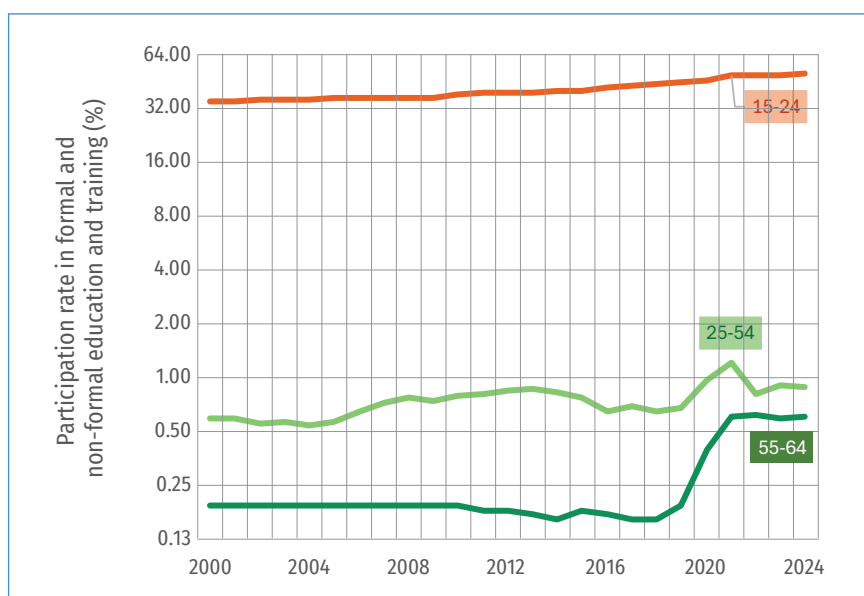


4.4.2 Adult Engagement in Skills Development and TVET

Lifelong learning has become indispensable as technological change, demographic shifts, and evolving labour markets reshape the region. No longer limited to early-life education, learning throughout adulthood is increasingly seen as essential for maintaining employability, adapting to economic transformations, and fostering active, informed citizenship (UIL, 2022a). For ASEAN Member States, building strong lifelong learning systems is not only a matter of individual empowerment, but also a strategic investment in sustainable and inclusive development.

Recognising this, ASEAN has emphasised lifelong learning as a regional priority in key frameworks such as the ASEAN Work Plan on Education 2021–2025 and the ASEAN Declaration on Human Resources Development for the Changing World of Work (see Box 14). These frameworks call for integrated and flexible learning opportunities that extend beyond the formal education system, targeting youth, working adults, and older populations alike. Yet, turning this vision into reality remains a major challenge, as reflected in current participation trends across different age groups. While much of the regional focus has been on strengthening vocational education pathways for youth, broader trends in participation across age groups reveal a striking imbalance. As shown in Figure 37, the share of young people aged 15–24 participating in formal and non-formal education has steadily increased over the past two decades, nearly reaching 50 per cent by 2024. This upward trajectory reflects sustained investments in secondary and tertiary education systems across ASEAN and underscores the region's success in keeping young people engaged in learning beyond compulsory schooling.

Figure 37. Participation in formal and non-formal education and training in ASEAN, by age group (2000–2024)



Note: A base-2 logarithmic scale is used for the Y-axis for better visualization of trend.

Source: UIS Database (Accessed September 2025).





In contrast, participation among adults remains extremely low. Throughout the same period, less than 2 per cent of adults aged 25–54 and less than 1 per cent of those aged 55–64 engaged in formal or non-formal education and training. While there are minor year-to-year fluctuations, there is no consistent long-term growth in adult participation, suggesting that learning opportunities for adults remain limited in terms of both availability and accessibility across much of the region.



Box 15. Promising lifelong learning practices in Southeast Asia

Background

Across Southeast Asia, lifelong learning has become an essential pillar of human development, social inclusion, and economic resilience. Countries in the region are responding to rapid technological change, demographic shifts, and evolving labour-market demands by expanding learning opportunities beyond formal schooling and into communities, workplaces, and cities. Lifelong learning is increasingly embedded in local governance structures, community learning centres, non-formal education systems, and city-level initiatives. While national policies provide the enabling environment, the most dynamic and impactful practices often emerge at the local level, where municipalities, community organisations, and education providers collaborate to reach adults, out-of-school youth, older persons, and marginalised groups. Together, these experiences illustrate several broad models through which lifelong learning is taking shape across ASEAN.

Community Learning Centres as Inclusive Platforms

A defining feature of lifelong learning in much of the region is the central role of community learning centres. In **Indonesia**, the extensive PKBM network forms the backbone of a large-scale non-formal education system, providing literacy, second-chance education, and livelihood training across urban and rural contexts. Similar approaches operate in the **Philippines, Thailand, Cambodia, Lao PDR, Myanmar** and **Timor-Leste**, where community learning centres function as accessible hubs for foundational skills, vocational training, and flexible pathways back into formal education. In settings where formal systems face geographic or resource constraints, these locally anchored centres expand access for out-of-school youth, adults, women, and marginalised groups, demonstrating the value of community-rooted delivery mechanisms.

National Learning Society Frameworks with Local Implementation

In parallel, several countries combine strong national vision with structured decentralised implementation. **Viet Nam** advances a comprehensive ‘learning society’ model supported by continuing education centres at provincial and district levels, integrating adult education into broader socio-economic strategies. **Thailand** institutionalises non-formal education within municipal structures, while **the Philippines** has strengthened flexible learning pathways and recognition of prior learning to formalise skills gained through experience. These approaches illustrate how coherent national frameworks can enable locally responsive lifelong learning ecosystems.



Skills-Oriented and Modular Upskilling Systems

More advanced systems place particular emphasis on coordinated workforce development and modular upskilling. Singapore adopts a whole-of-government approach to continuous skills development under the national SkillsFuture movement, with support from employers, trade unions, and training providers which offer a variety of options for continuous learning. According to Singapore's Comprehensive Labour Force Survey (CLFS), training participation among the resident labour force reached an all-time high in 2025, with the participation rate rising to 54.8%, nearly 20 percentage points above the 2015 level and reversing the decline observed since 2022. **Malaysia** integrates community colleges, modular TVET programmes and digital upskilling into its broader skills strategy, while **Brunei Darussalam** promotes continuous professional development and digital competencies through sustained public investment. These models highlight the integration of lifelong learning into national competitiveness and productivity agendas.

Shared Regional Patterns

Across these diverse experiences, several common elements emerge. Lifelong learning in Southeast Asia is increasingly flexible, community-based and aligned with labour-market transformation. Local governments are assuming more active roles in delivery, while national systems seek to integrate digital skills, workplace learning and inclusive access. Countries such as **Thailand** and **Viet Nam** demonstrate how strong local governance can anchor learning societies; Indonesia and the Philippines show the power of community-based structures; **Malaysia** and **Singapore** highlight the value of coordinated national systems and digital upskilling; and **Cambodia**, **Lao PDR**, **Myanmar**, and **Timor-Leste** illustrate how lifelong learning can support foundational skills, livelihoods, and social cohesion in contexts of limited resources.

This diversity of approaches is a strength. It provides governments with a rich set of models to learn from, whether they seek to expand community learning centres, strengthen city-level leadership, build national lifelong learning frameworks, or integrate digital and workplace learning into adult education. As Southeast Asia continues to navigate demographic shifts, technological change, and economic transformation, these practices offer a clear direction: lifelong learning must be embedded not only in national policy but also in the everyday life of communities, workplaces, and cities. The region's collective progress shows that building learning societies is both achievable and essential for inclusive and sustainable development.

Source: UNESCO Institute for Lifelong Learning, 2017, *Lifelong learning in transformation: promising practices in Southeast Asia*.

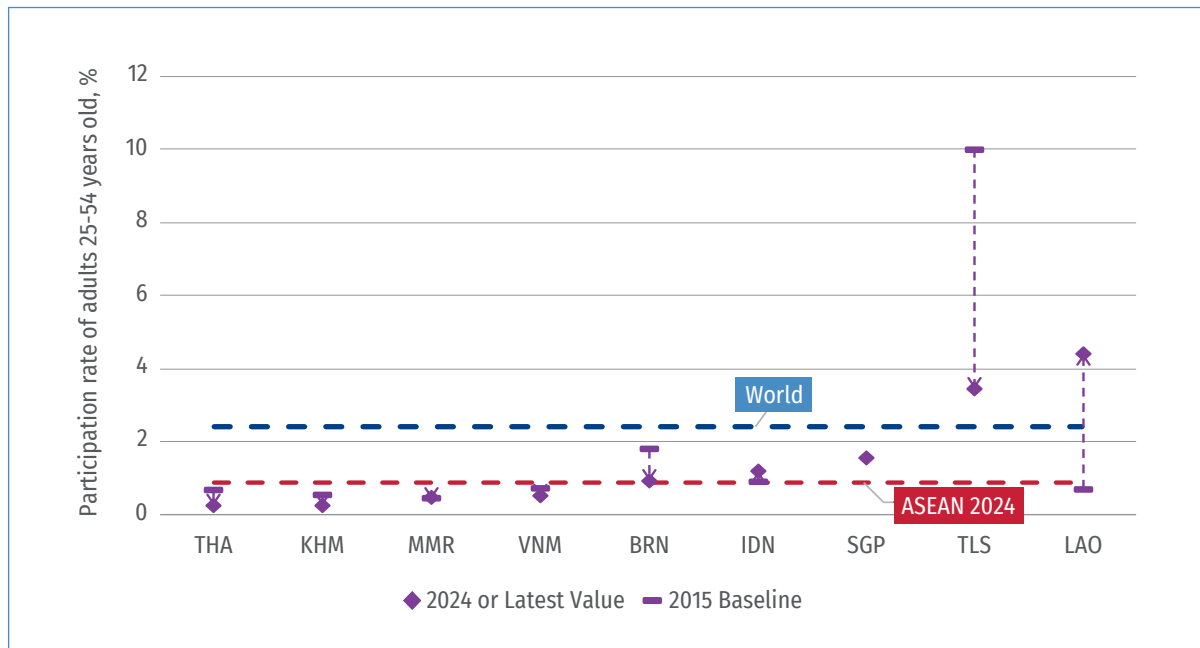
This gap in participation between younger and older populations has continued to widen. By 2024, youth participation exceeded that of older adults by more than 48 percentage points, highlighting a structural imbalance in who benefits from education and training systems. Despite strong policy commitments to lifelong learning, education provision in ASEAN remains largely concentrated in the early years of life and formal pathways, with limited opportunities for adults to re-engage in learning. These patterns raise important concerns for equity and inclusion. As labour markets evolve, populations age, and digital transformation accelerates, the ability to learn and reskill throughout life is becoming essential for economic participation and social cohesion. Yet,





without more flexible, targeted, and adult-oriented programmes, large segments of the working-age population risk being excluded from skills development and upskilling opportunities.

Figure 38. Participation rate of adults in formal and non-formal education and training in the previous 12 months, population aged 25-54 years old, both sexes, 2024 or latest value vs. 2015 baseline (%)



Note: Malaysia and the Philippines are not shown due to absence of available data.

Source: UIS Database (Accessed September 2025).

This under-representation of adults in formal and non-formal education and training in ASEAN becomes more apparent looking at national-level data. Lao PDR has recorded improvement in participation among adults aged 25-54 years old since 2015, while many countries have stagnated or regressed. These low figures suggest that many adults continue to face significant barriers to accessing training opportunities, whether due to time constraints, cost, limited programme availability, or weak links between learning and employment outcomes.

Beyond the generally low participation of adults in lifelong learning, a related challenge lies in capturing non-formal education and training activities within official data systems. This under-representation may partly explain the low reported participation rates among adult populations in the region. To address this, countries may consider adopting innovative approaches that enable more systematic tracking and recognition of learning and skills development acquired through both formal and non-formal pathways. Strengthening mechanisms, such as recognition of prior learning, micro-credentials, and their alignment with the *ASEAN Qualifications Reference Framework*, can further support the validation of competencies gained outside formal education, thereby enhancing the visibility of adult learning and contributing to more inclusive lifelong learning systems.



4.4.3 Policy Implications for TVET, Skills Development and Lifelong Learning

Strengthening TVET's appeal and alignment with labour-market needs

The proportion of youth enrolled in vocational education in ASEAN has grown markedly over the past two decades and now exceeds both the regional and global averages, underscoring the region's strong commitment to expanding technical and vocational pathways. However, TVET still has significant untapped potential to engage a wider and more diverse range of learners. Strengthening the relevance and inclusivity of TVET systems remains a key challenge across ASEAN, as young women, rural learners, persons with disabilities, and informal-sector workers continue to be under-represented in many formal skills programmes. Current efforts must be maintained, as vocational education plays a critical role in addressing unemployment and underemployment while supporting the region's rising economic aspirations. Expanding the reach of TVET will therefore require strategies that enhance its visibility, align programmes with evolving labour-market needs, and create flexible pathways that attract and support these groups more effectively.

Expanding adult learning opportunities through inclusive and flexible provision

Adult engagement in formal and non-formal education and training remains minimal, with no sustained growth observed in the past two decades. This limits opportunities for mid-career and older workers to update their skills, adapt to technological changes, and remain active in the workforce. Strengthening adult learning provision through flexible delivery models, workplace-based programmes, and recognition of prior learning can help overcome barriers and make lifelong learning more accessible.

Building integrated skills development systems to support workforce adaptability

The emerging pressures within education and training systems raise significant concerns for skills development and workforce adaptability. In the context of rapid technological change, shifting labour-market demands, and ageing populations, the ability to access learning opportunities throughout life is increasingly vital for maintaining employability, fostering innovation, and ensuring social inclusion. Adopting integrated skills development strategies that link education, training, and labour-market policies can ensure that all segments of the population are equipped to participate fully in the economy and adapt to future shifts in demand.

Strengthening cross-sector coordination for a future-ready workforce

A cross-sector approach is essential to building a coherent skills ecosystem in ASEAN. Education systems cannot anticipate emerging skill needs without labour-market intelligence; labour ministries cannot reduce youth unemployment or NEET rates without flexible learning pathways; and technology agencies cannot drive digital transformation without a workforce prepared to adopt new tools. Coordinated planning, shared data systems, and joint governance mechanisms would allow countries to align training with real-time labour-market and technological trends, create seamless pathways across all levels of learning, support youth transitions, enable adult reskilling, and link skills development to national innovation agendas. Adopting a whole-of-government approach that positions skills development as a shared national responsibility across sectors will ensure coherent action toward a future-ready workforce.





Strengthening Pathways from School to Work

Across ASEAN, many young people continue to face difficult transitions from school to work due to skills mismatches, limited exposure to real workplace environments, and uneven access to career guidance (see Box 15). These challenges are especially pronounced in fast-changing labour markets where employers increasingly demand practical, adaptable, and industry-aligned competencies. In this context, strengthening school-to-work pathways becomes essential: education systems must align more closely with labour-market needs, expand opportunities for work-based learning, and equip learners with the skills and support required to move confidently from classrooms into decent employment.



Box 16. School-to-Work Transitions in ASEAN

Regional Overview

School-to-work transitions across ASEAN remain uneven, with many young people experiencing slow and uncertain pathways into stable employment. Although economic growth has expanded opportunities in several Member States, structural constraints continue to shape how effectively young people move from education into work. Informal employment remains the dominant entry point for youth in most ASEAN countries, particularly in agriculture, construction, and services, limiting job security, earnings, and prospects for advancement. Employers consistently report skills mismatches, noting that many young people lack job-specific technical competencies, digital skills, and the communication and problem-solving abilities required in modern workplaces. TVET graduates generally fare better than those from general secondary pathways, but outcomes vary widely depending on the relevance of curricula, the availability of work-based learning, and the strength of employer engagement.

Differences Across Countries

Countries with more mature systems, such as Singapore, Malaysia, and Thailand, tend to offer faster and more structured transitions, supported by dual training models, strong industry partnerships, and robust labour-market information systems. In contrast, transitions are slower in Cambodia, Lao PDR, Myanmar, and Timor-Leste, where informality is pervasive, TVET capacity remains limited, and labour markets offer few formal opportunities. The Philippines continues to experience high youth unemployment and underemployment, with many graduates working outside their field of study or seeking opportunities abroad. Viet Nam benefits from strong economic growth, yet more than half of young workers remain in informal employment, and TVET reforms are still addressing gaps in relevance and quality.



Persistent Barriers

Gender disparities persist across the region, with young women facing lower labour-force participation, concentration in lower-paid sectors, and barriers to entering technical fields. A major conclusion of the UNESCO study is that the region lacks consistent, comparable data on school-to-work transitions. Few countries conduct regular tracer studies, and sector-specific employment outcomes are rarely reported, making it difficult to monitor progress toward SDG targets on skills and youth employment. Overall, the study underscores that while ASEAN has made progress, school-to-work transitions remain constrained by informality, skills mismatch, uneven TVET quality, and limited work-based learning, and that strengthening data systems and employer engagement will be essential to improving outcomes for young people.

Source: UNESCO Bangkok & UNEVOC, 2013. School-to-work transition: Information bases.



4.5 Adult Learning and Literacy

Literacy remains a cornerstone of educational development and a critical enabler of lifelong learning. In the ASEAN region, decades of investment have raised literacy rates among children and youth, creating a strong foundation for individual empowerment and social inclusion. However, as countries seek to strengthen human capital in the context of rapidly evolving labour markets, technological disruption, and ageing populations, ensuring that adults continue learning beyond initial literacy and/or schooling has become an increasingly urgent priority.

As noted in earlier and shown in Figure 38, adult participation in education and training across ASEAN remains low. This limited engagement later in life underscores the need to strengthen adult education and non-formal learning systems. At the centre of this challenge lies the issue of foundational literacy: for millions of adults across ASEAN, especially those with low educational attainment or from disadvantaged backgrounds, opportunities to build, update, or re-acquire basic skills remain scarce. For older generations who left school early or did not benefit from quality basic education, persistent literacy gaps continue to constrain economic mobility, civic participation, and adaptability in a changing world. Addressing these literacy gaps is therefore not only a matter of inclusion; it is a prerequisite for building resilient and future-ready lifelong learning ecosystems in the region.

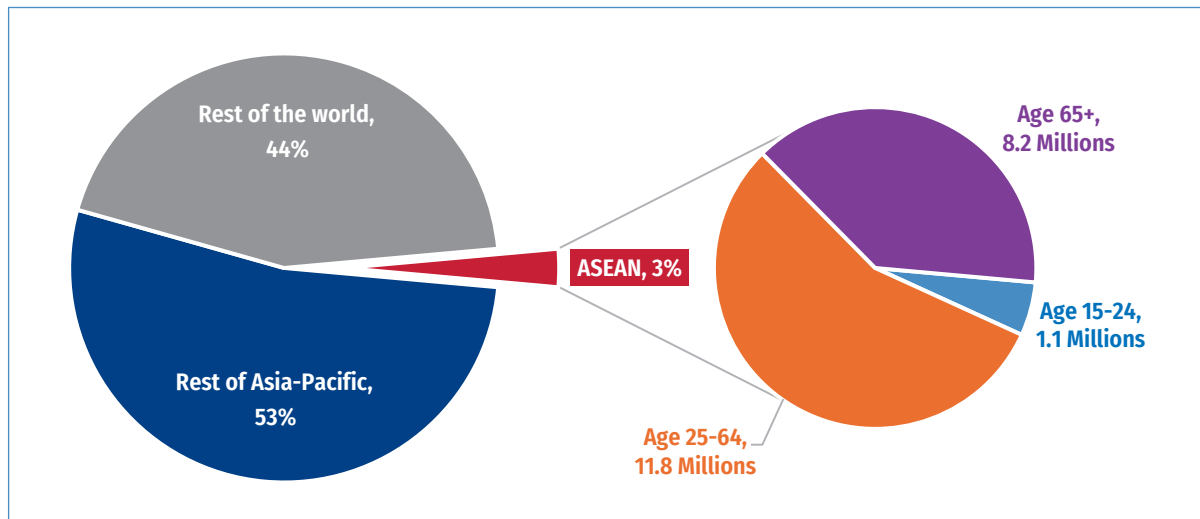
4.5.1 Literacy Gaps and the Scale of Illiteracy Among Adults in ASEAN

There has been considerable progress in reducing adult illiteracy across the ASEAN region. The total number of illiterate adults declined from more than 37 million in 2000 to just over 21 million in the latest estimates. In 2024, ASEAN accounted for only 3 per cent of the world's adult illiterate population, a notably small share considering that the region represents around 8.5 per cent of the global population. Within ASEAN, the majority of illiterate adults are aged 25 years and above, underscoring that literacy challenges are concentrated among older generations rather than



school-age youth. This pattern highlights the need for literacy and skills development initiatives that extend beyond the formal education system to effectively reach adult and elderly learners.

Figure 39. Overview of estimated number of adult illiterate population (age 15+) in ASEAN, by age group, both sexes, 2024 estimation



Source: UIS Database (Accessed September 2025).

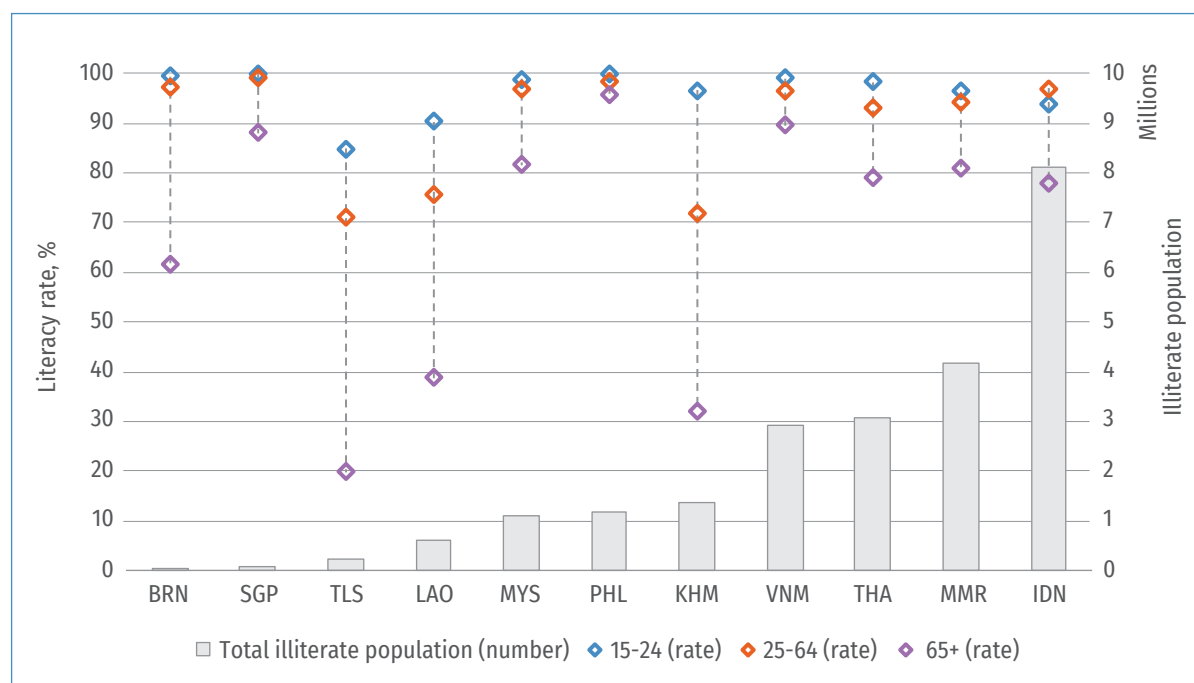
While overall progress is evident, literacy attainment remains uneven across age groups and countries. Figure 40 highlights notable disparities in literacy rates among different age groups across ASEAN, with most countries reporting near-universal literacy for youth aged 15–24, but progressively lower rates among older populations, particularly those aged 65 and above. Countries such as Singapore, Viet Nam, and the Philippines maintain high literacy levels across all age brackets, including the elderly. In contrast, Lao PDR, Cambodia, and Timor-Leste show significant generational gaps, with literacy rates among adults aged 65+ falling below 70 per cent and, in some cases, even below 20 per cent.

These generational disparities in literacy reflect long-standing structural challenges and historical weakness in access to quality basic education. They also underscore the urgent need for adult learning policies that address not only youth and workforce-skilling programmes, but also foundational education for older adults.

Non-formal education remains an important avenue for reaching this demographic, particularly in rural or marginalised communities where formal adult literacy initiatives may be limited or inaccessible. In many ASEAN Member States, such programmes are delivered through community learning centres, religious institutions, and local government partnerships, but their coverage, financing, and recognition remain limited. Bridging literacy gaps will therefore require expanded commitment and investment in adult non-formal education systems tailored to diverse learner needs and life circumstances.



Figure 40. Literacy rates for different age groups, and estimated total number of illiterate adult population (age 15+) in ASEAN countries, both sexes, 2024 or latest value (% & millions)



Source: UIS Database (Accessed September 2025).

While literacy rates offer a useful perspective, Figure 40 also translates these percentages into absolute numbers, revealing the substantial scale of adult illiteracy in the region. Indonesia, Thailand, Viet Nam, and Myanmar together account for the largest number of illiterate adults in ASEAN, each with estimates close to or more than three million individuals classified as illiterate under national definitions. These figures underscore that efforts to address literacy cannot focus solely on school-age children. Countries need to significantly expand non-formal education programmes targeting working-age adults, particularly those who left school early or never had the opportunity to complete primary education. Many of these individuals may face significant barriers to returning to formal education due to time constraints, income insecurity, or social stigma.

Non-formal education modalities provide flexible, accessible entry points for adults who are unlikely to return to formal schooling, making them a critical component of ASEAN's lifelong learning ecosystem. Flexible literacy classes, mobile learning units, and digital basic skills programmes reduce the time, cost, and confidence barriers that often prevent adults – especially those in rural areas, informal employment, or with limited prior schooling – from reengaging in learning. These approaches allow instruction to be delivered in community settings, workplaces, or through mobile and online platforms, ensuring that learning is closely aligned with adults' daily realities and immediate needs. By offering low-stakes, context-sensitive pathways that build foundational and digital competencies, non-formal programmes help adults regain confidence, strengthen employability, and create stepping stones toward more structured vocational or higher-level training.





Functional literacy is essential because basic reading and writing alone no longer equip adults to participate meaningfully in modern economies or navigate increasingly complex societies. Traditional literacy measures, especially those based on self-reporting, tend to overestimate adults' actual skills and fail to capture whether individuals can apply literacy in real-world contexts. Many adults who report being 'literate' may still struggle with tasks, such as interpreting workplace instructions, using digital tools, managing finances, or understanding health information. This gap becomes more consequential as ASEAN economies digitalise, expand social protection systems, and shift toward higher-skill, service- and technology-driven sectors.

Functional literacy, covering financial, digital, health, and civic competencies, provides a more accurate picture of whether adults can use their skills to solve everyday problems, participate in the labour market, and engage with public services. It aligns literacy efforts with labour-market needs by focusing on the competencies employers increasingly expect, such as navigating digital platforms, understanding basic data, or managing workplace technologies. It also supports broader development goals: adults with stronger functional literacy are better able to access healthcare, make informed financial decisions, participate in community life, and adapt to economic change. For ASEAN countries, shifting from simple literacy to functional literacy is therefore critical for building inclusive, future-ready lifelong learning systems that genuinely strengthen adults' capabilities and resilience.

ASEAN's efforts to strengthen adult learning increasingly recognise that most upskilling and reskilling must occur within firms or enterprises, requiring incentives that go beyond the remit of ministries of education. Governments are beginning to shift toward labour-market institutions and levy-grant mechanisms that encourage employers to invest in training, while also leveraging private training providers to respond more quickly to emerging skill needs. Indonesia's Kartu Prakerja programme illustrates this shift: originally launched as an active labour-market policy, it now operates as a large-scale, end-to-end digital training ecosystem that partners with private platforms and training providers, enabling millions of adults to access skilling, reskilling, and upskilling opportunities aligned with labour-market demand. Malaysia's HRD Corp offers another strong model through its mandatory training levy, which requires eligible firms to contribute to a national skills fund and allows them to claim back the cost of approved training. This structure creates a direct financial incentive for employers to invest in workforce development while ensuring that training remains industry-relevant. Together, these initiatives show how ASEAN countries can move beyond public provision and education ministries alone and toward shared responsibility across labour ministries, employers, and private providers, supported by financing mechanisms that reward firms for developing their workers' skills.



Box 17. Strengthening non-formal education and literacy in Lao PDR

Lao PDR's Education and Sports Sector Development Plan (ESSDP) 2021–2025 sets out a comprehensive strategy to advance non-formal education and literacy. The plan aims to raise literacy rates, sustain upper secondary equivalent programmes through 2030, and promote equitable access to lifelong learning opportunities. It prioritises capacity development for non-formal education personnel, reinforces the role of NFE centres, and enhances the skills of teachers and vocational trainers. Efforts also focus on expanding independent learning and vocational training through online platforms, increasing access to diverse resources, and aligning vocational and life skills training with labour-market needs.

Source: Lao People Democratic Republic, Ministry of Education and Sports. (2023). *Education and sports sector development plan 2021-2025*.



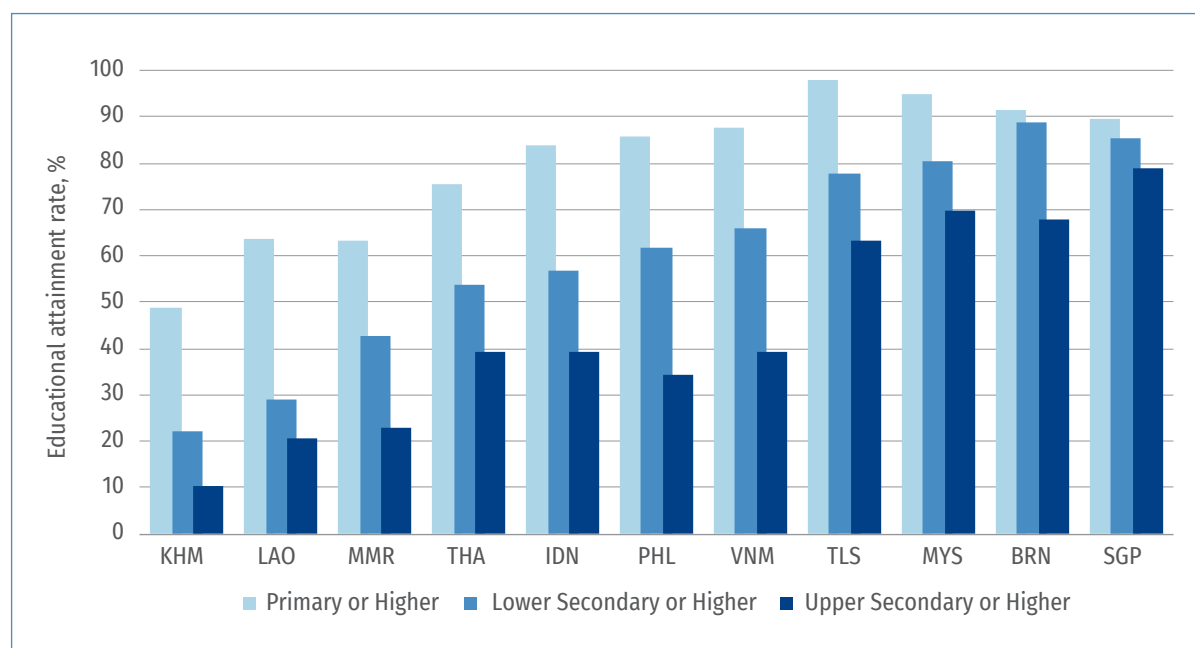
4.5.2 Educational Attainment Gaps Among Adults

Figure 41 presents the educational attainment rate for adults aged 25 and older in ASEAN countries, disaggregated by levels of education: primary, lower secondary, and upper secondary. This indicator reflects the percentage of the adult population who have completed a given level of education or higher. For instance, a value of 43 per cent at the primary level means that 43 per cent of adults aged 25+ have completed at least primary education, some of whom may have progressed to secondary or tertiary levels. This cumulative definition provides a broader picture of foundational education levels among adult populations, while disparities between levels, such as the drop between primary and upper secondary, highlight the proportion of adults whose education ended at earlier stages.

The data reveals wide disparities across ASEAN Member States. In Singapore, Malaysia, and Brunei Darussalam, more than 90 per cent of adults have completed at least primary education, and over 80 per cent have completed at least lower secondary. In contrast, several countries, show much more pronounced gaps. In Cambodia, for example, around 49 per cent of adults have completed primary education or higher, but only about 11 per cent have completed at least upper secondary. In Lao PDR, these figures are approximately 64 per cent and 21 per cent, respectively.



Figure 41. Educational attainment rate for population 25+ years in ASEAN countries, both sexes, completing a given education level or higher, 2024 or latest value (%)



Source: UIS Database (Accessed September 2025).

The steep drop between primary and secondary attainment in several countries underscores the critical need for adult learning pathways that enable re-engagement in education. Adults who did not complete lower- or upper secondary schooling often face significant barriers to participating in formal training or upskilling opportunities, especially in rapidly evolving labour markets. Those who missed out on schooling are disproportionately those from poor households, rural and remote communities, ethnic and linguistic minorities, migrant populations, and other socially disadvantaged groups who have long faced persistent barriers to accessing education.

For policymakers, these findings highlight the value of alternative education programmes that provide second-chance or equivalency routes, including community learning centres, workplace-based literacy and numeracy training, and recognition of prior learning schemes. Expanding data collection to cover adult learning pathways beyond formal attainment, such as short courses, modular skills training, and non-formal literacy programmes, would also support a more complete understanding of lifelong learning participation across the region.



4.5.3 Policy Implications for Adult Learning and Literacy Enhancement

Shift adult literacy policy from access to inclusion

ASEAN adult literacy strategies should explicitly prioritise groups with the highest risk of exclusion (migrant and informal-sector workers, ethnic minorities, rural women, and adults with limited prior schooling) rather than relying on universal, one-size-fits-all provision. This requires flexible delivery models (modular courses, mobile and workplace-based learning, recognition of prior learning), language-responsive programmes, and stronger links with social protection and employment services. Without inclusive mechanisms, adult literacy initiatives risk reinforcing existing inequalities precisely as economies become more digital and skills intensive.

Prioritising targeted adult literacy programmes for populations with the greatest gaps

Although high youth literacy rates are reported in most ASEAN countries, literacy levels decline sharply among older populations, with some Member States showing particularly large generational gaps. In several countries, millions of adults, primarily aged 25 and above, still lack basic reading and writing skills, reflecting the long-term effects of unequal access to education. Targeted adult literacy initiatives, including community-based and workplace programmes, can help close these gaps and provide accessible, relevant, and flexible pathways for adults to acquire essential skills.

Strengthening second-chance education pathways for adults with low educational attainment

Significant shares of adults who did not complete primary or lower secondary education highlight the need for accessible second-chance learning opportunities. Expanding equivalency programmes, modular learning, and prior learning recognition can help adults re-enter education and improve their qualifications.

Enhancing data and measurement systems to capture the full spectrum of adult literacy and learning

Limited and uneven data on adult literacy and participation in adult learning constrain effective policy planning across ASEAN. Strengthening national data systems through improved labour-force surveys, adult education registries, and harmonised indicators would enable governments to identify who is being left behind and monitor progress more accurately. At the same time, current reporting often reduces literacy to a simple binary measure, masking the wide range of functional skills needed for meaningful participation in modern economies. Developing more nuanced assessment approaches that capture different levels of literacy proficiency can support more targeted interventions and ensure that policies are grounded in a clearer understanding of adults' actual learning needs.

Redefine literacy standards around functional competencies, not self-reported ability

ASEAN countries should move beyond self-reported literacy measures and adopt functional literacy frameworks that integrate digital, financial, health, and civic competencies. Policy emphasis should shift toward what adults can do with their skills in real-world contexts, such as using digital platforms, managing finances, accessing services, and making informed decisions. Embedding functional literacy into non-formal education and workplace training would better align adult learning systems with labour-market needs and ensure literacy contributes meaningfully to participation, productivity, and resilience.





The preceding sections have charted how ASEAN's education sub-sectors are evolving: where progress is accelerating, where inequities persist, and where systems are under strain. But sub-sector performance does not occur in isolation. What happens next depends on the strength of the foundations that support every learner and every institution. The following sections turn to three cross-cutting pillars (learning environments, teacher development, and financing) that ultimately determine whether education systems can deliver on their promise. These domains shape the conditions for quality, equity, and efficiency across all levels of education, and they represent the levers through which ASEAN can build more resilient and future-ready systems.

4.6 Learning Environments

A conducive learning environment is a cornerstone of quality education and a critical enabler of student engagement, well-being, and achievement. Beyond curriculum and teaching, the physical, social, and digital conditions in which learning takes place profoundly shape outcomes. Safe, inclusive, and well-resourced schools provide the foundation for equitable participation, enabling all learners to reach their potential. In the ASEAN context, where countries vary widely in income levels, infrastructure capacity, and geographic conditions, strengthening learning environments is essential not only for achieving national education goals, but also for advancing regional commitments under the *ASEAN Community Vision 2045*, the *ASEAN Work Plan on Education 2021–2025*, and beyond.

Ensuring the availability of basic infrastructure, such as electricity, water, sanitation, and facilities adapted for learners with disabilities, is both an equity imperative and a prerequisite for effective teaching and learning. These elements, monitored through SDG target 4.a, underpin safe and healthy school settings that contribute to better attendance, reduced dropout rates, and improved learning outcomes (IIEP, 2022). Safety and security within schools are also crucial, as conflict, instability, and other external threats can undermine access and disrupt learning trajectories. Closing gaps in infrastructure and school safety is therefore not just a technical challenge, but also a strategic priority for building resilient, equitable, and future-ready education systems capable of withstanding future shocks.

Students' psycho-social well-being, including emotional safety, a sense of belonging, and access to mental health support, should be regarded as equally important as physical well-being and security. Recent global evidence points to a convergence of challenges related to learning and well-being, with children and young people experiencing heightened levels of stress, anxiety, and disengagement, alongside persistent concerns related to bullying and violence in schools (UNESCO, 2024). In this context, the availability of school-based counselling services, clear safeguarding mechanisms, and environments free from violence, discrimination, and bullying constitute essential components of a conducive learning environment, supporting both well-being and sustained engagement.



Finally, the rapid pace of technological change is reshaping what constitutes a truly enabling learning environment. Digital readiness, including reliable access to computers, internet connectivity, and the integration of technology into pedagogy, is increasingly a determinant of education quality and relevance in the 21st century (UNESCO GEMR Team, 2023). As ASEAN countries prepare their education systems for the future, the interplay between traditional infrastructure and emerging digital needs will define the inclusiveness, adaptability, and competitiveness of their learning environments. This section examines these dimensions of the learning environment – physical, psychosocial, and digital – to assess how effectively ASEAN education systems are supporting safe, inclusive, and future-ready learning.

4.6.1 The State of School Learning Environments in the Region

Ensuring safe, inclusive, and well-equipped learning environments is a foundational requirement for quality education and a central component of SDG target 4.a. To monitor this, SDG indicator 4.a.1 tracks the availability of basic school infrastructure, including access to electricity, drinking water, single-sex sanitation facilities, handwashing stations, and adapted infrastructure and materials for students with disabilities. Figure 42 presents the current state of these facilities across ASEAN countries, disaggregated by education level. The heat map uses colour coding to depict coverage levels: dark blue indicates that more than 90 per cent of schools at a given level have access to the specific basic infrastructure, light blue denotes that 50–90 per cent have access, red flags coverage below 50 per cent, and grey represents missing data. This visual format allows for quick comparison across countries and school levels, highlighting both strengths and gaps in learning conditions.

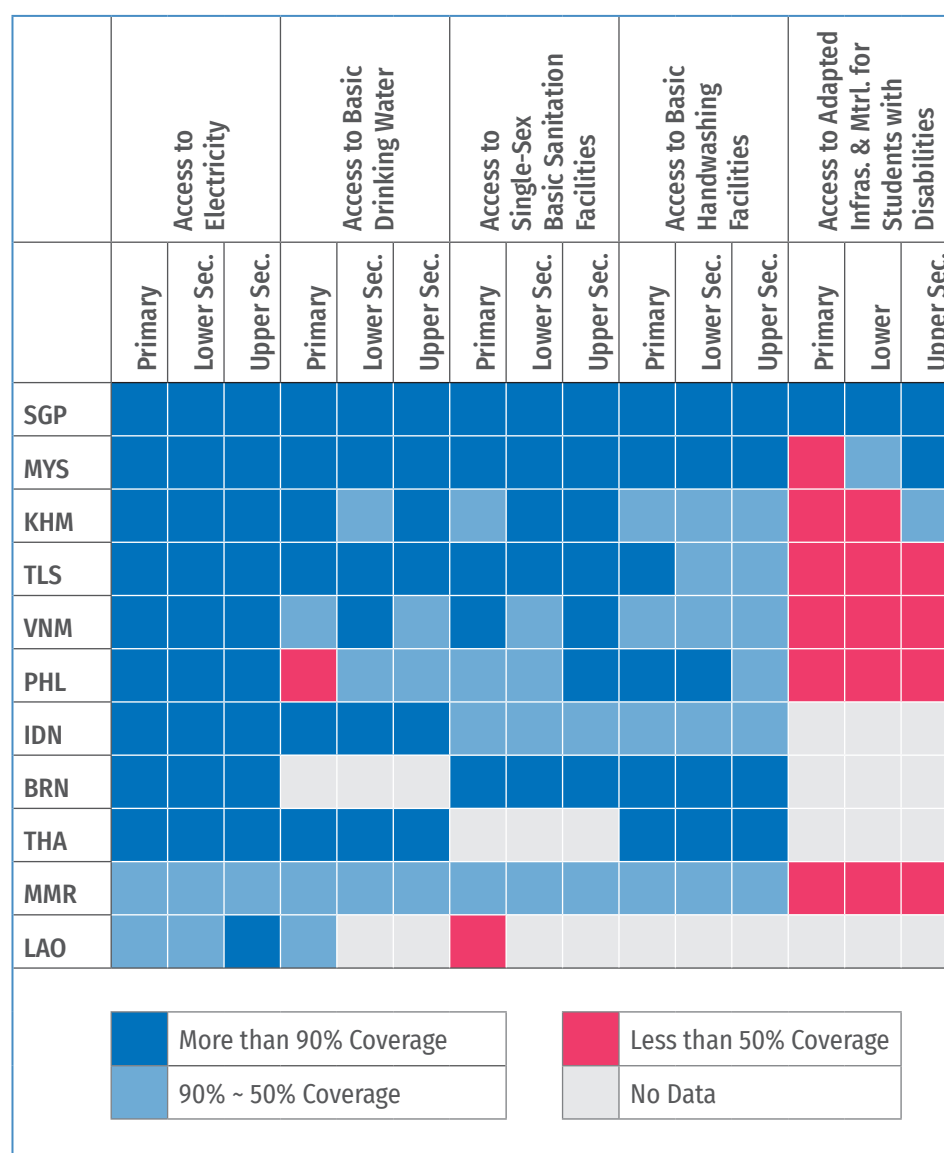
Overall, the data reveals encouraging progress across the region, with many countries demonstrating high levels of infrastructure coverage. Singapore and Malaysia report more than 90 per cent coverage in almost all categories and levels, exemplifying a strong commitment to ensuring conducive school environments. Brunei Darussalam and Thailand also report similarly high coverage: more than 90 per cent in all areas for which data are available, although both have several categories with missing data.

Among the CLMV countries, which include Cambodia, Lao PDR, Myanmar, and Viet Nam, three out of four have full data availability. Within this group, Cambodia and Viet Nam show particularly promising levels of provision, with many indicators exceeding over 90 per cent coverage. As countries that joined ASEAN later and generally have lower income levels than their ASEAN-6 counterparts, the CLMV group has long been a focus of regional development cooperation and capacity-building support (ASEAN Secretariat, 2020c). Progress in infrastructure provision in these countries is therefore especially significant, reflecting growing efforts to reduce intra-regional disparities and ensure that all learners have access to safe and adequate school environments. Lao PDR, by contrast, continues to face notable challenges, with persistent gaps in both infrastructure coverage and data availability.





Figure 42. Coverage of basic infrastructure and services in schools, 2025 or latest available year's value, by levels of education, in ASEAN countries



Source: UIS Database (Accessed September 2025).

Access to electricity, basic drinking water, single-sex sanitation, and handwashing facilities follows broadly similar patterns across ASEAN. Electricity coverage is relatively strong in most countries and levels of education, with the majority reporting more than 90 per cent of schools are connected to the power grid. Access to basic drinking water, single-sex sanitation, and handwashing facilities also shows encouraging trends, but coverage below 90 per cent remains common in many countries, including Indonesia and the Philippines. These services are critical not only for student health and hygiene, but also for ensuring safe learning environments, an imperative underscored by the COVID-19 pandemic. The data point to the need for continued investment in basic school infrastructure to ensure that all children can learn in environments that support their well-being and development.

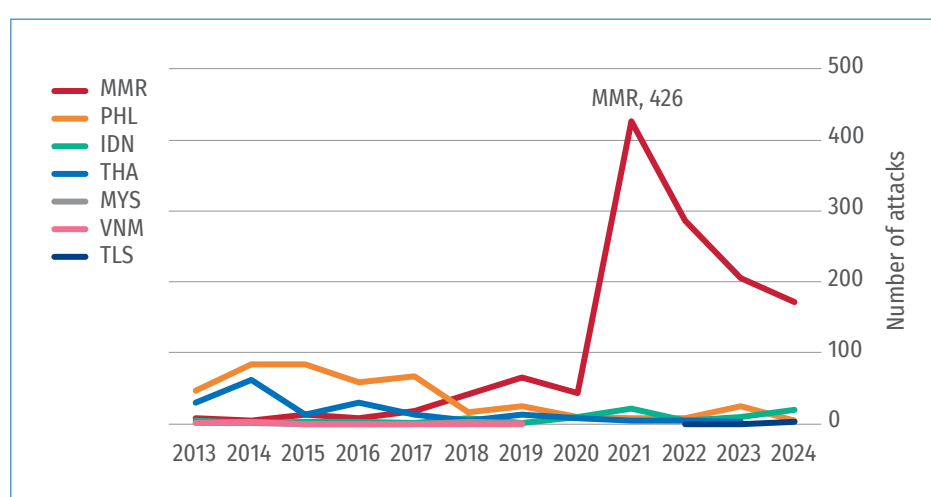


Access to adapted infrastructure and materials for students with disabilities remains the most limited across the region, with only a few countries, such as Singapore and Malaysia, reporting coverage above 50 per cent, while many others fall below this threshold or lack sufficient data altogether. In schools lacking inclusive infrastructure and accessible learning materials, children with disabilities are more likely to be excluded from effective instruction and even from assessment participation altogether, contributing to an ‘invisible’ learning crisis. These gaps further restrict students’ mobility within school, limit access to learning materials, and increase dependence on teachers or caregivers for basic tasks, especially in rural and remote areas. As a result, children with disabilities experience higher absenteeism, reduced instructional time, and lower engagement, reinforcing persistent disparities in learning outcomes. Strengthening investment in accessible classrooms, assistive devices, and inclusive WASH facilities is therefore essential for creating school environments that support full participation and for delivering on ASEAN countries’ commitment to leave no one behind under the Education 2030 Agenda.

4.6.2 School Safety and Security

Beyond access to basic school facilities, the safety and security of learning environments are also fundamental to ensuring quality education for all. Figure 43 presents the annual number of reported attacks on students, education personnel, and institutions in ASEAN countries between 2013 and 2024. It reveals a particularly concerning trend in Myanmar, where the number of attacks surged dramatically following the 2021 military coup, peaking at 426 incidents that year, by far the highest in the region. Although there has been a decline in subsequent years, the number of attacks remains above 150 in 2024, reflecting the continued impact of conflict and instability on the education sector. The Philippines has also experienced a high number of incidents, especially prior to 2017, while Indonesia and Thailand have also seen occasional spikes, though at a far lower magnitude.

Figure 43. Number of attacks on students, personnel, and institutions in ASEAN countries each year, 2013–2024



Source: UIS Database (Accessed September 2025).



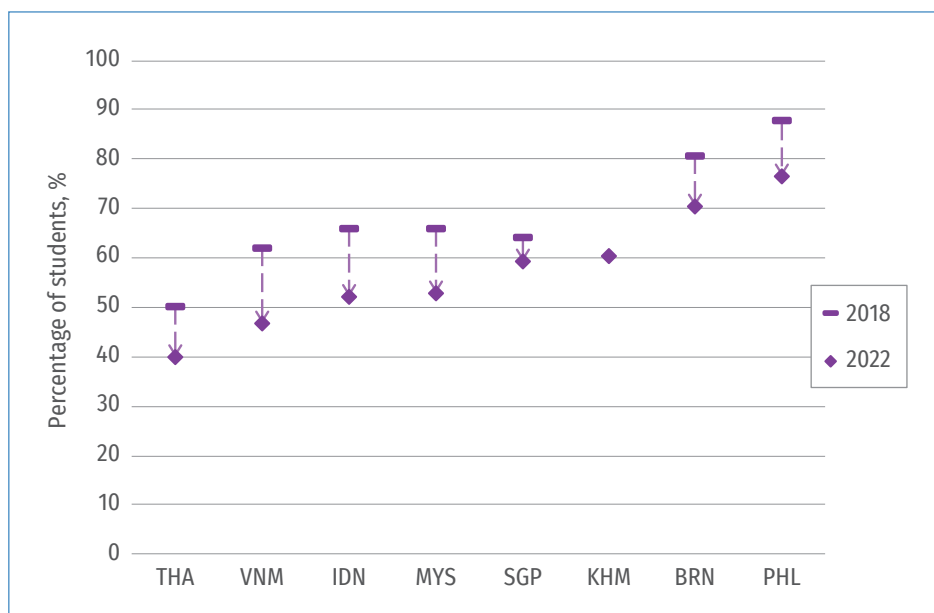


While attacks on education represent the most severe form of violence affecting schools, threats to students' safety and well-being also occur within the learning environment itself. Bullying and other forms of school-based violence can undermine learners' sense of security, psychosocial well-being, and engagement in schooling, with negative consequences for mental health, attendance, and learning. Evidence shows that children who are frequently bullied are nearly three times more likely to feel alienated at school and more than twice as likely to miss classes (UNESCO, 2019). Beyond their immediate effects, such experiences can contribute to longer-term emotional distress and disengagement if not addressed through school-based prevention, counselling, and psychosocial support mechanisms. Addressing school violence and bullying in all their forms is therefore essential to creating safe, non-violent, inclusive, and effective learning environments that support both learning and well-being for all learners.

Encouragingly, ASEAN Member States have made notable progress in reducing bullying in schools. The figure below shows the percentage of students experiencing bullying in the last 12 months in lower secondary education, estimated by UIS based on responses from international large-scale learning assessments, in this case, the Programme for International Student Assessment (PISA) from 2018 and 2022. Seven of the eight countries with available data show a decline in reported bullying between 2018 and 2022, and the only country without a recorded improvement is due to the unavailability of comparable 2018 data.

Nevertheless, bullying remains a widespread challenge that affects students' participation, learning outcomes, and emotional well-being. Thailand and Viet Nam recorded the lowest shares of students reporting bullying experiences (below 50 per cent in 2022), while Brunei Darussalam and the Philippines reported relatively higher rates, though both have shown improvement over time. In most ASEAN countries participating in the 2022 PISA, more than 50 per cent of students reported experiencing bullying in the last 12 months.

Figure 44. Percentage of students, both sexes, experiencing bullying in the last 12 months in lower secondary education in ASEAN Member States, 2022 vs. 2018 values (%)



Source: UIS Database (Accessed September 2025). Indicator calculated based on PISA 2022 and PISA 2018 results.



At the regional level, the *ASEAN Regional Plan of Action on the Elimination of Violence against Children (RPA-EVAC, 2016–2025)* provides a key policy framework guiding Member States to prevent and respond to violence in all settings, including schools. It calls for whole-school approaches, awareness campaigns, and the integration of child protection principles into education policies, while also recognising the importance of school environments that support children's psychosocial well-being. In this regard, preventive and response measures increasingly encompass access to counselling services, referral mechanisms, and psycho-social support for learners affected by bullying and other forms of school-based violence.

At the national level, several countries have established specific legislation or ministerial policies on bullying prevention. A notable example is the Philippines' Anti-Bullying Act of 2013 (Republic Act No. 10627), which mandates every public and private school to adopt and implement anti-bullying policies, reporting and intervention procedures, and awareness-raising activities. It also encourages schools to provide appropriate support and guidance to students involved, including those requiring psychosocial assistance.

Taken together, the evidence underscores both progress and persistent gaps in creating conducive learning environments across ASEAN. While many countries have made notable strides in expanding access to essential infrastructure and maintaining safe school conditions, others continue to face significant challenges, particularly in rural or conflict-affected areas. Issues, such as limited access to basic WASH facilities, adapted infrastructure for learners with disabilities, and school-related attacks, hinder efforts to ensure inclusive, safe, and effective learning spaces for all. As ASEAN moves forward with the implementation of the *ASEAN Work Plan on Education 2021–2025* and prepares for the post-2025 agenda, sustained investment, targeted support, and enhanced monitoring mechanisms will be critical to closing infrastructure gaps and strengthening school safety, equity, and resilience across the region.

Recent evidence from UNICEF and ADBI underscores how climate-related disasters are now a defining challenge for learning environments in ASEAN, with direct consequences for instructional time, safety, and equity. In the Philippines alone, storms and flooding in 2025 led to the loss of dozens of school days in the worst-affected regions, compounding pre-existing learning gaps and disrupting the stability of students' daily routines. Across Southeast Asia, more than 4.1 million children experienced schooling interruptions due to typhoons, floods, and landslides, while ADBI research shows that schools in poorer and rural areas, often lacking hazard-resistant buildings, reliable electricity, and digital connectivity, are the most vulnerable to prolonged closures. These disruptions highlight that learning environments are not only shaped by classroom conditions, but also by the resilience of the physical and digital infrastructure that supports learning continuity. The data therefore strengthen the case for investing in climate-resilient schools, robust ICT systems, and preparedness mechanisms that can protect instructional time and ensure that education systems remain functional during increasingly frequent and severe climate events. While adequate school infrastructure and safe learning conditions form the foundation of a conducive educational environment, the ability to harness technology for teaching and learning has become equally vital. The COVID-19 pandemic underscored the importance of digital connectivity, not only as a mechanism for sustaining learning during disruptions, but also as a means to enrich instruction and broaden access to learning opportunities. Against this backdrop, the next section examines the extent to which ASEAN schools are equipped for the digital transformation, highlighting both the progress made in expanding ICT access and the persistent digital divides that continue to place some learners at risk of being left behind.



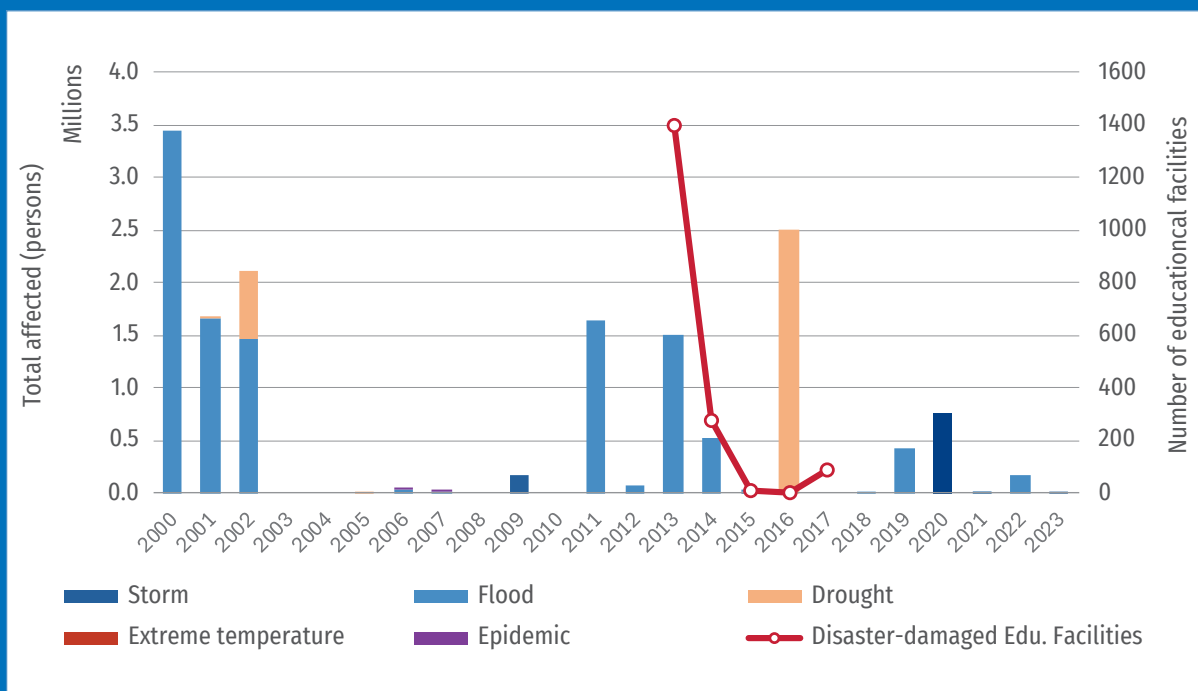


Box 18. Building climate-resilient school campuses in Cambodia

Cambodia is among the most climate-vulnerable countries in ASEAN, and its education system has been historically exposed to the impacts of flooding, strong winds, and extreme heat. These events damage school infrastructure, disrupt learning, and threaten student safety and wellbeing. According to UNICEF's global Children's Climate Risk Index, in 2024, Cambodia ranks 46th out of 163 countries, placing it in the top third worldwide for climate-related risks. Education is both a target of the climate crisis and a catalyst for solutions: resilient campuses not only protect children but also serve as platforms for raising awareness and building adaptive capacity. Recognising this, Cambodia has begun to integrate climate resilience into education planning, school curriculum, and school design.

The scale of disasters over the past two decades highlights the magnitude of the challenge. Floods and droughts have been the most recurrent hazards, with floods alone affecting more than 3.5 million people in 2000 and 1.6 million in 2011, while droughts impacted over 650,000 people in 2002 and 2.5 million in 2016. Other events, such as storms, extreme temperatures, and epidemics, have also disrupted communities, but on a smaller scale. The education system has not been spared: in 2013, more than 1,400 educational facilities were reported damaged or destroyed, while around 200 were affected in 2014. More may have been affected around 2020, but data is missing. These figures underscore how climate-related shocks threaten education continuity, making resilient school infrastructure an essential priority.

Figure 45. Population affected by disasters and number of damaged education facilities in Cambodia, 2000–2023



Source: World Bank Climate Change Knowledge Portal, and UN ESCAP SDG Gateway (Accessed 2025).



In response, Cambodia has begun to systematically assess risks to school infrastructure to identify vulnerabilities and develop protective measures. This includes practical steps, such as improving drainage systems to reduce flood risks and adjusting school schedules to avoid peak heat hours. The Climate Smart Education System Initiative (CSESI), with support from the UNESCO International Institute for Educational Planning (IIEP), is providing tools and knowledge to upgrade school buildings and ensure that learning continues during extreme weather events. These priorities are also embedded in the Education Strategic Plan 2024–2028, which places climate resilience at the centre of infrastructure development. In primary education, the plan calls for constructing, repairing, and renovating facilities with resilience standards, particularly in disadvantaged areas, and ensuring access to electricity, clean water, internet, and modern classroom technologies. It also promotes clean, green, and hygienic environments through environmentally friendly school programmes. At the secondary and vocational education levels, the focus is on expanding infrastructure in line with resilience and inclusiveness standards, improving WASH facilities, extending electricity and internet connectivity, and equipping schools with ICT tools to enhance teaching and learning. Together, these initiatives illustrate Cambodia's commitment to building a climate-resilient education system that safeguards students while strengthening the quality of learning environments.

Source: Cambodia, MoEYS, (2024). Education Strategic Plan 2024-2028; The Ministry of Environment, United Nations Children's Fund, Children's Climate Risk Index for Cambodia, MoE and UNICEF, Cambodia, 2024; UNESCO (2025). Q&A: How Cambodia is reimagining education amid climate change.



4.6.3 The Extent to Which Schools are Equipped for Digital Transformation

ASEAN Member States have increasingly recognised the critical role of digital infrastructure in transforming education systems, as reaffirmed in the 2022 ASEAN Declaration on the Digital Transformation of Education Systems. Figure 46 illustrates the ICT infrastructure coverage in schools across ASEAN, specifically focusing on access to computers and the internet for pedagogical purposes at the primary, lower secondary, and upper secondary levels.

Economically more developed ASEAN countries, such as Singapore, Malaysia, and Thailand, report near-universal coverage across all levels of schooling. Encouragingly, Viet Nam stands out among the CLMV countries, with more than 90 per cent of schools at all three levels equipped with computers and internet for pedagogical use. These countries are well-positioned to leverage technology to enhance teaching and learning, reflecting adequate investment in school connectivity and digital readiness.

In contrast, middle-performing systems, such as the Philippines and Indonesia, face challenges in ensuring full ICT readiness across all education levels. Neither country has achieved more than 90 per cent coverage for all levels of education in either computer or internet access for pedagogical use. However, their gaps differ in nature: Indonesia shows relatively better internet connectivity, especially at the secondary level, but lags behind in providing adequate access to computers. The Philippines, by contrast, reports comparatively stronger access to computers, yet has lower levels of internet connectivity, particularly at the primary level.

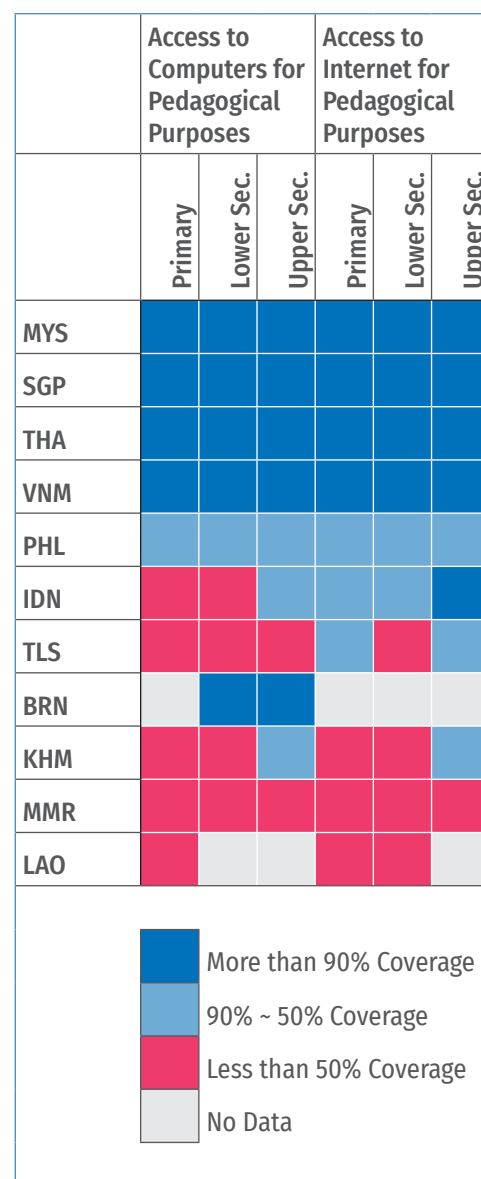


The digital divide becomes more pronounced in Cambodia, Lao PDR, Myanmar, and Timor-Leste, where coverage is often below 50 per cent, and data gaps remain. These countries face compounded challenges in ensuring digital equity in education, particularly in rural or underserved areas, and such inequities in school-level infrastructure limit the potential of technology to support inclusive and quality learning (UNESCO GEMR Team, 2023).

It is important to note that the indicators used in this figure reflect access for pedagogical purposes, meaning they capture whether ICT tools are actively used in teaching and learning processes, rather than merely their physical presence. This consideration extends to the use of artificial intelligence (AI) in education. As AI becomes increasingly embedded in education systems, it offers new possibilities for personalised learning, adaptive assessment, data-driven planning, and more efficient school management. Yet its transformative potential is accompanied by significant risks, including data privacy concerns, algorithmic bias, and the potential widening of digital divides. Strong governance and ethical frameworks are therefore essential. Ensuring that AI contributes to equitable, safe and high-quality learning requires not only robust policies and safeguards, but also sustained investment in human capacity: teachers able to use AI tools responsibly, school leaders equipped to manage data governance, and learners prepared with the digital and critical-thinking skills needed in an AI-enabled world.

Regional applications of the AI Readiness Assessment Methodology (RAM), developed under the UNESCO Recommendation on the Ethics of AI, further indicate that digital transformation across ASEAN remains uneven (UNESCO RAM country assessments, various years¹⁰). While interest in AI and advanced digital tools is expanding, readiness depends not only on connectivity, but also on broader enabling conditions. Common constraints identified across assessments include limited digital and pedagogical capacity among educators and administrators, evolving governance and regulatory frameworks, and the risk that existing

Figure 46. ICT infrastructure coverage in schools, 2025 or latest available year's value, by levels of education, in ASEAN countries



Source: UIS Database (Accessed September 2025).

¹⁰ Country profiles and country assessment reports are available on UNESCO Ethics of AI Global Hub: <https://www.unesco.org/ethics-ai/en/global-hub>.



social and geographic disparities are reproduced in digital learning environments. Inclusive and sustainable digital transformation therefore rests as much on strengthening human capacity, institutional coherence, and ethical oversight as on expanding technological provision. Sustained investment, coordinated policy action, and capacity development will be essential to ensure that no school – and no learner – is left behind in ASEAN’s digital transition.

4.6.4 Policy Implications for Enhancing Learning Environments

Expanding accessible infrastructure to support inclusive education

While the region has made notable progress in ensuring that most schools have access to basic infrastructure, such as electricity and WASH facilities, many still lack adequate provisions and materials adapted for students with disabilities. Persistent gaps in accessible classrooms, assistive devices, and inclusive WASH facilities continue to limit full participation, and data coverage on accessibility remains limited, making it difficult to monitor progress and plan effectively. Expanding investment in accessible infrastructure and strengthening national data systems on school accessibility for inclusive education can help remove barriers and promote more equitable learning opportunities across ASEAN.

Reducing digital inequities through targeted ICT investment

A pronounced digital divide persists in ICT infrastructure, particularly between rural and urban schools and across the region, with well-equipped schools concentrated in more developed Member States and significant gaps in less-resourced countries. Weak connectivity and limited access to devices hinder the effective technology integration into teaching and learning. Expanding connectivity, providing devices, and offering targeted support to underserved schools, especially in rural and remote areas, will be essential to closing the digital divide and ensuring that all learners benefit from technology-enhanced education. Investing in digital infrastructure, coupled with sustained capacity development for teachers, can help ensure that technology strengthens learning rather than reinforcing existing inequities.

Improving school safety, maintenance, and overall learning conditions

Many schools continue to face safety challenges, including overcrowded classrooms, deteriorating facilities, and exposure to climate-related hazards, such as heat, flooding, and poor air quality. Limited maintenance budgets and weak enforcement of building standards further increase structural risks. School-based violence, ranging from bullying and harassment to corporal punishment and gender-based violence, continues to undermine student well-being and disproportionately affects vulnerable groups, despite the improvements indicated by recent data. Strengthening school safety requires investment in climate-resilient and well-maintained infrastructure, regular safety audits, clear emergency protocols, and robust child-protection systems. Ensuring that schools are well-maintained, violence-free, and equipped with basic safety features can significantly enhance students’ sense of security, reduce absenteeism, and create environments where effective teaching and learning can thrive.





Tackling the invisible learning crisis through inclusive infrastructure

Limited access to adapted infrastructure and accessible learning materials is contributing to an ‘invisible’ learning crisis for children with disabilities across ASEAN. In many schools, the absence of ramps, inclusive classrooms, assistive devices, and accessible resources not only restricts physical access but also prevents students from participating fully in instruction and assessment. These barriers reduce learning time, increase absenteeism, and widen achievement gaps, showing that accessibility is not merely an access issue, but a clear learning outcome issue. Policy action is needed to expand adapted facilities, strengthen national accessibility standards, and improve monitoring systems so that learners with disabilities can engage meaningfully and consistently in education.

Strengthening system-wide readiness for ethical and equitable AI adoption

Finally, as ASEAN countries move toward digital transformation, strengthening system-wide readiness for the ethical and equitable adoption of artificial intelligence in education is becoming increasingly important. Drawing on insights from UNESCO’s AI Readiness Assessments and Singapore’s broader digital-education ecosystem, it is clear that while interest in AI-enabled teaching, learning, and administration is rising rapidly, readiness remains uneven across the region, with persistent gaps in governance frameworks, teacher capacity, and equitable access to digital infrastructure. Prioritising coherent national strategies, large-scale teacher and school-leader upskilling, and more inclusive digital infrastructure, alongside stronger research and institutional capacity, will be essential to ensure that AI supports resilient, inclusive, and future-ready education systems across ASEAN.

4.7 Teacher Development

Teachers are at the heart of education quality, shaping the learning experiences and outcomes of every student. In ASEAN, where education systems operate in diverse demographic, economic, and geographic contexts, developing and sustaining a highly skilled, motivated, and adequately supported teaching workforce is central to achieving national and regional education goals (ASEAN Secretariat, 2025b). The *ASEAN Work Plan on Education 2021–2025* and global frameworks such as SDG target 4.c recognise the need to ensure that all learners are taught by qualified, well-trained, and professionally supported teachers. Meeting this ambition requires not only strong standards for academic qualifications and pedagogical training, but also sustained attention to teacher deployment, retention, and working conditions (UIL, 2022b).

Ensuring that teachers meet national standards for teacher qualifications and training is a foundational step toward maintaining education quality. Academic qualifications ensure that teachers have the subject knowledge and background needed for their role, while pedagogical training equips them with the methods and approaches to teach effectively. Across ASEAN, progress in these areas is uneven: some countries report near-universal compliance with both requirements, while others continue to face gaps, particularly in pre-primary education. Addressing these disparities is essential to ensuring that all learners, regardless of level or location, are taught by competent and confident educators.



Beyond individual preparation, the overall adequacy and stability of the teaching workforce strongly influence the quality of learning environments. The number of trained and qualified teachers available in classrooms, how they are deployed, how long they remain in the profession, and the level of financial and professional support they receive all contribute to education outcomes. Examining teacher supply, retention, and investment together provides a comprehensive picture of the state of teacher development in ASEAN, highlighting both areas of strength and key challenges that require sustained policy attention. This section examines these dimensions in turn, assessing the extent to which ASEAN countries are meeting qualification and training standards, ensuring adequate teacher supply, and providing the conditions necessary for teachers to thrive. While data are difficult to find, the section will examine the limited evidence available on teacher presence, content mastery, and the use of effective instructional practices – factors that have a direct and powerful influence on teaching quality across ASEAN.

4.7.1 Status of ASEAN Teachers' Qualifications and Training Standards

Ensuring that teachers are both academically qualified and pedagogically trained is a critical measure of education system capacity. Academic qualifications signal that teachers possess the necessary subject knowledge and formal education background required for their role, while pedagogical training equips them with the practical skills to deliver lessons effectively, engage students, and adapt to diverse classroom needs. Together, these elements form the foundation of teaching quality. In ASEAN, however, the extent to which teachers meet these standards varies considerably across countries and education levels, reflecting differences in teacher education systems, certification requirements, and the availability of ongoing professional development opportunities.

Figure 47 presents a heatmap illustrating the percentage of teachers in ASEAN countries who are adequately trained and academically qualified across four levels of education: pre-primary, primary, lower secondary, and upper secondary. The left panel shows data for trained teachers who are aligned with SDG indicator 4.c.1, which measures the proportion of teachers who have received at least the minimum organised pedagogical training, both pre-service and in-service, required for teaching. The right panel displays qualified teachers based on SDG indicator 4.c.3, capturing the proportion of teachers who meet the minimum academic qualifications to teach at a given level in their country. The heatmap uses a color-coded scale for ease of interpretation: dark green indicates more than 90 per cent, light green reflects 50–90 per cent, orange signals less than 50 per cent, and grey denotes missing data.

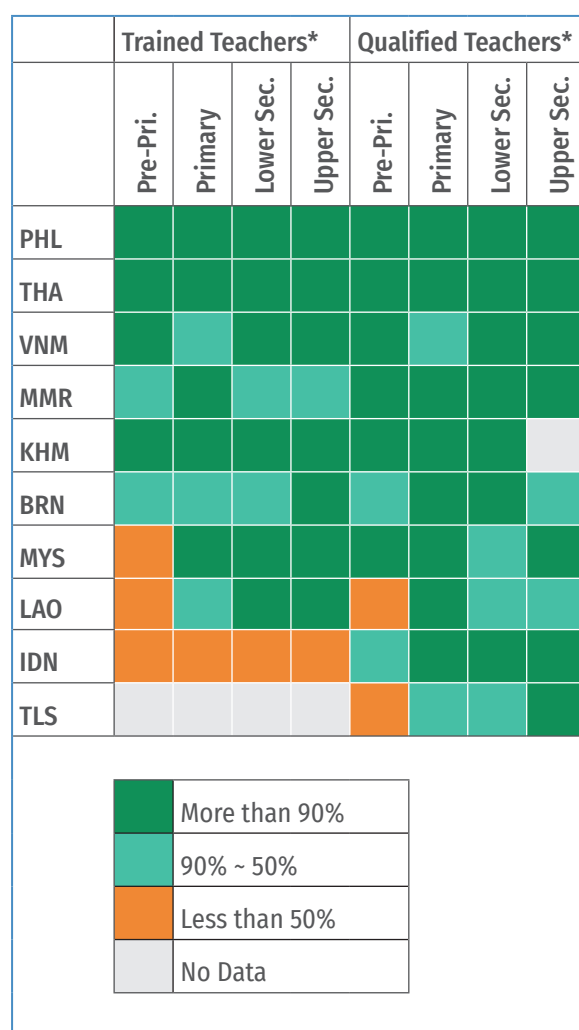
Several countries demonstrate strong performance. The Philippines and Thailand report 100 per cent trained and qualified teachers at every level, fully meeting SDG 4.c benchmarks. Myanmar and Viet Nam also demonstrate consistently high rates, with both indicators exceeding 80 per cent across all levels. Cambodia reports universal coverage at the pre-primary, primary, and lower secondary levels (all at 100 per cent), though data for upper secondary qualifications are unavailable. Brunei Darussalam similarly reflects a well-developed teacher pipeline, with most indicators above 85 per cent, except for pre-primary.

At the other end of the spectrum, Indonesia shows a pronounced gap between teacher qualification and training coverage. While academic qualification levels at the primary, lower secondary, and





Figure 47. Proportion of trained (SDG 4.c.1) and qualified (SDG 4.c.3) teachers in ASEAN countries, 2025 or latest available year's value, by level of education



Note: 'Trained Teachers' refers to SDG indicator 4.c.1 which measures the percentage of teachers who have received at least the minimum organised pedagogical teacher training pre-service and in-service required for teaching. 'Qualified Teachers' refers to SDG indicator 4.c.3 which measures the percentage of teacher who has the minimum academic qualifications necessary to teach at a specific level of education in a given country. There are no data available for Singapore in the UIS database for these indicators. In Singapore, all teachers/Education Officers in public schools are required to complete pre-service teacher training and hold professional teaching qualifications before they begin teaching.

Source: UIS Database (Accessed September 2025).

upper secondary levels fall within the dark green range (over 90 per cent), pre-primary qualification remains in orange (below 50 per cent). More notably, pedagogical training coverage across all four education levels, from pre-primary to upper secondary, also falls within the orange zone, indicating that less than half of teachers have received the minimum required training. This highlights a need to strengthen both pre-service and in-service teacher training to complement academic qualifications and enhance classroom effectiveness.

Malaysia also reflects a training gap at the pre-primary level, where coverage falls within the orange zone (below 50 per cent), while qualification levels remain relatively strong in the light green range (between 50 per cent and 90 per cent). A similar challenge is observed in Lao PDR, as both training and qualification rates for pre-primary teachers are in the orange zone. These patterns point to the need for continued investments in teacher education and professional development systems, particularly at the early childhood level.

Finally, data availability presents a limitation for several countries in assessing teacher preparedness comprehensively. Timor-Leste has not reported data on teacher training for any of the four education levels, though it has submitted qualification data for all levels.

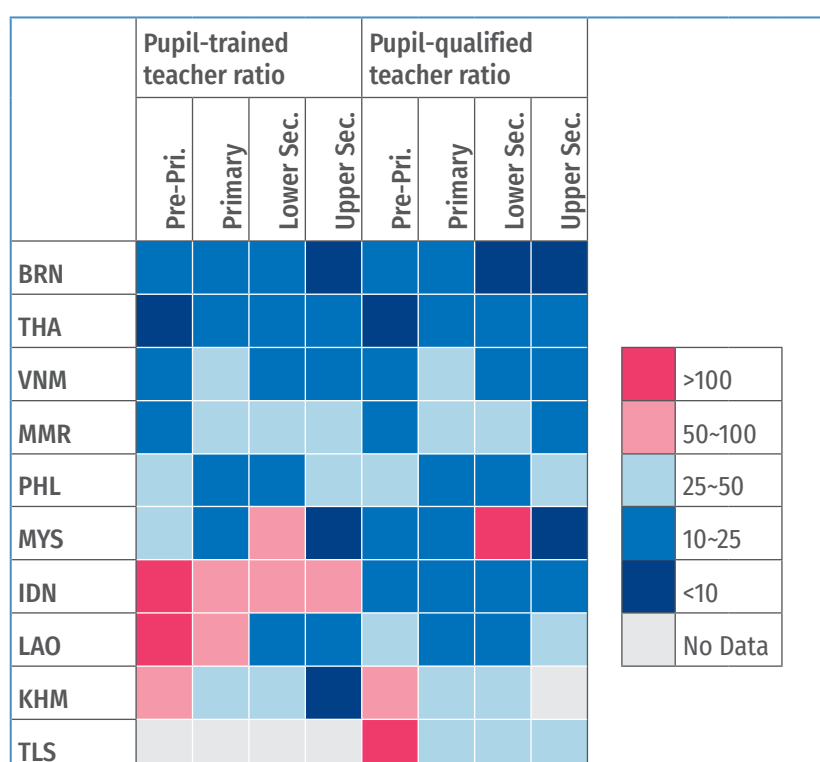
Overall, while ASEAN Member States like the Philippines, Thailand, and Cambodia demonstrate strong teacher development systems, several countries still have room for improvement in ensuring teachers are regularly trained and academically qualified, particularly at the pre-primary level. These disparities underscore the importance of targeted interventions in early childhood teacher preparation and national strategies to harmonise training with qualification requirements across all levels



4.7.2 Availability of Trained and Qualified Teachers in Schools

Figure 48 presents a snapshot of the learner–teacher dynamic in ASEAN classrooms by displaying two key indicators across four levels of education: the pupil-trained teacher ratio (PTTR) and the pupil-qualified teacher ratio (PQTR). These indicators are crucial for assessing whether systems are adequately staffed with trained and qualified teachers.

Figure 48. Pupil-trained teacher ratio & Pupil-qualified teacher ratio in ASEAN countries, by level of education, 2024 or latest available year value (headcount basis)



Note: ‘Trained Teachers’ refers to SDG indicator 4.c.1 which measures the percentage of teachers who have received at least the minimum organised pedagogical teacher training pre-service and in-service required for teaching. ‘Qualified Teachers’ refers to SDG indicator 4.c.3 which measures the percentage of teacher who has the minimum academic qualifications necessary to teach at a specific level of education in a given country. There are no data available for Singapore in the UIS database for these indicators. In Singapore, all teachers/Education Officers in public schools are required to complete pre-service teacher training and hold professional teaching qualifications before they begin teaching.

Source: UIS Database (Accessed September 2025).

According to UIS methodology, PTTR (SDG Indicator 4.c.2) reflects the average number of students per teacher who has received at least the minimum organised pedagogical teacher training, including pre-service or in-service programmes. Similarly, PQTR (SDG Indicator 4.c.4) measures the number of students per teacher with the minimum academic qualifications required to teach at that level, as defined nationally. It is important to note that both ratios consider only the trained or qualified subset of teachers, not the entire teaching workforce. As such, high values may indicate either a shortage of staff with the necessary credentials or insufficient deployment of the overall teaching workforce.





Across ASEAN, notable differences emerge both through countries and education levels. In general, countries like Brunei Darussalam, Thailand, and Viet Nam report low pupil-teacher ratios across both indicators and all levels of education, typically in the range of 10–25 students per trained or qualified teacher, suggesting relatively balanced teacher deployment where data is available. Myanmar and the Philippines report a mix of pupil-trained and pupil-qualified teacher ratios across education levels. In both countries, values fall within the 10–25 range at two levels and in the 25–50 range at the other two. For Myanmar, the higher ratios appear at the primary and lower secondary levels, while in the Philippines, they are observed at the pre-primary and upper secondary levels.

By contrast, other ASEAN countries present more varied patterns. For instance, Cambodia and Lao PDR show higher PTTR values at the pre-primary level, exceeding 50 learners per trained teacher in Cambodia's case, and above 100 in Lao PDR. In Timor-Leste, PTTR data are not available across all four levels, while PQTR for pre-primary education exceeds 50, indicating a higher student load per academically qualified teacher at that level. In Indonesia, PTTR values are relatively high across all levels of education, with values exceeding 50 at the primary level and surpassing 100 at the pre-primary level. In contrast, PTQR values are substantially lower, generally in the 10–25 or 25–50 range, which reflects the limited training coverage discussed earlier in this chapter.

In general, ASEAN countries have a sufficient number of teachers in classrooms when considering both trained and qualified teacher ratios. In many cases, PQTRs remain within moderate ranges, indicating that academically qualified teachers are generally present across education levels. However, higher PTTRs, particularly at the pre-primary level, are more commonly observed and are often driven by a lower proportion of teachers who have received the required pedagogical training. This points to training coverage, rather than teacher quantity, as a more pressing area for improvement in some contexts. Pre-primary education stands out as a level where both training coverage and teacher deployment may require further policy attention to ensure a strong foundation for early learning.



Box 19. Strengthening teacher collaboration through professional learning communities in Thailand

Thailand has prioritised the development of professional learning communities (PLCs) to reduce educational inequality and promote collaborative problem-solving among educators. Since 2017, the Ministry of Education has required all teachers to participate in at least 50 hours of PLC meetings annually for five consecutive years as a condition for career advancement. The Teachers Council reinforces this policy by incorporating PLC participation into new assessment criteria for professional positions, with an emphasis on active engagement in peer learning and mentorship. Experienced teachers are encouraged to guide and support newer colleagues, fostering a culture of shared expertise, reflective practice, and continuous improvement in teaching quality.

Source: Equitable Education Fund. (2023). *Overview of the Considerations on Policy Guidelines and Recommendations on the “Teacher Production and Development System” by the Education and Sports Training Commission, National Legislative Assembly.*



While earlier sections highlighted that most ASEAN countries have made progress in ensuring teachers are formally trained and academically qualified, SEA-PLM evidence shows that this does not always translate into appropriate classroom assignments. In several participating countries, a significant share of Grade 5 students are taught reading and mathematics by teachers who have never received subject-specific training, with mismatch rates reaching more than one in five teachers in some contexts (UNICEF, 2022). These gaps are most pronounced in rural and multigrade schools, where shortages often require teachers to teach outside their area of preparation.

SEA-PLM also finds that teachers without training in the subjects they teach report lower confidence and are less likely to use effective instructional practices, and their students tend to perform worse on literacy and numeracy assessments. This underscores that ensuring teachers are trained and qualified on paper is not enough; systems must also align teacher preparation with actual classroom assignments to strengthen instructional quality.

4.7.3 Teacher Retention and Support

Sustaining a strong and effective teaching workforce requires not only attracting qualified professionals, but also ensuring that they remain in the profession and are adequately supported. This section explores two critical dimensions of this issue: teacher attrition rates and the allocation of public education spending toward teaching staff compensation. While attrition rates reflect teacher retention and potential workforce instability, expenditure data offer insight into how education systems prioritise teaching personnel within overall budgets. Together, these indicators shed light on the level of institutional commitment to investing in and retaining teachers, a foundational element in delivering quality education across the region. Teacher attrition rate, which measures the extent of teachers leaving the profession from a given level of education, is an important indicator for assessing the sustainability and stability of the teaching workforce. This indicator measures the percentage of teachers who have left teaching in a given school year, relative to the total number of teachers employed at the beginning of that year. A higher attrition rate may suggest challenges in teacher retention, while a lower rate typically signals greater workforce stability. Where teachers teach for 30-40 years, the attrition rate will be well below 5 per cent. Attrition rates above 10 per cent indicate that the average teaching career lasts only 10 years and may signal more systemic issues in retention.

At the primary level, teacher attrition rates in most ASEAN countries with available data range between 3 and 5 per cent, including Indonesia, Malaysia, Lao PDR, and Brunei Darussalam. The Philippines reports the lowest rate at 1.5 per cent, followed by Viet Nam at 1.9 per cent, indicating stable teacher retention at this level. In contrast, Myanmar records a substantially higher attrition rate of 12 per cent, suggesting more pronounced challenges in retaining teachers. Overall, these patterns suggest that the primary-level teaching workforce in most countries across the region remains relatively stable, with limited attrition observed.

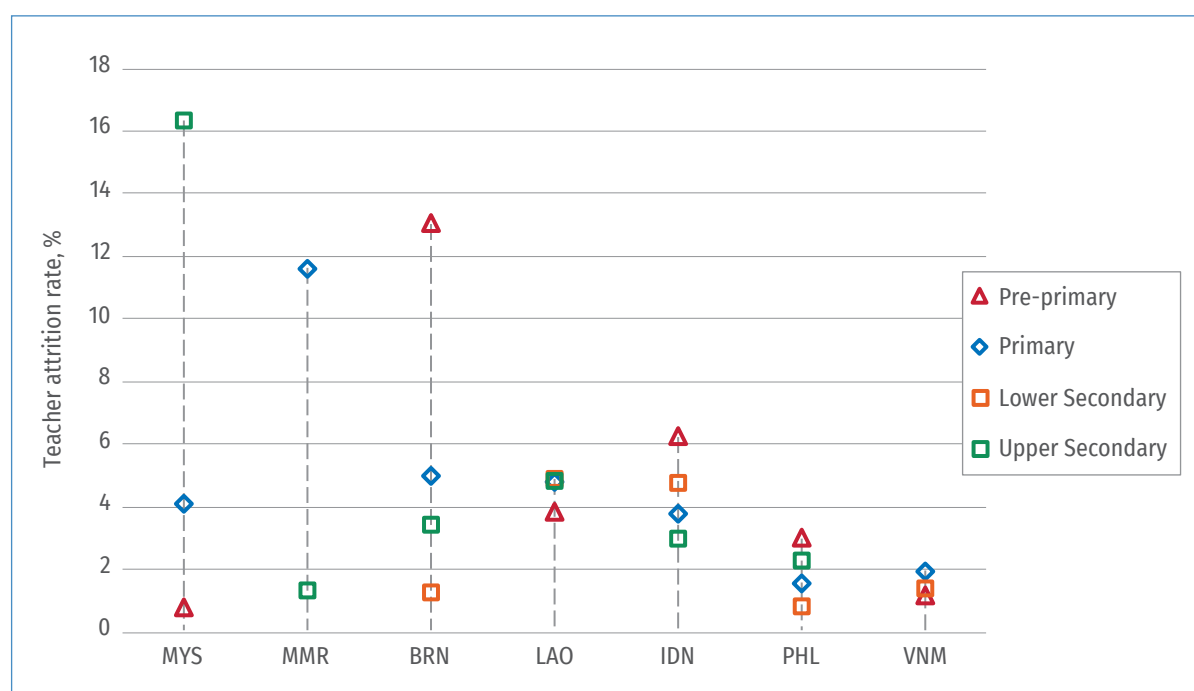
Similarly, at both lower- and upper secondary levels, moderate levels of teacher attrition are observed across ASEAN countries. All countries report attrition rates below 5 per cent at the secondary level, except Malaysia at the upper secondary level. The Philippines again leads the region, recording the lowest attrition rate at lower secondary and the second-lowest at upper secondary.





In the case of vocational secondary education, an area of growing strategic importance, data are available only for Malaysia. While comparable data are unavailable for most countries, these figures point to the need for closer monitoring of teacher retention in vocational tracks, especially given the region's emphasis on strengthening TVET systems. Sustaining a skilled and stable teaching workforce in this area is essential to ensure quality and continuity in vocational education delivery.

Figure 49. Teacher attrition rate by levels of education in ASEAN countries, 2024 or latest available year value (%)



Note: Cambodia, Singapore, Thailand, and Timor-Leste are not shown due to the absence of available data.
Source: UIS Database (Accessed September 2025).

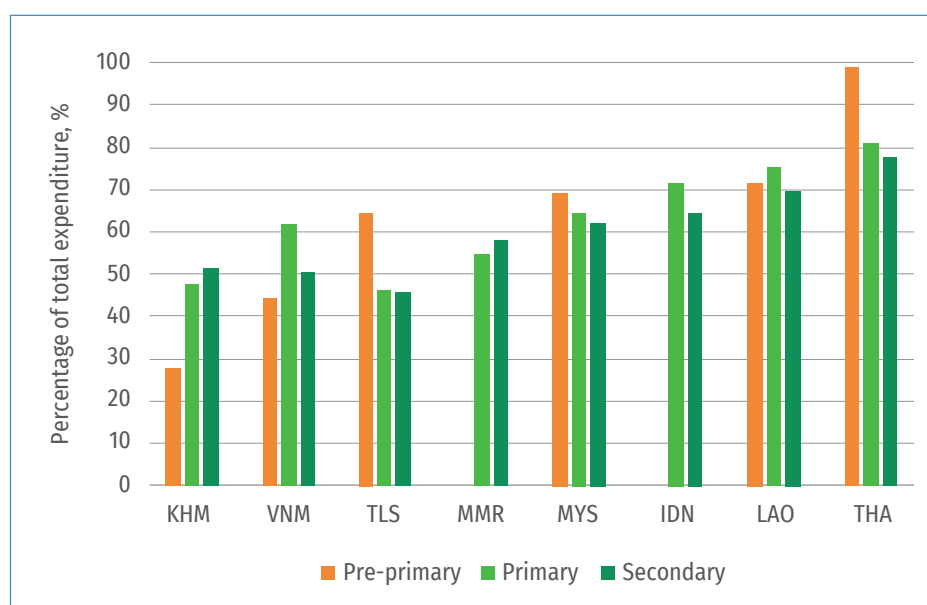
At the pre-primary level, attrition rates show considerable variation, ranging from less than 1 per cent in Malaysia to around 13 per cent in Brunei Darussalam. Combined with previously discussed challenges in training coverage and qualification at this level (Figure 47), the data underscore that pre-primary education may face multiple constraints ranging from workforce qualification and training to retention, which could affect the quality of early learning environments. While moderate attrition can be part of a healthy education system with natural career transitions, high or rising rates may signal structural issues that warrant attention in future policy and planning dialogues. From a policy perspective, countries with persistently high pre-primary attrition may need to review employment conditions, career progression pathways, and professional recognition frameworks, particularly where early childhood educators remain on contract-based or lower-status employment terms. Targeted retention strategies, including induction support for early-career teachers and structured professional development, could help stabilise the workforce at this foundational level of education.



Following the analysis of teacher attrition rates across education levels in ASEAN countries, it is equally important to consider how financial resources are allocated to support and sustain the teaching workforce. While attrition rates offer insight into workforce turnover and stability, examining the share of public education expenditure directed toward teaching staff compensation provides an additional layer of understanding regarding how governments prioritize their teaching personnel within overall education budgets. Aligning expenditure patterns with workforce strategies—particularly in systems experiencing high attrition—can help ensure that budget allocations are not only adequate in aggregate terms but also strategically targeted toward teacher sustainability and quality improvement.

As shown in Figure 50, there is significant cross-country variation in the proportion of education budgets allocated to teaching staff salaries and related compensation. At the primary and secondary levels, most countries dedicate between 50 and 75 per cent of their total public education expenditure to teaching staff. This reflects a common pattern of prioritising teacher-related spending within basic education, though the specific shares differ by country. In contrast, Cambodia and Timor-Leste report lower shares, with some levels falling below 50 per cent, suggesting a relatively greater allocation to non-salary components, such as infrastructure, materials, or administration. For policymakers, the challenge lies in striking an appropriate balance: while investments in infrastructure and learning resources remain essential, sustained improvements in teaching quality and system resilience depend heavily on competitive compensation, stable contracts, and adequate professional support. Countries allocating lower shares to teaching staff compensation may wish to assess whether current spending patterns sufficiently support teacher motivation, retention, and long-term workforce planning.

Figure 50. Teaching staff compensation as a percentage of total expenditure in public institutions, by level of education, in ASEAN countries (%)



Note: Brunei Darussalam, Singapore, and the Philippines are not shown due to absence of available data.
Source: UIS Database (Accessed September 2025).





A particularly notable contrast emerges at the pre-primary level, where countries exhibit a wide discrepancy in resource allocation. For example, Thailand allocates nearly 100 per cent of its pre-primary education budget to teaching staff compensation, while Cambodia allocates less than 30 per cent. These differences may stem from varying programme structures, delivery models, or the scale of early childhood education provision. They may also reflect differing policy choices regarding the professionalisation of early childhood educators, including whether pre-primary teachers are formally integrated into the public education system or supported through community-based or mixed delivery models. Data are unavailable for Myanmar and Brunei Darussalam at this level, limiting regional comparability.

It is important to interpret these figures with caution: a higher share of spending on teacher compensation does not necessarily indicate higher teacher salaries. Instead, it may reflect more staff-intensive models of service delivery or lower levels of non-salary expenditure. When viewed alongside teacher attrition data (Figure 49) and pupil-teacher ratios (Figure 48), the data presented here provide a more complete picture of how ASEAN education systems balance teacher deployment, retention, and financial investment. Together, these indicators reinforce the importance of aligning resource allocation strategies with efforts to stabilise and strengthen the teaching workforce, ensuring that teachers are not only present in classrooms, but also supported through adequate compensation and conducive working conditions. For policymakers, this underscores the need for integrated workforce planning frameworks that link teacher supply, deployment, career structures, and financing decisions. This is particularly important in early childhood education, where fragmentation of governance and funding can weaken long-term system coherence and sustainability.

From the data, it is evident that ASEAN countries, by and large, have teachers who meet established professional qualification and training requirements, providing an essential foundation for their education systems. However, the World Bank's *Fixing the Foundation* study shows that the factors most directly associated with effective teaching, and ultimately with learning outcomes, are what teachers do in classrooms: being present, using instructional time well, applying formative assessment, engaging in ongoing coaching, and having subject-specific preparation for foundational skills (World Bank Group, 2023). These practice-based behaviours require deliberate system action. Countries can set national standards for classroom practice, strengthen governance so that roles and responsibilities for monitoring these standards are clear, and introduce simple, regular measurement tools, such as structured classroom observations and tracking of teacher attendance and coaching participation. Embedding these expectations into school leadership routines and aligning incentives with demonstrated improvements in classroom practice can help ensure that system foundations translate into better learning.

The *SEAMEO INNOTECH Teacher Motivation in Southeast Asia* study underscores that teacher well-being and motivation are central to sustaining quality teaching across ASEAN. The study highlights how heavy administrative workloads, limited career progression, uneven deployment, and inadequate support from school leadership can erode teachers' sense of purpose and professional satisfaction. It also shows that motivated teachers – those who feel valued, supported, and equipped – are more likely to remain in the profession, engage in continuous improvement, and deliver stronger classroom practice. Strengthening teacher well-being is therefore not a peripheral concern, but a core condition for improving instructional quality and achieving better learning outcomes in the region.



4.7.4 Policy Implications for Teacher Development

Strengthening qualifications and training standards for pre-primary teachers

While ASEAN Member States have made significant progress in establishing strong teacher development systems, persistent gaps remain at the pre-primary level, where a lower proportion of teachers meet both qualification and training requirements. These gaps contribute to higher pupil-trained teacher ratios and may weaken the quality of early-learning environments. Sustained investment in pre-service preparation, structured induction, and continuous professional development, aligned with national contexts, will be essential to ensure that all young learners are taught by well-qualified and well-supported teachers from the start of their education.

Strengthening teacher professional support and career pathways

ASEAN's growing commitment to improving teacher quality provides a strong foundation for expanding professional support systems and strengthening career pathways. However, opportunities for structured professional growth, mentorship, and advancement remain uneven, particularly for teachers in rural, remote, and under-resourced schools. Limited access to continuous professional development and unclear progression routes can affect teacher motivation, instructional quality, and long-term retention. Expanding professional support structures, institutionalising mentorship, and establishing transparent, competency-based career progression frameworks can enhance teacher effectiveness and contribute to a more stable and higher performing education workforce.

Improving monitoring and management of teacher attrition

Teacher attrition is an emerging concern across multiple education levels, with some systems, especially at pre-primary and primary, facing rates high enough to affect staffing stability. In vocational secondary education, attrition also appears elevated in certain contexts, though limited data make regional comparisons challenging. Strengthening data systems to track teacher deployment, vacancies, and attrition in real time, combined with targeted retention policies, structured induction programmes, and ongoing professional support, can help maintain a stable and skilled teaching workforce and safeguard learning continuity.

Improving teacher deployment, distribution, and management

Unequal deployment, shortages of subject-specialised teachers, and weak management systems continue to limit instructional quality in several ASEAN countries. Addressing these challenges requires more transparent and data-driven teacher allocation processes, stronger incentives for deployment to hard-to-staff areas, and clearer career structures that support retention where needs are greatest. Strengthening school-level management and clarifying roles for monitoring attendance, workload, and performance can help ensure that teachers are deployed equitably and supported to deliver effective instruction.

Building teacher competencies for digital, AI, and inclusive pedagogies

The growing demand for digital literacy, AI-related competencies, and inclusive pedagogical skills represents a new frontier for teacher professionalism in ASEAN. Countries can integrate these competencies into pre-service curricula, update in-service training to include practical, classroom-focused digital and AI applications, and ensure teachers are equipped to support diverse





learners through inclusive instructional strategies. Establishing competency frameworks and monitoring the proportion of teachers trained in these areas will help systems track readiness and ensure that teaching keeps pace with evolving learning needs.

Strengthening teacher working conditions to support and sustain teacher motivation

Poor working conditions, heavy administrative workloads, unclear career pathways, uneven deployment, and limited professional support can weaken teacher motivation and well-being, leading to stress, lower job satisfaction, and reduced engagement in classroom practice. Strengthening teacher working conditions by reducing non-teaching tasks, ensuring fair workloads, and improving school-level support will contribute to sustaining teacher motivation.

Strengthening teacher deployment and assignment practices

Strengthening teacher deployment and assignment practices is essential to improving instructional quality in ASEAN. SEA-PLM evidence shows that even where countries have high proportions of trained and qualified teachers, many students are still taught reading and mathematics by teachers who lack subject-specific preparation, particularly in rural and multigrade schools. Ensuring that teachers are assigned to subjects they are trained to teach, supported with targeted professional development, and deployed according to school needs would help close these gaps and improve learning outcomes across the region.

Strengthening multigrade teaching where isolation and low enrolment demand flexible delivery

Multigrade education remains an essential strategy for ASEAN countries where geographical isolation, small school populations, and persistent teacher shortages make conventional monograde classrooms unfeasible. Rather than viewing multigrade teaching as a stopgap solution, governments should actively promote and strengthen it in contexts where it is the most effective and equitable way to ensure that all children, regardless of where they live, can access quality basic education. Investing in well-designed multigrade models, supported by appropriate training, materials, and policy recognition, is critical for reaching the last mile and advancing ASEAN's commitments to inclusion and universal learning opportunities (See Box 19).



Box 20. Multigrade Teaching: Expanding basic education access in ASEAN:

Multigrade teaching – where a single teacher educates learners from two or more grade levels in the same classroom – has long been an important strategy in ASEAN countries to **expand basic education access in remote, sparsely populated, and resource-limited communities**. In much of Southeast Asia, geographical isolation, teacher shortages, and small school populations have made traditional monograde classrooms impractical, prompting governments to adopt multigrade instruction as a **pragmatic and inclusive response** to education access challenges.



Across Southeast Asia, multigrade classes are implemented in various forms, depending on national context and schooling systems. Countries such as Cambodia, Malaysia, Myanmar, the Philippines, Thailand, Timor-Leste, and Vietnam have long operated multigrade programs as part of their basic education systems, particularly in rural and hard-to-reach areas. In many of these contexts, multigrade instruction is not merely an optional pedagogical approach, but a necessity rooted in demographic and geographic realities.

Despite its widespread use, multigrade teaching faces persistent challenges. Many ASEAN countries report **insufficient policy recognition and planning**, limited teacher training specific to multigrade pedagogy, inadequate teaching–learning materials, and weak monitoring and evaluation systems. Advocacy and capacity building remain critical to improving the quality of instruction in multigrade settings.

A systematic review of literacy practices in multigrade classrooms across ASEAN reveals that while countries like Brunei Darussalam and Lao PDR have adopted specific strategies to enhance early reading in mixed-grade contexts, others (e.g. Myanmar and Cambodia) struggle with limited materials and teacher preparedness, emphasising the need for targeted professional development and community engagement.

SEAMEO INNOTECH's Quality Indicators Framework

To support efforts to *expand access* and *improve educational quality* in multigrade contexts, the Southeast Asian Ministers of Education Organization Regional Center for Educational Innovation and Technology (SEAMEO INNOTECH) developed a regional framework of quality indicators for multigrade instruction. This framework, grounded in UNESCO's Education Quality Indicators Framework (EQIF) and adapted for Southeast Asian multigrade realities, offers a structure for governments, educators, and stakeholders to assess and strengthen multigrade teaching and learning.

Toward Enhanced Quality and Inclusion

Multigrade education in ASEAN illustrates how countries can use flexible instructional models to bring learning opportunities to all children, even in settings with limited resources. While the historical impetus for multigrade teaching in the region was predominantly driven by access challenges, ASEAN governments and regional partners increasingly recognise that quality, not just access, must be at the core of sustained educational improvement. SEAMEO INNOTECH's quality indicators offer an important tool in this effort, helping to transform multigrade classrooms from a *necessity of circumstance* to a *contextually responsive model of inclusive, quality education*.

Source: SEAMEO INNOTECH, 2012. *Quality Indicators of Multigrade Instruction in Southeast Asia*.





4.8 Education Financing

Adequate and sustained financing is essential for building education systems that are inclusive, high-quality, and resilient to future shocks. Beyond ensuring access to learning opportunities, sufficient funding underpins the development of qualified teachers, well-equipped schools, and effective governance mechanisms that drive educational improvement over time. Recognising this, the international community, through the 2015 Incheon Declaration and the Education 2030 Framework for Action, endorsed two key financing benchmarks: allocating at least 4–6 per cent of gross domestic product (GDP) and/or 15–20 per cent of total government expenditure (TGE) to education (UNESCO, 2015).

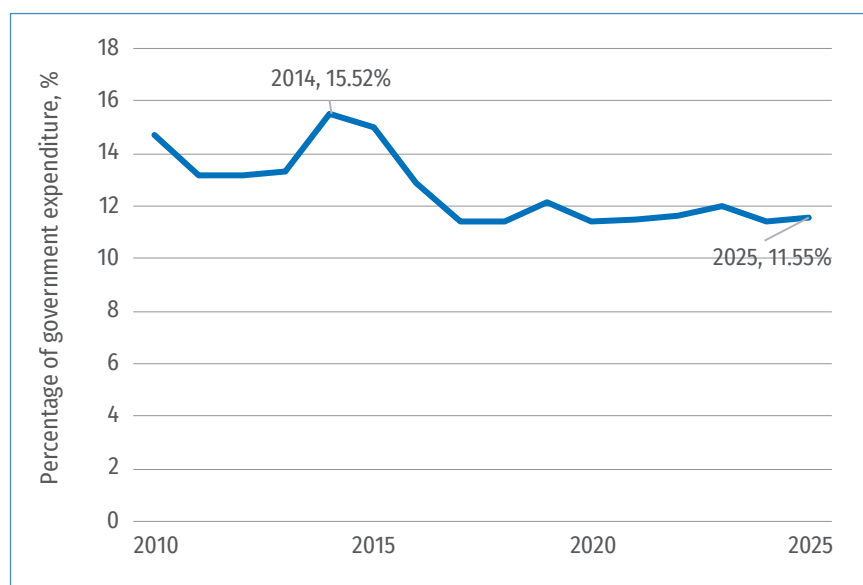
These targets serve as reference points for assessing whether national budgets provide the resources needed to meet education commitments. In ASEAN, tracking progress against these benchmarks offers an important lens on how countries are prioritising education amid shifting economic conditions, demographic trends, and competing policy demands. However, limited and uneven availability of comparable financing data across the region continues to constrain deeper analysis of spending patterns and the underlying drivers of persistent underinvestment.

4.8.1 Status of Education Financing against Global Benchmarks

Sustained and equitable financing is fundamental to building quality, inclusive, and resilient education systems. In ASEAN, however, recent trends point to a decline in education's share of public spending, raising concerns about the long-term ability of countries to meet their SDG 4 commitments. Amid the ongoing recovery from the COVID-19 pandemic and rising fiscal pressures, it is more critical than ever to monitor how public resources are allocated to the education sector and to assess whether current investment levels are sufficient to safeguard access, equity, and quality across all levels of learning. Figure 51 shows the ASEAN regional average for public expenditure on education as a percentage of total government expenditure (SDG indicator 1.a.2) from 2010 to 2025. The indicator reached its peak in 2014 at 15.52 per cent, aligning with the internationally recommended benchmark of 15–20 per cent. This period represented a high point in government commitment to education financing across the region, suggesting a strong policy environment that prioritised education as a central pillar of development.



Figure 51. Expenditure on education as a percentage of total government expenditure, ASEAN regional average, 2010–2025 (%)



Source: UIS Database (Accessed September 2025).

However, starting around 2015, the regional average began to fall significantly. The percentage dropped by more than three percentage points from 15.02 per cent in 2015 to 11.44 per cent in 2017, marking the most substantial decline in the time series. After a modest recovery by 2019, the downward trend and stagnation persisted, reaching just 11.55 per cent by 2025, well below the global benchmark and indicating a sustained erosion of education's budgetary priority.

The post-2014 decline in ASEAN's public expenditure on education as a share of total government spending reflects a combination of fiscal, political, and structural shifts rather than a single policy reversal. After a brief alignment with the 15–20 per cent international benchmark around the adoption of the SDGs, education budgets were increasingly crowded out by competing priorities, including health, social protection, infrastructure, and economic stabilisation, particularly amid slower growth and later the COVID-19 shock. In several countries, fiscal consolidation and debt management further constrained discretionary spending, while greater reliance on private provision and decentralised financing reduced pressure to maintain high central budget shares for education. As a result, even where absolute education spending continued to grow, it failed to keep pace with rising government expenditures in other sectors, leading to a sustained decline in education's relative share across the region (Perkumpulan PRAKARSA, 2024).

Building on the regional trend shown in Figure 51, Figure 52 presents a country-level comparison of education expenditure in ASEAN, illustrating both its share of total government expenditure (TGE) and of GDP, and how these values have shifted since the baseline year of 2015. The figure reveals a widespread decline in the budgetary priority given to education across the region. Most countries have moved further below the international benchmark of allocating 15 to 20 per cent of total government spending to education. For instance, reductions in the share of education in total government expenditure are observed in seven out of eleven countries. Notably, Singapore, Malaysia, Thailand, and Indonesia began above the international benchmark of 15 per cent in 2015





but have since dropped below it. The Philippines and Viet Nam have managed to remain within the benchmark range, although both are close to dropping below the global benchmark threshold. Strikingly, despite this downward regional trend, Indonesia stands out as the only ASEAN Member State with an explicit constitutional requirement to allocate a minimum share of the national budget to education, underscoring the strength of its legal commitment even as actual spending levels have declined (see Box 21).



Box 21. Financing of education in Indonesia

The financing of education is regulated in the *1945 Constitution* (UUD 1945) and *Law on Regional Government* (23/2014), which mandate that the central and regional governments must prioritise the education budget to a level of at least twenty per cent of the national and regional budgets for education.

Enacted in 2003, the *Act of the Republic of Indonesia on National Education System No. 20/2003* outlines that national and local governments must ensure the availability of funds for the implementation of education for every child aged 7 to 15. Each student from economically disadvantaged families is entitled to receive a scholarship from the government to support their education.

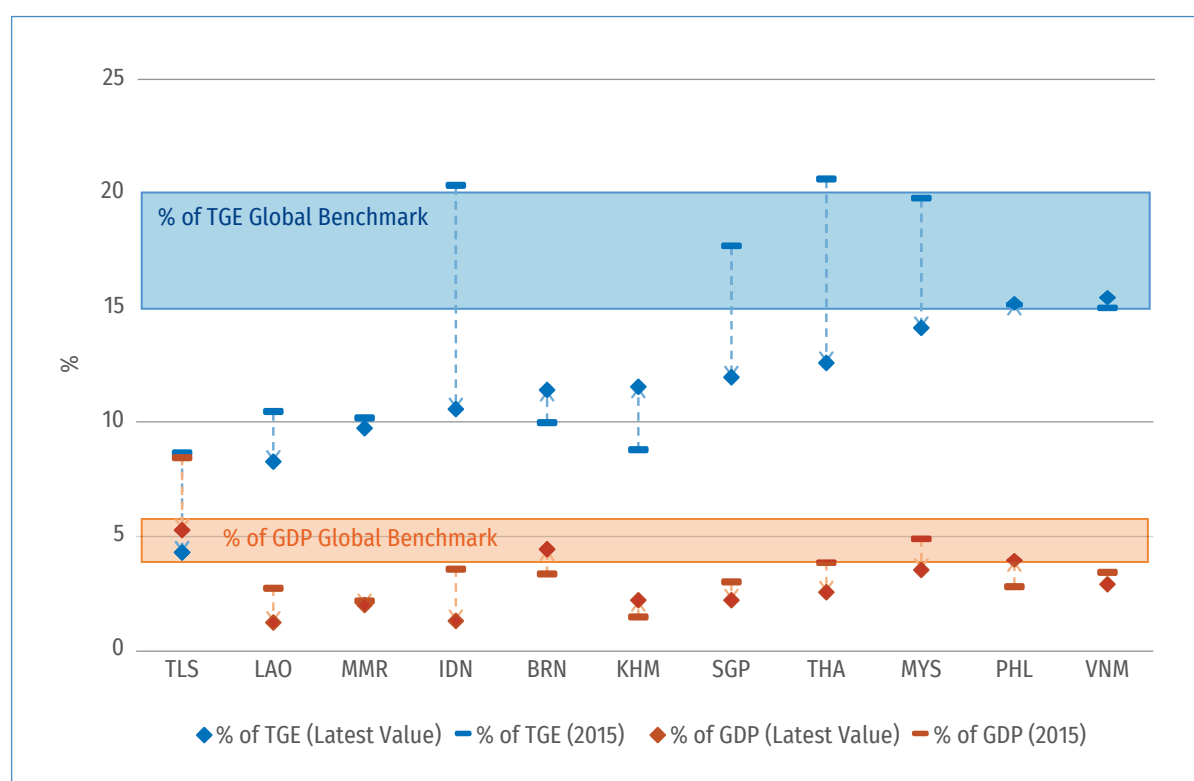
The *Law on Teachers and Lecturers No. 14/2005* stipulates that central and local governments have to provide a budget for developing academic qualifications and certification of educators for teachers in positions appointed by educational units organised by the government.

Act No. 6/2021 Regulation on Technical Instructions for Management of Funds for Regular School Operational Assistance (BOS funds) specifies the education financial reporting system. The reporting system takes a decentralised approach where schools are advised to develop a planning and budgeting system to report on how they allocate BOS funds per fiscal year

Source: UNESCO Bangkok. (2022). The financing of education in Indonesia.

When education expenditure is viewed as a share of GDP, the picture remains concerning. As shown by the brown markers, most countries in the region do not meet the international benchmark of 4–6 per cent of GDP. The overall trend indicates that education investment has not kept pace with either expanding fiscal space or increasing national income in several ASEAN countries. This signals a potential misalignment between stated commitments to human capital development and actual budgetary allocations. Sustained under-investment relative to international benchmarks may constrain progress toward improving quality, expanding upper secondary participation, strengthening teacher retention, and advancing digital transformation goals in the post-2025 period. Reversing this trend will likely require stronger political prioritisation of education within national budgeting processes, clearer expenditure targets linked to sector strategies, and improved efficiency in the use of existing resources.

Figure 52. Expenditure on education as a percentage of 1) total government expenditure (TGE) & 2) gross domestic product (GDP), in ASEAN countries, 2025 or latest value vs. 2015 baseline (%)



Source: UIS Database (Accessed September 2025).

While maintaining adequate levels of education spending is critical, it represents only one side of the financing puzzle. Ensuring the effective and efficient use of available education budgets is equally important to maximise impact, especially in resource-constrained contexts. This includes improving budget execution, targeting funds toward underserved populations, and aligning expenditures more closely with learning outcomes. Strengthening public financial management systems, enhancing data-driven planning, and increasing transparency in education spending can further improve allocative efficiency and accountability. Moreover, demographic shifts, including declining fertility rates and a potentially shrinking school-age population in several ASEAN countries, present both challenges and opportunities. While these trends may ease pressure on expanding access, they also require careful reconfiguration of education systems, including school network rationalisation, strategic teacher redeployment, and long-term investment planning, to respond to evolving population dynamics. If managed strategically, demographic transitions could create fiscal space to improve per-student investment, upgrade infrastructure quality, and strengthen teacher professional development. However, without proactive planning, they risk generating inefficiencies such as underutilised facilities, imbalanced teacher distribution, or widening subnational disparities.

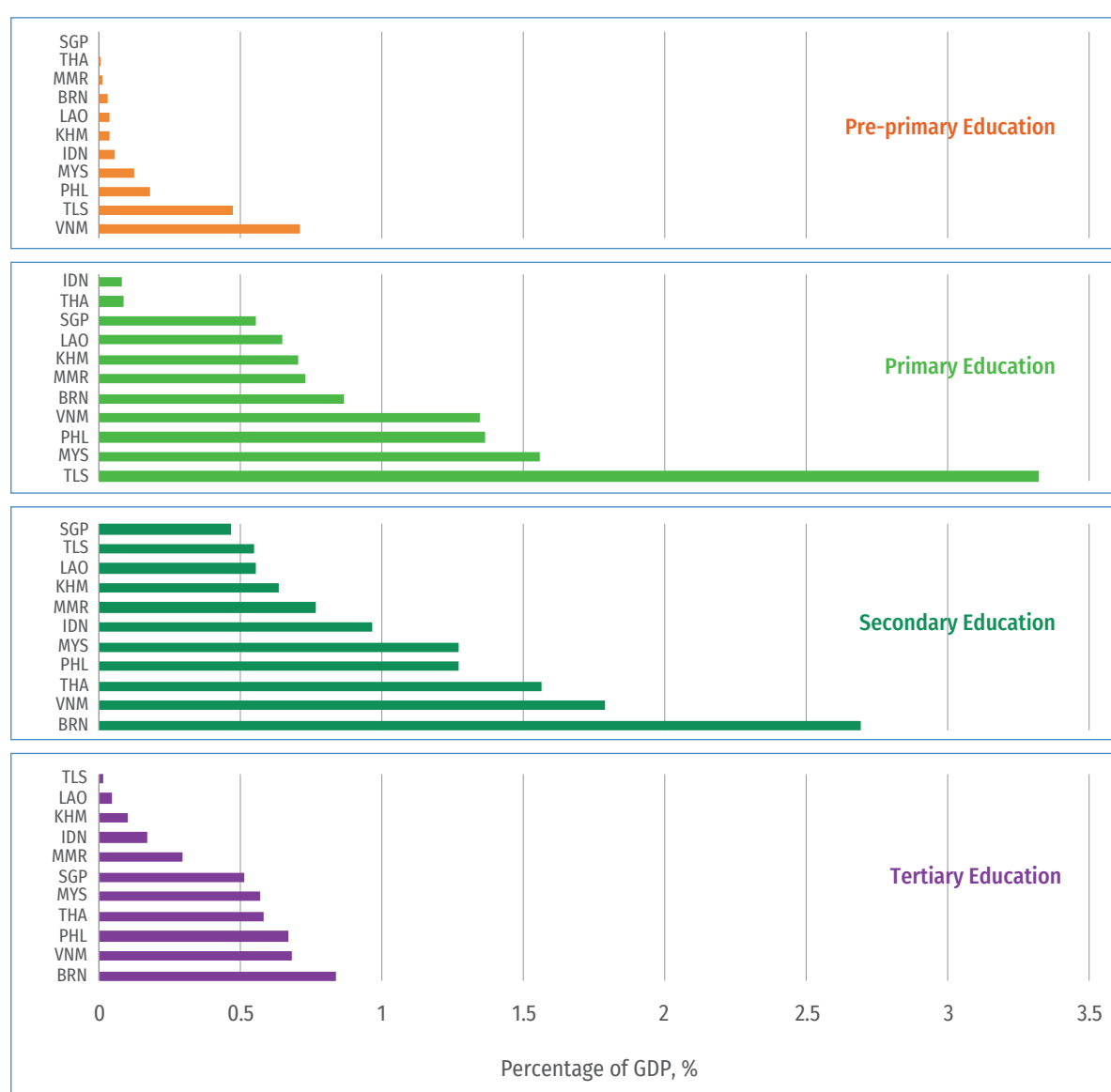




4.8.2 Allocation of Financial Resources within the Education Sector

The decline in the overall share of government budgets allocated to education across many ASEAN countries raises important questions about how limited financial resources are distributed within the sector. Even when education budgets contract, allocation patterns across different levels of education reveal national priorities and policy trade-offs. Understanding these spending dynamics is essential not only for assessing alignment with SDG 4 targets, but also for evaluating the equity, efficiency, and long-term sustainability of national education systems.

Figure 53. Government expenditure on each level of education as a percentage of GDP, in ASEAN countries, 2025 or latest value (%)



Source: UIS Database (Accessed September 2025).



Figure 53 provides a breakdown of government expenditure by education level as a percentage of GDP in ASEAN countries, offering insights into sub-sectoral spending priorities. Across the region, primary and secondary education account for the largest share of public investment, reflecting governments' continued emphasis on foundational learning and basic education in line with SDG target 4.1. Tertiary education spending is moderate, with most countries allocating between 0.5 per cent and 0.85 per cent of GDP, and more-developed economies investing relatively more at this level. This pattern suggests a balancing act between maintaining universal basic education commitments and strengthening higher education systems to support competitiveness, innovation, and human capital development.

By contrast, pre-primary education receives a comparatively small share of public funding, with most countries allocating less than 0.2 per cent of GDP to this level. Despite its well-recognised importance for long-term cognitive and socio-emotional development, investment in this sector continues to lag behind other levels of education. A substantial proportion of ECE provision, especially for children aged 0–5, is delivered by private providers, community organisations, or NGOs, which reduces the share of spending recorded in government education budgets. In addition, early childhood programmes are often distributed across multiple ministries, such as health, social welfare, and women's or family affairs, meaning that significant public investment is not captured within the education budget envelope. This fragmentation results in lower reported public spending on pre-primary education, even when families and other government entities contribute substantial resources.

From a policy standpoint, strengthening inter-ministerial coordination and improving ECE financing data consolidation could enhance transparency and support more coherent planning. As ASEAN countries look toward the post-2025 agenda, elevating pre-primary education within national budget frameworks, whether through increased direct allocation or clearer cross-sectoral financing mechanisms, will be essential to ensure that early childhood development receives the sustained public investment required for long-term system-wide gains.

4.8.3 Policy Implications for Education Financing

Restoring and protecting education spending to meet international benchmarks

Education budgets in many ASEAN countries no longer meet the internationally agreed benchmarks set by the Incheon Declaration, and the downward trend has accelerated since the COVID-19 pandemic. Reduced prioritisation for education in public budgets risks undermining progress in expanding access, improving equity, and enhancing quality, especially at a time when education systems need renewed investment to recover and build resilience. Restoring and gradually increasing the share of public resources allocated to education should be a central policy priority, supported by medium-term expenditure frameworks and mechanisms that protect education allocations during budget adjustments.

Improving the efficiency and equity of education spending

Even where education budgets are constrained, countries can strengthen system performance by improving how resources are allocated and used. Analysis shows that spending patterns across ASEAN do not always align with system needs, with underinvestment in early childhood





education, uneven funding for disadvantaged regions, and limited mechanisms to link budgets with performance or learning outcomes. Enhancing the efficiency and equity of education spending, through needs-based allocation formulas, strengthened public financial management, and better alignment of budgets with evidence on what improves learning can help countries maximise the impact of limited resources and ensure that investments reach the learners who need them most.

Prioritising investment in early childhood care and education

Pre-primary education continues to receive the smallest share of public funding in the region, despite strong evidence that early childhood investments yield high returns and help reduce later inequalities. To strengthen the foundations of learning and ensure more equitable outcomes, ASEAN Member States should consider increasing the share of education budgets allocated to ECCE, with particular attention to reaching marginalised children and improving service quality. Global and regional commitments, including the Kathmandu Statement of Action (2018), recommend allocating at least 1 per cent of GDP and/or 10 per cent of public education expenditure to early childhood as a benchmark for adequate investment.

Strengthening financial data systems to improve transparency and planning

A recurring challenge across ASEAN is the limited availability, comparability, and timeliness of education financing data, which constrains effective planning and monitoring. Fragmented reporting, particularly in early childhood education and decentralised systems, makes it difficult to assess true investment levels or identify gaps. Strengthening financial data systems, harmonising reporting standards, and improving coordination across ministries and subnational governments will be essential to support evidence-based budgeting and ensure that financing decisions align with national education priorities.



Chapter 5

Analysis of Equity in Education



Equity in education is central to achieving ASEAN's aspirations for a more inclusive, cohesive, and people-centred community. The *ASEAN Community Vision 2045* envisions a region where all individuals can realise their full potential and contribute to sustainable development. In this context, advancing equity in education is not only a matter of fairness, but also a strategic priority for building a resilient and cohesive ASEAN community.

Despite strong regional commitments and steady gains in enrolment and attainment, educational opportunities remain unevenly distributed. Learners' outcomes continue to be shaped by factors, such as household wealth, geographic location, and gender, with some groups facing persistent barriers to access and success (UNICEF and SEAMEO, 2020). Children with disabilities, students from migrant or refugee backgrounds, and those who do not speak the language of instruction at home often experience additional, and less visible, forms of exclusion.

This chapter provides a regional overview of equity in education in ASEAN by examining disparities in participation, completion, and learning outcomes using both single- and multi-dimensional disaggregation. While equity considerations have been integrated throughout earlier chapters, this chapter offers a dedicated and in-depth focus on equity in education. This chapter also identifies groups most at risk of being left behind, and highlights emerging dimensions of disadvantages that require stronger data systems, targeted policy attention, and more inclusive practices. Advancing equity is therefore fundamental to realising ASEAN's long-term vision of shared prosperity, social harmony, and inclusive human development.

5.1 Measuring Education Equity

To assess equity in education across ASEAN countries, this section draws on adjusted parity indices (API) for key education indicators. Parity indices provide a standardised measure of disparity between two population groups across these indicators. Figure 54 presents the adjusted parity



indices for selected key SDG 4 indicators, disaggregated by gender (GPIA), location (LPIA), and wealth (WPIA). Each blue dot represents a country's value, offering a concise summary of regional patterns in educational disparities.

The API is calculated as the ratio of the indicator value for the reference group (female, rural, or poorest wealth quintile) divided by the value for the comparator group (male, urban, or richest quintile), and adjusted so that values are symmetrical around 1. To ensure consistency in interpretation across indicators, values for out-of-school rates have been reversed, so that higher API values always indicate a more favourable outcome for the reference group. An index value of 1 indicates perfect parity between the two groups; values above 1 favour the reference group, while values below 1 favour the comparator group.

Achieving equity in education, however, is not simply a matter of reaching a parity index of 1.0 across all indicators. While parity suggests balanced outcomes between groups, the broader goal is to reduce persistent disparities and ensure equitable opportunities for all learners, particularly those from historically disadvantaged backgrounds. A parity index closer to 1 may sometimes obscure underlying inequalities. Conversely, an index value above or below 1 may reflect progress in expanding access or participation for historically marginalised populations. Parity indices should therefore be interpreted alongside other contextual factors, such as learning outcomes, national benchmarks, and the historical patterns of exclusion.

Analysis of Gender Parity Indices in Education: Completion, Learning, and Post-Secondary Transition (GPIA)

Gender parity trends in ASEAN reveal that female students generally experience more favourable educational outcomes than male students, particularly in basic and tertiary education. As shown in Figure 54, girls are more likely than boys to complete lower secondary education and to participate in upper secondary education in nearly all ASEAN countries. This pattern reflects a broader shift in gender dynamics, where boys are increasingly at risk of underperformance or early school leaving, especially in the later years of compulsory education (UNESCO, 2022).

Gender disparities are also evident in learning outcomes, particularly when examined through minimum proficiency levels (MPLs). MPLs, used in SDG indicator 4.1.1, are standardised benchmarks that assess whether students have acquired the foundational skills in reading and mathematics expected at a given stage of education, such as the end of primary or lower secondary education. Meeting MPLs indicates that learners have attained the basic competencies needed to progress and continue learning effectively.

In nearly all ASEAN countries, girls consistently outperform boys in reaching MPLs at the end of lower secondary education, particularly in reading. The GPIA values for reading proficiency reveal significant gender gaps in favour of girls, most notably in Brunei Darussalam, the Philippines, Malaysia, and Thailand. In mathematics, the pattern also tends to favour girls in most countries, though the gender gaps are generally narrower. These disparities reflect broader global trends and may be influenced by both classroom practices and socio-cultural factors that shape how boys and girls engage with different subjects. The consistent advantage for girls in reading, in particular, points to the need for targeted support for boys to improve foundational literacy skills and reduce risks of long-term learning gaps.

Note: Each dot represents one country's adjusted parity index (API) for a given indicator. A value of 1 indicates parity; values above 1 favour the reference group (female, rural, or poor), and values below 1 favour the comparator group (male, urban, or rich). For out-of-school rate, values are reversed so that higher values consistently reflect more equitable outcomes for the reference group. *Source:* UIS Database (Accessed September 2025).





In early childhood programmes, gender disparities in enrolment are minimal across the region. For adjusted net enrolment rates one year before primary entry age, GPIA values for all ASEAN countries fall within the narrow band of 0.9 to 1.1, indicating relatively balanced participation between boys and girls. This suggests that gender is not a major determinant of access to pre-primary education in the region, although differences may emerge as children progress through the education system.

At the post-secondary level, gender disparities begin to diverge across education streams. The gross enrolment ratio for tertiary education is predominantly in favour of female students in all but one ASEAN country, signalling higher female participation in higher education. In contrast, male students are more likely to participate in TVET programmes across the region, with all available GPIA values falling below 1. This gendered divergence between academic and vocational pathways underscores the need to challenge gender stereotypes in career guidance and subject streaming, strengthen gender-responsive counselling and information systems, and promote more balanced participation in STEM and technical fields and service-oriented disciplines. Policymakers may also consider incentives, scholarships, and awareness campaigns to encourage non-traditional enrolment patterns, alongside closer alignment between education pathways and labour-market demand. Ensuring permeability between TVET and tertiary education systems is equally important so that both women and men have flexible opportunities to transition across pathways and pursue lifelong learning.

Urban–Rural Disparities in Education Participation and Outcomes (LPIA)

Geographic location remains a critical factor in determining access to quality education across ASEAN. The Adjusted Location Parity Index (LPIA) compares education outcomes between rural and urban populations, with values above 1 indicating more favourable outcomes for rural students, and values below 1 indicating better outcomes for urban students. As shown in Figure 54, urban students are generally more likely to access and complete basic education and achieve MPLs in both reading and mathematics. This reflects long-standing urban–rural divides in education service delivery, infrastructure quality, and availability of qualified teachers (UNESCO Bangkok, 2022a).

The extent of urban–rural disparity, however, varies considerably across countries. In Lao PDR, Myanmar, and Timor-Leste, LPIA values are notably lower than in more developed ASEAN Member States, suggesting that location-based inequalities are more pronounced in lower-income or geographically dispersed contexts. These wider disparities may be linked to challenges such as limited rural school infrastructure, teacher shortages, or greater travel distances to access education in remote areas.

Data availability for LPIA is more limited at the post-secondary level, particularly for TVET and tertiary indicators. As a result, a comprehensive regional picture of location-based disparities beyond basic education remains incomplete. This gap is significant as TVET programmes play an important role in expanding learning and employment opportunities for youth in rural and remote areas, where access to academic tertiary pathways may be more limited. For many rural learners, TVET offers a practical and accessible route to acquire market-relevant skills and transition into the workforce.



Ensuring that rural populations are not left behind in the expansion of post-secondary education will require stronger data systems that can capture urban–rural differences in participation, completion, and outcomes across both vocational and academic streams. Such information is essential to designing equitable lifelong learning policies and targeted investments in TVET infrastructure and outreach across ASEAN.

■ *Wealth-Based Disparities in Education Participation and Outcomes (WPIA)*

Economic status remains one of the strongest predictors of education access, participation, and achievement across ASEAN. The Adjusted Wealth Parity Index (WPIA) compares outcomes between children from the poorest and richest household quintiles, with values above 1 favouring the poorest, and values below 1 favouring the wealthiest. As shown in Figure 54, WPIA values across key SDG 4 indicators reveal that students from wealthier households consistently experience more favourable education outcomes, particularly in countries with higher levels of income inequality or less developed education infrastructure.

In nearly all ASEAN countries with available data, children from the richest quintile are more likely to complete upper secondary education, enrol in early learning, and achieve minimum proficiency in reading and mathematics. The disparities are particularly wide for learning outcomes, where foundational skills are strongly correlated with socio-economic advantage, often due to differences in early childhood development, home learning environments, and access to support resources. These wealth-based learning gaps are not only persistent but often compound over time, creating significant disadvantages in later education and employment opportunities (UNESCO Bangkok, 2022a).

While most WPIA values for early childhood and basic education indicators fall well below parity, data for post-secondary indicators, such as tertiary enrolment and TVET participation, are more limited. However, existing evidence suggests that economic barriers remain a significant obstacle to participation in both academic and vocational education. Even when tuition is subsidised, indirect costs, such as transportation, opportunity cost of income loss, and lack of financial aid mechanisms can prevent poorer students from continuing education beyond the basic level (ADB, 2022).

Addressing these disparities will require pro-poor education financing strategies, targeted scholarships, and inclusive policies that lower the cost and opportunity burden of post-secondary education for disadvantaged populations. Moreover, expanding and improving the quality of community-based and second-chance programmes may help close the wealth gap in foundational learning and offer alternative pathways for underserved learners.

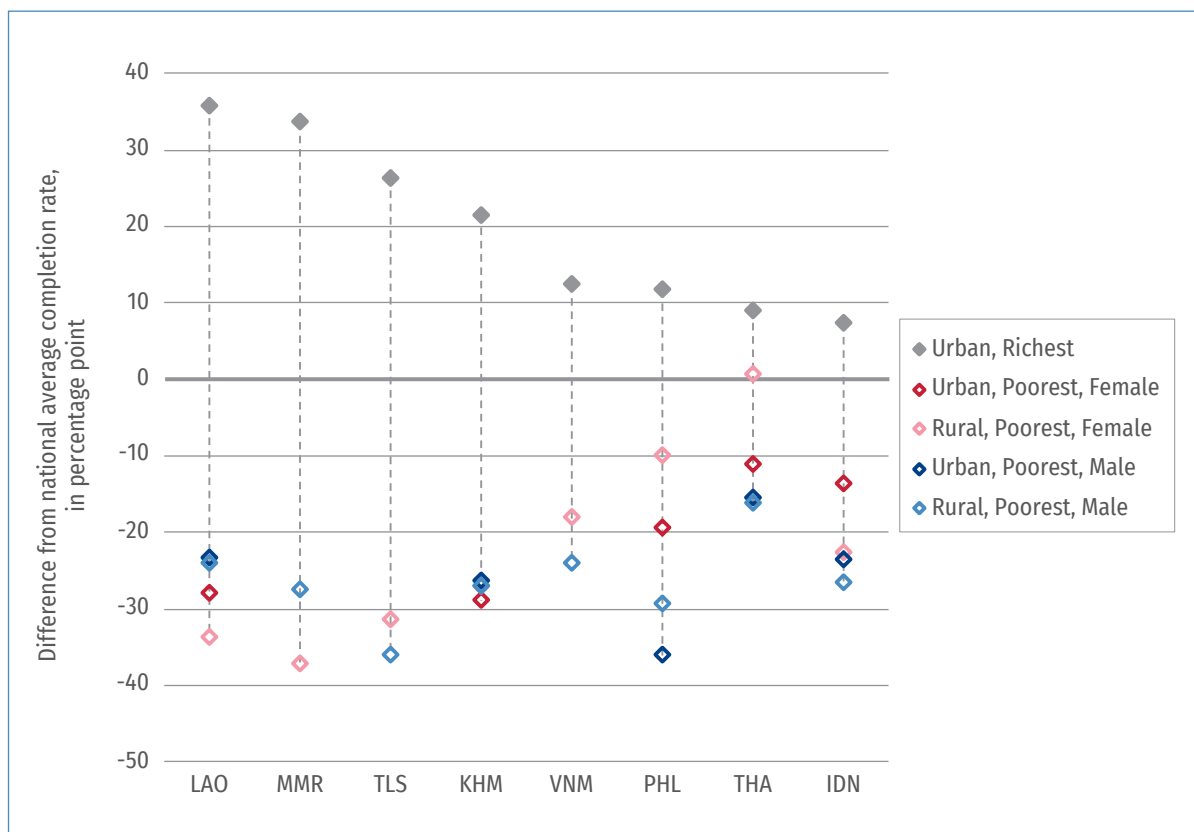
5.2 Identifying the Most Marginalised

The preceding analysis of adjusted parity indices – GPIA (gender), LPIA (location), and WPIA (wealth) – provided a high-level overview of disparities in education across ASEAN based on single-layer disaggregation. While these metrics are valuable for tracking broad trends, they can obscure the experiences of groups of learners facing intersectional disadvantage, such as students who are poor,



rural, and female, or poor, urban, and male. To better understand who is being left furthest behind, this section turns to multi-dimensional disaggregation to identify subgroups that are consistently under-represented or under-performing in key education outcomes.

Figure 55. Gap in lower secondary completion rate relative to national average, by location, wealth, and gender in selected ASEAN countries



Note: The chart shows the percentage point difference between the lower secondary completion rate of each subgroup and the national average for that country. Subgroups positioned lower on the graph are further behind the national benchmark.

Source: UIS Database (Accessed September 2025).

Figure 55 presents an analysis of lower secondary completion rates for five socio-demographic subgroups across eight ASEAN countries, defined by combinations of wealth, location, and gender. Rather than displaying absolute completion rates, the chart shows the percentage point gap between each subgroup's completion rate and the national average completion rate for that country. This provides a standardised basis for comparing how far each group is lagging (or exceeding) the overall population.

A value of zero on the vertical axis means the subgroup's completion rate is equal to the national average, while positive values indicate performance above the national average, and negative values signal performance below it. The further a data point falls below zero, the greater the educational disadvantage experienced by that group. This approach allows for cross-country comparison of inequality, even when national averages vary. The chart thus offers a clear and comparable lens



into the extent of educational exclusion faced by subgroups that combine multiple layers of disadvantage.

The patterns emerging from Figure 55 vary across countries but reveal consistent themes of inequality. In countries where subgroup disparities are relatively narrow, such as Thailand, Indonesia, and Viet Nam, the advantage held by the Urban Richest group over the national average is modest, suggesting a more equitable distribution of education outcomes overall. However, even in these systems, male students from the poorest households, particularly those in rural areas, consistently record the lowest lower secondary completion rates, making them the most marginalised group in terms of educational attainment.

In contrast, countries with wider gaps between subgroups, including Lao PDR and Myanmar, show more pronounced educational advantages for the Urban Richest group, whose completion rates can exceed the national average by 30 to 40 percentage points. In these contexts, female students from the poorest families, particularly in rural areas, are most likely to be left behind. This gendered pattern of marginalisation reflects how poverty and geography, when compounded by gender, can lead to severe exclusion from basic education.

Across the ASEAN region, students from the poorest wealth quintile, regardless of gender or location, consistently show the lowest lower secondary completion rates. In several cases, their rates fall 30 to 40 percentage points below the national average, indicating a substantial gap in educational attainment. These findings highlight the extent to which socioeconomic disadvantages remains a key determinant of exclusion from basic education, often compounded by rural residence and, in some contexts, gender. The data suggest that multiple and overlapping factors continue to shape unequal educational outcomes across the region.

To improve completion outcomes among the most marginalised groups, policy responses may need to go beyond general equity measures. Targeted interventions that address the combined effects of poverty, location, and gender can help reduce dropout risk and improve progression through lower secondary education. Such as demand-side support, flexible delivery models, and locally adapted outreach. Strengthening monitoring systems that track these intersecting dimensions of exclusion will also be important to ensure that policy efforts effectively reach the populations most at risk.

Other dimensions of educational disparity in ASEAN Region

While gender, location, and household wealth represent the most commonly measured dimensions of education inequality, they do not fully capture the breadth of disadvantage experienced by all learners. In ASEAN, there are additional population groups that face distinct barriers to accessing and benefiting from education. These include children with disabilities, migrant and stateless children, and, in some contexts, ethnic or linguistic minority groups. Although data availability remains limited for many of these dimensions, emerging evidence suggests that they contribute to systematic exclusion from schooling and unequal learning opportunities (UNESCO Bangkok, 2022a). This subsection briefly explores these less frequently quantified, yet critically important, equity concerns in the region.

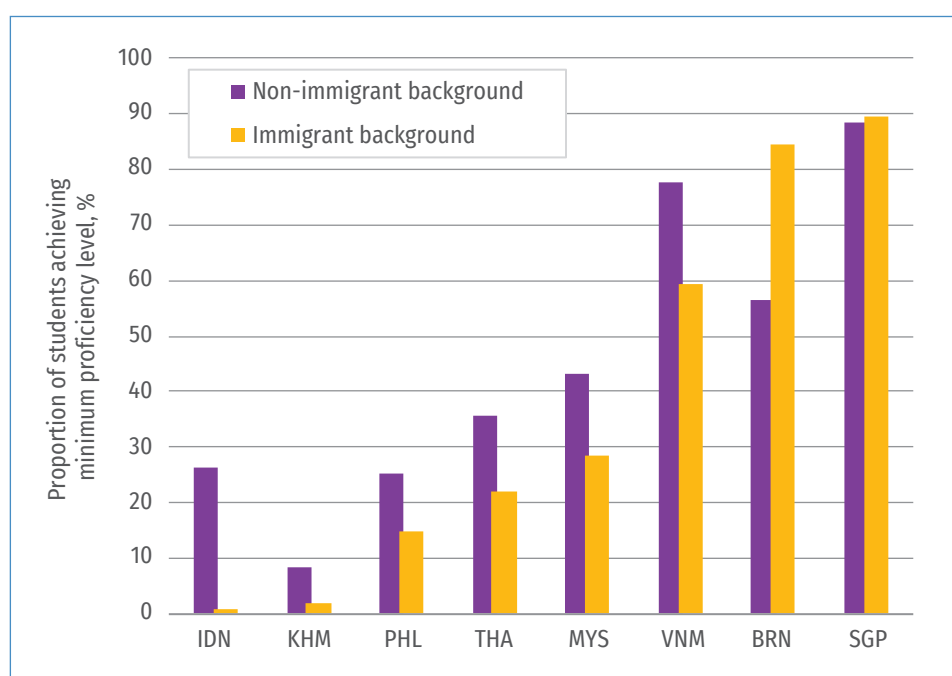
Migration, both internal and cross-border, has become an increasingly prominent feature of the ASEAN region, bringing with it a range of education challenges and opportunities. Children of immigrant or refugee backgrounds often face barriers to educational inclusion due to language



barriers, lack of legal documentation, high mobility, and socio-economic vulnerability. While data on school access and enrolment remain limited, available evidence points to gaps in learning outcomes for students with an immigration background.

As shown in Figure 56, the proportion of students at the end of lower secondary education who achieve at least the MPL in reading is generally lower among students of immigrant background compared to their non-immigrant peers. In six out of eight ASEAN countries with available data, immigrant-background students are less likely to meet basic reading proficiency level. The disparity is particularly stark in countries such as Indonesia, Cambodia, and the Philippines, where fewer than one in five immigrant-background students achieve MPL in reading.

Figure 56. Proportion of students at the end of lower secondary education achieving at least a minimum proficiency level in reading, by immigration background, 2022 values (%)



Source: UIS Database (Accessed September 2025).

These learning gaps reflect broader challenges in delivering inclusive and equitable education for mobile populations, particularly in education systems not fully adapted to language diversity or the specific needs of non-national learners. As migration continues to redefine the region's demographic landscape, ensuring the inclusion of immigrant and refugee children in national education strategies remains a key priority. Addressing these gaps often requires investment in language support, inclusive pedagogy, and administrative flexibility to ensure all learners, regardless of nationality or linguistic background, can participate meaningfully in education.

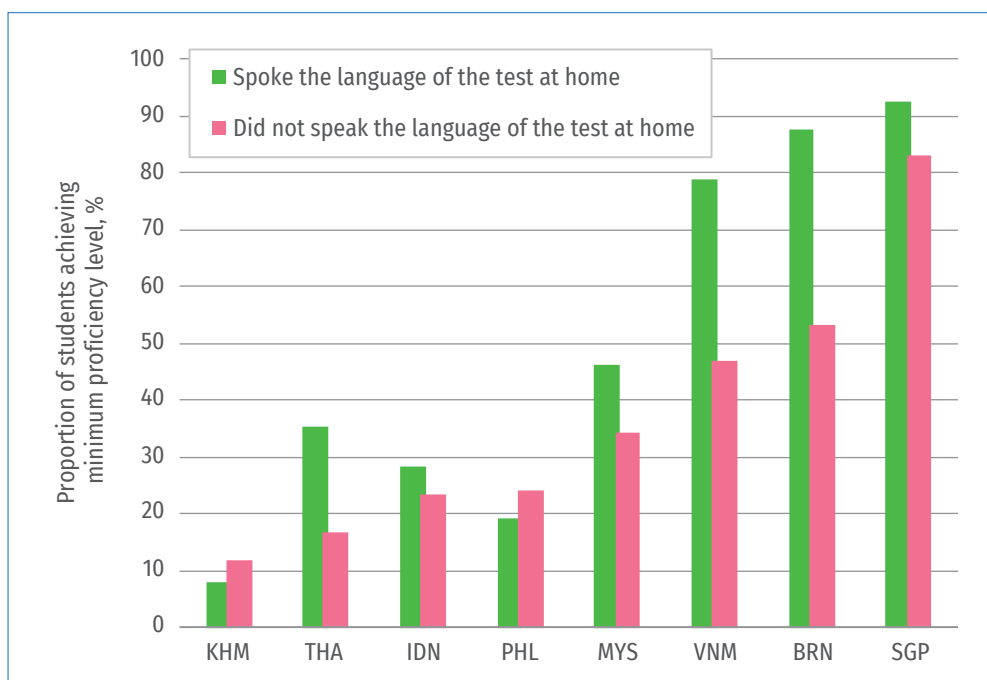
The role of language in shaping learning outcomes extends beyond migration status. In many ASEAN countries, students from non-dominant language backgrounds, even if they are citizens, are also more likely to face disadvantages in mastering core competencies such as reading. Figure 57 shows the proportion of lower secondary students achieving the MPL in reading, disaggregated by whether



they spoke the language of the test at home. In six out of eight countries with available data, students who did not use the test language at home were less likely to meet the reading proficiency benchmark. The gaps are especially large in Brunei Darussalam and Viet Nam, where the difference in achievement between the two groups exceeds 30 percentage points.

These results underscore how linguistic background can be a source of educational disadvantage, particularly where the language of instruction differs from students' home language. While student populations across ASEAN are becoming increasingly linguistically diverse, most education systems continue to rely on a single dominant or official language for instruction and assessment, creating barriers to learning. Addressing this form of disparity may require context-sensitive approaches to language in education, including early language bridging strategies, support for language acquisition, and greater pedagogical flexibility in multilingual settings. Investing in language-inclusive education policies, such as early language-bridging programmes and targeted language support, can help ensure that migrant and refugee learners are not left behind. Strengthening national data and monitoring systems to capture the education experiences of mobile and linguistically diverse populations is also essential for more responsive and equitable policy design.

Figure 57. Proportion of students at the end of lower secondary education achieving at least a minimum proficiency level in reading, by linguistic background, 2022 values (%)



Source: UIS Database (Accessed September 2025).

Last but not least, children with disabilities remain one of the most severely marginalised groups in education systems across the ASEAN region. Despite global commitments to inclusive education, large disparities persist in both access to and participation in schooling for learners with disabilities. Available data, though limited, point to extremely high levels of exclusion: in countries with available data, more than 60 per cent of children with disabilities of primary school age, and over 70 per cent of those of lower secondary age, are out of school. These figures contrast sharply with



national averages, underscoring the disproportionate barriers faced by children with disabilities. In addition, disability often intersects with other forms of marginalisation, such as poverty, rural location, and gender, compounding exclusion. Policies must address these overlapping barriers through targeted support, social protection linkages, and coordinated cross-sectoral interventions.

The underlying causes are multifaceted. These include physical inaccessibility of school facilities, lack of specialised learning materials, insufficient teacher training in inclusive pedagogy, and prevailing stigma or discriminatory attitudes. In many cases, children with disabilities are not even identified in education data systems, leading to further invisibility in policymaking and planning. Without stronger efforts to improve disability-inclusive education, both in data collection and in service delivery, this group is likely to remain at the margins of progress toward SDG 4. Strengthening disability identification within EMIS (Education Management Information System) and expanding teacher preparation in inclusive practices are critical steps toward reducing this form of exclusion.

Taken together, the disparities linked to immigration background, linguistic diversity, and disability reveal important gaps in educational equity that extend beyond the commonly monitored dimensions of gender, location, and wealth. While data coverage remains uneven, the available evidence highlights how specific population groups face compounded and often less visible forms of exclusion from education systems in ASEAN. Addressing these disparities will require not only more comprehensive and disaggregated data, but also targeted, context-sensitive policies that prioritise inclusion, especially at early and basic education levels. Investing in accessible school environments, expanding community-based support services, and ensuring that national education plans explicitly include these groups can help close the most persistent equity gaps.

Across ASEAN, inequities in teacher deployment, learning environments, and education financing continue to shape who has access to quality learning. Remote and disadvantaged communities are more likely to face shortages of qualified teachers, weaker school infrastructure, and limited digital access, while constrained and uneven public financing reduces the ability of systems to target resources to the learners who need them most. These structural disparities reinforce existing socioeconomic and geographic inequalities, placing marginalised groups at greater risk of exclusion. As ASEAN Member States continue to pursue the goals of SDG 4, ensuring that no learner is left behind, including those currently under-represented in national statistics, will require coordinated action across these interconnected system areas to realise the full promise of equitable and inclusive education for all.

Across ASEAN, inequitable teacher deployment remains one of the most persistent barriers to equal learning opportunities. Urban and better-resourced schools tend to attract more qualified and experienced teachers, while remote, rural, and disadvantaged communities often face shortages, higher turnover, and reliance on less-qualified staff. These disparities compound existing inequalities: learners who already face socioeconomic or linguistic disadvantages are the least likely to be taught by well-prepared teachers. Ensuring equitable deployment, through incentives, transparent allocation systems, and stronger support for hard-to-staff areas, is essential to narrowing learning gaps across the region.

Learning environments across ASEAN vary widely, with schools in remote or low-income areas more likely to experience overcrowded classrooms, limited learning materials, inadequate sanitation, and weaker digital connectivity. These conditions directly affect student safety, engagement, and readiness to learn, and they disproportionately impact marginalised groups, such as rural learners,



ethnic minorities, and children with disabilities. Addressing these disparities requires targeted investment in school infrastructure, digital access, and inclusive design so that all learners, regardless of geography or background, can benefit from safe, supportive, and enabling learning environments.

Public education spending in ASEAN remains uneven, and limited fiscal space often constrains the ability of governments to direct resources toward the learners and schools most in need. In several countries, high reliance on household spending deepens inequities, as poorer families are less able to absorb the costs of schooling. At the same time, gaps in financing data make it difficult to assess whether budgets are reaching disadvantaged groups or aligning with equity goals. Strengthening financing systems through better data, more progressive allocation formulas, and increased investment in underserved levels, such as pre-primary, can help ensure that resources are distributed in ways that reduce, rather than reinforce, existing inequalities.



Box 22. Inclusive education through better data: Disability-disaggregated evidence from Indonesia

Internationally comparable disability-disaggregated education statistics has remained an issue around the world, making it difficult to assess progress toward including students with disabilities in mainstream education systems. Efforts are gradually emerging across ASEAN to strengthen disability-disaggregated data. Indonesia provides one such example, with its National Socio-Economic Household Survey (SUSENAS) collecting disability-disaggregated education data on a regular basis. Since 2012, SUSENAS has included disability-related questions. Initially, these relied on self-reported impairments, such as vision, hearing, or mobility difficulties, which tended to underestimate prevalence. More recently, the survey adopted the Washington Group Short Set questions to capture functional difficulties in seeing, hearing, walking, remembering, self-care, and communicating, offering a more robust and internationally comparable measure.

Figure 58. Percentage of Indonesia population aged 15 and over by highest level of education completed and disability status, 2024 value, both sexes (%)

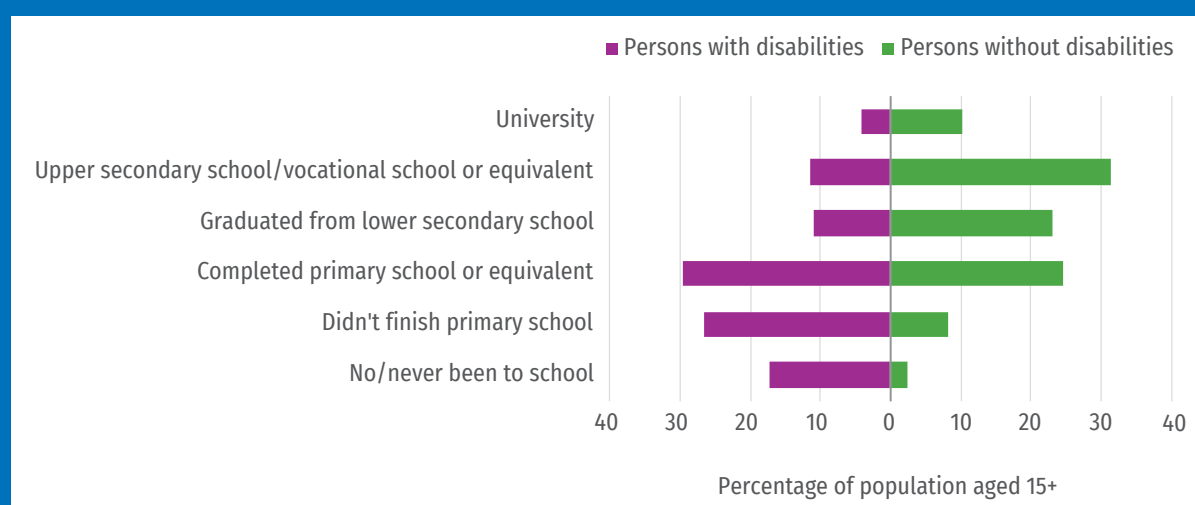
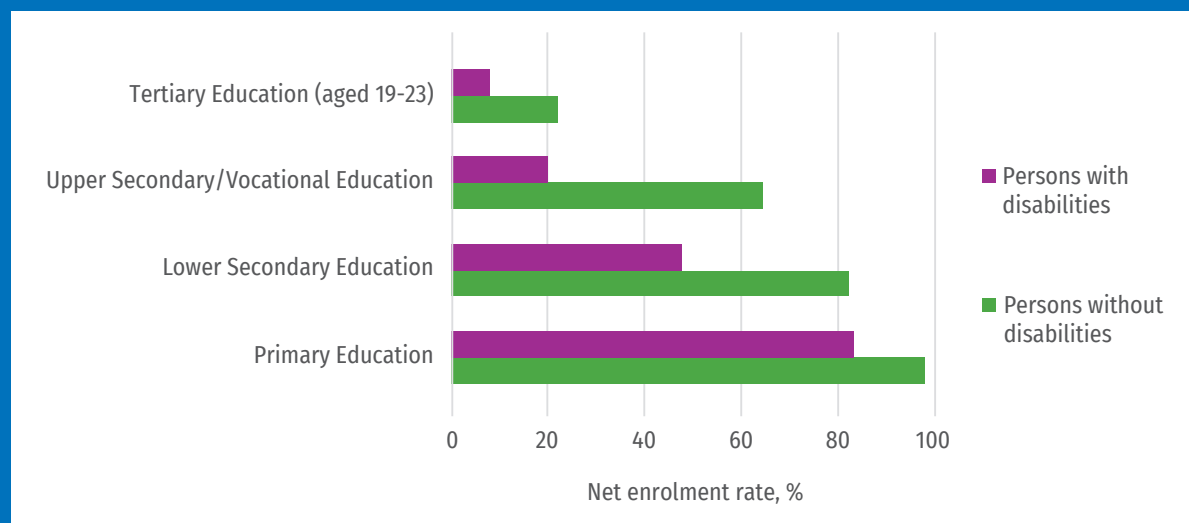




Figure 59. Net enrolment rate by education levels and disability status, 2024 value, both sexes (%)



Source: SUSENAS 2024, BPS – Statistics Indonesia.

As shown in charts above, based on data from the 2024 SUSENAS, we can observe clear disparities in educational attainment and participation between persons with and without disabilities. A significantly larger proportion of persons with disabilities report never attending school or not finishing elementary education compared to their peers. By contrast, far fewer manage to progress to junior high, senior high, or college. While more than 60 per cent of persons without disabilities aged 15 and over have graduated from lower secondary education or higher, only a minority of persons with disabilities have educational attainment beyond completing primary school. The gap becomes even more pronounced at upper secondary and tertiary levels. Only a small share of young people with disabilities enter tertiary education, compared with more than one-fifth of their peers without disabilities. These patterns demonstrate that, while access to primary education has expanded, children and youth with disabilities continue to face cumulative disadvantages as they move through the education system.

The Indonesian example illustrates both the scale of the challenge and the importance of reliable, disaggregated data. For ASEAN as a whole, the experience underscores the need for harmonisation of disability data collection, aligned with the Washington Group Questions, to enable comparability and track progress over time. It also highlights the urgency of strengthening national education management information systems and promoting cross-country learning on inclusive education practices. Without better data, children and youth with disabilities risk remaining invisible in national and regional monitoring, making it harder to design effective policies and programmes that can close persistent gaps in educational access and attainment. Moreover, the intersection of disability with other sources of disadvantage, such as poverty, gender, or rural location, often compounds exclusion. Paying greater policy attention to these overlapping inequities will be essential to ensure that no learner is left behind in ASEAN's education systems.

Source: BPS – Statistics Indonesia, (2024). *Education Statistics 2024 (Statistik Pendidikan 2024)*; BPS – Statistics Indonesia, (2016). *Measuring Disability in Indonesia*.



5.3 Policy Implications

Address gendered patterns of disadvantage affecting both boys and girls

Gender parity indicators show that girls outperform boys in lower secondary completion and in MPLs, especially in reading, while in several lower-income and rural contexts, poor rural girls remain at heightened risk of exclusion. Implement gender-responsive strategies that support boys' learning engagement and retention, particularly in literacy and lower secondary, while simultaneously strengthening protections and targeted support for girls in poor and rural households, who face compounded risks of dropout and limited transition opportunities.

Prioritise rural and remote areas where educational disadvantage is most concentrated

Location-based indicators consistently favour urban learners, and multidimensional analysis shows that rural poor boys and girls are among the most marginalised groups in the region. Direct resources toward rural and remote schools through improved teacher deployment, targeted infrastructure investment, and flexible delivery models that reduce geographic barriers to participation and completion.

Expand pro-poor measures to close persistent wealth-based gaps

Wealth is the strongest and most consistent predictor of exclusion, with children from the poorest quintile showing the lowest attendance, completion, and learning outcomes. Scale up pro-poor financing, including scholarships, cash transfers, and subsidies for indirect costs, alongside targeted academic support and second-chance programmes to ensure that learners from low-income households can progress through basic and post-basic education.

Strengthening intersectional equity monitoring to identify and support the most marginalised learners

Single-dimension parity indices mask deeper exclusion among learners who face overlapping vulnerabilities, such as poverty, rurality, gender, disability, migration status, and linguistic background. Data gaps remain significant for disability, language of instruction, and migrant or stateless children. Invest in equity measurement systems that incorporate intersectional analysis across all dimensions of disadvantage. Strengthen EMIS and household surveys to capture disability, language, and migration status, enabling governments to identify who is being left behind and design targeted, evidence-based interventions.

Strengthening equity through systemwide improvements

Equity challenges in teacher deployment, learning environments, and education financing continue to shape who gains access to quality learning across ASEAN. Schools in disadvantaged areas often face shortages of qualified teachers, weaker infrastructure, and limited resources, while constrained and uneven public spending reduces the system's ability to target support to the learners who need it most. Addressing these interconnected gaps is essential to ensuring that no learner is left behind as countries advance toward SDG 4. Strengthen equity by improving teacher allocation to underserved areas, investing in safe and inclusive learning environments, and directing financing toward the most disadvantaged learners and levels.



Expanding mother-tongue-based or bilingual education in the early grades and equip teachers for multilingual classrooms

The region is home to large populations of ethnic and linguistic minority groups, many of whom do not speak the languages used in classrooms; as a result, language mismatch between home and school is common and contributes to early barriers in participation and learning. Studies show that children who do not speak the language of instruction at home face significant disadvantages in reading, writing, and mathematics, reflecting both linguistic barriers and overlapping socio-economic factors. These learners often enter school with lower language readiness, participate less confidently in class, and are less likely to reach MPLs, reinforcing early and persistent inequities. Addressing these gaps requires policies that recognise linguistic diversity as a core equity issue. Governments can strengthen learning outcomes by expanding mother-tongue-based or bilingual education in the early grades, equipping teachers with strategies for multilingual classrooms, and ensuring that teaching and learning materials are available in languages children understand. A concrete policy action is to institutionalise early-grade language assessments and use the results to guide targeted support for learners whose home language differs from the language of instruction.



Chapter 6

Assessing Progress Using SDG 4 Benchmarks



The chapter provides an overview of how ASEAN Member States are advancing toward their national commitments under SDG 4 by examining the establishment, coverage, and implementation of SDG 4 national benchmarks. It explains the rationale behind benchmarking as a mechanism to translate global education ambitions into measurable national targets and outlines the regional processes that have supported countries in defining and reporting these benchmarks.

Drawing on the agreed set of indicators for international monitoring, this chapter reviews the extent to which benchmarks have been adopted across the region and assesses progress since 2015, highlighting areas of acceleration, stagnation, and data gaps. Together, these analyses offer a consolidated picture of ASEAN's trajectory toward its 2025 education targets and the readiness of national systems to achieve the broader 2030 agenda.

6.1 SDG 4 National Benchmarks for ASEAN

To ensure accountability and sustained progress towards the achievement of SDG 4, countries have committed to setting national SDG 4 benchmarks, which are quantitative targets for selected education indicators to be achieved by 2025 and 2030. These benchmarks represent each country's contribution to the collective global education agenda while reflecting its unique starting point, development priorities, and pace of progress. Ideally grounded in national education policies and plans or regional frameworks, these benchmarks serve as a bridge between global aspirations and national realities.

Establishing SDG 4 national benchmarks serves several objectives. It enhances accountability by translating global commitments into measurable national targets; contextualises progress monitoring to reflect each country's specific circumstances and ambitions; and strengthens coherence across national, regional, and global education agendas. Benchmarking also helps identify critical data gaps, reinforces the importance of evidence-based planning and target-setting within national systems, and promotes mutual learning among countries through the exchange of experiences, challenges, and good practices (UIS, 2025a).



The concept of benchmarking was formally introduced in the Education 2030 Framework for Action, adopted alongside the SDG 4 agenda in 2015. The Framework of Action called upon countries to establish intermediate national targets to address the ‘accountability deficit’ associated with longer-term global goals. In response, the UIS and the Global Education Monitoring (GEM) Report, mandated to jointly coordinate global SDG 4 monitoring, have supported countries in developing and reporting national benchmarks since the adoption of the SDG 4 monitoring framework by the United Nations General Assembly in 2017 (UIS, 2025b).

At the regional level, UIS, as the technical lead for SDG 4 monitoring, has worked closely with UNESCO Bangkok and the Learning and Education 2030+ Networking Group (formerly the Regional Thematic Working Group on Education 2030+) to facilitate the benchmarking process in Asia and the Pacific. In 2021, five subregional technical consultations were organised to engage Member States in defining the process and agreeing on a common set of benchmark indicators and their target levels.

As a result of this collective effort, a set of eight SDG 4 indicators has been agreed upon for international monitoring. Most ASEAN Member States have now established national benchmarks for several SDG 4 indicators, demonstrating the region’s strong commitment to evidence-based education planning and progress monitoring.

Table 3. SDG 4 benchmark indicators

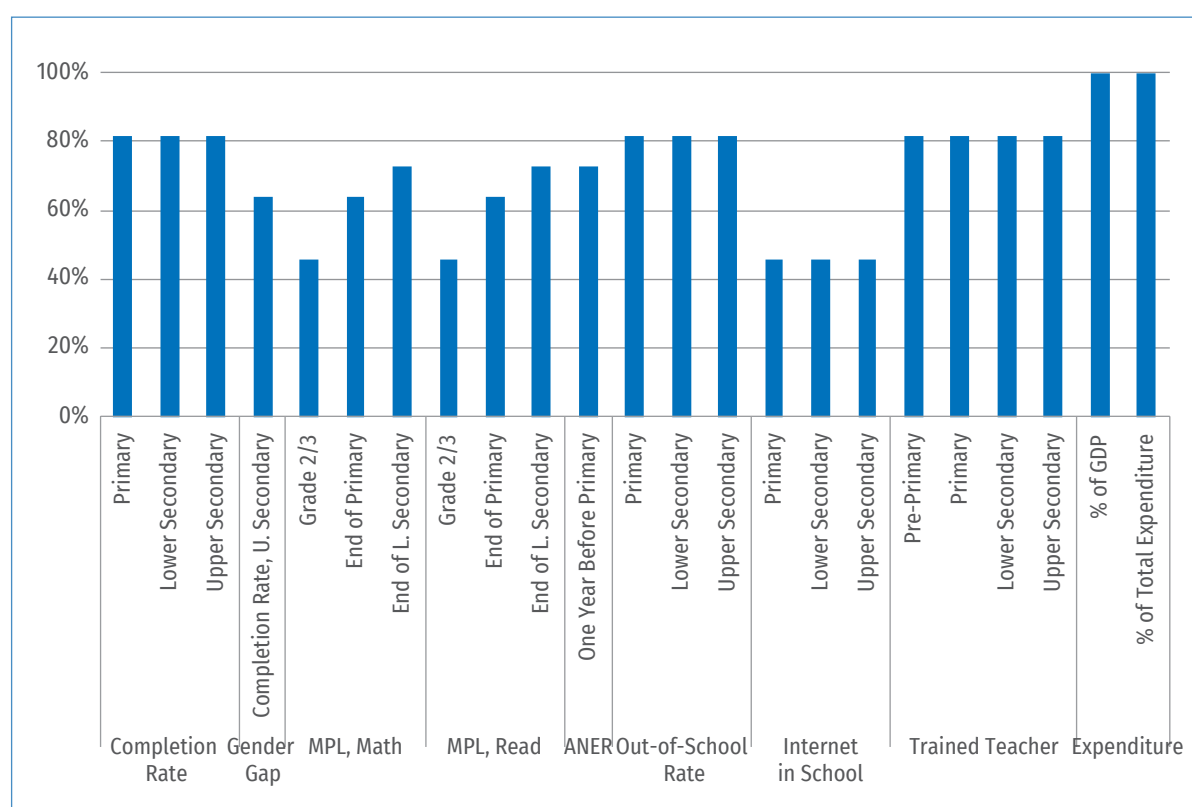
Thematic area	Indicator	Description	Disaggregation
Early childhood	Global Indicator 4.2.2	Participation rate one year before primary	
Basic education	Thematic indicator 4.1.4	Out-of-school rate	Primary school age; Lower secondary school age; Upper secondary school age
	Global indicator 4.1.2	Completion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



Benchmarks related to education expenditure, both the share of total public expenditure and the share of GDP, show the highest level of adoption, with all ASEAN countries having set targets for these indicators. A large proportion of Member States have established national benchmarks for completion rates across all three education levels, as well as for participation one year before primary education, underscoring the region's emphasis on access and completion throughout the education cycle.

Indicators related to out-of-school rates and MPLs have similarly achieved relatively broad coverage, though fewer countries have submitted benchmarks for early grade learning outcomes in reading and mathematics. Benchmark coverage is also comparatively lower for school connectivity (proportion of schools connected to the internet), reflecting data availability challenges and variations in national priorities in this area.

Figure 60. Percentage of ASEAN countries which have established national benchmark values, by indicator (%)



Source: UIS Database (Accessed September 2025).

Taken together, the current set of national benchmarks provides a valuable foundation for tracking ASEAN's progress toward its collective education goals. It reflects a region-wide effort to translate global commitments into measurable, nationally relevant outcomes that align with both regional priorities and country-specific contexts. Building on this foundation, the following section presents a summary assessment of progress across benchmark indicators since 2015. It examines how ASEAN Member States are advancing toward their national targets for 2025 and assesses the likelihood of achieving them by the target year. For countries that have not formally set benchmarks for specific



indicators, progress is evaluated against projected values, defined as the levels they would reach if they maintained the historic pace of improvement observed among the fastest 25 per cent of countries globally.

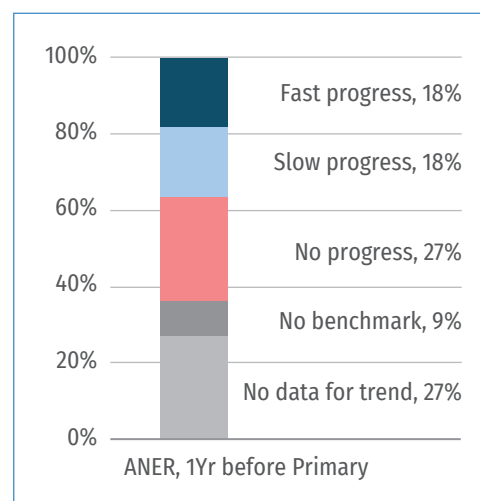
To provide a consistent analytical framework, four categories are used to capture the speed of progress and its implications for the probability of achieving the benchmarks, while two additional categories are for cases where data are limited or unavailable. By strengthening the use of national benchmarks within sector planning, monitoring, and resource allocation processes, countries can better identify gaps, target interventions, and accelerate progress toward their education commitments.

6.2 Progress Toward 2025 National Benchmarks

To assess how ASEAN Member States are advancing toward their national SDG 4 benchmarks, an analysis was conducted on the speed of progress for each country across the agreed indicators. This analysis classifies countries according to their rate of improvement relative to their 2025 national targets, providing a comparative view of performance across the region. By identifying whether countries are on track, progressing slowly, or facing stagnation, the classification helps to highlight where additional policy attention and targeted interventions may be needed and supports evidence-based decision-making to accelerate progress in priority areas.

SDG Indicator 4.2.2 – Adjusted Net Enrolment Rate, One Year Before Primary-Entry Age

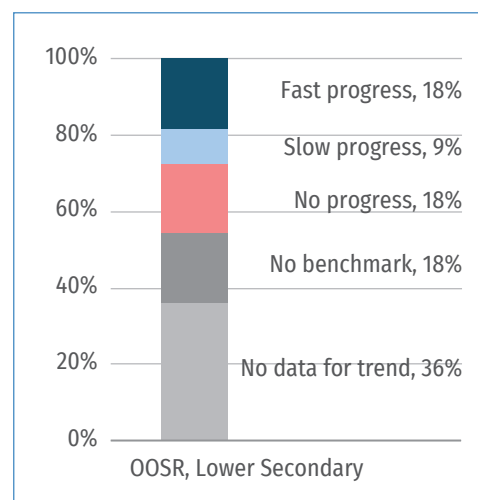
Analysis of the adjusted net enrolment rate one year before primary school entry shows mixed progress across ASEAN Member States. Since 2015, 18 per cent of countries have made fast progress toward their national benchmarks and another 18 per cent have shown slow progress, while 27 per cent recorded no progress. For 9 per cent of countries, no benchmark has been established, and 27 per cent lack sufficient data for trend analysis. Given the importance of early learning for long-term cognitive development and overall well-being, greater policy focus is needed to expand quality pre-primary opportunities and ensure all children can participate in early education. Stronger national commitments to early childhood education, including increased public financing, expansion of regulated pre-primary provision, and systematic integration of early learning indicators into EMIS, are essential to accelerate progress and reduce persistent inequities in access.





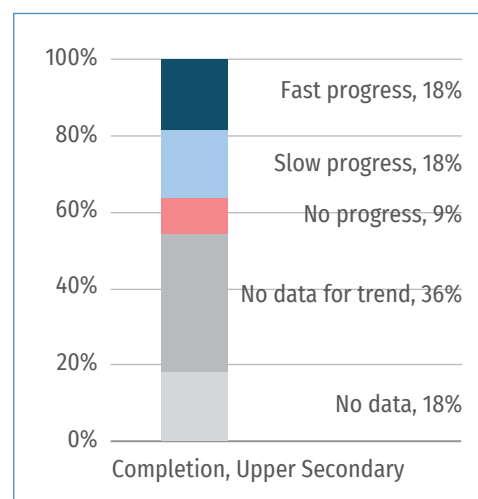
SDG Indicator 4.1.4 – Out-of-School Rate, Lower Secondary

Analysis of the out-of-school rate for lower secondary school-age children indicates uneven progress across ASEAN Member States. Eighteen per cent of countries are making fast progress toward reducing out-of-school rates, while 9 per cent show slow progress and 18 per cent have made no measurable progress toward their 2025 benchmarks. However, a major challenge remains in the limited data availability: 36 per cent of countries lack trend data to assess progress and 18 per cent have yet to establish national benchmark values for this indicator. Strengthening data systems and monitoring capacities will therefore be critical for tracking participation and ensuring that all adolescents can complete lower secondary education. Targeted policy measures, such as expanding early warning systems, improving transition support between primary and lower secondary, and addressing socio-economic barriers that drive early dropout, will be essential to accelerate progress and reduce persistent exclusion.



SDG Indicator 4.1.2 – Completion Rate for Upper Secondary

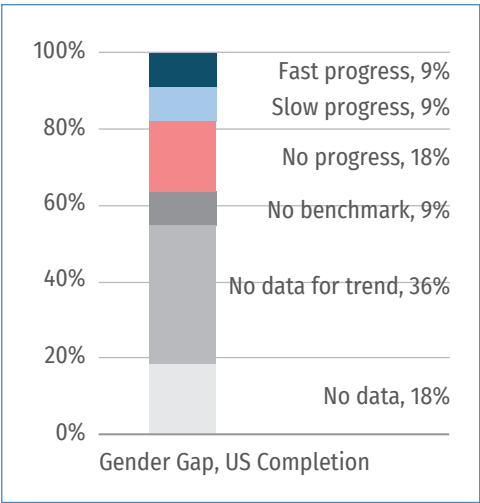
Analysis the upper secondary completion rate shows that while many ASEAN countries have succeeded in expanding school participation, ensuring that students complete the full secondary cycle remains a key challenge. Only 18 per cent of countries are making fast progress toward their 2025 benchmarks, while another 18 per cent are progressing slowly and 9 per cent show no progress. Data gaps remain a significant constraint: 18 per cent of countries lack data altogether, and 36 per cent have no trend data to assess progress over time. Strengthening monitoring systems and addressing barriers to upper secondary completion will be critical to sustaining gains made at earlier education levels and ensuring equitable educational attainment for all learners. Targeted policy measures, such as financial support for disadvantaged students, flexible learning pathways for over-age or working youth, and stronger transition support between lower- and upper secondary levels, will be essential to accelerate progress and close remaining completion gaps.





SDG Indicator 4.5.1 – Gender Gap in Upper secondary Completion Rate

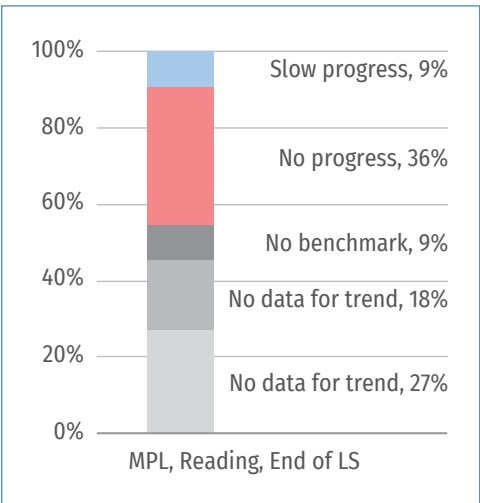
Analysis of the gender gap in upper secondary completion rates shows that progress toward gender parity remains limited across ASEAN. Only 9 per cent of countries are making fast progress in reducing gender disparities, while another 9 per cent are progressing slowly, and 18 per cent show no measurable progress toward their national benchmarks. Despite overall advances in access and attainment, reducing gender gaps continues to be a regional challenge, particularly as in most ASEAN countries, boys are now at a relative disadvantage in completing upper secondary education. Targeted gender-responsive strategies, such as tailored retention initiatives for boys, improved guidance systems, and the integration of gender analysis into sector planning and resource allocation are essential to close remaining gaps and ensure that all learners can complete upper secondary education on equal terms.



SDG Indicator 4.1.1 – Minimum Proficiency Level in Reading, at the End of Lower Secondary

The quality of learning has been a major challenge in the region. Many countries are struggling to make progress towards their national benchmarks for the MPL in reading at the end of lower secondary school. Only 9 per cent of countries are making slow progress towards their national benchmarks, and 36 per cent of the countries do not show any sign of progress in achieving the national targets. There are significant data gaps in monitoring these indicators: 27 per cent of countries do not have data, and 18 per cent do not have trend data to assess progress.

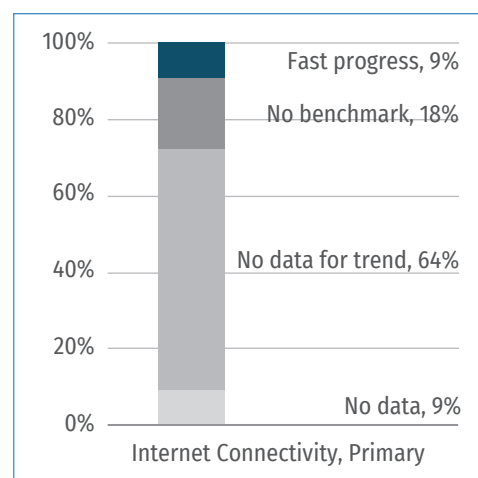
It is urgent for the region to produce learning data for effective monitoring of this indicator. Due to the lack of data, assessing progress towards regional benchmarks is not possible. Strengthening national assessment systems, expanding participation in regional and international learning assessments, and improving the regularity and quality of reporting will be essential to generate the evidence needed to guide policy action and accelerate improvements in learning outcomes.





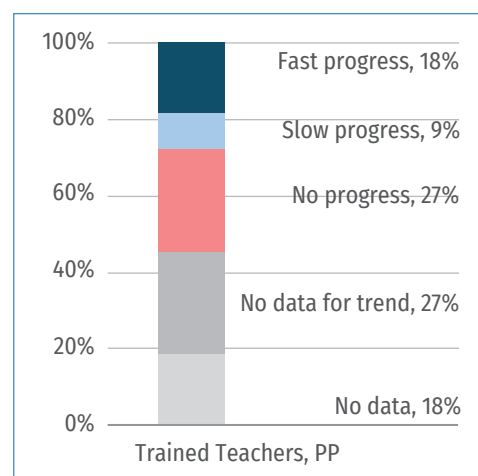
SDG Indicator 4.a.1 – School Connectivity

Analysis of school connectivity reveals that progress toward digital transformation in education remains limited across ASEAN. Following the Transforming Education Summit in 2022, Member States identified the digitisation of learning as a key priority, with school connectivity serving as a foundational element. However, only 9 per cent of countries are making fast progress toward their national benchmarks, while 18 per cent have not established any benchmark for this indicator. Data availability also remains a major challenge as 64 per cent lack trend data, and 9 per cent have no data at all. These gaps highlight the need for countries to strengthen monitoring systems, integrate connectivity indicators into national EMIS, and align digital-readiness targets with broader education-sector plans so that investments in infrastructure translate into meaningful learning opportunities, ensuring equitable access to connected learning environments.



SDG Indicator 4.c.1 – Trained Teachers, Pre-Primary

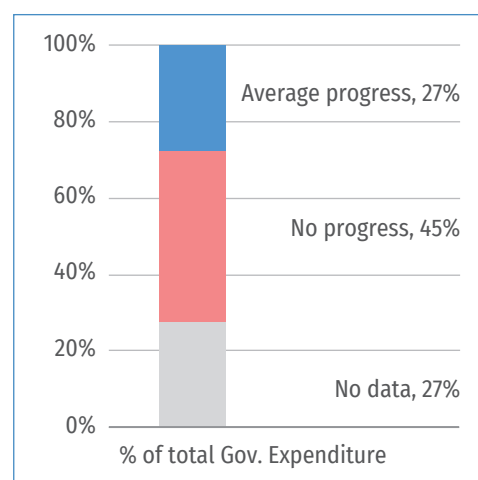
Analysis of the proportion of teachers in pre-primary education who have received at least the minimum pedagogical training (SDG 4.c.1) shows that progress remains uneven across ASEAN. Only 18 per cent of countries are making fast progress toward their national benchmarks, while 9 per cent show slow progress and 27 per cent have made no measurable progress. Data gaps continue to limit meaningful trend analysis: 27 per cent lack trend data, and 18 per cent have no data available. These limitations underscore the need to strengthen data collection on teacher training and qualifications at the early childhood level, as having a well-trained pre-primary teaching workforce is essential to improving early learning quality and supporting children's readiness for primary education. Stronger policy action, through expanded pre-service preparation, targeted in-service upgrading for untrained teachers, and increased public investment in early childhood teacher development, will be critical to building a qualified workforce capable of delivering high-quality early learning for all children.





SDG Indicator 1.a.2 – Expenditure on Education as a Percentage of Total Government Expenditure

Analysis of education expenditure as a percentage of total government expenditure indicates that progress remains modest across ASEAN. Only 27 per cent of countries show average progress toward their national benchmarks, while a larger 45 per cent share have made no measurable progress in increasing government spending allocated to education. Moreover, 27 per cent of countries lack sufficient data to assess trends over time. These findings highlight persistent fiscal constraints in prioritising education within national budgets and underscore the need for stronger and more sustained financial commitments to accelerate progress toward SDG 4. Strengthening medium-term budgeting, improving the efficiency and equity of public spending, and adopting financing strategies that protect education during fiscal pressures will be essential to ensure predictable and adequate resources for the sector.



6.3 Policy Implications for Accelerating Benchmark Progress

Strengthen strategies to improve participation and completion across the education cycle

Slow or stagnant progress on key indicators, particularly out-of-school rates and upper secondary completion, signals the need for countries to reassess existing policies and adopt targeted interventions that support student retention, reduce barriers to progression, and expand opportunities for enrolment at all levels. Strengthening transition support between education levels and addressing socio-economic barriers will be essential.

Set clear national targets in national education plans particularly for the SDG4 benchmarks indicators

Limited benchmark coverage for gender gaps, school connectivity, and learning outcomes highlights gaps in planning and prioritisation that weaken system accountability. Countries should be encouraged to define explicit, measurable targets for these areas as part of their 2030 education strategies to ensure more comprehensive monitoring and accountability.

Invest in stronger data systems to enable reliable monitoring of progress

Persistent data gaps and insufficient trend information undermine the ability to track progress toward national and regional goals. Enhanced data capacity allows countries to identify emerging challenges earlier, adjust policies more effectively, and ensure that progress toward SDG 4 benchmarks is grounded in robust and reliable evidence. Strengthening data production systems, including diversifying data sources and increasing the frequency and quality of reporting, will be essential for evidence-based planning and timely course correction.



Accelerate progress on learning outcomes through stronger assessment systems

Given the limited progress on MPLs and widespread data gaps, countries should expand participation in regional and international assessments, strengthen national learning assessments, and ensure regular reporting. Equally important is the development of robust school-based and formative assessment practices that provide teachers with timely, actionable information on student learning. These classroom-level assessments help identify learning gaps early, guide instructional adjustments, and support targeted remediation, especially in foundational literacy and numeracy. Strengthening national assessment frameworks, institutionalising formative assessment within teacher professional standards, and ensuring that schools have the tools and capacity to conduct regular, high-quality assessments will provide the evidence base needed to guide reforms, improve instructional quality, and accelerate progress toward national learning benchmarks.



Chapter 7

Regional Synthesis, Key Findings and Strategic Directions

7.1 Background, Purpose and Approach

ASEAN education systems stand at a pivotal juncture. Home to more than 670 million people and a large youth population, the region's future prosperity depends on its capacity to deliver inclusive, high-quality, and future-ready education across the life course. Over recent decades, Member States have expanded access and strengthened institutional capacity, supported by regional cooperation under ASEAN and SEAMEO frameworks. Yet progress remains uneven. Persistent gaps in access, learning outcomes, and quality coexist with emerging pressures from digital transformation, demographic change, climate vulnerability, and the long-term effects of the COVID-19 pandemic. These dynamics underscore the need for a comprehensive regional stocktake to inform ASEAN's post-2025 education agenda.

The State of Education in ASEAN report provides a comprehensive regional situation analysis of education across the full learning continuum, spanning early childhood through adult learning. Its objectives are to present an authoritative, data-driven overview of education status and trends in ASEAN; assess progress and persistent gaps in achieving inclusive, equitable, and quality education; analyse how socio-economic, demographic, and technological changes are reshaping education systems; and examine the effectiveness of selected national and regional policies. Through this regional synthesis, the report seeks to support evidence-based dialogue, mutual learning, and cooperation among ASEAN Member States, and to inform the formulation of the post-2025 ASEAN education framework.

The report adopts a mixed-methods approach integrating quantitative analysis with qualitative and policy-oriented review. Quantitative findings draw primarily on internationally comparable data from UIS, supplemented by regional and national sources, and aligned with the SDG 4 monitoring framework. This is complemented by a review of policy documents and academic literature, stakeholder consultations with education authorities and key actors across ASEAN, and thematic case examples illustrating shared challenges and promising practices. A multi-stage review and validation process involving Member States and external experts ensured analytical rigour, contextual relevance, and regional ownership. Through this approach, the report consolidates evidence on education status and trends, identifies progress and remaining gaps in equity and quality; analyses how socio-economic and technological change is reshaping education demand; and reviews selected national and regional policy responses.



7.2 Regional Context and Cross-Cutting Findings

ASEAN's socio-economic environment has improved markedly, with sustained growth, poverty reduction, and rising human development creating a stronger foundation for education. However, these have not been evenly distributed. Income inequality, uneven public investment, health disparities, and digital divides continue to shape unequal learning conditions across and within countries. Labour markets are shifting rapidly toward services, digitalisation, and green growth, driving demand for higher-order, technical, and transferable skills that education and training systems have not yet fully absorbed into their design and delivery.

Demographic transitions are producing divergent pressures. Ageing societies face declining enrolment and under-utilised infrastructure, while higher-fertility countries continue to struggle to expand access, particularly in early childhood and upper secondary education. At the same time, climate change is emerging as a systemic risk to learning continuity, disproportionately affecting disadvantaged learners. Digital transformation offers major opportunities for access and innovation, but without targeted investment, it risks reinforcing existing inequities.

Across all subsectors, a central insight emerges: access has expanded, but learning has not kept pace. Participation gains in ECE, basic education, TVET, and higher education have not translated into commensurate improvements in foundational literacy and numeracy. This imbalance between expansion and learning defines the core challenge for ASEAN's post-2025 agenda.

7.3 Education Landscape and System Performance

At the policy level, ASEAN and SEAMEO frameworks are closely aligned with SDG 4, and all Member States have localised global commitments within national education strategies. A clear shift is evident from a historic focus on access toward learning quality, skills development, digital transformation, and lifelong learning. Education pathways have diversified, with growing provision of TVET, non-formal education, and alternative routes designed to accommodate heterogeneous learners.

Legal guarantees for free and compulsory basic education have expanded significantly, contributing to longer school life expectancy across the region. However, early childhood education remains weakly institutionalised in many countries, despite strong evidence of its role in shaping equity and learning trajectories. Participation gains across levels have not consistently translated into improved learning outcomes, confirming that quality, particularly foundational learning, remains the central regional challenge.



7.4 Key Findings and Conclusions

Early Childhood Education (ECE). Pre-primary participation has expanded steadily across ASEAN and now exceeds the global average, reflecting growing policy recognition. Policy recognition of early learning as foundational to long-term educational success has strengthened. Several countries have expanded pre-primary access through public provision, community-based centres, or partnerships with non-state providers.

However, this progress remains uneven and fragile. Several Member States continue to record very low enrolment, particularly in rural, remote, and low-income areas. Provision for children under 3 is extremely limited, with services often fragmented across health, nutrition, and social protection systems and rarely anchored within education ministries. Governance fragmentation contributes to inconsistent standards, weak quality assurance, and uneven financing. The ECE workforce remains a major constraint: shortages of trained educators, low remuneration, limited professional status, and weak career pathways undermine programme quality and sustainability. As a result, children from disadvantaged socio-economic backgrounds, who stand to benefit most from early intervention, are the least likely to access high-quality ECE, reinforcing inequities well before entry into primary school. The evidence across this report's chapters shows that ECE is the weakest and most fragmented part of the system, and the region's largest missed opportunity for equity and long-term learning.

Basic Education. ASEAN has largely succeeded in expanding access to primary and lower secondary education, supported by legal guarantees, school network expansion, and demand-side interventions. Out-of-school rates have declined significantly since 2000, and completion rates have improved across most Member States. Most ASEAN Member States have achieved near-universal primary enrolment and improved lower secondary completion rates. Compulsory education cycles have expanded in several countries, and gender parity has largely been achieved at the primary level.

Nonetheless, exclusion has shifted upward in the system. Upper secondary education remains a key bottleneck, with participation and completion lagging behind lower levels and accounting for more than half of out-of-school children and youth in the region. Economic pressures, limited school availability in rural areas, early entry into the labour market, and weak academic and vocational pathways contribute to dropouts. Learning outcomes remain a central concern. Regional and national assessments indicate that large proportions of students complete primary education without mastering basic literacy and numeracy, limiting their ability to benefit from further schooling and increasing the risk of disengagement and early exit. Across the region, foundational learning is the most urgent system-wide challenge, and the gap between participation and learning is widening.

Higher Education. Tertiary education has expanded rapidly across ASEAN, with enrolment more than doubling since 2000 and participation exceeding 40 per cent regionally. Growth has been driven largely by private provision and increasing household demand. However, expansion has been uneven across countries and slower than in East Asia, where coordinated national strategies and sustained public investment accelerated massification. Completion rates lag behind enrolment, signalling inefficiencies related to academic preparedness, student support, and institutional



capacity. While several Member States demonstrate strong output in STEM fields, enrolment in others remains heavily concentrated in business, administration, and social sciences, raising concerns about labour-market alignment. Equity patterns in higher education remain poorly understood due to limited disaggregated data, constraining targeted policy responses. Without stronger quality assurance and targeted support, higher education risks reinforcing rather than reducing inequality.

TVET and Skills Development. ASEAN has made notable progress in expanding vocational education, with youth participation rates exceeding global and Asia-Pacific averages. Upper- and post-secondary TVET now play a central role in national skills strategies. However, quality and relevance vary widely across countries and institutions. Employer engagement remains uneven, work-based learning opportunities are limited in many systems, and pathways for progression to higher-level technical qualifications are often unclear. High NEET rates persist in several Member States, highlighting weak school-to-work transitions. Adult participation in skills development is extremely low across the region, revealing a structural imbalance between youth-focused training systems and the growing need for reskilling and upskilling in response to technological change.

Adult Literacy and Lifelong Learning. Adult illiteracy has declined substantially, and youth literacy is near universal in most ASEAN countries. However, large generational and socio-economic gaps persist, with illiteracy concentrated among older adults, women, rural populations, and marginalised groups. While youth literacy is near universal in most Member States, older adults, especially rural women, continue to record substantially lower literacy levels, reflecting historical barriers to schooling and uneven expansion of basic education. Non-formal education plays a critical role in addressing these gaps, yet remains under-resourced, weakly regulated, and insufficiently linked to formal qualifications or labour-market outcomes. Beyond basic literacy, deficits in functional, digital, and financial literacy increasingly constrain employability, civic participation, and access to services, even among adults who have completed basic schooling.

Learning Environments. Learning environments have improved overall across ASEAN, reflecting sustained investment in school construction and rehabilitation. Nevertheless, major disparities persist in infrastructure quality, school safety, climate resilience, and digital readiness. Schools in rural, remote, and disadvantaged areas are more likely to lack safe buildings, basic services such as water and sanitation, and reliable electricity and connectivity. Inclusive infrastructure for learners with disabilities, including accessible classrooms, assistive technologies, and adapted learning materials, remains particularly limited, constraining the effective implementation of inclusive education policies. Climate-related shocks increasingly disrupt schooling in vulnerable areas, underscoring the need to strengthen disaster preparedness, resilient infrastructure, and continuity of learning arrangements across all levels of education.

Teachers and the Education Workforce. Teachers remain the single most important determinant of education quality across the system. While overall teacher supply is generally sufficient at the aggregate level, significant challenges persist in relation to teacher preparation, pedagogical skills, subject specialisation, and deployment to disadvantaged and hard-to-staff areas. Continuous professional development systems are uneven in coverage and quality, limiting teachers' capacity to effectively implement curriculum reforms, learner-centred pedagogy, assessment innovations, and digital learning. Conditions in the early childhood workforce are particularly weak, characterised by low pay, limited training opportunities, and low professional status, undermining quality at



the foundational stage. Across all sub-sectors, a consistent insight emerges: teacher quality is the linchpin of system improvement, yet teacher support systems remain uneven and underdeveloped.

Education Financing. Education financing remains a structural constraint across much of ASEAN. In many Member States, the share of public expenditure allocated to education has stagnated or declined and remains below international benchmarks. Spending patterns often favour higher levels of education and better-off regions, while early childhood education, disadvantaged schools, non-formal education, and adult learning are comparatively underfunded. Limited fiscal space, competing policy priorities, and inefficiencies in allocation and execution constrain the ability of systems to improve quality and expand access where needs are greatest. Financing patterns frequently reinforce existing inequities.

Equity and Inclusion. Persistent inequities by household income, geographic location, gender, disability, migration background, and ethnicity continue to shape education participation and learning outcomes across all subsectors. Learners from disadvantaged backgrounds are more likely to enter school late, experience early learning gaps, attend lower-quality schools, drop out before completing upper secondary education, and transition into precarious employment. Children with disabilities, migrant and stateless learners, and linguistically diverse students face systemic barriers. Weak targeting mechanisms limited disaggregated data, and uneven implementation of inclusive education policies continue to undermine progress toward equitable and inclusive education. Across the sector, equity emerges not as a marginal issue but as a structural feature of system design.

7.5 SDG 4 Progress and Systemic Gaps

Over the past decade, the ASEAN region has made substantial progress in education, driven by a shared recognition of its central role in social development, economic growth, and regional integration. Participation has expanded across the life course. Pre-primary enrolment has risen steadily since 2015, with some Member States approaching universal coverage. Primary completion rates remain high in most countries, access to secondary education has widened, and youth participation in technical and vocational education has more than tripled since 2000. Higher education enrolment continues to grow, reflecting rising social demand and economic transformation. Improvements in school learning environments and continued investments in teacher development have further contributed to more enabling conditions for learning across much of the region.

Despite these achievements, progress toward SDG 4 targets has been uneven across countries and population groups. Increased participation has not consistently translated into improved learning outcomes, and in some contexts, learning quality has stagnated or declined. Foundational literacy and numeracy gaps persist, particularly among learners from disadvantaged backgrounds, weakening progression and long-term returns to education. The pace of reducing exclusion has slowed in recent years, especially at the upper secondary level, where transition and completion remain significant challenges.



Lifelong learning remains a major systemic gap. Participation in adult education and training is low across ASEAN, particularly among older age groups who are also more likely to face persistent literacy barriers. These limitations constrain the region's capacity to adapt to technological change, labour-market shifts, and demographic transitions. Data gaps further compound these challenges. Incomplete and uneven data on learning outcomes, disability, teacher attrition, adult learning, and school readiness limit effective monitoring, accountability, and evidence-based policymaking.

Overall, ASEAN's experience highlights a central challenge for the post-2025 education agenda: while access has expanded rapidly, system capacity to ensure quality, equity, and inclusion has not kept pace. Addressing this imbalance will require stronger alignment between participation, learning outcomes, financing, and data systems, alongside sustained political commitment at both national and regional levels.

7.6 Strategic Policy Directions

The synthesis of findings points to the need for a comprehensive, sector-wide reorientation of ASEAN education systems in the post-2025 period. While significant gains have been made in expanding access, future progress will depend on strengthening quality, addressing persistent inequities, and enhancing system resilience across early childhood education, basic education, TVET, higher education, and lifelong learning.

First, early childhood education must be firmly institutionalised as the foundation of the education system. Expanding legal entitlements to at least one year of free and compulsory pre-primary education, increasing public investment, strengthening quality assurance mechanisms, and professionalising the ECE workforce are essential to reducing early learning gaps and improving long-term equity. Integrated governance arrangements linking education, health, nutrition, and social protection are particularly important for children under 3 and for disadvantaged families, where fragmented service delivery continues to limit impact.

Second, foundational learning in basic education must be prioritised as a system-wide objective. Strengthening early-grade pedagogy, enhancing teacher professional development, ensuring effective and equitable teacher deployment, expanding formative assessment and targeted remediation, and embedding learning recovery strategies within mainstream policy frameworks are all essential to ensure that expanded participation translates into meaningful learning outcomes. National and regional learning assessments should be used more systematically to inform instructional improvement, resource allocation, and evidence-based policy-making. At the same time, school-based and teacher-led formative assessment practices need to be reinforced so that teachers can generate timely, classroom-level insights to guide day-to-day instruction and provide targeted support to learners at risk of falling behind.

Third, upper secondary education systems must prioritise retention, completion, and successful transition. This level is a critical juncture for equity, skills development, and progression beyond compulsory schooling, yet it remains the primary bottleneck in ASEAN, accounting for a disproportionate share of out-of-school adolescents and youth. Improving outcomes requires expanding the availability and geographic reach of schools, reducing direct and indirect household



costs, and addressing economic pressures that push learners prematurely into the labour market. At the same time, systems need to diversify academic and vocational pathways, strengthen permeability between general and vocational streams, and expand flexible, modular, and second-chance options for learners who fall behind or re-enter education. Stronger career guidance, psychosocial support, and targeted academic assistance are essential to sustaining engagement and ensuring smoother transitions to further education, training, or employment, particularly for disadvantaged learners.

Fourth, TVET systems must be more closely aligned with labour-market transformation and economic diversification. Priorities include improving programme quality and relevance, deepening and institutionalising employer engagement, expanding high-quality work-based learning opportunities, and strengthening clear progression pathways to higher-level technical and professional qualifications. Greater integration of foundational, digital, and green skills within TVET programmes will be essential to supporting employability and adaptability. Stronger links between TVET institutions, industries, and local communities can improve school-to-work transitions, reduce NEET rates, and enhance the social and economic value of vocational pathways.

Fifth, higher education systems must respond more effectively to changing skills demands while safeguarding academic quality and equity. Improving student completion rates, addressing imbalances in fields of study, strengthening quality assurance mechanisms, and expanding academic and career support services should accompany broader objectives related to research, innovation, digital transformation, and internationalisation. Targeted measures are needed to widen participation for under-represented groups and to promote gender equity in high-demand fields such as STEM. Better alignment between higher education outputs and national and regional development priorities will be critical to sustaining inclusive growth and competitiveness across ASEAN.

Sixth, lifelong learning systems must be strengthened to support adult literacy, reskilling, and upskilling throughout the life course. This requires better integration of non-formal education within national qualifications frameworks, stronger recognition of prior learning, closer links between adult learning and labour-market needs, and targeted support for low-skilled, older, and vulnerable populations whose participation remains persistently low. Lifelong learning frameworks should integrate formal, non-formal, and informal pathways, supported by recognition of prior learning systems.

Seventh, education financing must be reaffirmed as a core public investment priority underpinning all reform efforts. Increasing education's share of public expenditure toward internationally agreed benchmarks, improving spending efficiency, and strengthening public financial management are critical to sustaining progress. Allocation mechanisms should increasingly adopt needs-based funding formulas to address disparities across regions, levels, and population groups, while avoiding the systematic underfunding of early childhood education, TVET, non-formal education, and lifelong learning. Education financing must be safeguarded and strategically aligned with learning outcomes. Medium-term expenditure frameworks can enhance stability.

Eighth, equity and inclusion require targeted and sustained policy action beyond financing alone. Dedicated inclusion policies and support mechanisms are needed to ensure that disadvantaged learners – by income, location, gender, disability, migration status, or ethnicity – benefit from system expansion and reform. This includes early identification of learning risks, targeted scholarships



and social protection linkages, inclusive education strategies for learners with disabilities, and stronger use of disaggregated and intersectional data to guide policy design, implementation, and accountability.

Ninth, strengthen system-wide readiness for the ethical and equitable integration of artificial intelligence in education. Drawing on UNESCO's AI Readiness Assessments, ASEAN countries should move beyond isolated pilots toward coherent national strategies that align governance, skills development, and classroom practice. While readiness remains uneven across the region, Singapore's more advanced digital-education ecosystem provides useful lessons for other countries, particularly in policy coherence, teacher upskilling, and system-level coordination. ASEAN governments should prioritise ethical standards, invest in teacher and school-leader capacity, expand equitable access to digital infrastructure and local-language resources, and strengthen research and institutional capacity to ensure AI contributes to inclusive, resilient, and future-ready education systems.

Finally, stronger data systems and regional cooperation are essential to support evidence-based policymaking and accountability. Addressing persistent data gaps, modernising education management information systems, and harmonising indicators across ASEAN will improve monitoring of SDG 4 and post-2025 priorities. ASEAN and SEAMEO platforms provide a strong foundation for shared learning, benchmarking, and coordinated regional action in pursuit of inclusive, high-quality, and resilient education systems.

7.7 Closing Reflection

ASEAN stands at a critical juncture. The region has built a strong foundation of educational achievement through sustained expansion of access, institutional development, and regional cooperation. However, taking the next step will require concrete and coordinated action to translate access into learning, learning into skills, and skills into inclusive and sustainable development. Persistent gaps in learning outcomes, inclusion, lifelong learning opportunities, and financing underscore the limits of expansion-focused strategies alone.

The choices made today will shape the opportunities available to future generations of learners. ASEAN has demonstrated that collaborative action, informed by evidence and guided by shared goals, can deliver meaningful progress. By pursuing a balanced agenda that addresses access, quality, inclusion, teacher development, inclusive learning environments, and sustainable financing – within the framework of ASEAN's shared vision for education – the region can strengthen resilience and adaptability in the face of technological change, demographic transition, and climate risk, ensuring that every learner, at every stage of life, has the opportunity to thrive.

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Statistical Data Annex

Out-of-school rate for children of primary school age, both sexes (%) (Administrative Data)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	2.14	1.21	0.76	1.64	1.58	1.63	1.51	1.09	1.80	0.94	0.58		
Indonesia	1.82	3.53		6.06	6.39	7.70	1.72	2.68	1.44	1.23	0.73	1.07	0.88
Cambodia		8.72	8.29	10.09	11.43	10.92	9.30	9.43	11.05	15.74	7.79	3.69	
Lao PDR	4.98	3.98	4.83	5.26	6.27	6.80	6.65	6.88	7.04	9.40	9.47	10.34	10.36
Myanmar													
Malaysia	5.48	7.00	7.85	8.03	7.94	7.81	10.90	11.77	12.12	12.46	9.14	11.97	
The Philippines		9.93	10.56	10.73	10.58	10.70	9.06	8.46	12.28	10.90	10.50	11.64	
Singapore				0.01	0.03	0.20	0.10	0.12	0.65	0.93	0.21		
Thailand					3.30	0.27	0.55	0.39	0.51	0.31	1.61	0.55	0.82
Timor-Leste	6.47	6.78	6.66	7.23	4.85	5.59	5.70	5.16			6.88		
Viet Nam	0.00	0.33	0.55	0.15	0.69	1.45	2.16	2.07	1.30	1.88	1.68	1.73	

Out-of-school rate for adolescents of lower secondary school age, both sexes (%) (Administrative Data)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	3.03	5.05	3.39	2.14	0.77	1.80	4.40	1.06	0.62	1.26	0.54		
Indonesia	11.63	9.84				11.97	5.64	6.70	6.80	6.18	5.09	0.36	1.90
Cambodia		15.81	13.42					20.29	22.55		14.42	17.59	
Lao PDR	25.22	21.62	20.23	24.08	22.85	25.48	27.77	30.31	31.75	34.52	35.40	35.68	36.27
Myanmar					13.32	10.57							
Malaysia	12.01	14.20	17.30	19.99	21.32	23.05	21.53	20.38	18.24	17.34	17.31	17.96	
The Philippines		12.18	13.07	14.17		15.30	14.80	13.62	16.97	12.70	10.88	13.13	
Singapore				0.07	0.06	0.56	0.30	0.89	0.45	0.04	0.37		
Thailand					10.22	8.29	9.09	7.50	4.78	5.45	0.09	2.88	1.00
Timor-Leste	15.55	13.54	13.01	12.02	12.75	14.60	13.55	13.48					
Viet Nam		11.36	9.93	6.75	5.44	4.30	4.48	4.62	7.52	4.26	3.05	2.07	

Out-of-school rate for youth of upper secondary school age, both sexes (%) (Administrative Data)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	10.83	16.57	13.89	22.26	21.57	22.26	21.49	20.39	22.69	22.69	25.83		
Indonesia	27.67	30.52	26.49	26.94	20.86	18.54	19.77	11.78	17.18	19.34	24.33	28.04	27.97
Cambodia								56.99	47.58	46.56	50.40	48.94	
Lao PDR	51.95	48.17	45.05	39.63	41.09	42.00	45.20	48.08	50.86	54.32	59.33	63.15	65.74
Myanmar		57.04		45.95	40.79	36.14							
Malaysia	36.23	39.34		39.85	40.55	45.00	42.02	46.75	46.31	37.48	35.33	34.91	
The Philippines		24.97	25.26			28.96	29.80	24.74	24.76	19.01	20.35	22.36	
Singapore				0.13	0.09	0.05	0.27	1.08	1.40	1.71	0.59		
Thailand		16.72	17.96		34.32	34.10	30.78	31.67	30.69	25.56	18.63	20.83	18.79
Timor-Leste	31.85	31.64	28.72	26.56	24.57	24.80	23.82	26.59					
Viet Nam			13.81	10.28	10.92	13.03	12.02	10.22	6.03	7.34			

Completion rate, primary education, both sexes (modelled data) (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia	96.20	96.50	96.80	97.00	97.30	97.60	97.90	98.10	98.40	98.50	98.70	98.80	
Cambodia	65.00	66.70	68.90	71.30	73.50	75.40	76.90	78.00	79.00	79.90	80.90	81.70	
Lao PDR	60.80	61.60	62.40	63.20	64.00	64.70	65.50	66.20	67.00	67.70	68.40	69.10	
Myanmar	70.40	73.30	75.90	78.30	80.30	82.00	83.60	84.80	85.90	86.90	87.70	88.50	
Malaysia	98.90	99.10	99.20	99.30	99.40	99.50	99.50	99.60	99.70	99.70	99.80	99.80	
The Philippines	88.70	89.50	90.40	91.30	92.10	92.90	93.60	94.20	94.80	95.20	95.60	95.90	
Singapore													
Thailand	97.80	97.90	98.10	98.20	98.40	98.50	98.70	98.80	98.90	99.00	99.10	99.20	
Timor-Leste	68.60	70.00	71.20	72.40	73.50	74.70	75.90	77.00	78.10	79.10	80.10	81.10	
Viet Nam	95.20	95.50	95.80	96.00	96.30	96.60	96.90	97.10	97.40	97.60	97.80	97.90	

Completion rate, lower secondary education, both sexes (modelled data) (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia	81.20	82.80	84.20	85.50	86.70	87.70	88.50	89.20	89.50	89.80	90.20	90.70	
Cambodia	36.10	36.50	37.20	38.60	40.90	43.90	47.10	50.20	52.90	55.30	57.20	59.00	
Lao PDR	43.80	44.50	45.10	45.80	46.50	47.00	47.70	48.30	49.00	49.80	50.40	51.10	
Myanmar	45.30	46.60	48.00	48.90	49.80	50.70	51.60	52.60	53.50	54.50	55.40	56.40	
Malaysia	94.30	94.90	95.50	96.00	96.40	96.80	97.20	97.40	97.70	98.10	98.30	98.50	
The Philippines	68.40	69.80	70.80	71.80	72.70	74.10	75.80	77.70	79.20	80.30	81.10	81.70	
Singapore													
Thailand	85.70	86.20	86.50	86.60	86.70	87.00	87.50	88.30	89.10	89.90	90.80	91.60	
Timor-Leste	53.90	55.00	56.20	57.30	58.40	59.40	60.50	61.60	62.80	63.90	65.20	66.30	
Viet Nam	82.30	82.50	82.90	83.40	83.90	84.60	85.50	86.70	87.90	88.90	89.70	90.50	





Completion rate, upper secondary education, both sexes (modelled data) (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia	52.90	54.00	54.80	55.00	54.50	52.90	50.60	47.70	44.90	42.50	40.90	40.00	
Cambodia	17.00	17.40	17.70	17.80	17.90	18.20	18.70	19.80	21.00	22.50	23.70	24.70	
Lao PDR	25.40	25.80	26.30	27.10	27.60	28.10	28.70	29.30	30.00	30.50	31.10	31.80	
Myanmar	19.00	19.60	19.90	20.00	20.30	20.80	21.30	21.80	22.20	22.70	23.30	23.80	
Malaysia	47.30	48.80	50.10	51.30	52.60	54.00	55.50	56.90	58.30	59.70	61.00	62.30	
The Philippines	67.10	67.80	68.60	69.20	69.50	69.70	70.10	70.60	71.10	71.60	72.10	72.60	
Singapore													
Thailand	56.70	57.70	58.80	60.20	61.50	62.70	63.80	65.20	66.80	68.40	69.90	71.20	
Timor-Leste	50.20	50.10	49.80	49.40	49.40	49.90	50.80	51.70	52.60	53.80	54.60	55.60	
Viet Nam	58.40	59.20	59.70	59.80	58.90	56.80	54.30	52.50	51.90	52.20	52.60	53.30	

Proportion of students at the end of primary education achieving at least a minimum proficiency level in reading, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia													
Cambodia							11.00						
Lao PDR							2.00						
Myanmar							11.00						
Malaysia							58.00						
The Philippines							10.00						
Singapore				97.25					96.66				
Thailand													
Timor-Leste													
Viet Nam							82.00						

Proportion of students at the end of primary education achieving at least a minimum proficiency level in mathematics, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia			17.54										
Cambodia							18.00						
Lao PDR							7.90						
Myanmar							12.00						
Malaysia							64.00						
The Philippines							17.00						
Singapore			93.39				95.51				92.69		
Thailand													
Timor-Leste													
Viet Nam							91.00						

Proportion of students at the end of lower secondary education achieving at least a minimum proficiency level in reading, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam						48.20				57.84			
Indonesia			44.62			30.09				25.46			
Cambodia					7.51					7.92			
Lao PDR													
Myanmar													
Malaysia			62.76			54.17				41.88			
The Philippines						19.38				23.68			
Singapore			88.85			88.75				88.83			
Thailand			50.02			40.46				34.57			
Timor-Leste													
Viet Nam			86.16			90.49				77.05			

Proportion of students at the end of lower secondary education achieving at least a minimum proficiency level in mathematics, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam						52.13				58.11			
Indonesia			31.35			28.14				18.34			
Cambodia					9.88					11.99			
Lao PDR													
Myanmar													
Malaysia						58.50				41.02			
The Philippines						19.28				15.96			
Singapore			93.55				91.82				89.34		
Thailand			46.22			47.30				31.73			
Timor-Leste													
Viet Nam			80.90			84.29				71.84			

Percentage of pupils enrolled in primary education who are at least 2 years over-age for their current grade, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	0.63	1.54	0.89	1.09	1.19	1.15	1.14	0.75	1.62	0.89	1.02		
Indonesia				0.46	0.46	0.30	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Cambodia		22.90		20.57	20.09	19.06	18.35	16.83	21.54	29.15	19.56	14.95	
Lao PDR	26.58	23.68	20.32	16.48	13.68	11.14	8.83	7.34	6.39	5.03	4.90	4.77	4.17
Myanmar													
Malaysia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
The Philippines		17.68	16.22	13.48	9.08	8.14	5.94	7.47	7.30	7.46	8.05	7.95	
Singapore				0.26	0.24	0.28	0.29	0.30	0.32	0.35	0.38		
Thailand					2.04	2.02	1.82	2.03	1.75	2.03	1.77	1.60	1.77
Timor-Leste	32.59	30.82	28.56	26.19	24.96	23.13	21.70	20.20	21.19	19.13	18.07		
Viet Nam				0.98							0.86	1.08	





Percentage of pupils enrolled in lower secondary general education who are at least 2 years over-age for their current grade, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	2.73	3.79	3.53	3.02	2.96	3.09	3.48	4.14	2.21	1.46	2.10		
Indonesia	11.32	11.08	8.11			8.92	10.84	9.88	7.57	6.03	1.50	0.81	0.88
Cambodia	29.96	27.14	26.73	26.91	23.00	20.12	18.14	16.74	27.03	27.27	25.51	15.96	
Lao PDR	36.82	37.03	35.74	33.58	29.28	25.57	21.61	17.39	14.07	11.55	9.82	7.58	6.50
Myanmar		13.83		13.81		9.35							
Malaysia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
The Philippines		22.84	23.93	22.51	16.97	17.16	13.50	15.80	13.63	12.59	9.87	7.79	
Singapore				3.88	3.27	0.83	0.82	0.74	0.71	0.73	0.78		
Thailand		3.56	4.19	6.56	6.88	6.12	2.01	1.80	2.06	2.27	2.20	1.79	2.41
Timor-Leste	52.61	50.06	46.69	43.13	38.78	35.44	32.38	29.31					
Viet Nam				1.32							0.76	0.73	

Proportion of children aged 24-59 months who are developmentally on track in health, learning and psychosocial well-being, by sex													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia						88.30							
Cambodia		73.10											
Lao PDR											58.70		
Myanmar													
Malaysia													
The Philippines										76.80			
Singapore													
Thailand										79.50			
Timor-Leste				53.20									
Viet Nam									78.20				

Adjusted net enrolment rate, one year before the official primary entry age, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	96.87	97.36	95.50	89.25	93.55	97.96	88.05	99.69	79.08	79.63	73.92		
Indonesia							78.52	76.23	85.42	84.59	89.32	88.16	92.94
Cambodia			41.12	43.69	46.58	53.46		72.19	56.31	46.03	60.64	72.15	
Lao PDR	47.82	53.06	56.26	62.32	64.18	68.28	69.67	69.97	68.28	62.75	66.79	67.06	65.94
Myanmar					14.01	12.06							
Malaysia				82.80	86.77	84.82	82.14	82.18	77.64	78.29	82.94	85.43	
The Philippines		77.64	75.68	72.06	76.47	79.92	83.44	65.85	65.86	71.27	73.99	76.54	
Singapore						100.00	97.06	96.89	95.95	98.93	95.20		
Thailand					98.78	99.69	99.26	99.41	95.14	96.60	95.56	96.66	90.81
Timor-Leste	55.28	61.56	74.26	73.27	43.21	43.02	50.79	58.92					
Viet Nam	89.45	96.73	98.43		98.11	97.33		91.38	98.04	94.43			

Net enrolment rate, early childhood educational development programmes, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia	5.83	6.09		18.00	19.05	19.46		5.91	5.98	6.41	6.87	7.66	7.61
Cambodia								0.14					
Lao PDR	1.61	2.00	2.27	2.59		2.96	3.07	3.31	3.31	2.37	3.17	3.56	3.74
Myanmar													
Malaysia													
The Philippines													
Singapore						52.17	55.61	56.21	62.78	67.87	75.21		
Thailand					60.75	56.15	51.87	55.73	24.74	24.85	25.02	21.96	21.06
Timor-Leste													
Viet Nam							15.99	6.50	6.05	4.91	7.22	6.07	

Net enrolment rate, pre-primary, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	63.48	62.06	61.18	61.46	62.26	61.76	60.59	60.74	55.97	45.34	53.17		
Indonesia	38.04	40.05		42.49	42.97			33.63	43.92	42.23	46.56	45.60	49.89
Cambodia	13.59		17.36	18.63	20.13	23.04	24.50	26.72	32.20	23.24	35.24	36.51	
Lao PDR	28.33	32.50	35.76	40.61		46.79	47.60	47.93	47.71	43.50	46.94	47.98	48.65
Myanmar					10.10	8.35							
Malaysia				77.60	80.14	78.24	77.63	75.14	70.65	71.56	78.04	81.12	
The Philippines	70.09	68.69	71.86	68.65	59.47	77.38	72.43	62.76	65.80	71.21	73.92	76.48	
Singapore						96.45	96.78	96.07	95.56	96.03	94.70		
Thailand					74.53	77.96	75.61	73.41	70.81	70.74	75.16	74.10	67.75
Timor-Leste	12.55	15.26	17.27	18.96	21.96	21.88	24.99	25.19					
Viet Nam	74.95							84.25	87.59	83.38	93.92	93.52	

Gross enrolment ratio for tertiary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	23.46	30.08	28.66	28.66	31.24	27.93	27.77	29.20	27.43	31.19	36.42		
Indonesia	29.89	29.99	32.46	34.83	35.97	36.15	37.32	38.17	40.63	42.33	44.88		
Cambodia			13.62		12.52	13.27	12.94	13.88	13.50	14.61	17.44	21.44	
Lao PDR	18.92	18.50	18.16	17.09	15.41	14.50	13.74	12.56	12.44	13.68	14.88		
Myanmar						20.37							
Malaysia	38.07	38.39	44.29	45.40	42.29	43.31	40.81	39.74	38.19	36.99	37.27	38.50	
The Philippines	31.87	33.87	35.87	38.34	33.68	28.12	30.05	31.63	33.62	38.40	44.24	47.41	
Singapore				83.94	84.79	88.89	91.09	93.13	97.10	98.02	97.29		
Thailand	49.69	49.91	45.71	49.32	47.43	46.17	44.99	42.59	43.47	43.29	45.44	44.98	49.08
Timor-Leste											30.96		
Viet Nam	25.62	31.33	29.73	29.08	25.95		30.22		41.96	44.75	32.84	37.59	





Gross graduation ratio from first degree programmes (ISCED 6 and 7) in tertiary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia			19.56	20.62	21.50	21.16				32.10	29.24		
Cambodia													
Lao PDR	12.28	10.01	14.55	13.57	8.38	8.77	8.72						
Myanmar													
Malaysia									15.43	14.76	14.85		
The Philippines													
Singapore				58.84	57.70	53.79	61.09	64.69	59.10	60.71	70.77		
Thailand			25.28							33.21	29.53	34.79	
Timor-Leste													
Viet Nam	11.59	13.23	19.86	19.94	19.06	22.56	22.42	20.11	19.93	19.55			

Percentage of graduates from Science, Technology, Engineering and Mathematics programmes in tertiary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam			67.30			60.77	59.86	61.61			63.18		
Indonesia		79.35	82.70	81.38	81.45	80.58							
Cambodia			83.81			79.82	76.80						
Lao PDR			88.15	87.58	83.14	77.54	76.86						
Myanmar						66.33							
Malaysia			66.65	63.08	63.30	58.86	60.77	61.02	56.34	59.65	58.69	63.29	
The Philippines	69.68	69.68	65.63	65.76	71.26	67.14	67.99	70.04	64.31	77.39	75.87	75.03	
Singapore				65.47	65.07	65.23	64.56	63.69	64.02	64.04	64.20		
Thailand			61.27	68.82						70.93	66.45	69.93	69.50
Timor-Leste													
Viet Nam			74.10	76.86									

Percentage of graduates from Science, Technology, Engineering and Mathematics programmes in tertiary education who are female (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam			49.17	51.86		54.34	50.35	51.10			44.43		
Indonesia		37.50	36.08	36.24	37.73	37.43							
Cambodia			16.68				27.69						
Lao PDR			23.21	22.43	25.15	28.95	29.02						
Myanmar						60.76							
Malaysia			38.56			34.17	37.97		37.45	36.06	35.95	38.16	
The Philippines			42.19	41.21	36.25	38.78	38.80	39.11	36.79		38.81	38.27	
Singapore				33.72	34.26	33.32	32.41	31.75	31.49	32.15	31.83		
Thailand			29.69	30.14						29.53	35.37	28.94	
Timor-Leste													
Viet Nam			40.68	36.51									

Proportion of 15- to 24-year-olds enrolled in vocational education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	9.15	6.70	6.72	5.88	5.45	6.87	6.39	7.01	5.95		8.20		
Indonesia	9.60	9.58				13.02	12.94	13.39	13.39	13.64	12.84	11.10	
Cambodia													
Lao PDR	0.36	0.37	0.28	0.45	0.40		4.31	3.46	2.96		5.42		
Myanmar		0.00		0.06	0.06	0.34							
Malaysia	4.26	4.63		4.92	5.92	4.73	4.44	5.82	4.33	4.13	4.57	3.08	
The Philippines		2.64	3.04	2.93	4.93	7.11	7.08		5.84		5.42	7.23	
Singapore				23.43	23.84	23.80	23.77	23.54	22.95	22.91	23.16		
Thailand		6.97	5.60		9.75	9.95	10.38	10.40	10.72	11.15	11.43	11.00	10.75
Timor-Leste	2.32	2.22	2.39	3.01	4.51	5.05	5.47						
Viet Nam			11.99	11.40	13.56	16.66	18.68	17.66	14.81	15.67			

Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, 15-24 years old, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		57.36			52.97	51.86	50.00	49.52	52.21	50.64	55.56		
Indonesia	42.19	43.18	42.76	43.24	44.19	44.05	43.95	45.13	46.87	44.95	44.51		
Cambodia	27.37	28.20	27.12	27.27	27.57		38.64	31.45	36.11		33.96		
Lao PDR			31.91		38.47					32.42			
Myanmar		16.35			34.75	39.34	41.40	43.39					
Malaysia													
The Philippines	42.04	42.78	44.49	44.79	48.25	51.75	54.10	56.54	61.07	66.00			
Singapore									64.03	65.64	66.40	68.26	
Thailand	44.39	47.31	47.97	47.23	47.13	47.32	47.88	48.33	49.61	50.88	50.05	50.39	
Timor-Leste	67.75		61.02	58.41					61.53	56.22			
Viet Nam	38.35	38.15	34.03	36.52	36.54	37.41	36.53	39.37	45.91	51.11	53.95		

Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, 25-54 years old, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		1.79			1.05	1.19	0.95	1.08	1.21	0.84	0.94		
Indonesia	0.89	0.86	0.92	0.80	0.93	0.88	0.76		1.80	0.97	1.21		
Cambodia	0.84	0.97	0.54	0.49	0.47		1.30		0.25		0.25		
Lao PDR			0.64		0.74					4.35			
Myanmar		0.47			0.40	0.37	0.48	0.45					
Malaysia													
The Philippines													
Singapore									1.70	1.37	1.64	1.57	
Thailand	0.90	0.78	0.67	0.56	0.50	0.39	0.33	0.31	0.28	0.32	0.28	0.24	
Timor-Leste	5.77		10.01						3.46				
Viet Nam	0.82	0.73		0.20	0.17	0.11		0.73	0.78	0.66	0.52		





Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, 55-64 years old, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia	0.15	0.16	0.21			0.13	0.16		0.92				
Cambodia													
Lao PDR			0.15							4.06			
Myanmar		0.27											
Malaysia													
The Philippines													
Singapore									0.26				
Thailand	0.11	0.09	0.06	0.06	0.04			0.02	0.03	0.03	0.02		
Timor-Leste			2.73							2.14			
Viet Nam						0.05			0.25	0.22	0.14		

Youth literacy rate, population 15-24 years, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia		99.68	99.67	99.67	99.58	99.71		99.78		93.79			
Cambodia	90.75	90.14	92.21				94.76	94.32	91.83		96.57		
Lao PDR			92.46		87.92					93.82	90.39		
Myanmar		94.89		90.42		99.14	95.42	96.36					
Malaysia				97.61	97.27	96.85	96.78			98.79			
The Philippines	98.11		99.08		100.00		98.38	99.22		99.77			
Singapore	99.90	99.90	99.78	99.93	99.93	99.93	99.93	99.73	99.89				
Thailand	98.31		98.15	97.49		98.14	98.52			98.17			
Timor-Leste			84.38	89.14						84.87			
Viet Nam							98.63	98.20		99.05			

Literacy rate, population 25-64 years, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia		95.97	96.48	96.70		96.76		96.97					
Cambodia	77.32	75.19	77.91				86.95	81.16	71.74				
Lao PDR			83.45		72.02						75.52		
Myanmar		90.34		85.02		96.05	88.78	94.24					
Malaysia				96.33	96.68	96.60	96.66			96.74			
The Philippines	96.28		98.20				96.11	98.49					
Singapore	98.67	98.76	98.76	98.92	98.99	99.06	99.11	98.98					
Thailand	95.19		94.81	93.68		92.88	93.52			93.12			
Timor-Leste				61.94						71.25			
Viet Nam							96.00			96.46			

Elderly literacy rate, population 65+ years, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia		71.81	69.17	70.06		74.34		77.90					
Cambodia	51.85	46.57	53.08				73.03		32.15				
Lao PDR			58.57		41.85						38.84		
Myanmar		77.43		72.40			73.83	81.01					
Malaysia				73.16	74.78	75.46	77.24			81.69			
The Philippines	90.15		94.32				90.51	95.74					
Singapore	81.46	82.61	84.05	84.64	85.56	86.44	87.23	88.10					
Thailand	77.63		78.73	77.82		82.46	77.17			79.07			
Timor-Leste				19.44						19.82			
Viet Nam							88.89			89.54			

Educational attainment rate, completed primary education or higher, population 25+ years, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		93.18			88.82	90.21	90.06	90.83	90.62	90.69	91.39		
Indonesia	76.44	76.60	77.63	80.24	77.68	78.43	80.39	81.93	84.93	83.23	83.83		
Cambodia		22.87	22.51				40.47	46.82	43.21		49.01		
Lao PDR					57.26						63.75		
Myanmar				54.65			63.47						
Malaysia				93.94			94.37			94.79			
The Philippines	84.16				84.04		82.39	85.41	85.78	85.71			
Singapore	85.08	85.17	86.70	86.11	86.02	87.91	88.51	88.85	90.23	89.74			
Thailand	61.47	64.78	65.11	65.74	66.44	66.85	71.21	69.17	70.36	73.21	74.83	75.45	
Timor-Leste				43.52						97.98			
Viet Nam	79.30	79.78	80.21	81.44	81.39	81.35	88.63	83.54	85.59	87.23	87.54		

Educational attainment rate, completed lower secondary education or higher, population 25+ years, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		89.54	89.86		83.96	84.76	83.66	83.56	85.85	87.51	88.69		
Indonesia	46.70	47.29	48.80	43.97	49.70	50.91	54.08	54.58		56.70	56.67		
Cambodia		12.18	12.34				18.98		22.12				
Lao PDR					22.60						28.96		
Myanmar		37.55			37.09	38.16	42.63						
Malaysia				74.21			76.78			80.57			
The Philippines					59.41			63.53	61.97	61.85			
Singapore	78.13	78.59	79.37	79.61	80.01	81.42	82.18	83.06	84.81	85.26			
Thailand	41.42			45.07		46.24	49.58			53.63			
Timor-Leste				33.47						77.77			
Viet Nam							65.34	62.10	64.01	66.45	65.97		





Educational attainment rate, completed upper secondary education or higher, population 25+ years, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		70.65	67.59		67.80	68.38	69.22	67.42	70.84	68.77	67.87		
Indonesia	30.42	31.09	32.26	33.73	33.77	34.60	36.99	38.10	39.56	39.57	39.10		
Cambodia		10.07	9.30		12.19		9.42	9.61	11.53		10.45		
Lao PDR			19.79		14.64					23.99	20.62		
Myanmar			6.88	9.87	15.33	15.42	22.76						
Malaysia				58.33			62.61			69.80			
The Philippines	58.46				57.88				32.43	34.46			
Singapore	68.78	69.55	70.92	70.69	71.40	73.52	74.48	74.55	78.37	79.04			
Thailand	29.29	31.12	32.22	32.67	33.26	33.31	35.26	35.55	36.19	39.33	39.44	39.11	
Timor-Leste			29.73	26.14						63.46			
Viet Nam	28.14	29.04	28.12	29.28	30.33	30.67	31.93	36.21	36.91	41.92	39.47		

Proportion of primary schools with access to electricity (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia				90.45	93.04	93.13			96.24	97.42	97.85	98.25	98.35
Cambodia							87.35		75.47	86.81	89.11	90.61	
Lao PDR				37.26			50.18	54.06	57.65	59.28	62.54	64.57	67.03
Myanmar					27.39		63.81						
Malaysia				99.98	100.00	99.99	99.99	100.00	100.00	100.00	100.00	100.00	
The Philippines	89.17	89.23	89.28	89.34	91.27	93.94	96.13	97.54	98.02	97.62	98.08	97.89	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							99.82	99.84	99.87	99.94	99.90	99.90	99.94
Timor-Leste						82.14	84.19			100.00	100.00		
Viet Nam							98.91	96.96	93.98	94.69	95.80	96.60	

Proportion of lower secondary schools with access to electricity (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia				94.72	96.78	96.79			98.16	98.96	98.90	99.33	99.32
Cambodia									75.36	94.49	95.83	96.62	
Lao PDR				72.21			81.38	83.77	86.86	87.58			
Myanmar				59.90		75.59							
Malaysia				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
The Philippines	96.73	96.72	97.47	96.72	94.32	96.46	97.35	97.51	98.11	97.30	97.65	97.19	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							99.53	99.53	99.72	99.81	99.77	99.79	99.88
Timor-Leste						82.14	84.19				100.00		
Viet Nam								96.57	92.08	91.14	95.28	95.70	

Proportion of upper secondary schools with access to electricity (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia					97.86	98.69		98.17	99.34	99.61	99.38	99.79	99.43
Cambodia									96.39	99.46	99.30	99.48	
Lao PDR				89.03			93.04	94.74	95.60	95.83			
Myanmar				65.69	68.66	74.18							
Malaysia				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
The Philippines	96.73	96.72	97.47	96.72		91.52	95.28	97.18	97.44	95.65	95.74	96.03	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste							78.71				100.00		
Viet Nam								93.04	90.07	88.87	92.98	93.27	

Proportion of primary schools with access to Internet for pedagogical purposes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia									80.99	84.08	86.81	77.47	80.72
Cambodia									7.06	4.60	5.72	9.64	
Lao PDR												5.36	11.77
Myanmar					0.19	0.23							
Malaysia				100.00	100.00	100.00	100.00	100.00	99.60	99.96	100.00	100.00	
The Philippines	10.21	13.22	22.61	22.67	26.59	31.42	29.33	31.08	35.09	64.02	63.98	74.21	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							99.82	99.84	99.87	99.94	99.90	99.90	99.94
Timor-Leste										57.53	57.53		
Viet Nam								88.88	83.80	90.84	93.66	95.47	

Proportion of lower secondary schools with access to Internet for pedagogical purposes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia						46.48			85.25	87.94	90.71	82.47	84.68
Cambodia									15.09	15.00	16.35	21.58	
Lao PDR													10.60
Myanmar					0.77	1.40							
Malaysia				100.00	100.00	100.00	100.00	100.00	99.65	99.98	100.00	100.00	
The Philippines	61.97	64.97	73.02	72.57	73.79	72.37	65.10	68.43	64.30	83.17	81.85	87.92	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							99.53	99.53	99.72	99.81	99.77	99.79	99.88
Timor-Leste											40.82		
Viet Nam								93.07	89.51	89.30	93.89	94.95	





Proportion of upper secondary schools with access to Internet for pedagogical purposes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia					85.00	85.17		93.03	94.89	95.92	95.90	89.78	90.65
Cambodia										58.14	59.72	66.95	
Lao PDR													
Myanmar					11.58	13.05							
Malaysia				100.00	100.00	95.98	96.09	96.40	96.82	96.86	96.87	100.00	
The Philippines	61.97	64.97	73.02	72.57			81.75		64.52	81.31	80.80	87.62	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste											73.89		
Viet Nam								91.22	88.83	88.53	92.37	93.10	

Proportion of primary schools with access to computers for pedagogical purposes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia			15.02		32.00	40.07					7.96	11.39	12.20
Cambodia									8.84	5.34	5.51	7.28	
Lao PDR												11.13	17.73
Myanmar					0.94	0.51							
Malaysia					81.17	78.09	79.32	84.37	86.21	88.17	90.30	100.00	
The Philippines	43.93	49.82	59.19	59.32	78.33	78.16	77.98	79.13	74.09	66.43	73.67	72.67	
Singapore			81.29	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							99.82	99.84	99.87	99.94	99.90	99.90	99.94
Timor-Leste										30.68	28.76		
Viet Nam								84.62	88.20	87.90	92.13	94.76	

Proportion of lower secondary schools with access to computers for pedagogical purposes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia					42.00	48.13					28.29	35.30	40.77
Cambodia									17.01	14.53	15.14	18.52	
Lao PDR													
Myanmar					3.54	2.66							
Malaysia					80.32	82.50	82.78	82.84	94.73	95.70	95.91	100.00	
The Philippines	85.96	87.36	92.41	91.72	88.62	88.11	88.30	87.11	86.58	85.95	86.84	82.94	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							99.53	99.53	99.72	99.81	99.77	99.79	99.88
Timor-Leste											40.82		
Viet Nam								92.28	88.69	88.30	94.12	94.97	

Proportion of upper secondary schools with access to computers for pedagogical purposes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia				67.09	67.23						42.45	77.06	77.42
Cambodia											51.14	54.04	
Lao PDR													
Myanmar					23.75	24.61							
Malaysia					82.55	82.60	85.94	87.05	93.32	93.61	93.75	100.00	
The Philippines	85.96	87.36	92.41	91.72	54.71	62.74	76.47	80.89	86.25	87.42	89.77	83.89	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste											49.26		
Viet Nam								93.56	90.52	89.35	93.29	93.61	

Proportion of primary schools with access to adapted infrastructure and materials for students with disabilities (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia													
Cambodia									21.76	23.49	27.27	29.89	
Lao PDR													
Myanmar						0.57							
Malaysia				13.76	12.60	13.52	14.94	15.65	25.27	31.59	50.28	49.20	
The Philippines							5.98	7.71	7.87	12.64	21.80	40.93	
Singapore						91.43	92.02	92.15	94.29	94.74	94.67		
Thailand													
Timor-Leste										9.59	9.59		
Viet Nam								31.92	34.16	37.11	35.69	37.10	

Proportion of lower secondary schools with access to adapted infrastructure and materials for students with disabilities (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia													
Cambodia									26.08	28.73	31.65	21.82	
Lao PDR													
Myanmar						1.72							
Malaysia				33.53	30.39	32.02	34.66	35.71	35.41	41.46	62.86	82.37	
The Philippines							16.77	17.00	16.78	9.87	16.06	35.13	
Singapore						90.05	91.39	91.90	94.31	93.36	94.74		
Thailand													
Timor-Leste											10.20		
Viet Nam								20.19	25.61	28.93	28.89	30.48	





Proportion of upper secondary schools with access to adapted infrastructure and materials for students with disabilities (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia													
Cambodia									36.64	42.58	46.06	77.62	
Lao PDR													
Myanmar						0.54							
Malaysia				39.61	27.08	27.99	33.52	35.25	42.91	49.96	49.54	90.85	
The Philippines							13.51	13.82	13.68	5.17	9.37	12.11	
Singapore						90.91	92.27	92.79	93.87	92.45	95.17		
Thailand													
Timor-Leste											46.80		
Viet Nam								14.21	17.96	19.94	19.26	19.78	

Proportion of primary schools with access to basic drinking water (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia				57.83	58.10	58.27		79.90	89.41	89.63	89.86	90.36	90.36
Cambodia							60.00		91.53		91.66	92.27	
Lao PDR							56.49						
Myanmar				70.85	69.96	74.77	82.21						
Malaysia				84.38	85.14	92.12	92.55	92.74	88.59	99.69	100.00	100.00	
The Philippines	43.05	43.77	44.50	44.87	45.23	55.76	59.26	57.75	56.67	55.59	50.81	46.56	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							100.00	99.84	100.00	100.00	100.00	100.00	100.00
Timor-Leste						67.32	68.15			9.59	95.88		
Viet Nam							95.61		50.45	64.49	93.09	84.55	

Proportion of lower secondary schools with access to basic drinking water (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia				47.28		57.59		81.24	90.31	90.15	90.77	90.71	90.63
Cambodia									84.43		89.18	89.37	
Lao PDR													
Myanmar					76.95	82.07							
Malaysia				98.08	98.33	99.54	99.05	98.57	99.04	99.85	100.00	100.00	
The Philippines	51.92	53.07	54.23	55.39	56.54	61.63	63.89	61.61	59.96	62.78	58.48	55.03	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							100.00	99.53	100.00	100.00	100.00	100.00	100.00
Timor-Leste						67.32	68.15				91.84		
Viet Nam									43.06	63.73	78.66	93.32	

Proportion of upper secondary schools with access to basic drinking water (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia				57.59	56.66	59.89		87.91	92.78	93.64	94.24	94.25	93.84
Cambodia										56.17	94.05	92.60	
Lao PDR													
Myanmar					83.24	88.53							
Malaysia				98.98	99.05	99.30	99.44	99.22	99.32	99.88	100.00	100.00	
The Philippines	51.92	53.07				58.68	62.22	59.69	58.84	57.92	56.55	55.19	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste							64.52				98.52		
Viet Nam									37.44	57.98	74.16	89.57	

Proportion of primary schools with single-sex basic sanitation facilities (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia						49.77		52.55	68.51	58.85	62.03	63.37	64.19
Cambodia				48.40			75.87		55.05	46.69	72.50	87.04	
Lao PDR							47.09						
Myanmar					66.25	64.42	83.81						
Malaysia				100.00	100.00	100.00	100.00	100.00	100.00	99.79	100.00	100.00	
The Philippines	43.15	47.91	56.98	57.31	57.69	57.99	58.03	61.11	60.09	67.42	69.16	70.48	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand													
Timor-Leste										100.00	100.00		
Viet Nam							96.78		93.32	93.91	95.10	96.12	

Proportion of lower secondary schools with single-sex basic sanitation facilities (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia						60.30		65.36	78.07	72.48	56.07	76.06	76.15
Cambodia									64.53		76.92	90.10	
Lao PDR													
Myanmar						67.28							
Malaysia				100.00	100.00	100.00	100.00	100.00	99.89	99.85	100.00	100.00	
The Philippines	77.01	79.73	85.42	85.41	86.10	84.79	84.25	84.41	82.47	86.69	85.96	86.05	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand													
Timor-Leste											91.84		
Viet Nam									90.46	90.38	94.60	85.56	





Proportion of upper secondary schools with single-sex basic sanitation facilities (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia						55.11		63.87	73.47	71.85	64.53	77.29	77.66
Cambodia									87.09		76.88	97.25	
Lao PDR													
Myanmar					71.76	74.59							
Malaysia				100.00	100.00	100.00	100.00	99.89	99.92	99.88	99.65	100.00	
The Philippines	77.01	79.73					87.98	78.43	77.39	92.81	92.29	92.51	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand													
Timor-Leste											100.00		
Viet Nam									90.00	89.28	92.78	93.07	

Proportion of primary schools with basic handwashing facilities (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia						69.11		55.85	78.18	70.21	66.88	64.03	60.82
Cambodia				48.84					98.25	85.74	85.53	86.43	
Lao PDR													
Myanmar					51.55	56.41							
Malaysia				100.00	100.00	100.00	100.00	100.00	100.00	99.98	100.00	100.00	
The Philippines	70.40	70.57	70.66	70.87	69.94	77.12	82.55	85.69	85.17	95.61	96.13	93.54	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							100.00	99.84	100.00	100.00	100.00	100.00	100.00
Timor-Leste							68.30			95.88	96.93		
Viet Nam									77.15	80.38	84.31	82.49	

Proportion of lower secondary schools with basic handwashing facilities (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia						66.06		50.56	80.06	73.10	69.72	65.61	61.69
Cambodia									92.62		84.46	81.80	
Lao PDR													
Myanmar					58.77	60.64							
Malaysia				100.00	100.00	100.00	100.00	100.00	99.89	99.96	100.00	100.00	
The Philippines	82.95	82.92	83.49	82.92	75.68	78.54	83.93	85.49	83.53	94.73	95.31	90.90	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							100.00	99.53	100.00	100.00	100.00	100.00	100.00
Timor-Leste							68.30				61.22		
Viet Nam									65.19	75.16	77.37	73.20	

Proportion of upper secondary schools with basic handwashing facilities (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				100.00	100.00	100.00	100.00	100.00					
Indonesia						72.57		58.24	81.46	75.64	73.47	69.98	66.07
Cambodia										91.77	85.81	86.23	
Lao PDR													
Myanmar					64.63	70.67							
Malaysia				100.00	100.00	100.00	100.00	100.00	99.92	99.97	99.65	100.00	
The Philippines	82.95	82.92	83.49	82.92		78.33	79.14	81.20	80.13	91.98	92.67	89.81	
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand							100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste							58.06				59.11		
Viet Nam									54.95	67.88	70.23	64.72	

Percentage of students experiencing bullying in the last 12 months in primary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia			80.73										
Cambodia													
Lao PDR													
Myanmar													
Malaysia													
The Philippines							96.98						
Singapore			86.73	85.20			83.30		78.74		81.74		
Thailand													
Timor-Leste													
Viet Nam													

Percentage of students experiencing bullying in the last 12 months in lower secondary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		23.40				80.72				70.53			
Indonesia			21.30			65.94				52.19			
Cambodia	22.40									60.32			
Lao PDR			13.20										
Myanmar				50.10									
Malaysia			87.70			66.03	94.13			52.72	89.78		
The Philippines			51.20			87.70				76.55			
Singapore			84.84			64.01	87.60			59.40	82.75		
Thailand			91.81			50.19				39.90			
Timor-Leste			31.30										
Viet Nam	26.10					62.09				46.84			





Number of attacks on students, personnel and institutions													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia	5.00	1.00	3.00	3.00	1.00	8.00	1.00	10.00	21.00	4.00	9.00	20.00	
Cambodia													
Lao PDR													
Myanmar	8.00	5.00	13.00	8.00	17.00	41.00	65.00	43.00	426.00	287.00	205.00	171.00	
Malaysia	1.00	1.00	0.00	0.00	0.00	2.00	1.00						
The Philippines	46.00	84.00	84.00	59.00	66.00	16.00	25.00	9.00	7.00	7.00	25.00	5.00	
Singapore													
Thailand	30.00	62.00	12.00	30.00	12.00	4.00	12.00	8.00	4.00	4.00	3.00		
Timor-Leste												2.00	
Viet Nam	1.00	2.00	0.00	0.00	0.00	0.00	0.00						

Proportion of teachers with the minimum required qualifications in pre-primary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	63.20	64.38	58.92	59.44	59.11	61.51	63.72	58.09	44.25	63.27	62.74		
Indonesia										7.63	9.45	10.56	12.19
Cambodia	100.00	100.00	100.00	100.00	99.98	99.55	99.61	100.00	100.00	100.00	100.00	100.00	
Lao PDR		90.63	91.52	90.04	90.13	90.14	89.59	94.11	94.54		12.35	10.83	
Myanmar						81.40							
Malaysia					36.84	39.14	39.72	38.77	37.12	36.84	36.80	37.10	
The Philippines	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Singapore													
Thailand									100.00	100.00	100.00	100.00	100.00
Timor-Leste													
Viet Nam	97.10	97.75	98.68	98.39	98.82	99.17	99.75	99.68	81.72	85.58	88.61	91.06	

Proportion of teachers with the minimum required qualifications in primary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	85.19	87.44	82.32	84.91	85.35	86.41	86.65	85.18	79.71	84.69	85.27		
Indonesia											34.87	33.51	34.69
Cambodia	100.00	100.00	100.00	100.00	99.70	99.28	100.00	100.00	100.00	100.00	100.00	100.00	
Lao PDR	97.98	98.28	98.43	97.50	97.02	97.02	96.91	98.84	99.10	89.73	65.75	65.65	65.16
Myanmar		99.55				95.34							
Malaysia	96.71	98.65	99.93	99.73	98.91		99.22	96.63	97.09	88.14	89.51	94.02	
The Philippines	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Singapore				99.00	99.00	98.26	97.84	98.19	98.01	97.90	98.11		
Thailand		100.00	100.00	100.00	100.00		100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste													
Viet Nam		100.00	99.48	99.77	99.72	99.87	99.52	99.68	84.28	74.73	82.79	89.25	

Proportion of teachers with the minimum required qualifications in lower secondary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		93.97	92.25	92.62	92.13	91.21	89.52		88.84	89.45	89.14		
Indonesia										39.74	36.93	35.32	34.20
Cambodia	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Lao PDR	99.59	99.50	99.50	96.46	94.75	94.75	98.10	99.46	99.66	93.67			
Myanmar		93.25		89.14	93.56	89.54							
Malaysia												91.72	
The Philippines				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Singapore													
Thailand			100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste													
Viet Nam		100.00	99.58	99.49	98.98	99.02	99.56	99.89	83.27	86.26	90.17	93.24	

Proportion of teachers with the minimum required qualifications in upper secondary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		90.40	90.10	90.60	89.12	88.28	90.63	90.53	88.71	91.50	91.61		
Indonesia										36.82	37.44	38.03	39.00
Cambodia									100.00				
Lao PDR	99.62	99.95	98.97	98.84	98.41		97.57	99.46	99.65	93.67			
Myanmar		95.16		98.41	91.85	87.72							
Malaysia												91.32	
The Philippines				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Singapore													
Thailand			100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste													
Viet Nam										99.86			

Percentage of qualified teachers in pre-primary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam			100.00	100.00	100.00	50.28	53.97	53.98	63.64	75.03	73.61		
Indonesia					60.18	60.18				64.19	77.94	78.99	79.34
Cambodia	100.00	100.00	100.00	100.00	100.00	100.00	97.99	100.00			100.00	100.00	
Lao PDR		47.82	46.60	42.97	42.25	42.25							
Myanmar					100.00	100.00							
Malaysia	100.00	100.00	100.00	100.00	100.00		100.00	100.00	100.00	85.59	83.66	94.54	
The Philippines	99.51	99.30	93.52	96.03	98.77	98.72	99.17	100.00	100.00	100.00			
Singapore													
Thailand									100.00	100.00	100.00	100.00	100.00
Timor-Leste						31.95	35.26	33.16					
Viet Nam									81.72	85.58	88.61	91.06	





Percentage of qualified teachers in primary education, both sexes (%)

Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam			100.00	100.00	100.00	100.00	100.00	100.00	87.62	86.04	92.10		
Indonesia				82.09	83.18	89.59	87.49	91.17	94.71	94.76	95.97	96.60	97.28
Cambodia	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00			100.00	100.00	
Lao PDR	78.90	82.63	86.44	89.13	90.19	90.19							
Myanmar				94.53	95.60	91.32							
Malaysia	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.59	100.00	93.03	
The Philippines	99.23	99.37	99.73	99.72	99.81	99.80	99.55	99.44	100.00	100.00			
Singapore				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Thailand		100.00	100.00	100.00	100.00		100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste						75.71	76.53	76.34					
Viet Nam									84.28	74.73	82.79	89.25	

Percentage of qualified teachers in lower secondary education, both sexes (%)

Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam			90.18	85.11	84.68	87.02	87.48		93.38	97.20	95.66		
Indonesia					90.31	96.96		93.84	97.00	97.37	97.87	97.97	98.27
Cambodia	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00			100.00	100.00	
Lao PDR	84.76	86.71	87.16	88.04	88.59	88.59							
Myanmar				90.57	97.41	95.52							
Malaysia												72.34	
The Philippines				99.82	99.60	99.79	99.88	100.00	100.00	100.00			
Singapore													
Thailand			100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste						75.71	76.53	76.34					
Viet Nam									83.27	86.26	90.17	93.24	

Percentage of qualified teachers in upper secondary education, both sexes (%)

Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam			97.69	93.94	93.68	94.50	92.89	90.77	89.92	88.79	89.68		
Indonesia				93.36	96.31	94.91		89.94	96.68	97.42	97.71	97.68	98.03
Cambodia													
Lao PDR	55.11	60.70	62.81	62.37	63.63								
Myanmar				100.00	97.48	100.00							
Malaysia												95.53	
The Philippines				99.83	100.00	100.00	100.00	100.00	100.00	100.00			
Singapore													
Thailand			100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Timor-Leste						94.03	94.45	94.98					
Viet Nam										99.86			

Pupil-trained teacher ratio in pre-primary education (headcount basis)

Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	21.26	26.43	28.98	25.87	27.45	25.03	23.86	30.25	30.11	19.70	24.50		
Indonesia										165.66	142.93	139.61	111.79
Cambodia	30.89	34.67	33.78	38.33	38.91	39.97	40.93	33.90	65.85	45.95	69.52	73.90	
Lao PDR		21.16	20.45	20.30	20.24	20.24	20.63	20.95	20.12	109.91	140.64	161.09	
Myanmar						18.37							
Malaysia					41.59	42.06	40.87	40.05	36.29	36.87	39.20	36.09	
The Philippines	83.17	59.28	29.64	33.63	27.08	32.51	33.12	25.85	27.42	28.29	30.27	29.46	
Singapore													
Thailand									9.30	8.91	9.46	10.56	9.76
Timor-Leste													
Viet Nam	19.43	18.04	17.66	17.42	17.79	17.42	16.89	16.13	18.82	16.34	17.09	15.85	

Pupil-trained teacher ratio in primary education (headcount basis)

Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	11.92	11.73	12.26	12.01	11.93	11.43	11.28	10.93	12.45	11.93	11.76		
Indonesia											56.05	58.26	54.76
Cambodia	48.47	46.19	45.43	44.80	43.95	44.27	41.94	42.06	47.53	47.95	48.95	49.24	
Lao PDR	26.13	25.60	24.54	23.54	23.02	23.02	22.16	22.15	22.51	25.05	43.35	47.18	51.96
Myanmar		27.69				25.55							
Malaysia	12.23	11.57	11.53	11.64	11.78		12.33	12.49	11.92	13.54	13.57	11.87	
The Philippines		30.95	30.74	28.99	29.08	27.07	25.66	25.19	23.76	24.30	24.24	24.76	
Singapore				15.21	14.84	14.59	14.51	14.18	14.12	14.33	14.63		
Thailand		15.39	16.88	16.66	16.43		12.57	11.49	14.37	13.96	14.37	14.61	14.56
Timor-Leste													
Viet Nam		19.21	19.33	19.67	19.70	20.30	21.87	23.15	27.40	32.23	29.28	26.14	

Pupil-trained teacher ratio in lower secondary education (headcount basis)

Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		11.01	11.06	10.79	10.97	10.49	9.90		10.96	10.95	10.56		
Indonesia										53.57	56.28	61.55	60.85
Cambodia	20.07	19.80	19.96	20.39	20.69	21.87	21.69	22.92	38.43	47.81	48.69	48.18	
Lao PDR	17.45	18.15	18.58	18.53	18.29	18.29	18.39	17.67	17.65	18.47			
Myanmar		38.31		28.55	30.38	32.09							
Malaysia												93.97	
The Philippines				23.55	24.18	24.07	24.24	23.84	23.26	24.70	23.75	21.86	
Singapore													
Thailand			25.50	25.33	18.11	18.08	19.17	17.05	19.81	18.91	20.69	18.17	18.40
Timor-Leste													
Viet Nam		15.62	16.38	16.47	17.01	17.73	18.63	19.73	24.76	24.09	23.75		





Pupil-trained teacher ratio in upper secondary education (headcount basis)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		9.63	9.27	8.89	9.19	8.81	8.42	6.18	8.46	8.02	8.30		
Indonesia										54.51	52.46	52.34	52.09
Cambodia									4.36				
Lao PDR	18.69	19.04	19.47	19.66	20.34		16.30	15.99	15.41	16.32			
Myanmar		23.89		20.86	23.88	27.24							
Malaysia												6.66	
The Philippines				23.43	22.44	28.32	28.14	27.06	26.78	31.01	31.65	29.11	
Singapore													
Thailand			31.23	28.08	27.51	27.14	26.87	24.79	18.44	18.23	18.35	16.49	16.49
Timor-Leste													
Viet Nam										21.61			

Pupil-qualified teacher ratio in pre-primary education (headcount basis)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam			17.07	15.38	16.22	30.62	28.17	32.56	20.94	16.61	20.89		
Indonesia				22.06	21.07	21.07				19.69	17.33	18.66	17.17
Cambodia	28.59	31.35	30.81	32.10	34.42	33.34	33.59	33.90			69.52	73.90	
Lao PDR		40.10	40.16	42.54	43.17	43.18							
Myanmar					18.99	14.95							
Malaysia	18.98	17.90	16.59	16.46	15.32		16.23	15.53	13.47	15.87	17.24	14.16	
The Philippines	83.57	59.70	31.69	35.02	27.42	32.93	33.39	25.85	27.42	28.29			
Singapore													
Thailand									9.30	8.91	9.46	10.56	9.76
Timor-Leste						99.53	100.87	106.20					
Viet Nam									18.82	16.34	17.09	15.85	

Pupil-qualified teacher ratio in primary education (headcount basis)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam			10.02	10.20	10.18	9.90	9.77	9.31	11.32	11.74	10.89		
Indonesia				17.02	19.30	18.98		22.25	20.49	21.03	20.37	20.21	19.53
Cambodia	46.93	44.63	45.52	42.53	41.66	41.70	41.94	42.06			48.95	49.24	
Lao PDR	32.44	30.45	27.95	25.75	24.77	24.77							
Myanmar				23.32	24.11	26.68							
Malaysia	11.83	11.41	11.52	11.61	11.66	11.87	12.23	12.07	11.58	11.99	12.14	12.00	
The Philippines		31.14	30.82	29.07	29.14	27.13	25.78	25.33	23.76	24.30			
Singapore				15.06	14.69	14.33	14.20	13.92	13.84	14.02	14.35		
Thailand		15.39	16.88	16.66	16.43		12.57	11.49	14.37	13.96	14.37	14.61	14.56
Timor-Leste						35.59	34.82	33.71					
Viet Nam									27.40	32.23	29.28	26.14	

Pupil-qualified teacher ratio in lower secondary (headcount basis)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam			11.31	11.74	11.94	11.00	10.13		10.42	10.07	9.84		
Indonesia					16.69	15.67		21.73	21.50	21.87	21.24	22.19	21.18
Cambodia	20.07	19.80	19.96	20.39	20.69	21.87	21.69	22.92			48.69	48.18	
Lao PDR	20.50	20.83	21.21	20.31	19.56	19.56							
Myanmar				28.10	29.18	30.08							
Malaysia												119.15	
The Philippines				23.59	24.28	24.12	24.27	23.84	23.26	24.70			
Singapore													
Thailand			25.50	25.33	18.11	18.08	19.17	17.05	19.81	18.91	20.69	18.17	18.40
Timor-Leste						35.59	34.82	33.71					
Viet Nam									24.76	24.09	23.75		

Pupil-qualified teacher ratio in upper secondary (headcount basis)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam			8.55	8.57	8.74	8.23	8.11	6.16	8.35	8.27	8.48		
Indonesia				15.44	16.09	15.76		22.62	20.47	20.60	20.10	20.38	20.73
Cambodia													
Lao PDR	33.78	31.36	30.68	31.15	31.45								
Myanmar				20.53	22.50	23.90							
Malaysia												6.37	
The Philippines				23.47	22.44	28.32	28.14	27.06	26.78	31.01			
Singapore													
Thailand			31.23	28.08	16.78	16.52	17.14	16.18	18.44	18.23	18.35	16.49	16.49
Timor-Leste						27.68	29.60	28.26					
Viet Nam										21.61			

Teacher attrition rate from pre-primary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam					9.27	4.09	7.68	20.29		13.47	12.97		
Indonesia											6.15		
Cambodia													
Lao PDR			1.27	0.27	1.39			12.49	3.74				
Myanmar													
Malaysia						5.88				2.57	0.69		
The Philippines	2.50		1.67	19.33			4.09		5.79		10.54	2.93	
Singapore													
Thailand													
Timor-Leste													
Viet Nam										3.81	0.54	1.12	





Teacher attrition rate from primary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				4.69	4.41	3.16	4.14		10.73	5.12	4.91		
Indonesia		6.90								39.25	3.70		
Cambodia													
Lao PDR		4.32	1.87	1.97	2.38			5.64	4.74				
Myanmar						11.54							
Malaysia		1.35	6.70	3.12	2.15	3.11	4.56				4.01		
The Philippines		1.84	1.92	1.23	4.88	0.44	4.03		0.11	0.88		1.50	
Singapore													
Thailand													
Timor-Leste													
Viet Nam							3.07	6.75	1.43	2.23	2.46	1.86	

Teacher attrition rate from lower secondary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				3.20	4.68	1.86	6.32			1.01	1.22		
Indonesia		4.42									4.71		
Cambodia													
Lao PDR			2.32	1.31	2.34		5.18	3.79	4.81				
Myanmar													
Malaysia													
The Philippines						0.24	5.17		1.48	3.31	0.25	0.80	
Singapore													
Thailand													
Timor-Leste													
Viet Nam							4.85	5.50	1.08	1.64	2.26	1.36	

Teacher attrition rate from upper secondary education, both sexes (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				3.15	7.72	2.13	4.13		25.91	2.32	3.39		
Indonesia											2.96		
Cambodia													
Lao PDR					0.01			8.41	4.81				
Myanmar						1.29							
Malaysia												16.26	
The Philippines					57.66				0.31	2.23			
Singapore													
Thailand													
Timor-Leste													
Viet Nam													

Expenditure on education as a percentage of total government expenditure (%) (UIS calculation)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia	17.85	17.90	20.36	11.32	10.88	10.15	9.34	9.32	8.97	8.70			10.56
Cambodia	9.60	8.79				9.98	12.13	11.07	9.35	11.67	12.01	11.23	11.55
Lao PDR	13.34	11.76	10.47	12.89	11.44	11.17	10.83	10.66	11.51	9.82	9.80	8.24	
Myanmar					10.19	10.12	9.74						
Malaysia	19.45	19.80	19.81	20.79	21.21	19.64	17.64	15.62	20.46	20.15	14.10		
The Philippines		15.52	15.15	16.64	19.59	18.69	18.16	16.89	16.68	15.70	16.73	16.55	15.20
Singapore	28.84	20.47	17.70	17.55	17.25	20.72	19.47	19.19	11.47	15.13	14.07	12.86	11.99
Thailand	19.13	20.54	20.62	19.80	18.36	17.17	17.01	15.43	14.69	14.64	14.19	13.09	12.62
Timor-Leste	5.89	6.77	8.64	7.25	8.22	8.01	6.87	6.96	7.47			6.28	4.33
Viet Nam	18.52	16.81	15.02	15.60	15.47	16.09	15.57	14.47	14.82	15.45			

Government expenditure on education as a percentage of GDP (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		3.35		4.43									
Indonesia	3.36	3.29	3.58	1.21	1.05	0.99	0.96	1.02	1.03	0.86	1.28		
Cambodia	1.58	1.45				1.60	2.13	2.25	1.96	1.96	2.18		
Lao PDR	3.23	2.94	2.74	2.77	2.50	2.34	2.12	1.92	1.86	1.46	1.23		
Myanmar					2.17	1.99	2.00						
Malaysia	5.48	5.21	4.89	4.75	4.68	4.48	4.16	3.91	4.26	3.50	3.51		
The Philippines		2.66	2.83	3.30	3.96	3.86	3.41	3.86	3.87	3.58	3.62	3.93	3.97
Singapore	2.85	3.01	2.99	2.94	2.88	2.86	2.73	2.69	2.82	2.49	2.15	2.19	
Thailand	4.12	3.92	3.86	3.77	3.47	3.20	3.02	3.15	2.98	2.61	2.52		
Timor-Leste	5.67	7.51	8.47	8.13	7.17	6.85	4.18	3.65	2.97		5.24		
Viet Nam	4.53	3.54	3.42	3.47	3.42	3.30	3.08	3.22	2.95	2.89			

Teaching staff compensation as a percentage of total expenditure in pre-primary public institutions (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia													
Cambodia													
Lao PDR	70.02	71.40											
Myanmar													
Malaysia	49.87	78.57	55.74	54.80	54.15	64.95	54.74	62.98	69.22				
The Philippines													
Singapore													
Thailand		98.87											
Timor-Leste	66.46	64.54											
Viet Nam													



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Government expenditure on primary education as a percentage of GDP (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam				0.86									
Indonesia	1.43	1.44	1.53								0.08		
Cambodia	0.78	0.70											
Lao PDR	1.34	1.19	1.19	1.19	1.07	0.99	0.90	0.81	0.79	0.67	0.64		
Myanmar					0.78	0.78	0.73						
Malaysia	1.76	1.68	1.62	1.61	1.58	1.52	1.52	1.62		1.47	1.56		
The Philippines		1.18	1.25	1.42	1.56	1.41	1.19	1.32	1.30	1.22	1.21	1.33	1.37
Singapore	0.63			0.66	0.74	0.72	0.69	0.68	0.70	0.62	0.55		
Thailand	1.70							0.17		0.11	0.09		
Timor-Leste	3.67	4.88	3.01	3.12	0.34	0.18	2.53	2.30	1.91		3.32		
Viet Nam	1.34												

Government expenditure on secondary education as a percentage of GDP (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		1.30		2.69									
Indonesia	0.87	0.88	0.97										
Cambodia	0.65	0.64											
Lao PDR	1.22	1.13	1.06	1.08	0.98	0.91	0.83	0.74	0.72	0.53	0.56		
Myanmar					0.85	0.82	0.77						
Malaysia	1.88			1.87	1.97	1.85	1.56	1.56		1.25	1.27		
The Philippines		0.69	0.77	1.01	1.29	1.17	1.06	1.24	1.20	1.14	1.22	1.25	1.27
Singapore	0.66			0.65	0.69	0.65	0.61	0.59	0.59	0.53	0.47		
Thailand	1.23							2.01		1.66	1.57		
Timor-Leste	1.71	2.24	0.54	0.53	0.14	0.13	0.54	0.47	0.55				
Viet Nam	1.79												

Government expenditure on tertiary education as a percentage of GDP (%)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		1.07		0.84									
Indonesia	0.55	0.49	0.57								0.16		
Cambodia	0.10												
Lao PDR	0.45	0.41	0.21	0.21	0.19	0.17	0.16	0.14	0.14	0.04	0.04		
Myanmar					0.24	0.29	0.29						
Malaysia	1.67			1.11	0.98	0.96	0.95	0.60		0.63	0.57		
The Philippines		0.35	0.34	0.39	0.49	0.63	0.62	0.70	0.73	0.64	0.59	0.70	0.67
Singapore	1.01			0.99	0.82	0.87	0.79	0.75	0.75	0.60	0.51		
Thailand	0.64	0.66	0.71	0.73	0.73	0.66	0.60	0.64	0.63	0.60	0.58		
Timor-Leste	0.22	0.31	0.20	0.13	0.09	0.17	0.29	0.23	0.15		0.01		
Viet Nam	0.68												





Completion rate, lower secondary education, adjusted gender parity index (GPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia					1.06					1.03			
Cambodia		0.96					1.03	1.03	1.08				
Lao PDR					0.98						1.00		
Myanmar				1.01									
Malaysia													
The Philippines	1.25				1.09	1.15				1.12			
Singapore													
Thailand	1.14		1.12	1.12			1.10			1.07			
Timor-Leste				1.10									
Viet Nam		1.06						1.01	1.06				

Completion rate, lower secondary education, adjusted location parity index (LPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia					0.89					0.92			
Cambodia		0.53					0.56	0.56	0.78				
Lao PDR					0.57						0.61		
Myanmar				0.48									
Malaysia													
The Philippines	0.86				0.90	0.92				0.94			
Singapore													
Thailand	0.98		0.96	0.96			0.94			0.98			
Timor-Leste				0.63									
Viet Nam		0.91						0.99	0.93				

Completion rate, lower secondary education, adjusted wealth parity index (WPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia					0.68								
Cambodia		0.26							0.37				
Lao PDR					0.18						0.31		
Myanmar				0.17									
Malaysia													
The Philippines	0.43				0.53					0.63			
Singapore													
Thailand	0.82		0.81	0.81			0.69			0.81			
Timor-Leste				0.36									
Viet Nam		0.62						0.90	0.69				

Out-of-school rate for youth of upper secondary school age, adjusted gender parity index (administrative data) (GPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	0.54	0.71	0.69	0.70	0.67	0.73	0.77	0.68	0.81	0.78	0.76		
Indonesia	1.19	1.17	1.16	1.01	1.01	1.00	1.25	1.32	1.15	1.20	1.03	0.93	0.92
Cambodia								1.02	0.85	0.86	0.78	0.84	
Lao PDR	1.14	1.14	1.13	1.14	1.13	1.12	1.10	1.08	1.07	1.06	1.06	1.05	1.03
Myanmar		0.92		0.79	0.77	0.71							
Malaysia	0.74	0.75		0.71	0.74	0.78	0.78	0.85	0.85	0.78	0.81	0.84	
The Philippines		0.72	0.76			0.80	0.83	0.80	0.78	0.77	0.84	0.83	
Singapore							1.77	1.44	0.91	1.26	1.11		
Thailand		0.56	1.08		0.66	0.65	0.72	0.69	0.67	0.53	0.54	0.54	0.56
Timor-Leste	0.96	0.94	0.95	0.94	0.86	0.83	0.78	0.82					
Viet Nam													

Out-of-school rate for youth of upper secondary school age, adjusted location parity index (household survey data) (LPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia					1.22					1.21			
Cambodia		1.38					1.16	1.08	1.07				
Lao PDR					1.56						1.47		
Myanmar				1.39									
Malaysia													
The Philippines					1.08	1.13				1.18			
Singapore													
Thailand	1.25		1.09	1.09			1.22				1.07		
Timor-Leste				1.44									
Viet Nam		1.32						1.47	1.47				

Out-of-school rate for youth of upper secondary school age, adjusted wealth parity index (household survey data) (WPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia					1.57								
Cambodia		1.53						1.43	1.45				
Lao PDR					1.82						1.71		
Myanmar				1.64									
Malaysia													
The Philippines					1.83	1.80				1.86			
Singapore													
Thailand	1.81		1.80	1.80			1.92				1.93		
Timor-Leste				1.71									
Viet Nam		1.85						1.95	1.95				





Proportion of students at the end of lower secondary education achieving at least a minimum proficiency level in reading, adjusted gender parity index (GPiA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam						1.23				1.23			
Indonesia			1.26			1.31				1.29			
Cambodia					1.31					1.33			
Lao PDR													
Myanmar													
Malaysia						1.23				1.32			
The Philippines						1.34				1.39			
Singapore			1.06			1.07				1.06			
Thailand			1.28			1.38				1.30			
Timor-Leste													
Viet Nam			1.11							1.11			

Proportion of students at the end of lower secondary education achieving at least a minimum proficiency level in mathematics, adjusted location parity index (LPiA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam						0.78							
Indonesia						0.30							
Cambodia					0.31								
Lao PDR													
Myanmar													
Malaysia						0.79							
The Philippines													
Singapore													
Thailand						0.62							
Timor-Leste													
Viet Nam													

Proportion of students at the end of lower secondary education achieving at least a minimum proficiency level in mathematics, adjusted wealth parity index (WPiA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam						0.47				0.48			
Indonesia			0.29			0.37				0.25			
Cambodia					0.19					0.13			
Lao PDR													
Myanmar													
Malaysia						0.48				0.32			
The Philippines										0.20			
Singapore			0.28				0.14						
Thailand			0.60			0.54				0.32			
Timor-Leste													
Viet Nam			0.78							0.70			

Adjusted net enrolment rate, one year before the official primary entry age, adjusted gender parity index (GPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam		1.05	1.02	1.01	1.01	1.02	0.99	1.01	1.01	1.02	0.98		
Indonesia							1.00	0.95	0.95	0.95	0.93	0.95	0.95
Cambodia			1.04	1.02	1.00	1.01		1.01	1.04	1.11	1.02	1.05	
Lao PDR	1.01	1.02	1.02	1.01	1.01	1.01	1.02	1.01	1.02	1.03	1.02	1.03	1.04
Myanmar					1.05	1.05							
Malaysia				1.05	1.03	1.03	1.04	1.02	1.01	1.01	0.99	0.99	
The Philippines		1.04	1.05	1.05	1.03	1.03	1.01	1.02	1.01	1.00	1.01	1.00	
Singapore													
Thailand					0.98	0.99	0.98	0.99	0.99	0.98	1.02	1.02	1.00
Timor-Leste	1.14	1.13	1.12	1.07	1.04	1.00	1.07	1.09					
Viet Nam		0.93			0.96			0.95	0.97				

Adjusted net attendance rate, one year before the official primary entry age, adjusted location parity index (LPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia										0.85			
Cambodia		0.84						0.97					
Lao PDR					0.79						0.71		
Myanmar													
Malaysia													
The Philippines						1.05				1.02			
Singapore													
Thailand	1.00			0.99			0.99				0.97		
Timor-Leste				0.80									
Viet Nam		1.01						1.11	1.05				

Adjusted net attendance rate, one year before the official primary entry age, adjusted wealth parity index (WPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia													
Cambodia		0.69						0.72					
Lao PDR					0.56						0.52		
Myanmar													
Malaysia													
The Philippines						0.85				0.86			
Singapore													
Thailand	0.96			0.98			0.97				0.97		
Timor-Leste				0.51									
Viet Nam		0.93						0.94	0.99				





Gross enrolment ratio for tertiary education, adjusted gender parity index (GPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	1.49	1.46	1.45	1.44	1.43	1.42	1.43	1.40	1.41	1.41	1.35		
Indonesia	1.13	1.13	1.12	1.13	1.13	1.14	1.11	1.13	1.15	1.18	1.20		
Cambodia			0.79		0.94	0.98	1.22	1.12	1.02	0.89	1.14	1.11	
Lao PDR	0.89	0.93	0.96	1.01	1.06	1.09	1.13	1.14	1.13	1.02	0.75		
Myanmar						1.32							
Malaysia	1.30	1.31	1.29	1.22	1.22	1.26	1.29	1.30	1.29	1.29	1.30	1.31	
The Philippines	1.23	1.24	1.24	1.23	1.23	1.23	1.21	1.19	1.23	1.28	1.26	1.22	
Singapore				1.14	1.13	1.13	1.12	1.10	1.10	1.10	1.09		
Thailand	1.26	1.25	1.30	1.28	1.28	1.29	1.27	1.27	1.26	1.25	1.26	1.25	1.26
Timor-Leste											1.04		
Viet Nam	0.88	1.03	0.98	1.18	1.11				0.96	1.03	1.18	1.16	

Proportion of 15-24 year-olds enrolled in vocational education, adjusted gender parity index (GPIA)													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam	1.03	0.89	0.89	0.97	0.98	1.06	1.04	1.06	0.94		0.84		
Indonesia	0.63	0.68				0.87	0.84	0.84	0.84	0.84	0.84	0.78	
Cambodia													
Lao PDR	1.30	1.38	0.52	1.31	0.93		1.03	0.99	0.92		0.75		
Myanmar				0.28	0.25	0.71							
Malaysia	0.69	0.81		1.02	0.85	0.91	0.89	0.83	0.70	0.65	0.62	0.47	
The Philippines		0.90	0.85	0.88	0.86	0.87	0.80		0.76		0.64	0.65	
Singapore				0.91	0.93	0.91	0.92	0.92	0.92	0.92	0.93		
Thailand		0.74	0.60		0.69	0.69	0.70	0.72	0.71	0.72	0.70	0.69	0.71
Timor-Leste	0.79	0.76	0.72	0.65	0.68	0.73	0.78						
Viet Nam			0.40	0.35	0.35	0.35	0.37	0.41	0.45	0.48			

Score on greening education in environment and sustainability													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia											83.36		
Cambodia													
Lao PDR													
Myanmar											35.36		
Malaysia											69.59		
The Philippines											66.79		
Singapore													
Thailand											63.64		
Timor-Leste											39.19		
Viet Nam											70.80		

Score on greening education in climate change													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia											0.00		
Cambodia													
Lao PDR													
Myanmar											29.34		
Malaysia											15.65		
The Philippines											10.41		
Singapore													
Thailand											0.00		
Timor-Leste											0.00		
Viet Nam											49.50		

Score on greening education in biodiversity													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia											16.61		
Cambodia													
Lao PDR													
Myanmar											29.30		
Malaysia											30.60		
The Philippines											44.71		
Singapore													
Thailand											64.35		
Timor-Leste											17.77		
Viet Nam											15.46		

Score on greening education in environment and sustainability, climate change, and biodiversity													
Country	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brunei Darussalam													
Indonesia											45.83		
Cambodia													
Lao PDR													
Myanmar											32.34		
Malaysia											46.36		
The Philippines											47.17		
Singapore													
Thailand											47.91		
Timor-Leste											24.04		
Viet Nam											51.64		



THE STATE OF EDUCATION IN ASEAN

The State of Education in ASEAN is the first ASEAN-wide education situation analysis covering the full education continuum, from early childhood education to adult learning and lifelong learning. Drawing primarily on authoritative and internationally comparable data from the UNESCO Institute for Statistics database, alongside national policy analysis and regional consultations, the report examines progress, persistent challenges, and emerging priorities shaping education development across ASEAN. It provides a comprehensive overview of regional trends in participation, learning, equity, teachers, financing, and education system transformation in the context of Sustainable Development Goal 4 (SDG 4).

Produced jointly by the Association of Southeast Asian Nations and the UNESCO Institute for Statistics, with financial support from the United Kingdom Foreign, Commonwealth & Development Office, this report has been prepared to inform the development of ASEAN's post-2025 education agenda, strengthen the evidence base for policymaking, and reinforce regional cooperation in pursuit of shared strategic objectives. By highlighting both regional patterns and national diversity, the report serves as a resource for policymakers, researchers, development partners, and other stakeholders working to advance inclusive, equitable, and quality education opportunities across the region.