

2ND ASIA-PACIFIC REGIONAL EDUCATION MINISTER'S CONFERENCE (APREMC-II)



TECHNICAL PAPER

# Learning Recovery and Addressing the Learning Crisis<sup>1</sup>

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<sup>1</sup> This thematic paper is part of a series prepared for the Second Asia-Pacific Regional Education Ministers' Conference (APREMC-II). The findings of this paper were used to inform the thematic discussion during the conference and were summarized in a policy brief shared with all participants ahead of the conference. All APREMC-II thematic papers and policy brief can be accessed using this link: [bit.ly/APREMC2022PolicyBriefs](https://bit.ly/APREMC2022PolicyBriefs)

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# Learning recovery and addressing the learning crisis

## Introduction

This background paper was prepared to inform the thematic panel discussion on Learning Recovery and Addressing the Learning Crisis at the 2nd Asia-Pacific Regional Education Ministerial Conference (APREMC-II) in June 2022.

The purpose of this paper is to provide key recommendations for the provision and delivery of school education<sup>2</sup> to facilitate post-COVID-19 learning recovery in the immediate and short-term. The recommendations focus on how education systems could provide safe schools and deliver a more equitable, inclusive and relevant education for all learners.

The pandemic has disrupted education for approximately 1.6 billion students globally, forced school closures and shifted learning towards remote and blended modalities (Global Education Evidence Advisory Panel, 2022; UNESCO, 2021a; UNESCO & UNICEF, 2022).

Such disruptions threaten to deepen the 'learning crisis' that existed prior to the pandemic and impede the progress made towards access to quality education, particularly for the most vulnerable learners.

As education systems in the Asia-Pacific region seek to recover from the pandemic by reopening schools, it is incumbent on governments to identify recovery strategies that have enabled education access and learning continuity and to determine the approaches that best support education systems' resilience, post-pandemic.

This will be challenging as school closures in the region varied significantly, with some schools, such as those in India (eighty-two weeks), Indonesia (seventy-seven weeks) and Bangladesh (seventy-three weeks), being fully or partially closed<sup>3</sup> for more than a year.

Those in other countries were closed for much less, such as in Vanuatu (four weeks), Papua New Guinea (six weeks) and the Solomon Islands (seven weeks), up to the date of 30 November 2021 (UNESCO, 2021a). Examples provided in the background paper draw from a range of countries that were fully or partially closed for different durations during the response and recovery phases of the pandemic.

This introduction presents the analytical framework used to guide the research, with a focus on learning recovery within education emergency management. Definitions of Response-Recovery-Preparation emergency management phases are provided.

Throughout the paper, selected country examples are presented in boxes to highlight key curriculum, pedagogy and assessment innovations implemented by Asia-Pacific countries.

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<sup>2</sup> Another background paper will cover the skills crisis and employability in Adolescent Learning and Skills Development.

<sup>3</sup> Full school closures refer to situations where all schools were closed at the nationwide level due to COVID-19, while partial school closures refers to school closures in some regions or for some grades, or with reduced in-person instruction.

The focus of this paper is on learning recovery. This paper also presents evidence about sustaining recovery as relevant for the ongoing adoption of curriculum adaption, flexible learning strategies and different assessment approaches to address the learning crisis.

### Analytical framework

The analytical framework underlying the learning recovery background paper was guided by the **Policy Monitoring Framework (PMF)** below (Figure 1), and the **Reach-Assess-Prioritize-Increase-Develop (RAPID)** framework (Figure 2).

The PMF was developed from a rapid review of literature of over 250 documents relating to education in emergencies, including the COVID-19 pandemic. This review was conducted by ACER, and supported by the Global Education Monitoring (GEM) Centre (Tarricone, Mestan et al., 2021).

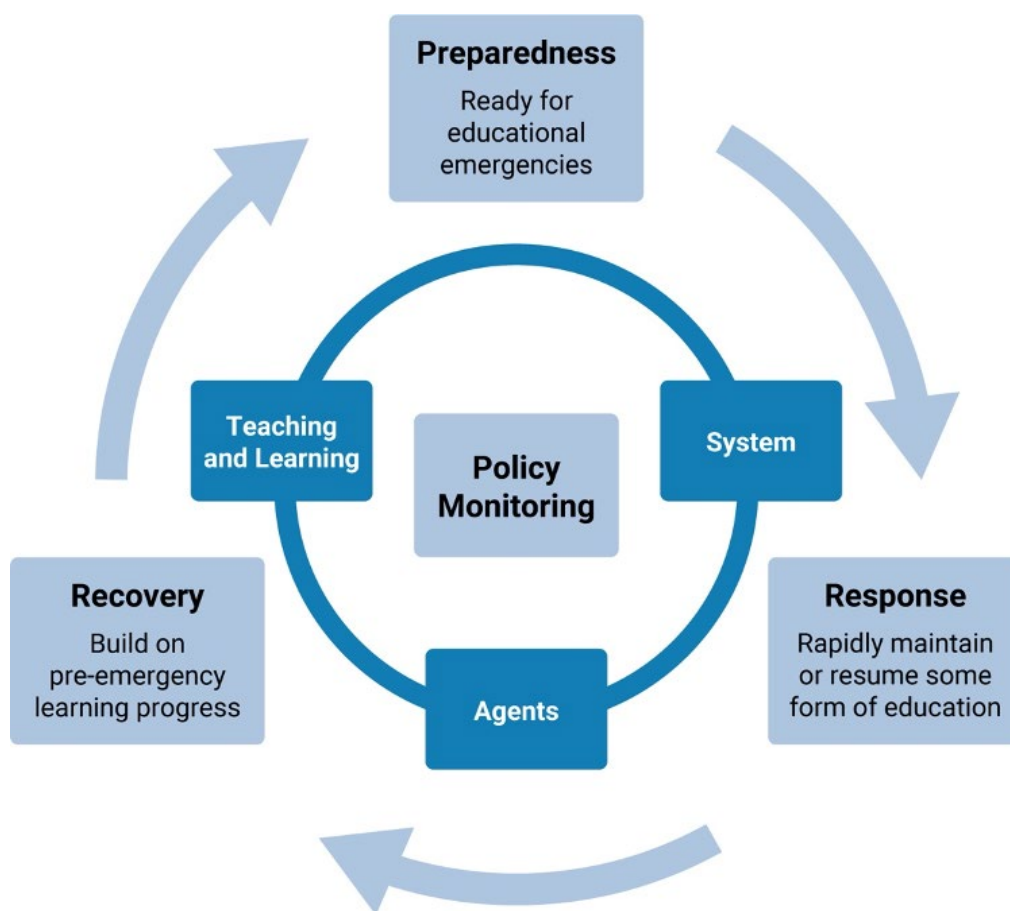


Figure 1: Policy Monitoring Framework (PMF) for building a resilient education system (Tarricone, Mestan et al., 2021)

The **RAPID framework** is an essential guide to learning recovery from pandemic-induced disruptions to schooling and learning (see Figure 2). The RAPID approach builds on the findings of a survey (and other sources) that sampled 122 countries and queried the extent that they had effectively engaged in learning recovery (UNICEF et al., 2022).

The RAPID learning recovery framework focuses on five action areas including reaching every child and retaining them in school; assessing learning levels; prioritising teaching the fundamentals; increasing catch-up learning and progress beyond what was lost; and developing psychosocial health and wellbeing so that every child is ready to learn (UNICEF et al., 2022).



Figure 2: RAPID Learning Recovery Framework

## Policy Monitoring Framework

Central to the Policy Monitoring Framework (PMF) is the goal of monitoring the implementation and progress of education policies within an education system by policymakers. The PMF identifies distinct, but interdependent factors, **Systems, Teaching and Learning** and **Agents**, relevant to supporting learning recovery, building resilient education systems and supporting broader systems transformation.

These factors are considered within **Response-Recovery-Preparation** emergency management phases, discussed below, that can be used to characterise the cyclical process of disruptions to education. Collectively, these phases and factors frame policy considerations that enable policymakers to monitor education policies during disruptions to teaching and learning (Tarricone, Mestan et al., 2021).

The **Systems factor** refers to formal and informal central processes, practices, networks and relations that public and private bodies – for example, institutions and civil society groups – engage in. For instance, education policies, legislation and sociocultural practices are systems that can influence and be influenced by learning crisis situations (Tarricone, Mestan et al., 2021).

The **Teaching and Learning factor** refers to education-specific activities, resources, delivery platforms, student assessment, classroom pedagogies and practices and curricular content. This factor is focused on issues that are directly related to how teachers teach and how students learn and are assessed (Tarricone, Mestan et al., 2021).

The **Agents factor** refers to entities that make decisions and act. Agents include individual people, groups, or organisations, for example, parents/guardians, families, teachers, children, refugees, asylum seekers, internally displaced persons, local government, government agencies and NGOs (Tarricone, Mestan et al., 2021).

## Framing learning recovery and addressing the learning crisis

Governments seeking to support the needed learning recovery due to COVID-19 and address the ongoing learning crisis are likely to develop and implement policies and practices that overlap across the three emergency management phases, presented in Figure 1.

The continuation of such policies and practices supports short-term learning recovery, as guided by the RAPID framework, as well as medium- to long-term goals for learning recovery.

The **Response** phase during the COVID-19 pandemic has been characterized by prioritizing immediate/short-term actions to completely or partially close schools, while also implementing remote and blended learning modalities, for example, television, radio, digital platforms, take-home learning packs or downloaded educational packages.

During the **Recovery** phase, there was and continues to be, an emphasis on the safe reopening of schools and/or managing remote and blended learning modalities to support a return to onsite learning. This phase has seen the implementation of learning recovery programmes and initiatives that aim to overcome learning loss as a result of pandemic-induced school closures and disruptions to learning, as well as to meet minimum SDG 4 proficiency standards in core competencies. In this regard, policymakers across the Asia-Pacific region have sought to recover from the pandemic by implementing policies and practices that focus broadly on:

1. Managing the timely closing and re-opening of schools.
2. Using digital technology to support remote and blended learning.
3. Continuing high stakes assessments.
4. Implementation of community and local government initiatives.
5. Supporting teachers and school leaders.
6. Health and safety measures, such as WASH.
7. Supporting learner wellbeing and their educational outcomes (Humanitarian Advisory Group & VANGO, 2020; UNESCO, 2020b, UNESCO & UNICEF, 2021a, 2021d, 2021e).

The **Preparedness** phase is essential to ‘building back better’ post-pandemic. This involves preparing for future disruptions to schooling and ensuring that an education system and schools can quickly implement a range of flexible learning strategies.

During this phase, policymakers can be expected to implement policies and practices that enhance education system resilience against future disruptions to education, as well as a focus on addressing the learning crisis.

This includes ensuring that minimum SDG 4 proficiency standards in core competencies can be achieved, that all students have the opportunity to pursue further education and contribute positively to the economy and society and that potential systemic reforms are continuous with – or differentiated in the

case of system transformation – Recovery phase policies and practices (Tarricone, Mestan, et al., 2021; Tarricone, Teo, et al., 2021; UNICEF et al., 2022).

## Literature review

The background paper was developed based on evidence from a literature review. This background paper included a review of over sixty-five documents, including those from key organizations such as UNESCO, UNICEF and the World Bank. The review also draws on previous ACER research including recent evidence relating to COVID-19 recovery and the broader learning crisis.

Documents included regional and national reports/case studies, grey literature and other publications. To analyse the data from the literature a code frame was developed, guided by the PMF and RAPID framework, to focus on learning recovery (see Figure 2) (UNICEF et al., 2022).

## Structure of paper

**Section I** presents a situation overview focusing on the **Impact of the pandemic on learning**, including learning loss and education inequality.

**Section II** presents strategies for learning recovery and focuses on **Effective teaching and learning**, including curricular adaptations and prioritization, pedagogical approaches, including flexible learning strategies, formative and summative assessments and supporting and engaging families and the community and broader considerations for building medium- to long-term learning recovery and addressing the learning crisis.

**Section III** presents **challenges and opportunities** for learning recovery.

**Section IV** presents **policy recommendations** for initial action for learning recovery and mid- to long-term actions for addressing the learning crisis.

## I. Situation overview

This section provides an overview of the impact of the pandemic on learning. Specifically, it addresses the learning crisis that existed in the Asia-Pacific region prior to the pandemic and student learning loss post-pandemic. This section closes with a discussion of the impact of the pandemic on student learning outcomes.

### Impact of the pandemic on learning

#### Learning crisis

The impact of the pandemic in the Asia-Pacific region is expected to worsen the pre-existing learning crisis. Millions of children have been completing primary school without being able to master foundation skills in literacy and numeracy, as well as broader transversal skills (also known as 21<sup>st</sup> century skills) for later work and life (UNESCO & UNICEF, 2022).

The 5-Year Progress Review of SDG 4 – Education 2030 in the Asia-Pacific, which refers to much data prior to the pandemic, indicated that despite overall improvement, most countries were unlikely to achieve SDG 4. SDG 4.1.1 specifically refers to the proportion of boys and girls in each country achieving minimum proficiency levels (MPLs) in reading and mathematics in Grades Two and Three at the end of primary school and the end of lower secondary school (UNESCO & UNICEF, 2021a).

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#### Minimal Proficiency Levels (MPLs) SDG 4.1.1

Reading nutshell statement: Students accurately read aloud and understand written words from familiar contexts. They retrieve explicit information from very short texts. When listening to slightly longer texts, they make simple inferences.

Mathematics nutshell statement: Students recognize, read, write, order and compare whole numbers up to 100. They demonstrate computational skills involving the processes of addition, subtraction, doubling and halving for whole numbers within twenty. They recognize and name familiar shapes and describe location in a space using simple language. (ACER, 2022)

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Where data is available for countries in the Asia-Pacific region, less than fifty per cent of children in the early grades meet the minimum proficiency in reading and mathematics (see Figure 3) (UNESCO & UNICEF, 2021a). This percentage is smaller in later education levels, where young people in the Asia-Pacific region are less likely to complete lower and upper secondary education (see Figure 4).



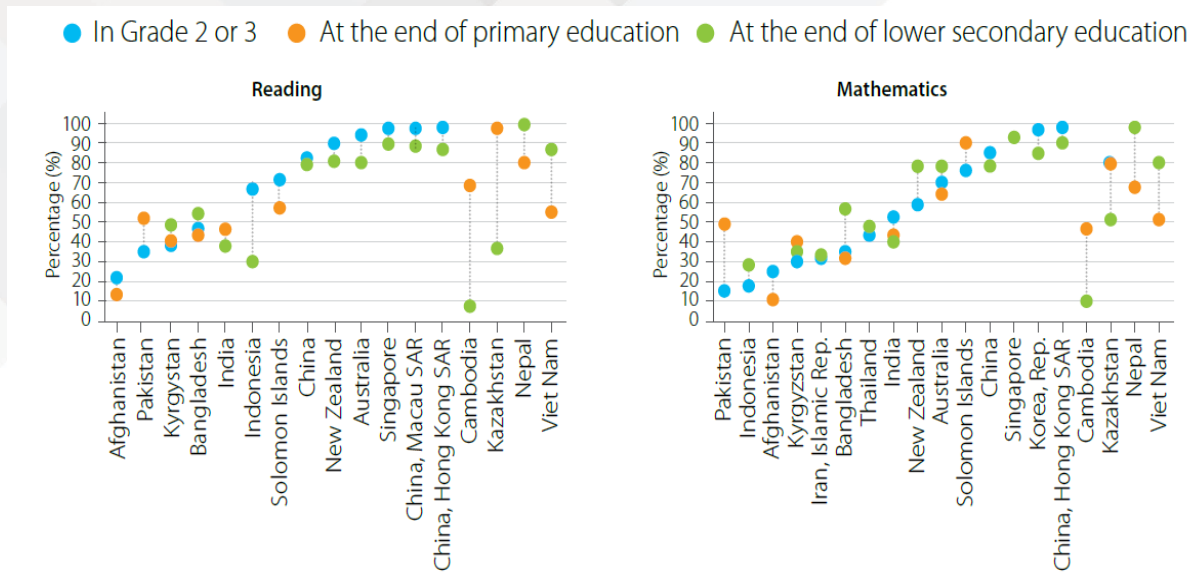


Figure 3: Proportion of students achieving minimum proficiency level in reading and mathematics by education level in selected countries, 2019 (UNESCO & UNICEF, 2021a)

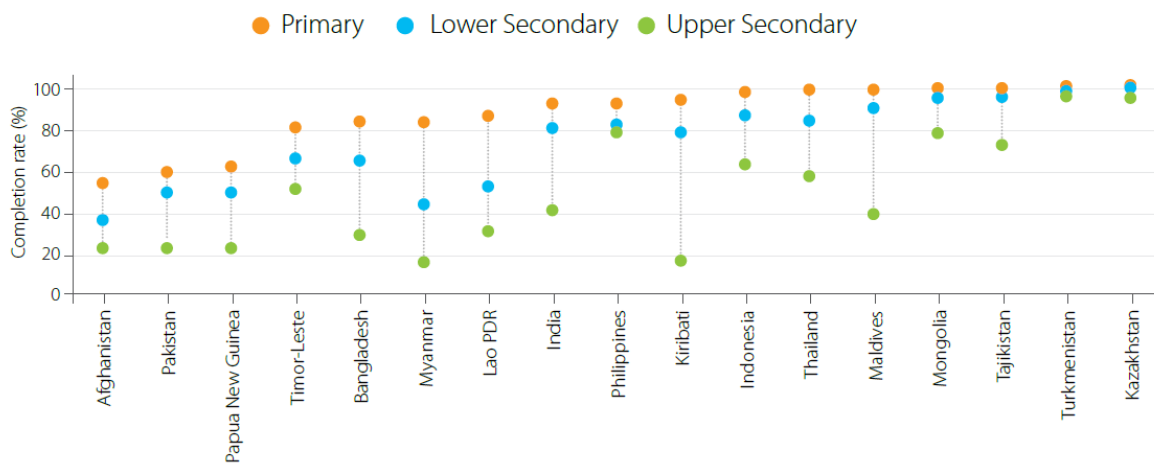


Figure 4: Completion rate for primary, lower secondary and upper secondary education in selected countries in the Asia-Pacific region (UNESCO & UNICEF, 2021a)

There is a lack of comparable data across countries that measures performance against SDG 4.1.1 indicators across the Asia-Pacific; however, there are two large-scale assessments in the region that provide such data for some countries: the Southeast Asia Primary Learning Metrics (SEA-PLM) and the Pacific Islands Literacy and Numeracy Assessment (PILNA). SEA-PLM 2019 found that only two of six South-East Asian nations had more than half of children at the end of primary school meeting the minimum proficiency level in reading and mathematics (UNICEF & SEAMEO, 2020).

Similarly, PILNA found that across the fifteen Pacific Island countries that participated in 2018, on average less than fourteen per cent of children for mathematics and less than seventeen per cent for reading, achieved the minimum proficiency level by the end of primary school (ACER, 2019).

An important consideration with respect to the learning crisis is that despite international commitments to provide universal access to primary and secondary education, there have not been significant global reductions of children and youth who are out-of-school. Recent out-of-school global trends appear to be plateauing (Figure 5a), with a decline in numbers of approximately one million from 2015 to 2018.

The Asia-Pacific region has the highest percentage of out-of-school children and youth, who collectively make up fifty per cent of the world’s out-of-school population (UNESCO & UNICEF, 2021a). Upper secondary school-age students are also more than four times as likely to be out-of-school than primary school-age students and more than twice as likely as those of lower secondary school age.

Out-of-school children are also the most vulnerable. Children who drop out in the early grades are at risk of not achieving basic literacy and numeracy and those who do not transition to secondary education and further training have less opportunity to obtain the necessary skills and certifications to participate in the labour market.

There are significant gender disparities in the proportion of out-of-school children in the region, with varying scale and patterns of disadvantage across sub-regions (Figure 5a). For example, as shown in Figure 5b, more boys are out of school in South-East Asia and more girls are out of school in South Asia (UNESCO & UNICEF, 2021a).

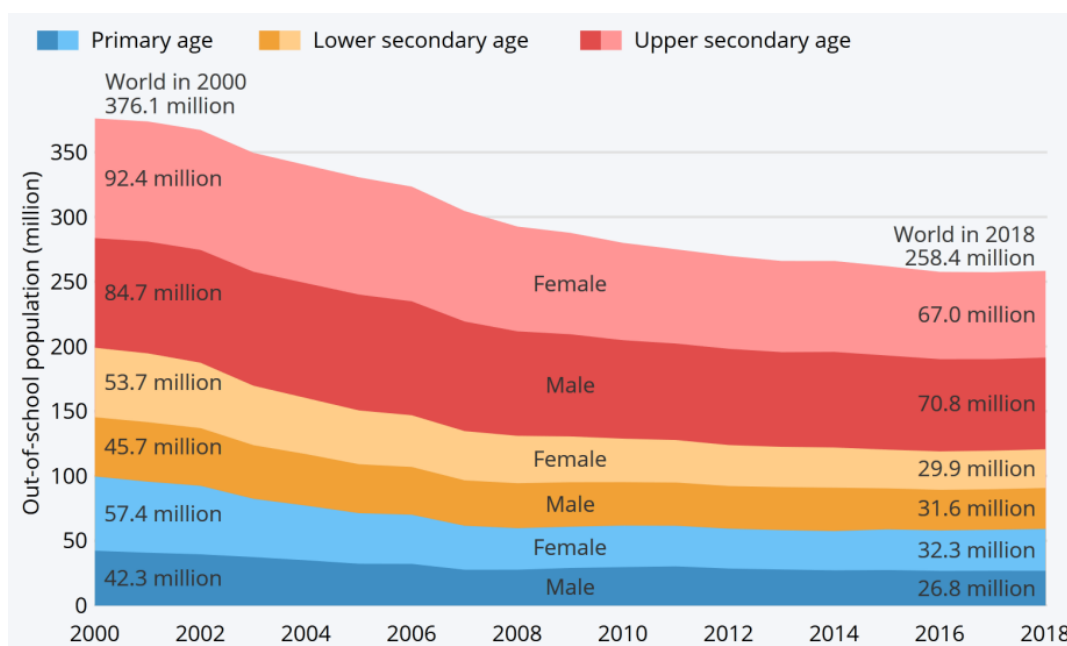


Figure 5a: Global number of out-of-school primary, lower secondary, and upper secondary age children, 2000-2018 (UIS, 2019).

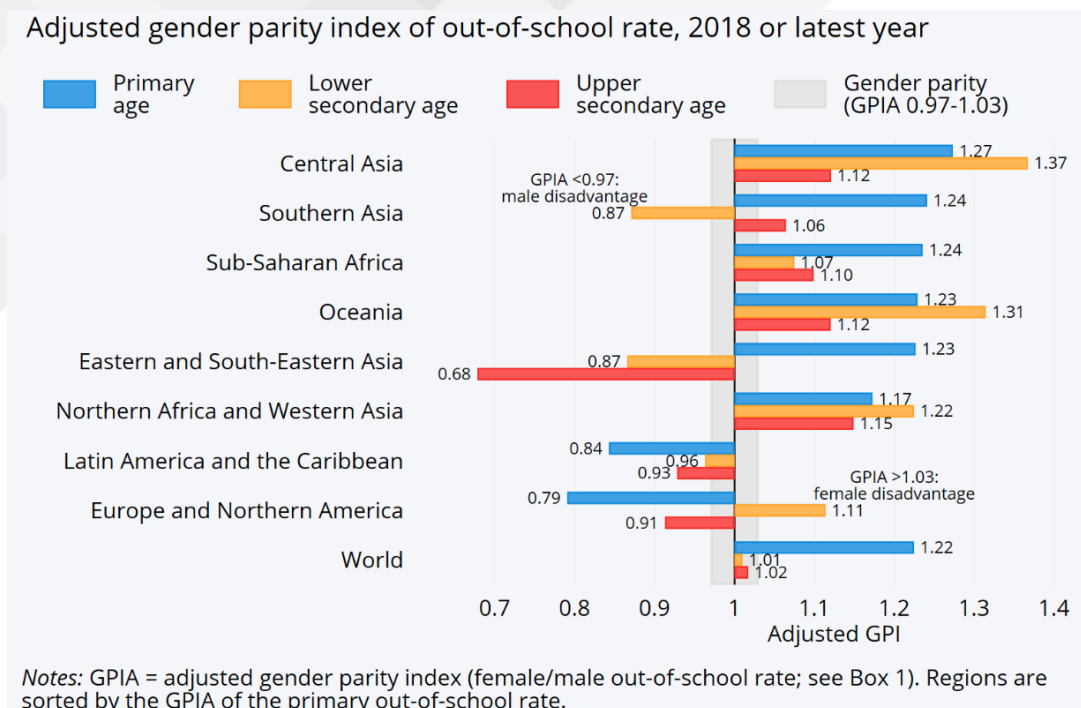


Figure 5b: Adjusted gender parity index of out-of-school rate, 2018 or latest year (UIS, 2019)

Figure 5c shows the current state of learning poverty for primary school completion in a selection of countries located in East Asia and the Pacific and South Asia (July 2022). Learning poverty refers to the proportion of children who are unable to read and understand a simple text by the age of ten.

This indicator combines schooling and learning indicators by accounting for the share of children who have not achieved minimum reading proficiency, as measured in schools, and is adjusted by the proportion of children who are out of school, and are assumed to be unable to read proficiently (the World Bank, 2021a).

While this learning crisis has attracted greater attention in recent years, it has also occurred within the broader global contexts of declining poverty headcounts (Figure 5d) and increasing rates of school enrolments (Figure 5e) for almost two decades (UNESCO & UNICEF, 2022).

This suggests, then, that despite longstanding evidence that poverty rates are decreasing and access to education is increasing, countries are still struggling to achieve SDG 4.1.1., for example, minimum proficiency standards and that this learning crisis preceded disruptions to learning caused by the COVID-19 pandemic.

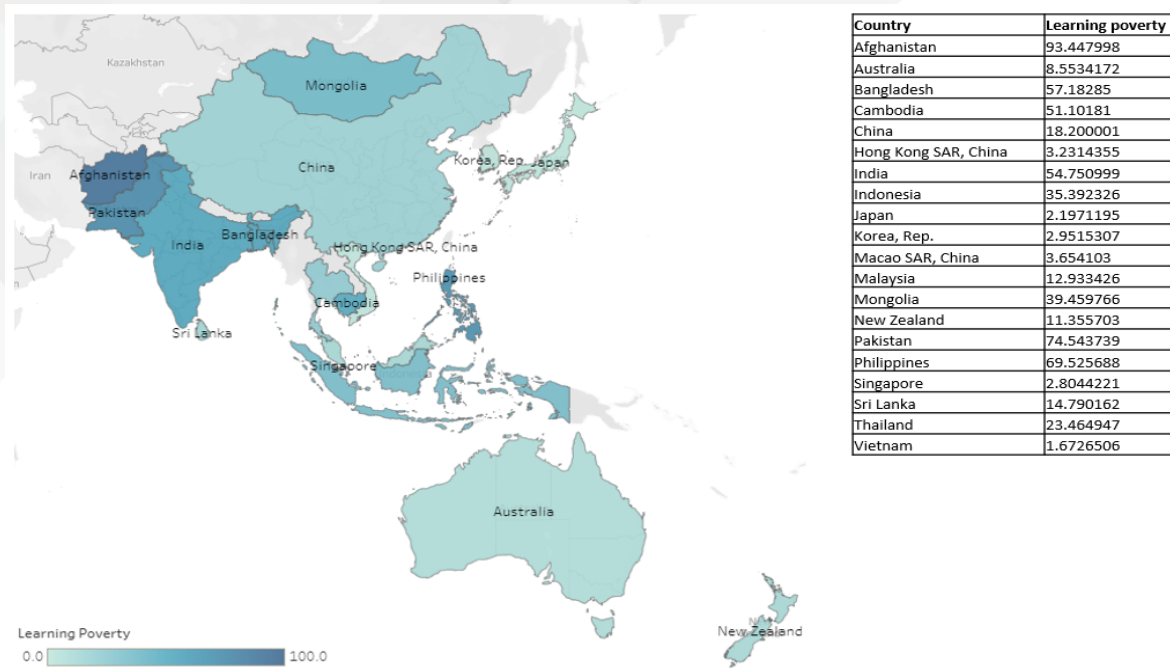


Figure 5c: State of learning poverty (October 2019) across a section of countries in the Asia-Pacific (the World Bank, 2021a)

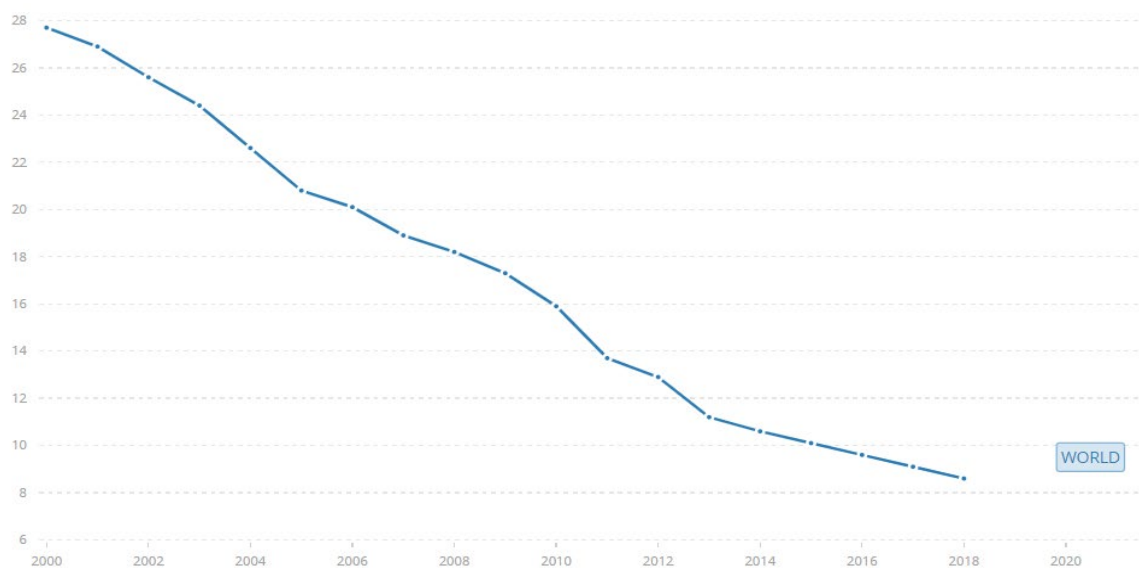


Figure 5d: Poverty headcount ratio at US\$1.90 a day (percentage of global population)<sup>4</sup> (the World Bank, 2022a)

<sup>4</sup> The poverty headcount ratio at US\$1.90 a day highlights the percentage of the global population that is living on US\$1.90 at 2011 international prices.

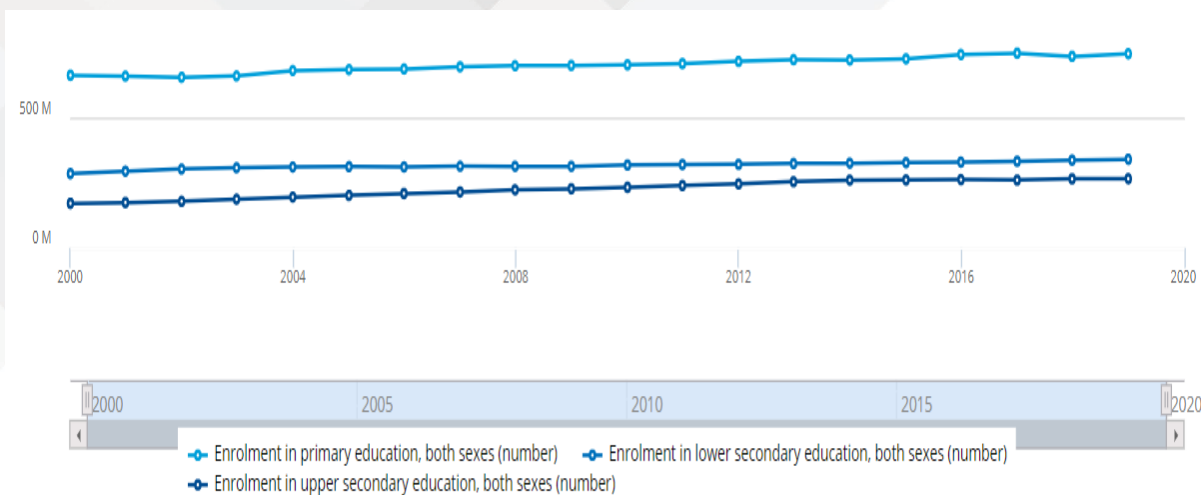


Figure 5e: Global enrolments of male and female students in primary, lower secondary, and upper secondary education (the World Bank, 2022b)

Outside of these global contexts, the Chinese education system was continuing to improve on indicators such as student attendance, retention rates and primary and secondary school completion rates. This is despite ongoing challenges such as student attrition, education quality and poverty (UNESCO & UNICEF, 2021b).

In Vanuatu, the government used lessons learned from previous crises to better prepare for future natural disasters and to deploy support and initiatives, including those to support school communities and learners (Humanitarian Advisory Group & VANGO, 2020).

Lessons learned from crises that were similar in-kind to the pandemic, for example, the SARS outbreak, or other natural disasters, for example cyclones, droughts, earthquakes and floods, were drawn from by governments to inform their decisions during the pandemic (Humanitarian Advisory Group & VANGO, 2020; UNESCO & UNICEF, 2021b; UNICEF, 2020a). The deepening learning crisis necessitates remedial action to be taken by governments and education stakeholders to prioritize learning recovery now, post the pandemic, and into the future.

## Learning loss

Learning loss is broadly characterised by factors that result in missed opportunities for, or disruption to, learning and learning continuity. Most notably, learning losses are not uniform across society and were most likely to arise because of school closures during the pandemic and a lack of education access and equity for the most vulnerable students<sup>5</sup> (UNICEF et al., 2022).

Education systems globally, and across the Asia-Pacific region, implemented school closures to mitigate the spread of COVID-19. As a result, it is estimated that the school closures impacted more than 1.2 billion children across the Asia-Pacific, threatening to deepen the learning crisis that already existed before the pandemic (Global Education Evidence Advisory Panel, 2022; UNESCO, 2021b). It is expected that post-pandemic, 10.7 million learners across the Asia-Pacific region will be at risk of not returning to childcare

<sup>5</sup> Other manifestations of learning loss include 'summer learning loss' as a result of summer breaks between semesters; returning dropouts; prolonged school absences, for example, due to health-related issues; ineffective teaching; and improper course scheduling (The Glossary of Education Reform, 2013).

and learning centres, schools and higher education once these reopen (UNESCO & UNICEF, 2022). Consequently, learning will need to be mitigated in the short- and medium-term (UNESCO & UNICEF, 2022).

Understanding the extent of learning loss requires a systematic and scientific method of measurement that provides internationally comparable information. However, less than half of the countries surveyed by the Global Education Evidence Advisory Panel (2022) reported having plans in place to measure learning loss at the primary level and only a third at the secondary level. Although data from large-scale assessments is unavailable or limited, various rapid assessments and non-representative surveys in the Asia-Pacific region show some early evidence of learning loss, as shown in Boxes 1 and 2.

**Box 1.** In Lao PDR, preliminary results from a survey of twelve case study schools found that most teachers and principals reported that students forgot the lessons when schools reopened (Wong et al., in press). Similarly, teachers in Vanuatu reported having to repeat lessons when students returned to school (Cassity et al., in press).

There is currently limited evidence drawing on assessment results following school lockdowns in low-income countries in the Asia-Pacific. Nonetheless, the evidence that is available suggests that the disruption to education caused by the pandemic has impeded learning progress for most students, with younger students and those from marginalized backgrounds most effected (Sabine et al., 2022).

**Box 2.** A study in India during the pandemic, conducted by Pratham (2021), showed decreases in both literacy and numeracy at the primary level, equivalent to one year of schooling.

Evidence from the Annual Status of Education Report (ASER) in four districts of South Asia: Chhattisgarh, Karnataka and West Bengal in India, and Punjab in Pakistan, found that in all three districts, on average, children’s foundational reading and arithmetic levels were lower after school lockdowns than prior to the pandemic (Pratham, 2020, 2021, 2022a). For example, in Pakistan not only was there a significant learning loss, but girls reading performance declined more than boys, as can be seen in Figure 6.

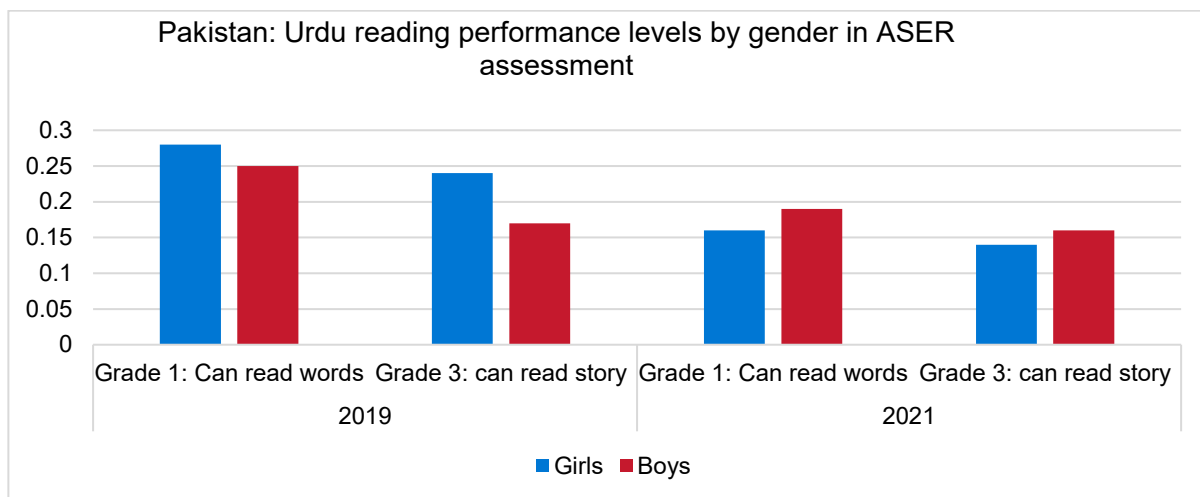


Figure 6: Pakistan: Urdu reading performance levels by gender in ASER assessment

These findings have been reaffirmed by a study of Bangladeshi girls, aged twelve to nineteen, which found that, because of interruptions to schooling caused by COVID-19, student mathematical and reading competence significantly declined, with median scores falling by 6.25 per cent (Amin et al., 2021).

Children from low socioeconomic status groups and those in rural areas were disproportionately affected by the lack of learning opportunities, which has seen overall learning loss and widening disparities in learning achievements (Fukami, 2021).

**Box 3.** In the Republic of Korea, teachers have reported widening achievement gaps between learners from higher socio-economic brackets and those from lower socio-economic brackets as a result of online learning (UNESCO & UNICEF, 2021e).

Due to prolonged school closures, students are likely to be significantly behind the learning levels of a typical year, with some groups experiencing even wider learning gaps. Returning to pre-COVID system performance, however, will not resolve the long-standing challenge of existing low levels of learning outcomes and the impact of the pandemic on learning progress.

It is critical to monitor learning outcomes, provide learning recovery programmes and focus the curriculum by further streamlining the most essential learning competencies. Furthermore and perhaps most importantly, there is a need to build on reforming existing structural challenges, for example, the mismatch between the language of instruction and students' language proficiency (Cho et al., 2021).

To recover from learning losses caused by the pandemic, UNESCO (2021) provides guidance on the measures policymakers need to implement in order to reverse the negative impact:

1. Adjust and streamline curricula.
2. Assess learning needs to provide more individualized remedial support, especially for struggling students.
3. Strengthen teacher preparation and support.
4. Improve teaching materials and textbook availability.
5. Invest in education technology.
6. Focus on social-emotional learning.
7. Ensure gender equality.

## Learning inequality

Emerging evidence shows increased learning inequality in low- and middle-income countries as a result of COVID-19 (Global Education Evidence Advisory Panel, 2022; Sabine et al., 2022). During school closures, all countries developed plans to enable children to continue learning through remote modalities. Overall, education systems were unprepared for the large-scale implementation of remote learning.

In many countries where remote learning was implemented, there was insufficient reach due to poor infrastructure, a lack of mobile and Internet connectivity and a lack of resources and digital devices to support learning. The quality of remote learning remains debatable. Teachers were ill-prepared for online teaching due to a lack of digital skills, training and resources.

Many students were not able to access the curriculum or engage with teachers during home learning (Adam & Gochyyev, n.d.; Durnnian, 2020; Li, n.d.). Lacking access to technology or not having an appropriate home environment impedes learning – especially for children who are affected by their ethnicity, disability, gender, poverty, or other factors that result in marginalization or discrimination (Alasuutari, 2020; UNESCO & UNICEF, 2021e).

Young children are particularly vulnerable to missing out on learning during the pandemic and the impact is much more pronounced. At the height of the pandemic, ninety-nine per cent of early childhood education (ECE) students in the Asia-Pacific region did not access learning and by the end of 2020, less than fifty per cent attended learning centres (UIS, 2021).

Given that up to two-thirds of ECE providers in the Asia-Pacific region are private, there is a growing risk that economic hardships due to the pandemic will limit parents' ability to pay for their children to access early learning (UIS, 2021). ECE is a critical stage in children's development and disruptions to learning at this level can have detrimental impacts on academic, socio-emotional and cognitive development.

All these factors are exacerbated for the most disadvantaged students, where growing inequality threatens to further push vulnerable students behind, impacting their learning outcomes, human capital development and lifetime earning potential (Saavedra, 2020).

## **Socioeconomic background**

While all countries in the Asia-Pacific relied on digital devices and technology to support learning from home during the pandemic, not all attempts to support learning reached the learners most in need. For example, insights from the World Bank show that children in Nepal have had limited access to active remote learning and support throughout COVID-related school closures (Radhakrishnan et al., 2021).

Pre-existing challenges, for example, household inequalities, were also further exacerbated during the pandemic (UNESCO & UNICEF, 2022). Available data from 2018 shows that across all countries in the Asia-Pacific region, students from poor families were less likely to achieve minimum proficiency standards in reading and mathematics at the end of lower secondary education, compared to those from wealthier families (UNESCO & UNICEF, 2021a).

This was also observed in high-income countries such as Singapore, where only twenty-eight per cent of students from the poorest households met minimum proficiency levels in mathematics at the end of lower secondary, compared to those from the richest households.

COVID-19 appeared to exacerbate the learning gaps between high- and low-income households (ACER & UNESCO Institute for Statistics, 2022; Gouédard et al., 2020; Li, n.d.; van Cappelle et al., 2021). Wealthier families can afford to support children's learning through extra tuition and supervised learning.



Conversely, students from low socioeconomic backgrounds were usually not provided with this support and consequently were less confident in completing schoolwork (Sabine et al., 2022).

**Box 4.** The Ministry of Education, Culture, Sports, Science and Technology (MEXT) in Japan have been providing top-up Internet communication payments to support learning from home and it has been waiving tuition fees upon schools re-opening (UNESCO & UNICEF, 2021d).

## Gender

Gender disparities were not consistent across countries during COVID-19 school disruptions, with girls having higher attrition rates than boys in South Asia, while this was lower in some parts of the Pacific (Global Education Evidence Advisory Panel, 2022). However, with limited access to disaggregated data, these issues are difficult to assess and monitor.

Data available prior to the pandemic indicate that while the gender gaps in education access and completion have declined globally over the last twenty years, gender parity at the primary level has not been reached in many countries, including Afghanistan, the Maldives, Nepal and Pakistan (UNESCO, 2022). Before the pandemic, girls were outperforming boys in lower secondary education, with a higher proportion of girls achieving minimum proficiency by the end of lower secondary school and they were more likely to enter tertiary education (UNESCO & UNICEF, 2021a).

However, with the onset of the pandemic, more girls and young women have faced additional barriers to education due to an increased burden of unpaid care, domestic work, and home schooling.

Girls in some countries had less access to remote learning during the pandemic, with parents in Bangladesh and Pakistan reporting giving boys more access to smartphones than girls for home learning activities (UNESCO, 2021c).

**Box 5.** Girls' enrolment has improved across Central Asia, East Asia, South Asia and Oceania. The SEA-PLM 2019 regional report showed that girls from participating countries outperformed boys in reading and writing, while their counterparts in Cambodia, Malaysia and the Philippines outperformed boys in mathematics (UNESCO & UNICEF, 2022).

A promising practice related to promoting the education of girls in Papua New Guinea and parts of India has been providing teacher training materials to advise how gender equality might be practised in the classroom. Likewise, parenting packs have been created to support positive parenting, gender equality and an encouraging home learning environment (Tarricone, Teo et al., 2021).

**Box 6.** Approximately 1.2 million girls in East Asia and the Pacific are also expected to be more at risk of dropping out once schools re-open. Early and forced marriage, unintended pregnancy and health and nutrition continue to be of concern (UNESCO & UNICEF, 2022).

## Disability

The pandemic has highlighted the continuing issue education systems face to ensure that all children have accessible learning opportunities for children with disabilities. Children and youth with disabilities are significantly under-represented in education systems due to barriers with access and opportunities to participate in learning activities.

It is estimated that fifty per cent of children with disabilities in low-income countries in the Asia-Pacific region do not go to school (UNESCO & UNICEF, 2021). For those able to attend school, learning achievement is limited by adequate support, appropriate resources and lack of teachers' capacity to meet their learning needs. As a result, children with disabilities tend to have shorter years of schooling and lower literacy rates compared to children without disabilities (UNESCO & UNICEF, 2021a).

Modifications and special programmes to produce more inclusive education for children with disabilities were interrupted during the pandemic; hence learning recovery will be especially important for children with disabilities (Tarricone, Mestan et al., 2021).

The lack of disaggregated data makes it difficult to determine the number of children with disabilities impacted by COVID-19 school disruptions and impossible to assess the extent of educational support provided for them.

Less than twenty-five per cent of Asia-Pacific countries have data sets outlining the number of schools that have been adapted for children with disabilities (UNESCO & UNICEF, 2022). Significant data gaps mean that children with disabilities will remain largely 'invisible' in education systems.

However, understanding pre-COVID vulnerabilities can shed light on the experience of children with disabilities during the pandemic and help identify areas for intervention post-pandemic.

**Box 7.** The Maldives has reported that all schools have been adapted for students with disability, while in Bangladesh this rate of adaptation has been reported to be twenty per cent (UNESCO & UNICEF, 2022).

## Refugee, asylum seeker and internally displacement status

Children in conflict-affected countries are more than twice as likely to be out of school than those in non-crisis affected countries (UNESCO, 2015). Specifically, the likelihood that refugee children will be out of school is double that of non-refugees, increasing because of additional natural disasters or conflicts.

**Box 8.** In Cox's Bazar, Bangladesh, COVID-19 resulted in only one per cent of six to fourteen year old girls and four per cent of fifteen to eighteen year old girls, receiving an education in comparison to nine per cent and fourteen per cent of boys of a similar age, respectively (UNESCO & UNICEF, 2022).

Available data from thirteen Asia-Pacific countries reveals that only thirty-two per cent of primary school-aged refugee children had access to a formal primary education during the pandemic. Attacks on education, for example, violence being perpetuated against schools, school personnel and students, in countries like Afghanistan, India, Myanmar, Pakistan and the Philippines have also disrupted education for school-aged children (UNESCO & UNICEF, 2022).

## **Geographical remoteness**

Children from rural or remote areas are more likely to experience negative learning outcomes during the pandemic due to a lack of access to electricity, mobile and Internet services (UNESCO & UNICEF, 2021a). While low-tech modalities, such as televisions and radio, were used widely by governments in the Asia-Pacific to provide continued access to learning during school closures, the quality of such interventions remains questionable (Yarrow & Bhardwaj, 2020).

In rural and remote regions in low- and middle-income countries, up to seventy per cent of ten year olds may be unable to read basic text due to a lack of quality learning environments and school closures caused by COVID-19 (Patrinos & Bustillo, 2022). This is reaffirmed by findings of the ASER studies in rural India and Pakistan (Pratham, 2020, 2021, 2022a) which found that children's literacy and numeracy skills decreased because of school lockdowns.

School lockdowns have worsened an existing divide between rural and urban students. For example, amongst six Asia-Pacific countries and regions that participated in PISA 2013, all of them showed that rural students performed worse in science results than urban students – even after accounting for their socioeconomic status (Echazarra & Radinger, 2019).

Similarly, the 2019 South East Asia Primary Learning Metrics (SEA-PLM) showed that children from rural areas did not perform as well as their urban counterparts in reading, writing and mathematics (UNICEF & SEAMEO, 2020).

Accordingly, the process of recovering from pandemic-induced disruptions to schooling and addressing the ongoing learning crisis influenced by geographical remoteness will require policymakers to engage quickly and directly with communities to ensure that interventions are successful and that their needs and capacities are addressed (Humanitarian Advisory Group & VANGO, 2020; UNESCO & UNICEF, 2021e).

In the Pacific, for example, the combined crises of the pandemic and tropical Cyclone Harold in April 2020 saw policymakers and local communities and organisations in Vanuatu work promptly and collaboratively to deliver crises response and community-led initiatives, with a focus on supporting rural or remote communities (Humanitarian Advisory Group & VANGO, 2020).

Similarly, policymakers in the Republic of Korea aimed to recover from the pandemic by working with local education offices to support schools and teachers to deliver teaching within online environments and support students' online learning experience, particularly in remote regions and islands (UNESCO & UNICEF, 2021e).

**Box 9.** In the Republic of Korea, the move to online learning was reported to have negatively impacted learners from low-income migrant families, those living in remote and rural areas and students with disabilities who might require specialized equipment and resources.

## Wellbeing

Student wellbeing was harmed by school closures across the Asia-Pacific region. Teachers also reported declines in their wellbeing during school closures, where teacher workload typically increased (Sabine et al., 2022).

The impact on student and teacher wellbeing were found to be higher among specific groups including girls, those from lower socioeconomic backgrounds, ethnic minority groups and those with poor general health (Global Education Evidence Advisory Panel, 2022).

The impacts of school closures and the move to remote learning have negatively impacted access to programmes that support wellbeing. Prior to the pandemic, approximately 129 million students in the Asia-Pacific benefited from receiving school meals through government programmes (WFP, 2021).

The pandemic has resulted in many of these students not receiving these meals and essential health services provided in schools, for example, access to water and sanitation, micronutrient supplements, vaccinations and education services for health, sexual reproduction and life skills.

Isolation caused by long periods of lockdowns, with few opportunities to participate in outdoor exercise and social events, has produced tension between children and parents. Importantly, student wellbeing has also been affected by increases in domestic violence and it will be necessary to provide socio-emotional support services to deal with this negative trend.

The issues affecting student and teacher wellbeing spans different country contexts. Even in high-income countries like Singapore, mental health helplines reported an increase in the number of calls from primary school pupils due to online schoolwork expectations and the fear of losing friends (Dabrowski et al., 2022).

In Sri Lanka, lockdowns have resulted in teachers reporting that students display decreased activity and skills use upon returning to school and are likely to be reserved, angry or impatient with others (Kanda, 2022).

In the Republic of Korea, student wellbeing was affected by family loss of income or employment; cyberbullying and online abuse, with girls being at greater risk; and domestic violence and child abuse.

Actions taken to support mental health include focusing more on social-emotional needs to offset an emphasis on teacher-centric content learning, greater investment in counselling and legislation related to cyber safety (UNESCO & UNICEF, 2021e).

It is encouraging that policy and school leaders often prioritized student wellbeing, implementing a number of strategies, including checking-in with students, contacting families, providing counselling and home visits (ACER & UNESCO Institute for Statistics, 2022; Pratham, 2022b).

**Box 10.** In Fiji and Vanuatu, the government prioritized wellbeing by drawing from lessons learned from previous emergencies and focusing on teachers and students' mental health and need for psychosocial support during school closures and reopenings (UNICEF, 2020a).

## II. Strategies for learning recovery

This section explores evidence of promising practices, at the system and school levels, to support effective teaching and improved learning outcomes for all students. Strategies for learning recovery will be described and supplemented with examples of strategies implemented in countries across the Asia-Pacific region. The strategies will focus primarily on 'effective teaching and learning' over the shorter term, which can serve as the foundation for medium- to long-term recovery strategies.

### Effective teaching and learning

Effective classroom practices to influence learning recovery are presented below. Cross-cutting factors are also discussed, including, equity, inclusion, differentiation, collaboration, leadership, growth and supporting teachers.

Supporting student engagement and learning requires effective teaching practice and strong connections with parents and the school community. On schools reopening, the OECD, UN and World Bank emphasize the need to look beyond the status-quo, which was already failing learners, and to use the COVID-19 disruptions as an opportunity to 'build back better' (Dabrowski et al., 2022).

### Curricular adoptions and prioritization

A range of approaches need to be implemented for the curriculum to support learning recovery. Adapting the curriculum by covering both missed and new content when schools resume can help to promote effective learning recovery.

Many countries reported prioritizing competencies to bring students up to speed when schools resumed, which often involves prioritizing competencies in literacy and numeracy and focusing on foundational skills and reviewing content (Global Education Evidence Advisory Panel, 2022).

This is consistent with evidence suggesting that ‘acceleration’, for example, focusing on what must be learned, is an effective catch-up strategy (UNESCO, 2020). The Responses to Education Disruption study found that where teaching and learning continued, more than half the teachers reported that they narrowed the focus of the curriculum and modified components of the practical curriculum (Sabine et al., 2022).

Most students also reported that their teachers spent time reviewing the curriculum when they returned to school (Sabine et al., 2022). This is consistent with findings from Lao PDR and Vanuatu, where many teachers repeated lessons and adapted the curriculum to cover key content (Wong et al., 2021; Cassity et al., in press).

Prioritizing competencies has the potential to accelerate learning, as evidenced by Pratham’s Teaching at the Right Level (TaRL) programme, where it was found that students who participated in the ‘intensive bursts’ method, showed significantly increased test scores in language and mathematics (USAID, 2020).

When schools reopened, many countries in the Asia-Pacific implemented remedial strategies. When effective remote learning was not pervasive, this entailed repeating essential content to entire cohorts (Tarricone, Mestan et al., 2021). In countries where the efficacy of remote learning was greater, diagnostic assessments were used to identify students who had fallen behind and then direct specific tuition towards them (Tarricone, Mestan et al., 2021).

During the pandemic, countries such as the Philippines and China streamlined the curriculum to focus on the most essential elements (Tarricone, Teo et al., 2021). For instance, the curriculum in China was adapted to support a holistic approach by allowing for physical exercise and psychological support.

Support provided included: online lessons, guidance to parent committees, and developing safe online teaching and learning environments, for example, protecting students from cyberbullying.

Additionally, parents were also supported to address myopia in children, with evidence suggesting there was an increase in short-sightedness due to increased screen time resulting from online learning (UNESCO & UNICEF, 2021a). The national curriculum was also adapted with respect to time, distance learning structures and content (UNESCO & UNICEF, 2021a).

Differentiated teaching by targeting instruction at children’s learning level has been shown to be cost-effective as a remediation strategy. This includes grouping children by level and using teaching assistants and volunteers to provide targeted instruction in school, as well as, providing out of school catch up programmes (Global Education Evidence Advisory Panel, 2022).

During the pandemic, teachers and principals reported that targeted teaching was directed towards learning areas where students had not progressed to the expected level of achievement (Sabine et al., 2022).

## **Blended learning**

Many countries in the Asia-Pacific implemented some degree of blended learning prior to COVID-19, but the pandemic accelerated this development. Blended learning involves combining modalities, so while

some teaching occurs in person, other teaching occurs remotely. Across the Asia-Pacific region, education systems employed a range of modalities, including high-tech, low-tech and no tech solutions.

In higher income countries, such as Singapore and Japan, blended learning largely incorporated digital technology, where students used personal computers to access specially designed content, activities and interaction via learning management systems.

However, in lower income countries, such as in Bhutan and Nepal, where there is less access to computers and the Internet, blended learning often involved making use of broadcasting to transmit content complemented by interaction via social media accessed on phones (Tarricone, Teo et al., 2021; Tarricone, Mestan et al., 2021).

Several countries also ensured that blended learning involved inclusive pedagogy, focusing on children with disability and those from minority language backgrounds. For example, learning materials have been adapted, such as videos incorporating sign language, closed captions or sub-titles, and print material incorporating braille (Tarricone, Teo et al., 2021).

The 'with schools reopened' stage in China, saw greater government emphasis on strengthening blended learning by integrating online and offline learning and promoting independent learning. Specifically, China's blended teaching and learning approach utilized short online micro-classes, offline independent learning and traditional resources.

High quality online courses, including micro-courses and resources developed by master teachers and curriculum development teams were also made available across the country. Blended learning was also supported through China's Ministry of Education through constructing resource banks, increasing investment in ICT equipment and Internet access and deploying live satellite TV (UNESCO & UNICEF, 2021a).

Comparable approaches were used in Japan; with key lessons learned including a lack of clarity about the learning outcomes of blended learning and that the implementation of ICT within a blended learning approach should not be an end in itself (UNESCO & UNICEF, 2021d).

A challenge of implementing blended learning within a developing country context is the lack of technology. For example, in Pakistan, only thirty-four per cent of households have Internet access and fourteen per cent have computers, with girls having more limited access to digital resources than boys (Ejaz et al., 2022).

### **Television, radio and print materials**

Television and radio were cited as the most popular modality used in low-income countries. However, the lack of access to electricity has meant that many children relied on print material for home learning (GPE, 2020a; 2020b; UNICEF, 2020b). The lack of a reliable electricity supply presents a significant barrier to education delivery using television and radio.

The penetration of mobile phones is considerably higher than radio or television in many countries in the Asia-Pacific, even among the poorest populations and those in rural and remote areas. This presents an opportunity for the delivery of learning through mobile phones, supplemented by take home packs.

**Box 11.** A survey in Samoa found that ninety per cent of schools relied on printed resources for learning during the pandemic (Queensland Department of Education, 2021). In rural Samoa, where there is typically a single school in each village, teachers reported walking from one end of the village to the other to deliver printed learning resources to students at home (Queensland Department of Education, 2021).

Learning continuity in China was managed using China's Disrupted Classes Undisrupted Learning (DCUL) approach. As a nationally coordinated approach, this comprised of one TV channel and twenty-two provincial learning platforms and was complemented by various online platforms and TV channels at the provincial, municipal and school levels.

Digital resources and tutoring were also made available via the National Network Cloud-Platform, and free textbooks and learning packages were posted to students without Internet access or a TV.

Special packages were also delivered to students with disability, migrants, those living in remote and rural areas and other vulnerable groups, with postage and courier costs paid by school public expenditure (UNESCO & UNICEF, 2021a).

Similar approaches were also taken in Japan during 2020 that blended traditional resources, for example, textbooks or paper materials, with TV programming, educational videos developed by the Board of Education, digital learning materials and interactive online coaching.

In Japan, between ninety-five to 100 per cent of primary, secondary and special needs schools used textbooks or paper materials during 2020, while thirty-one to fifty per cent relied on TV programming, thirty-four to seventy-five per cent on digital educational materials and eight to seventy per cent on interactive online coaching (UNESCO & UNICEF, 2021d).

In Indonesia, TV, radio and print materials were more likely to be accessed by students from rural areas and low socioeconomic brackets, as digital technology was cost prohibitive (Yarrow & Bhardwaj, 2020).

## **Digital technologies**

Digital technology was crucial in many countries during the response and recovery phases of the pandemic. Digital technology was used to maintain teaching and learning continuity once schools closed. For example, in Samoa, evidence suggests that the use of the Moodle platform facilitated a 'flipped learning' approach, where students complete some components online allowing more class time for processing and collaboration (Queensland Department of Education, 2021).

Experience from Samoa suggests that the use of online platforms could help increase student retention, particularly for male students who found online lessons more motivating than face-to-face delivery (GPE, 2020b). Similarly, in Tonga, it was found students on the outer islands were more engaged with online resources (GPE, 2021).



**Box 12.** Collaboration between UNICEF and Microsoft led to the development of the Learning Passport e-learning platform that provides textbooks, storybooks, songs, videos and learning materials with built-in assessments. The Learning Passport has since been implemented in Timor-Leste, Lao PDR and Kiribati (UNESCO & UNICEF, 2022).

The use of digital technology requires governments to consider issues such as Internet infrastructure, content delivery, teachers' pedagogical capabilities and students' ability to navigate the online learning environment.

Over time, other issues were emphasized such as online teaching quality; students' experiences, exposure to risks, for example, isolation, depression, and anxiety; and supporting students undertake high stakes examinations (Humanitarian Advisory Group & VANGO, 2020; UNESCO & UNICEF, 2021a, 2021e).

Access to learning through digital technology varied across and within countries. In high-income countries, 96% reported using online platforms, compared to 16% in low-income countries (Global Education Evidence Advisory Panel, 2022).

**Box 13.** In the Philippines, low levels of access to digital technology, poor quality learning materials and limited availability of materials in local languages, has impacted the effectiveness of distance learning. To address these issues highlighted in the Philippines, Cho et al. (2021) propose strengthening learning pathways between teachers, learners and their parents.

They recommend education systems and schools support teachers to prioritize teaching above administrative duties and provide catch-up programmes, enhance the quality of paper-based modules and strengthen monitoring of student engagement and well-being.

Access to digital technologies and expertise were supported through partnerships between start-ups, private education groups and governments (Ejaz et al., 2022; UNESCO & UNICEF, 2021a). For example, China launched a cloud platform with the capacity to accommodate fifty million learners simultaneously (Bawane & Sharma, 2020). In India digital e-learning platforms, such as Diskha, Swayam, and e-pathshala were strengthened to allow free access to online resources (Bawane & Sharma, 2020).

Despite the large-scale roll out of technology-enabled learning modalities across most countries in the Asia-Pacific region, many teachers and students from low-income settings and disadvantaged backgrounds had limited digital literacy (Dabrowski et al., 2020).

However, nearly all teachers in the REDS survey believed that information and communication technology will be an important feature of teaching practice in the future (Sabine et al., 2022).

This suggests that teachers are open to innovative practices and the use of ICT in their teaching and targeted support for teachers may help prepare countries for future disruptions. Ideally, this would mean that all students and teachers will have greater access to and skills in using ICT through effective online curriculum content and digital pedagogy.

In Japan and the Republic of Korea, where there is pressure to perform well in high stakes examinations, students were often compelled to learn independently because of teachers struggling to shift to digital learning.

In the Republic of Korea, there was also acknowledgement of a missed opportunity to support the early learning sector with digital technologies for learning (UNESCO & UNICEF, 2021d, 2021e).

Access to technology is not sufficient to improve learning; the success of technology-based interventions requires a combination of customizing tools to suit context, policy support and adequate resourcing (Dabrowski et al., 2020).

Some tools can help build a connection and prevent disengagement in student learning by cultivating social capital and connectedness between teachers and students and students and their peers.

Computer-supported collaborative learning has been found to be consistent in improving student learning outcomes. Mechanisms such as peer assessment and feedback strategies, as well as teacher guidance in the use of computer platforms lead to more positive outcomes (Dabrowski et al. 2020). The combination of technological applications is also important.

For example, the use of video conferencing software combined with shared online workspaces such as Google Docs improved student learning, while video conferencing supported by email communication had no effect (Dabrowski et al., 2020).

The gap between high and low achieving students is likely to be affected by remote learning. Learners in China who performed best during offline learning also performed the best during online learning and younger learners experienced more online learning difficulties than older learners (UNESCO & UNICEF, 2021a).

## **Assessment**

Assessment is used to measure students learning progress, thereby advancing learning recovery by informing how education systems, schools, teachers and students themselves can enhance student learning.

This subsection outlines the types of approaches taken by governments to assess and support learning recovery, including diagnostic, formative and summative assessment at the classroom, school and system levels.

Diagnostic assessments are particularly relevant to learning recovery. They can be used at the classroom level to identify students learning, based on agreed descriptions of what is important in learning domains. Diagnostic assessments inform teachers about how to target their practice to assist students to reach the next level of learning (GEM Centre, n.d.).

In the context of specific crises, like COVID-19, diagnostic assessments need to be modified or especially designed. For example, if the curriculum was narrowed during remote learning, then assessments need

to reflect what was taught and what students were expected to learn; this was recognised in the COVID-19 response plans of Laos and Timor (Tarricone, Mestan et al., 2021).

The interruptions to assessments caused by COVID-19 have catalysed assessment reform. Digital tools have been utilized to facilitate assessment and they are particularly relevant when teaching is being conducted with the assistance of digital technology, as in the two examples below:

- In the Republic of Korea, the government set up cyber learning services, like Wedorang and e-Hakseupteo. These platforms were designed to facilitate the teaching of online classes and allow teachers to post online assignments, conduct surveys, have open class discussions and track student learning progress (Bawane & Sharma, 2020).
- In Bhutan, social media applications, such as WeChat and WhatsApp, were utilized by teachers to assign children specific chapters to read and a set of questions to respond to. The answers to questions were sent back to teachers, either through messages or image clippings, based on which students were subsequently assessed.

Effective learning recovery will be student-focussed, where the learning progress of individual students is supported. To achieve this, diagnostic assessment needs to be combined with formative assessment. This involves providing specific feedback to students about their learning progress and guiding them in how they can improve.

Done well, formative assessments can improve student motivation and learning (Bawane & Sharma, 2020). Focusing on individual student learning provides an opportunity for each student to progress and therefore promote equitable learning outcomes.

**Box 14.** In Bhutan, audio-visual materials include formative assessments. In the Philippines, a combination of assessment methods have been applied, incorporating portfolios, performances and products. Proposed assessment reforms in India are becoming less exam-centric (Tarricone, Teo et al., 2021).

Assessments should also be used at the system level to track learning recovery, inform recovery strategies and support teaching. Large-scale learning assessments are important tools to monitor progress of student populations at the system level.

While national assessments focus on locally relevant education priorities and issues, international assessments enable the identification of strengths and weaknesses of education systems through providing international comparison. In coming years, it will become clearer which education systems have recovered better than others – providing opportunities for underperforming systems to gather learnings.

As general capabilities, such as critical thinking, communication and collaboration become recognized as important elements of 21<sup>st</sup> century education systems and thus a key component of learning recovery, their assessment will need to be integrated into education systems.

Ensuring that general capabilities are appropriately assessed requires long-term planning that embeds and aligns skills development frameworks into the curriculum, pedagogy and assessment. This will involve reviewing classroom activities across skills related to general capabilities (Scoular et al., 2020).

## Supporting the whole school community

The significant role that families and communities play in educational outcomes is increasingly recognized. Evidence from six African counties in the Monitoring the Impact of Learning Outcomes (MILO) study indicates that students who reported that they received greater support from their parents performed better (ACER & UNESCO Institute for Statistics, 2022). In India, volunteers conducted learning camps to catch students up after school lockdowns (Pratham, 2022b).

**Box 15.** The Korean Government has identified that there is a need to engage students and parents so that teachers can effectively manage blended learning (UNESCO & UNICEF, 2021f).

Marginalized and disadvantaged students often have lower levels of support in the home when compared to students from more advantaged backgrounds. Parental education plays a key role in children's learning, where a strong correlation exists between children's cognitive skills and parental ability (Dabrowski et al., 2020).

**Box 16.** In Afghanistan, paper-based self-learning guides were developed and supplementary learning packs were delivered through Community-Based Education sites. Families reported to have become more engaged with their children's learning during this time (Dabrowski et al., 2022).

There is a risk that short-term dropouts from school could lead to permanent dropouts due to prolonged school closures. To re-engage and re-enrol learners in school, Cho et al. (2021) recommend actively reaching out to learners through promotions and campaigns. When children do not return to school, they suggest providing alternative learning options and pathways to completing equivalent primary and lower secondary education.

Lastly, to incentivize and support learners when they return to school, Cho et al. (2021) suggest providing remedial programmes. Many countries across the Asia-Pacific focused on engaging the most vulnerable to prevent school drop-out. Lao implemented a back-to-school campaign that included surveys to gauge community feelings and inform planning (UNESCO & UNICEF, 2021e).

Various strategies to ensure student attendance have successfully included information campaigns targeting parents and other social protection measures such as school meals. Additionally, financial and other incentives can be provided to families to keep them engaged in the education system, especially in regard to low-income households.

**Box 17.** For example, in Bangladesh, the Ministry of Education provided financial and non-financial incentives to target students at risk of not returning to school, through cash transfer programmes, counselling support and engaging with parents and the community in back-to-school campaigns.

## **National and local governments**

Government planning and financing were crucial for supporting families and communities over the course of the pandemic. In developed economies this included addressing issues involving the shift to distance learning, supporting teacher capacity, providing resources and supplementary learning materials for students, relaxing qualification requirements for teachers, placing more teaching staff in schools, ensuring safe learning environments and adapting the curriculum and assessment (UNESCO & UNICEF, 2021a, 2021c).

## **Intergovernmental organizations and NGOs**

Organizations, such as UNICEF, UNESCO, the World Bank and the Asian Development Bank, provided expertise on how to manage the impact of COVID-19. They also provided case studies and analysis of various countries, for example, China, Japan and the Republic of Korea, to support national efforts to 'build back better' and to provide other countries with lessons learned for developing education system resilience (Humanitarian Advisory Group & VANGO, 2020; UNESCO & UNICEF, 2021a, 2021c, 2021e).

## **School leaders**

School leaders work alongside government and non-government stakeholders to support education by informing response and recovery activities (UNICEF, 2020a), implement curriculum adaptations (UNESCO & UNICEF, 2021a), engage family members to improve the transition to blended learning (UNESCO & UNICEF, 2021e) and develop effective classroom and distance learning pedagogies (Patrinos & Bustillo, 2022).

## **Teachers**

Support for teachers is an important feature in addressing learning loss and generally facilitating student learning success and wellbeing. Providing teachers with simple and structured pedagogy can be cost-effective to enhancing literacy and numeracy.

When accountability feedback and monitoring mechanisms are integrated into the pedagogy, it has been found to be successful for scaling at the national level.

It is important to build teacher's capacity in assessing student's learning progress so that they can make accurate judgements of learning progress, including developing teaching and learning strategies that can be used with students in a range of different contexts.

This is not least because in most education systems in low- and middle-income countries, everyday student learning is monitored by teachers (UNESCO, UNICEF & the World Bank, 2020). Supporting

teachers in their assessment practice will enable them to address learning loss and support student learning (UNICEF, 2020b). However, general skills training programmes have not been particularly effective (Global Education Evidence Advisory Panel, 2022).

Conversely, specific training to address learning loss can include upskilling teachers to support the psychosocial needs of students, implement inclusive pedagogies that support diverse learning needs and integrate digital tools into their teaching (Alasuutari, 2020; Patrinos & Bustillo, 2022).

A number of strategies to support teachers have been developed across China, Japan and the Republic of Korea, including:

- The establishment of pre-teacher training in distance learning to address educational disparities.
- Training to link technology with new pedagogies, the curriculum and formative assessments.
- Training to deliver distance learning. For example, the Republic of Korea's Comprehensive Support Portal for School Records that includes teaching training videos that explains guidelines and operation examples of distance learning. Similarly, the Ministerial and Provincial Model Courses in China provide high-quality teacher resources to support the delivery of the Disrupted Classes, Undisrupted Learning programme approach to support learning continuity
- Moving away from teacher-centric learning approaches to more student-centric, interactive approaches includes an ability to respond to students' psychosocial and emotional needs (UNESCO & UNICEF, 2021a, 2021d, 2021e).

**Box 18.** In the Republic of Korea, an online community of 10,000 teachers, across almost every school, support each other by sharing best practices through real-time and interactive communications. This initiative has been so successful that the Ministry of Education plans to support a group of education innovators to drive research and development in technology-enabled education responses into the future (OECD, 2020).

## Local communities

Community mobilization varied across countries. Community engagement is central to the ASER model of citizen-led assessments across all countries it operates in: Bangladesh, India, Nepal and Pakistan. In this model, citizens conduct surveys and are mobilized in the dissemination of results and decision-making (Bhattacharjea et al., 2021).

In China, four million community workers were positioned across 650,000 urban and rural areas to monitor the pandemic and community safety. Community workers and volunteers also prepared for the safe reopening of schools by supporting initiatives aimed at mitigating infection, securing safe environments and being on the alert to curb the spread of COVID-19 (UNESCO & UNICEF, 2021a).

In Vanuatu, restrictions imposed on international organizations and governments providing humanitarian aid resulted in greater community involvement during the combined crises of the pandemic and Tropical Cyclone Harold.

Communities became more connected and engaged to respond to these crises and they were mobilized to provide technical support and skilled personnel, for example, traditional weavers trained affected communities to rebuild their houses. They were also more involved in discussions with decision-makers and in decision-making processes (Humanitarian Advisory Group & VANGO, 2020).

## Parents

Supporting parents is central to learning recovery; this requires understanding the challenges and needs of parents. Parents needed to juggle multiple demands during the pandemic. Parents found it difficult to create positive home learning environments, lacked knowledge and skills to academically and psychologically support their children, were not always able to monitor children's learning and experienced stresses relating to emerging financial strains (UNESCO & UNICEF, 2021a). For parents of low socioeconomic households or with a child that has special needs, these demands were multiplied.

In some countries, the pressure on parents was eased by drawing on broader community support. For example, in China, parents and grandparents in urban areas often collaborated to support a child's education.

However, where this familial support cannot be relied on, it is essential for learning recovery that the broader community, including the school and state, provide the support and resources parents need.

This includes structured guides for parents on how to facilitate their children's blended learning, and regular communication with teachers who can provide advice and feedback (Alasuutari, 2020).

**Box 19.** Support for parents in China came in the form of the Home-school Collaboration Platform which provided guidance on parental support, information about ensuring the physical and psychological wellbeing of students and how schools and parents can cooperate to improve learning (UNESCO & UNICEF, 2021a).

## Children

There were common themes relating to supporting children's learning recovery as highlighted in China, Japan and the Republic of Korea including:

- Providing access to online learning to the vulnerable.
- Meeting the learning needs of young children through distance learning; possible solutions include interactive activities, supportive material for parents and regular video/audio meetings to enable the monitoring of children and their status.
- Supporting children's independent and online learning.

- Managing children’s online behaviour, for example, reducing the risk of myopia and cyberbullying (UNESCO & UNICEF, 2021a, 2021d, 2021e).

## Other considerations for building medium- to long-term learning recovery

The process of supporting medium- to long-term learning recovery is reliant on all stakeholders successfully integrating and implementing relevant policies at different levels, such as within government departments, schools and in the classroom.

These policies should be backed by evidence that support learning recovery and include strong political commitments and institutional structures, including capacity and resourcing, to help ensure the best chance of success.

Other considerations for building medium- to long-term learning recovery include the following six practices that span the integration and implementation of evidenced-based learning recovery policies.

First, good **communication** is needed to successfully convey a clear vision, values, purposes and goals for learning recovery. These should be shared by schools and communities and promoted at all system levels (ACER, 2017).

The types of platforms that might be used to facilitate good communication includes social media; mobile phone text messaging applications; Internet, TV and radio broadcasting, including for children with disabilities; print materials; and telephones (Pratham, 2022b; Tarricone, Mestan et al., 2021; Tarricone, Teo et al., 2021).

Second, **coordination and collaboration** are needed to ensure, for example, that actors (agents) and organizations can learn from each other, make use of professional learning communities, monitor performance and are focused on student outcomes.

Coordination involves both centralized and de-centralized approaches, with the former being characterized by a command and control headquarters approach that coordinates provincial and local governments and schools (Tarricone, Mestan et al., 2021), while the latter emphasises greater local and community agency and autonomy (Butcher et al., 2021).

Both centralized and de-centralized coordination should be implemented in a fit-for-purpose manner to support learning recovery and build on existing national and community structures (Keen et al., 2021); though some evidence suggests that centralized coordination is needed during the earlier stages of an emergency to better coordinate and mobilize resources and funding (Dabrowski et al., 2022).

Collaboration involves the development of partnerships that typically occur between the public and private sectors. This could include partnerships that support greater access to online learning opportunities and providing subsidized or zero-cost connectivity for access to learning materials (GPE, 2020b), as well as working to ensure that education is at the forefront of all recovery activities as result of complex emergencies, for example, the impact of natural disasters and COVID-19 (UNICEF, 2020a).



A third consideration, **planning**, is needed across and within national governments to support learning recovery and address the learning crisis. As seen across many Asia-Pacific countries, these plans have been developed to support educational recovery and include implementation plans, institutional and business continuity plans, operations plans and disaster response plans.

Plans developed in response to crises, such as COVID-19 Education Response Plans (CERP), need to be consistent with broader strategic plans, for example, education sector plans and these need to articulate how strategic goals can be achieved in the medium- to long-term; see for example, Cambodia's effort to enhance education inclusivity and equity (UNICEF, 2020c). Fourth, increased **financing** and fiscal management is required across all Asia-Pacific countries to support learning and education system recovery.

Low- and middle-income countries faced significant challenges and gaps during the pandemic and are expected to increase education spending from four per cent to six per cent of GDP and fifteen per cent to twenty per cent of total public expenditure, to achieve SDG4 (UNESCO & UNICEF, 2022).

This is despite foreign aid that they are likely to receive. For example, the World Bank provided US\$5.2 billion for education programmes, with an additional US\$2.3 billion provided during the pandemic for operational restructuring and education projects that focused on learner preparation, effective teachers, learning environments and school management (Saavedra, 2020).

A fifth consideration focuses on the importance of **school infrastructure**. Specifically, the implementation of appropriate school infrastructure is essential for when schools reopen and helping to ensure that they stay open.

This includes digital devices and infrastructure for internet ready devices, and facilities and protocols that promote health and safety, for example, Water, Sanitation and Hygiene (WASH) facilities and protocols (Tarricone, Mestan, et al., 2021).

Finally, **data collection and monitoring** – particularly of many of the SDG4 indicators – should be considered as these practices are not usually comprehensive in many Asia-Pacific countries or may be sporadic over a number of years.

Data relating to systematic and comparable skills and learning outcomes across different life stages (i.e., Indicators 4.1.1., 4.2.1., 4.4.1., and 4.6.1.) have the least amount of data collected. Available data that might be used for education recovery is also not easily disaggregated, for example, by gender or location and data relating to inclusive education. For example, disability, ethnicity and socioeconomic status are generally lacking.

More positively, minimum benchmark values for a set of SDG4 indicators have been agreed upon for sub-regions in Asia and the Pacific (UNESCO & UNICEF, 2022).

### III. Opportunities for learning recovery

Evidence from the COVID-19 pandemic has highlighted existing challenges facing education systems globally. However, this also provides a historic opportunity for governments in the Asia-Pacific to rethink strategies for learning recovery that support equitable access and quality learning for all children.

The previous sections discuss how education systems have responded and adapted to the COVID-19 context to preserve and accelerate learning when schools reopen. These lessons and insights provide an opportunity to catalyse promising policies and practices that can help shape learning beyond pre-pandemic levels.

#### Digital learning and mobile technologies

Pre-pandemic, there was limited evidence of success in large-scale remote learning using technology. Despite this finding, many education systems in the Asia-Pacific moved quickly to establish various high and low-tech delivery mechanisms during the pandemic.

Many countries provided free or subsidized data and devices to support remote learning (Butcher et al., 2021; Tarricone et al., 2021).

The challenge faced by many low- and middle-income countries was limited access to the Internet which was difficult to expand quickly to reach vast portions of the student population during school closures. Some countries chose to provide devices or off-the-shelf software, which on their own proved to have little impact on learning.

However, as discussed above, technology innovations that are underpinned by infrastructure, capacity building and good learning design, coupled with opportunities for engagement between teachers and students and students and their peers can be effective in supporting learning.

It was noted that the potential for mobile-assisted learning was not fully realized by governments during the pandemic. Despite eighty per cent mobile coverage and use in many low- and middle-income countries, only seventeen per cent of low-income countries reported using this technology as a remote learning intervention (Global Education Evidence Advisory Panel, 2022).

During the pandemic, examples of successful mobile phone use in facilitating learning were reported to be a cost-effective intervention in facilitating student learning. For example, text messages and targeted phone calls by teachers to students and parents resulted in better student engagement and accountability for learning (Global Education Evidence Advisory Panel, 2022).

It is suggested that there is scope for further testing and adoption of phone-based programming due to its cost-effectiveness and broad reach in low and middle-income countries, which promotes greater equity and access in education to marginalized students.

Pandemic-induced remote learning has also created a catalyst for the broad expansion of digital learning in many countries. For example, in Samoa, digital transformation has now been prioritized by the

government to be fast-tracked for all sectors, which has seen the goals and targets for digitalisation of the education sector immediately implemented (Queensland Department of Education, 2021).

The following key challenges and opportunities for education systems in Asia-Pacific countries are:

**Access to electricity and technology** – ongoing investment in widespread electricity and power infrastructure in low-income countries, rural and remote areas. Access to electricity will enable communities to access technologies such as television, radio and the Internet.

**Digital learning and mobile technology** – ongoing investment and widespread implementation of large-scale remote learning technologies, infrastructure, including teacher, student and community preparedness.

## Data-driven policies

Understanding the extent of potential learning and earning losses from education disruptions requires a systematic assessment and monitoring of student learning.

A robust education monitoring system can provide policymakers with data to inform decision-making. In the recovery phase, a data-driven response that incorporates data from health authorities and other government agencies can help ensure the safe reopening of schools while also prioritizing the return for vulnerable students through social protection measures.

As discussed earlier, disaggregated data on gender, disability and other socio-economic factors can help decision-makers better understand and design appropriate education responses that meet the needs of vulnerable groups.

Determining the extent of learning loss and learning progress is an important process when schools identify mitigation measures for remediation, catch up and differentiation. Effective formative assessments can help to identify potential gaps in literacy, numeracy and socioemotional skills as an ongoing and interactive process to devise a pathway for continuous learning.

During the pandemic, eighty per cent of schools in India which participated in the REDS (UNESCO, 2022) survey reported a shift from using summative to formative assessments. There is an opportunity to adopt formative assessments more widely by training and supporting teachers with its implementation.

At the same time, it is also important to measure system level learning losses through large-scale national assessments. Identifying student learning proficiencies in reading, writing and mathematics can help countries report overall student performance across contexts and over time.

This will enable the development of more targeted teaching and learning strategies to help governments plan a national response in the recovery phase. Furthermore, by aligning national assessments with the SDG minimum proficiency levels, governments are able report against SDG indicators in reading and mathematics (SDG 4.1.1).

The following key challenges and opportunities for education systems in Asia-Pacific countries are:

**Coordination of data across sectors** – disaggregated data to inform decision-making to support safe school reopening and prioritizing access for vulnerable students.

**Formative assessments** – identifying learning loss, remediation and differentiation of student learning pathways to accelerate learning.

**Systemic assessment and monitoring of learning** – determining the extent of learning progress and potential learning losses to support national interventions for learning recovery.

## Parental engagement

Some examples of parent-teacher collaboration, through regular communication, have been reported. This includes successful student engagement in learning during the pandemic. In many cases, information dissemination has been the primary aim rather than teaching.

However, it is recognized that parental buy-in is important to ensure accountability and engagement in student learning. In Indonesia, when the emergency curriculum was introduced, modules for parents were created which covered practical tips, examples of schedules and activities to help parents assist and monitor their children's learning (Dabrowski et al., 2022).

Close engagement with parents through regular and targeted communication ensured parental buy-in to encourage better student engagement.

The following key challenges and opportunities for education systems in Asia-Pacific countries are:

**Engaging Parents and Community** – ensuring accountability and engagement in student learning and wellbeing.

## Financing

When the COVID-19 pandemic hit, there were concerns that education budgets would contract as governments across the region prioritized health and economic sectors. However, one third of countries reported increasing their education budgets during 2021 – creating an unprecedented opportunity to rebuild and reform a more equitable education system (Global Education Evidence Advisory Panel, 2022).

Any increase in education expenditure should be sustained beyond the recovery phase to ensure resources are used effectively to address any learning gaps and improve learning outcomes for all children, prioritizing strategies to support the most marginalized and disadvantaged.

## Other key opportunities for enhancing learning recovery include:

The following key challenges and opportunities for education systems in Asia-Pacific countries are:

**Education inequality** – addressing the diverse needs of the student population.

**Mental health and wellbeing** – providing accessible and wide-spread school mental health and wellbeing, including nutrition, programmes for students, teachers and school leaders.

**Teacher quality standards** – high quality and consistent initial teacher education programmes that prepare teachers who are adaptive and prepared for education disruptions.

**Teacher and school leader professional development** – accessible and well-funded opportunities to build capabilities in curriculum adaption, new pedagogies, assessment practices, digital literacy and school management practices.

**Quality teaching and learning materials** – investment in the development of high-quality teaching and learning tools, resources and materials that are accessible to the most vulnerable children and in local languages.

## IV. Policy recommendations

Drawing on findings from the above discussion, this section provides Asia-Pacific education ministers with short- and long-term policy recommendations to support their respective education systems.

### Initial actions for learning recovery: Curriculum, assessment and pedagogy

#### Safety and hygiene

Education funding should prioritize implementing hygiene standards. Regular school cleaning and providing infrastructure, for example, WASH facilities are necessary for managing the spread of COVID-19 and other health and hygiene concerns as schools reopen.

This policy pointer is particularly important at the school level, to reduce school closure and retain students in school.

Both school leaders and the community play a pivotal role in ensuring the safe reopening of schools. School leaders can harness community support through effective engagement to ensure that schools remain safe for students and teachers. This can be achieved by engaging with community leaders to communicate broadly and support the learning recovery initiatives, particularly regarding health and safety protocols with families.

#### Access to education and reaching the most vulnerable students<sup>6</sup>

Education systems and schools need to prioritize the return and re-engagement of all students, particularly young children, girls and the most vulnerable. To reduce social-economic barriers to school attendance at the system level, an effective approach is to provide cash transfers, scholarships and other financial support to students and families.

Education investments should emphasize back-to-school campaigns, for example, phone calls, home visits and community engagement events. These approaches should be used by schools to reach vulnerable students, better understand their individual situations and identify barriers to accessing education.

Education systems can also support schools to improve student attendance by reintroducing social protection measures such as school meal programmes. This policy pointer is particularly important at the system level and school and student levels.

#### School assessments and remediation<sup>7</sup>

Upon schools reopening, a diagnostic assessment can be used by teachers to determine students' current learning levels relative to their expected learning progress, thereby informing remedial responses.

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<sup>6</sup> This policy pointer is associated with the RAPID Learning Recovery Framework: *REACH every child and retain them in school.*

<sup>7</sup> This policy pointer is associated with the RAPID Learning Recovery Framework: *ASSESS learning levels.*

Examples of remediation implemented by schools include extended instruction time, catch-up programmes, small group tutoring, accelerated learning programmes and summer schools.

Furthermore, formative assessments should be adopted or enhanced during classes to provide student feedback and inform adjustments to teaching. Assessments should be contextually appropriate and domain-relevant and by targeting students' learning levels, teachers can monitor the learning progress of individual students. This policy pointer is particularly important at the student and school levels.

### **Adapting the curriculum<sup>8</sup> to focus on learning recovery programmes to address student learning needs<sup>9</sup>**

Upon schools reopening, systems and schools should consider how the curriculum may need to be narrowed and adapted to prioritize foundation level content to support individual student learning needs, especially for the early years and the vulnerable.

Curriculum adaption might involve consolidating curriculum to target learning levels and include content about social emotional learning to support the development of student wellbeing, safety and resilience. This policy pointer is particularly important at the system and school levels.

At a longer-term system level, there needs to be a fundamental curricula review to ensure that key knowledge and skills are taught and assessed to ensure that they provide a basis for lifelong learning, including technical and entrepreneurial skills and general capabilities. Achievement standards need to be developed to define what students should learn and at what level.

### **Wellbeing of students<sup>10</sup>**

The wellbeing of students and teachers should be secured through comprehensive programmes that address health, nutrition, physical safety and psychosocial needs. As digital technology is increasingly used for education and other purposes, consideration needs to be given to addressing cyberbullying and harmful online content and practices.

This might mean limiting some of the functions of learning platforms and providing access to support services, such as helplines (UNESCO, 2022; UNESCO & UNICEF, 2021). This policy pointer is particularly important at the student and school levels.

### **Teacher support**

Although ongoing support of teachers is necessary for any effective education system, initial action can be taken to enable learning recovery. Teachers' own psychosocial well-being needs to be supported, this

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<sup>8</sup> This policy pointer is associated with the RAPID Learning Recovery Framework: *PRIORITIZE teaching the fundamentals.*

<sup>9</sup> This policy pointer is associated with the RAPID Learning Recovery Framework: *INCREASE catch-up learning and progress beyond what was lost.*

<sup>10</sup> This policy pointer is associated with the RAPID Learning Recovery Framework: *DEVELOP psychosocial health and well-being so every child is ready to learn.*

includes providing them with resilience training and counselling services. Establishing or supporting communities of practice, which enables peer support, can also help teachers cope with stress.

Teachers also need access to technology and other teaching resources, which may also involve training on how to make use of technical and learning assets.

Teachers can be provided with diagnostics tools to identify student learning progress and be guided about how to prioritize and target teaching to recover and accelerate learning. Lastly, teachers' workload might be able to be reduced by making use of volunteers, retired teachers, educated youth, or other community members to support them in managing catch-up learning activities.

## **Medium- to-long-term actions for addressing the learning crisis**

### **Curriculum and pedagogical reform**

In the medium- to-long-term, curriculum and pedagogical reform will be needed to address the learning crisis. This can begin with reviewing teaching practices and the curriculum to identify how they can be made more learner-centred and focused on integrating 21<sup>st</sup> century competencies.

Teachers also need guidance how they can adjust their practices in line with evidence about effective approaches. For example, differentiated teaching, where teachers adjust their practice based on each learner's progress, is a practice that some teachers trialled shortly after the pandemic and this can be continued going forward. This requires established achievement standards so student progress can be monitored.

### **Teacher professional development and support**

Education systems and schools need to foster teacher development through the provision of opportunities to enhance pedagogical knowledge and practice. This includes the provision of pre- and in-service teacher professional development to enhance teachers' ability to engage in flexible teaching approaches, including digital skills, social-emotional learning, differentiated teaching and formative assessments (UNESCO, 2022; USAID, 2020).

Teachers need more support to develop adaptive teaching knowledge and skills, including the use of blended learning pedagogies. To reduce teacher workload, additional resources, and tools, such as online learning hubs and lesson preparation videos could be provided. This policy pointer is particularly important at the system and school levels.

### **Digital transformation to support flexible learning strategies**

Education systems need to support schools to develop flexible learning pathways and practices. This especially relates to blended learning resources, such as digital platforms, protocols, resources and support for online teaching and learning.



With the appropriate development of curriculum, pedagogy and assessments tailored for blended learning, it need not be a temporary solution during emergencies, but can continue to support learning progress in the long-term.

To advance digital inclusivity, school technology and connectivity implementation plans should be consistent with aspirational teaching and learning modalities, ensuring all students have sufficient access. To close the digital divide, plans should prioritize infrastructure and connectivity, especially in rural areas, funding for devices and financial aid for vulnerable students and their families.

Furthermore, in most Asia-Pacific countries, greater investments are required to develop online learning content for students at different stages of learning. This policy pointer is particularly important at the system level.

### **School governance and accountability**

With teach quality being central to effective learning, school governance and accountability measures need to focus on this. This includes developing schools plans that prioritize teacher improvement and organising regular school self-assessments to monitor the quality of teaching and learning in school. School leaders need to be trained and prepared to be instructional leaders.

Furthermore, education systems can be strengthened by implementing school improvement and accountability measures that integrate qualitative and quantitative approaches, based on school inspections that review and rate school processes according to criteria.

For example, student engagement can be monitored according to whether defined engagement programmes are properly implemented, as well as with identifying the rates of student attendance. This policy pointer is particularly important at the system and school levels.

### **Community engagement**

Children's learning is enhanced if they are supported by the community, not just their classroom teachers. Schools need to actively engage with the community to enable households and community organizations to support student education, such as with resources, encouragement and assistance.

To achieve this, school leaders need to regularly communicate with families and community groups. This can lead to co-developed school and community-based programmes that build greater community awareness of, and support for students' health and wellbeing, both in and out of school.

Communities should be encouraged to be involved in recovery efforts by partnering with schools to aid in the provision of learning environments that support students and teachers, including health, wellbeing, financial support and communication against gender-based violence. This policy pointer is particularly important at the school level.

## Monitoring learning outcomes

Governments need to invest in robust education monitoring systems, including monitoring student progress and student disengagement, to support learning for all. Large-scale assessments, national or regional programmes, can be used to provide systematic and periodic data to monitor the efficacy of the education system overall.

To inform education system reform, such large-scale assessments should focus on monitoring the learning progress of overall student cohorts, while also being capable of analysis by sub-groups, such as region, gender, or socio-economic status.

To support the achievement of SDG4, data specifically related to the associated minimum proficiency level indicators need to be collected. In many Asia-Pacific countries, data for many of the SDG4 indicators is either not collected or collected infrequently.

Data relating to systematic and comparable skills and learning outcomes across different life stages, for example, Indicators 4.1.1., 4.2.1., 4.4.1., and 4.6.1., have the least amount of data collected and this is not easily disaggregated, for example by gender or location.

Furthermore, education monitoring should collect data, for example, assessment, enrolment, attrition and ongoing attendance data to inform retention programmes and teaching initiatives.

At the classroom level, the reopening of schools will require school leaders and teachers to be re-trained to develop and implement context specific diagnostic and formative assessments to measure and monitor ongoing student learning and competencies.

Data derived from these assessments should subsequently be used by teachers to inform the types of learning recovery pedagogies, plans and interventions on students.

Specifically and as specified under the RAPID approach, the process of assessing learning levels when schools reopen will involve having a clear understanding of students' current learning levels, for example, baseline, to direct and accelerate the learning recovery process.

Where possible, data for monitoring learning loss should be gathered regularly, in a timely manner, and be inclusive; identify how much was lost and what content was lost; include diagnostic, formative and summative assessment components; enable disaggregation by sub-groups of students; and allow classroom instruction to be targeted (UNESCO et al., 2022).

**Table 1: Recommendations to facilitate learning recovery**

Key priority	System level	School and student level
<i>Immediate actions for learning recovery</i>		
Safety and hygiene in schools	Set-up school health and safety standards adapted to the COVID crisis. Allocate adequate funding to help schools meet health and safety standards.	School policies and planning should prioritize health and safety. Schools should engage students, youths, parents and the local community and communicate information school safety and health measures.
Access to education and reaching the most vulnerable students	Set-up back to school campaigns. Monitor and track re-enrolment and attendance, especially for the most vulnerable students, children with disabilities, children in remote or hard-to-reach places, ethnic minorities and other marginalized groups. Roll out early warning systems to identify at-risk students and prevent drop-out.	Reintroduce social protection measures such as school meal programmes. Cash transfers, scholarships and other incentives should be used to encourage re-enrolment.
School assessments and remediation	Provide schools with adequate assessment tools and guidance to identify individual learning needs. Train teachers on assessing students' learning levels, differentiated and remediation strategies.	Use a diagnostic assessment to identify students' levels, competences and learning needs. Implement adequate remediation strategies based on individual learners' needs. Use a formative assessment of students throughout the year and use information to inform teaching and learning.
Adapting the curriculum to focus on learning recovery programmes to address students' learning needs	Indicate priority learning content for the recovery phase. Review the school year and/or length of instruction time to allow more time for catching up.	Prioritize core competencies in learning recovery programmes. Prioritize foundational learning and prerequisites for future learning, including literacy, numeracy and socioemotional skills.
<b>Well-being of students</b>	Take stock of needs and resources available throughout different sectors. In countries where poverty has increased and stunting prevalence is high, establish or expand school meals.	Set up adequate detection and referral mechanisms in schools for counselling and psycho-social services. Prioritize students' and teachers' well-being in school plans.

Key priority	System level	School and student level
	<p>Provide guidance to schools on how to develop students' socio-emotional skills. Build the capacity of the teaching workforce to deliver support to students, while addressing teachers' own mental health and wellbeing.</p> <p>Set regulation and enforcement mechanisms to address cyberbullying and harmful online content and practices.</p>	<p>Prioritize communication, including community messaging about COVID-19 and mental health.</p>
<b>Teachers' support</b>	<p>Support teachers' resilience, instruction skills and technological awareness. Support teachers with psycho-social support and training, provide them with diagnostics tools, methods to prioritize teaching and learning of core fundamentals, plus strategies to recover and accelerate learning.</p> <p>Support teachers' access to education technology and their capacity to use it. Set-up professional learning communities, for example, peer-to-peer groups.</p>	<p>Set up adequate counselling and psycho-social services for teachers. Explore possibilities of using volunteers, retired teachers, educated youths and community members to support teachers in managing catch-up learning activities.</p>
<b><i>Medium- to long-term transformations of education to address the learning crisis</i></b>		
<b>Curriculum and pedagogical reform</b>	<p>Introduce transferable and 21<sup>st</sup> century competencies in curriculum and learning standards.</p> <p>Provide guidance on how to transform pedagogical approaches in schools. Set achievement standards to monitor learners' progress vis-à-vis learning standards.</p>	<p>Review teaching and learning practices to ensure that they are learner-centred and integrate 21<sup>st</sup> century competencies.</p>
<b>Teachers' professional development and support</b>	<p>Provide quality pre- and in-service professional development to enhance teachers' ability to use flexible teaching approaches, including digital skills, social-emotional learning, differentiated teaching and formative assessments.</p> <p>Provide adequate guidance, tools and examples to teachers to transform their teaching and learning practices, such as online repository and learning hubs.</p>	<p>Support teachers' professional development by setting up in-school peer learning and encouraging participation in professional learning networks.</p>

Key priority	System level	School and student level
<b>Digital transformation to support flexible learning strategies</b>	<p>Develop curriculum content, pedagogical materials and tools adapted for blended and distance learning.</p> <p>Ensure that online learning solutions are fully inclusive, equitable and remain free for all students so that digital divides are not widened further. Complement with adequate offline solutions for those without access.</p> <p>Regulate online learning platforms and engagement with private EdTech providers and enforce regulations to protect learners from the commercialization of education.</p>	<p>Provide access to digital tools and connectivity for all – especially rural areas and vulnerable learners.</p>
<b>School governance and accountability</b>	<p>Prioritize quality of teaching and learning in school standards and keep schools and relevant local authorities accountable for the quality of learning.</p> <p>Train and prepare school leaders to be instructional leaders.</p>	<p>Prioritize improvement of teaching and learning in school planning.</p> <p>Organize regular school self-assessments to monitor quality of teaching and learning in schools.</p>
<b>Community engagement</b>		<p>Engage parents and the local community in student learning.</p>
<b>Monitoring learning outcomes</b>	<p>Develop large scale assessment tools to monitor students’ learning outcomes over time.</p> <p>Develop capacity to analyse and utilize learning assessment data to inform policies.</p>	<p>Build in-school capacity to use data on learning outcomes to inform on school improvements.</p>

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