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# Transforming Education and its Systems

## Introduction

Transforming Education and its Systems in the Asia-Pacific region has to be seen against the backdrop of its great diversity and its large population. The region is characterized by rapid and dynamic economic growth, a growing number of middle-income countries, innovation and technological advances. However, these overall economic trends belie vast disparities between and within countries, and economic growth has not necessarily resulted in equivalent increases in living standards everywhere. Trends show that these gaps are widening, rather than narrowing, and are compounded by a diversity of challenges such as demographic change, with huge youth bulges in some contexts and a rapidly aging population in others, increased labour mobility and migration, environmental degradation and natural disasters, as well as continuing conflicts in parts of the region.

In education, the region has made great progress in access and participation in education, especially at primary and lower secondary levels, with more than 97% of primary and 90% of lower secondary-age children enrolled (UIS, 2020), but there are persistent disparities among and within countries, in particular in equity and the quality of education. Completion is a major challenge, especially at upper secondary level - in half of the countries in the region, less than 40% of adolescents complete the cycle (UIS, 2020). As regards learning achievement, in half of the countries of the region less than 56% of students are proficient in reading at all levels, and less than 50% in math (UIS, 2019), indicating a major learning crisis.

The COVID-19 pandemic caused an unprecedented disruption of education globally and in the region, severely impacting education delivery, learning outcomes, student engagement, health and well-being. This affected vulnerable learners the most, and resulted in a significant setback in progress towards achieving SDG 4. Overall, while the situation is diverse between and within countries of the region, the pandemic not only exacerbated pre-existing inequalities in access to education and learning achievement, but exposed significant existing weaknesses in the quality and relevance of education and the overall fragility of education systems.

As a first and immediate action, countries should prioritize learning recovery, 'to prevent this generation of students from suffering permanent losses in their learning and future productivity, and to protect their ability to participate fully in society'[1]. Here, as spelt out in the R.A.P.I.D. Learning Recovery Framework, jointly developed by UNICEF, UNESCO and The World Bank, (UNICEF, 2022),[2] the focus should be to: 1. Reach and retain every child; 2. Assess learning levels; 3. Prioritize teaching the fundamentals; 4. Increase catch-up learning; and 5. Develop psychosocial health and well-being. At the same time, these immediate and urgent actions should go hand in hand with the development of broader strategies to address the learning crisis, in a longer-term perspective of transforming education systems.

Beyond recovery, the crisis revealed the urgent need to rethink and transform education systems, to become resilient to withstand future shocks, as well as more equitable, inclusive, relevant and flexible. In this way, systems will ensure learning and well-being for all and better respond to shifting learning and training requirements as well as deliver on SDG4 commitments.

## Transforming education: what learning is needed in Asia-Pacific in the future?

In order to transform education systems in relevant ways, there needs to be a reflection on what education we want for the future in the Asia Pacific region. To this end, the recent UNESCO *Futures of Education Report*[3] invites governments and education stakeholders globally to rethink and reimagine the purpose, content and delivery of education, with a view to transforming the goals of education toward achieving peaceful, inclusive and sustainable futures of humanity and the planet. It aims at responding to the significant current challenges of "growing social fragmentation, democratic backsliding, the crisis of climate change, and growing exclusion" and calls for a new social contract for education to face our common challenges. It identifies five main areas for transformation:  pedagogies, curricula, the teaching profession, schools, and the creation of a learning eco-system. The report is not in itself a blueprint for educational reform, but rather a basis for reflection and debate about the choices that should be made in formulating policies. The vision, principles and proposals contained in the *Futures of Education Report* and the report of the UN Secretary-General's *Our Common Agenda* are also guiding the thematic action tracks to be discussed in the upcoming Transforming Education Summit.[4]

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[1] The World Bank, UNESCO and UNICEF (2021). The State of the Global Education Crisis: A Path to Recovery. Washington D.C., Paris, New York, p. 4

[2] UNICEF (2022). Where are we on Education Recovery? UNICEF. New York.

[3] UNESCO (2021): *Reimagining Our Futures Together: A New Social Contract for education*.

[4] The United Nations Secretary-General will convene the Transforming Education Summit (TES) on 19 September 2022 during the 77th UN General Assembly. It is a key initiative of Our Common Agenda, and spotlights the urgency to act fast to transform education. It builds on the UNESCO's *Futures of Education Report* and seeks to mobilize political ambition, action, solutions and solidarity to transform education: to take stock of efforts to **recover** pandemic-related learning loss; to **reimagine** education systems for the world of today and tomorrow; and to **revitalize** national and global efforts to achieve SDG-4.

Importantly, there needs to be a reflection on what key competencies learners need to acquire to live and work, as well as to shape and contribute to change, in rapidly evolving societies and economies. Building on a range of existing conceptual frameworks[5], these key competencies include:

- Proficiency in foundational literacy and numeracy skills and basic digital skills;
- 21st century/transferable skills and higher order competencies and in particular communication, collaboration, problem-solving, critical thinking;
- Skills for work, including employability, entrepreneurship and ICT skills;
- Competency for independent and life-long learning and skilling;
- Competencies to respond to climate change and environmental degradation, promote sustainable development and engage with the world as creative and responsible global citizens;
- Values and attitudes that promote:
    - Resilience and adaptability
    - Treasuring and sustaining diversity and pluralism
    - Promoting justice and human dignity.

## Transforming education systems: a holistic and comprehensive approach

Transforming education for millions of learners in Asia-Pacific requires a deep transformation of education systems. These systems are complex and multifaceted, and their transformation requires particular attention to aligning all the components of the system, as part of coherent reform (see box 1 describing the components of an education system). From that perspective, transforming education systems should be undertaken in a holistic manner, as a process of understanding how the components in systems interact within a whole. Systems thinking, although not a new concept, offers a means to tackle the intractable challenge of education transformation.[6] It offers a coherent, focused, and sustained approach to the range of education systems components including teacher professional development, pedagogy, curriculum and instructional materials, content and performance standards, assessments, organization and governance, and parent and community involvement, leading to change at all levels needed to make a difference in student learning outcomes.

Offering a glimpse of a different future, systems thinking is a capstone for true organizational learning[7] that can help policymakers achieve faster and more sustained progress in education, resulting in broad outcomes for the current and future generations of children and young people. Moreover, this approach to problem solving views "problems" as parts of an overall system, rather than reacting to a specific part, outcome or event in isolation.[8] In addition to taking this holistic systems approach, education system transformation cannot be achieved in isolation from broader socio-political,

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[5] Examples of competency frameworks include the OECD Learning Compass 2030, UNICEF Global Framework on Transferable Skills, European Union Commission Key Competences for lifelong learning

[6] https://courses.lumenlearning.com/boundless-management/chapter/modern-thinking/#:~:text=Organizational%20systems%20consist%20of%20people,individual%20sum%20of%20its%20parts

[7] Peter Senge (2006) The Fifth Discipline. Crown Publishing.

[8] Also see: www.iiep.unesco.org/sites/default/files/strenghtenning_of_education_systems_-_discussion_paper.pdf

technological and ecological transformation or linkages with other systems such as health, welfare, labour, or the economy.

## What constitutes an education system?

In considering education system transformation, it is important to recall that education systems are complex, multifaceted, and comprised of multiple components and factors that need to be in concert to achieve the system's goals. The main components include the vision of and right to education enshrined in the constitution and overall policy frameworks, guaranteed by laws legal frameworks and regulated by norms, standards and other regulatory mechanisms. This underpins and is implemented through plans, strategies, and activities as well as resource allocation and deployment, and expressed in the curriculum, pedagogical approaches, assessments, instructional materials and teacher training and professional support. In line with these factors, teachers, supported by multiple partners including the community and parents, deliver education in the classroom The education system is structured in different sub-sectors, and usually covers formal education from pre-school to higher education and non-formal education, and also regulates private education. The system has an organizational and governance structure and is administered through sector management and accountability mechanisms, data management, and monitoring and evaluation. It manages human resources, state and district administrative offices, school facilities, transportation vehicles and teaching/learning materials, computers, and other teaching resources. Coherence and alignment of all the elements of the education system are necessary towards realizing the government vision of education and successful learning, with alignment at different levels to ensure coherence of the various components (planning, policy-making, management and administration, curriculum development, assessment, teachers, etc.), Further, coherence and alignment are essential within each component (e.g., coherence between syllabus, instructional materials, teaching and assessment approaches vis-à-vis curriculum; and teacher training and assessment strategies vis-à-vis curriculum reform). Finally, the education system, which is embedded in the overall political system, is closely linked to other sector systems such as health, labour, and economy, and needs to function in cohesion with them.

## Reflections on key features of transformed resilient education systems and putting transformation into practice:

Lessons learnt through the pandemic point to a number of key areas for consideration in transforming education systems. Beyond the impact of COVID 19, many education systems in the region were not meeting all students', communities' or countries' education and training needs, especially in the context of a future rendered more uncertain by current socio-economic challenges, changing labour markets. environmental degradation, climate change and growing conflicts. With this in mind, education system transformation will require the review and strengthening of its interlinked components in a systemic, holistic and transformative perspective, including policy, planning and financing with a focus on inclusiveness, gender equality and lifelong learning. Drawing on these lessons and reflections, key components of education system transformation and building resilience include:

This section highlights the major challenges facing digital transformation in education in the Asia-Pacific region, with particular focus on issues that were experienced during the COVID-19 pandemic:

## Building systems resilience

Importantly, transformation of education systems requires alignment with transformations across other sectors/systems. Building system-level resilience to prepare for future shocks requires developing, resourcing and implementing long-term emergency preparedness, and risk-informed planning in coordination with disaster management authorities, ministries of finance, and other ministries. It also means investing in systematic and regular diagnostics, such as hazard and conflict analyses, to identify future risks to education and critically assess the education system's own risk management, mitigation and governance capacities. In particular, for education systems to ensure learning continuity in crisis situations between the school and home environments, they require a well-functioning digital ecosystem as well as quality and contextualized flexible low-tech and no-tech solutions to reach all learners. Taking into consideration the expected massive impact of climate change, urgent actions are needed for adaptation and readiness in education at the policy and institutional level, e.g. holistic development of green schools, and stepping up education for sustainable development. The crisis also reconfirmed the need for systems to recognize that learning takes place in different spaces and at different stages in life, and in different forms, be it formal, non-formal or informal. Therefore, education systems should deploy flexible learning strategies that allow for different learning pathways leading to recognized certification, taking a lifelong learning approach.

## Curriculum, pedagogies and assessment

Transformed systems must empower learners with knowledge, skills, values and attitudes to be resilient, adaptable and prepared for the uncertain future while contributing to human and planetary well-being and sustainable development. This requires revising and formulating clear competency-based learning achievement standards and reforming curricula to become more relevant and flexible, emphasizing ecological, intercultural and interdisciplinary learning. Curricula should be associated with interactive and transformative pedagogies and assessment processes which emphasize cooperation, collaboration and solidarity,[9] in order to improve learning and, importantly, empower learners how to learn and continue learning, to unlearn and relearn in a lifelong learning perspective. Following two years of disruption due to the pandemic, strengthening formative assessment to diagnose the level of each learner in the short-term is necessary, as well as promoting national and regional large-scale assessments to monitor learning outcomes and inform reforms of teaching and learning policies and practices in the longer-term.

[9] See Future of Education, ibid

*Learning and skills for life, work, and sustainable development*

Transformed education requires a holistic life-cycle approach to learning and skilling, from early childhood care and education (ECCE) through to higher and adult education. This must include building strong foundations at an early age, preparing and supporting the transition from school to work during the second decade, as well as taking account of labour market vulnerabilities, changing skill requirements and emerging sectors and opportunities. Further investment in ECCE is critical in the region, and countries should review and update their national policy to provide free and compulsory pre-primary education to all children; this needs a cross-sectoral approach, along with a costed implementation plan with clear roles and responsibilities of different stakeholders. Adolescent learning and youth skills development is a policy priority in the Asia Pacific region, given the low retention and learning achievement rates particularly at upper secondary level, high youth unemployment and important number of NEETs in some contexts. This points to the need for rethinking the content and delivery of education at secondary level, as well as ensuring that learners acquire the necessary foundational skills in primary education. Re-designing curriculum content and pedagogical approaches should focus on better integrating transferable/21st century competencies, skills for employment and socio-emotional skills, with pedagogies that are more learner-centered and collaborative. The skills that are taught should be aligned with the needs of evolving labour markets and emerging green and blue economies. This goes hand in hand with strengthening multiple and flexible learning pathways at all ages and educational levels, leading to recognized certification, in particular for out-of-school adolescents and NEETs, with opportunities to acquire relevant skills, to re-skill and up-skill.

*Teachers and the teaching profession*

Teachers need the competencies and skills to be the agents of education transformation. This requires reconceptualizing the teaching profession and building a new generation of teachers who are better prepared to respond to learners' needs through reformed teacher policies, teacher competency frameworks and qualification standards, strengthened pre-service and in-service training, and their recognition and support. Teachers need the necessary skills and support not only to achieve learning recovery, but also to address the broader learning crisis and effectively teach within a digital learning eco-system, including blended and hybrid teaching, as well as being resilient and able to adapt to crisis situations. Moreover, as schools increasingly become a platform for the delivery of multiple inter-connected services, teachers will play a more central role in promoting the health, nutrition, hygiene, protection and well-being of their students. For this, they also require training in understanding mental health and psycho-social support needs for appropriate referral, and must be capacitated to address the impacts of the pandemic on the general well-being of their students.

## Safe and enabling learning environments

Re-imagining the learning environment is a key component to enable the holistic development and learning of students. Schools should not only enable learning for all, including through digital means, but they must be inclusive, safe, and climate-protective, provide a stimulating learning environment that protects and fosters the health and psycho-social well-being of learners, and offer comprehensive, integrated school health and nutrition programmes. Moreover, cross-sectoral collaboration between health, education and other relevant ministries, local governments, communities and parents will foster inclusive and protective learning environments in and around schools, to deliver adequate services and be prepared for future risks.

At the same time, as the crisis has taught us, schools are not the only providers of learning – a stronger alliance and collaboration of the school community is needed to improve education participation and learning performance. The genuine involvement of all stakeholders, including communities, families and caregivers, in the life of schools and in student learning, will help develop a school-based ecosystem that fosters not only learning but also well-being and socialization.

## Digital transformation

A key lesson learnt from the pandemic is that technology-enabled education must be strengthened and mainstreamed into education systems. Technologies must be leveraged to improve the teaching-learning experience and outcomes, as a complement to in-person learning, improving its relevance, resilience and quality. Opportunities arising from ICT-enabled learning must be harnessed, such as a modular and flexible designs for online public education, with credits and micro-certification, enabling greater flexibility in when, how and where learning happens. Coordinated efforts and high-level commitment across government ministries are needed to drive the digital transformation of education, supported by engaging in intersectoral collaboration, developing joint strategies and plans, and facilitating dialogue to mobilize the necessary resources. Coherent and costed policies for the integration of technology in education that are aligned with education sector plans and broader national digital transformation should be developed, as well as regulations to govern technology development and use in education (including data use and AI) and to ensure principles of digital inclusion as well as the safe use of the internet. Importantly, the creation of well-functioning and equitable digital learning ecosystems requires free access to connectivity and devices in order to close the digital divide and the development and maintenance of national, free, public digital platforms and learning options, designed to reach the most marginalized. It also requires the reform of teacher training and professional development, including a relevant ICT competency framework, qualification standards and related curricula, fostering teachers' digital competencies, and ICT-integrated pedagogy to support more learner-centred practices. It also involves the promotion of public-private partnerships to expand free access to connectivity and devices in schools and homes for the most socio-economically disadvantaged learners.

### Equity and Inclusion

Education systems and schools must become truly equitable, inclusive and gender transformative. This means utilizing an equity lens in long-term planning and decision-making and taking measures that explicitly address existing inefficiencies and inequities. Programming must focus on vulnerable and marginalized groups including girls, young children, and at-risk and out-of-school adolescents and youth, and crisis-affected populations. It also means operationalizing inclusive and gender-specific system transformations affecting teacher training, curriculum, learning materials, assessments, some infrastructure adjustments in physical schools, but also adaptations to remote learning opportunities to ensure they reach all children, including the most vulnerable. This implies, for example, making online learning options accessible to children with disabilities, in a set of languages that span the diversity of leaners' mother tongues, with offline access possibilities for those who do not have access to the internet.

## Key enablers for effective transformation

### Governance and accountability

Transforming education requires new ways of organizing system governance: it should not be the exclusive domain of governmental bodies alone. Firstly, education leadership should move from centralized top-down control and management to reflexive governance and network steering involving collaboration among a range of relevant actors[10]. It also involves empowering local-level decision-making and planning and improving capacity to develop and implement local contextualized responses, in particular in emergency situations, and to support school quality improvement and resilience. Moreover, it requires strengthening autonomy, flexibility, leadership and planning at school level and the training of school leaders for improved school management and resilience.

Secondly, as there is a growing number of diverse education providers and learning platforms, it is more important than ever to be able to regulate what content is being delivered, in what format and through what means, in order to respect standards of quality, safety and equity/inclusion. Therefore, it is essential to set quality standards for public and private institutions and improve accountability structures to achieve greater quality of teaching and learning, other cross-sectoral services in schools, and efficiency of spending.

### Increased and better investment in education

Prioritizing and protecting the financing of public education in national budgets, with additional investments to recover from COVID-19, are essential for providing education for all and delivering against commitments made. Moreover, measures need to be put in place to allocate and spend resources more efficiently, prioritizing them in ways that

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[10] Futures of Education, ibid

improve the quality of learning outcomes and increase equity and inclusion. In addition to public financing, it is vital to harness all sources of funding including non-public funding, while at the same time maintaining coordination of financing by the government and preventing repudiation of public responsibility. Equity-based, pro-poor budget allocations should be established so that education expenditures serve to reduce inequities and are efficiently linked with strengthened social protection schemes for learners. In this perspective, sufficient resources need to be made available at sub-national levels and targeted towards the most disadvantaged areas; in addition, governments should safeguard critical social spending for all learners and expand it to minimize the negative impacts of the economic crisis on the most vulnerable and marginalized.

### *Data and monitoring*

Data availability and robust monitoring underpin evidence-based policy development and implementation. For many countries in the region, the pandemic exposed some critical data gaps, or gaps in monitoring mechanisms, exposing weaknesses in the collection and timely processing of real-time data for example. To transform education, countries should aim at designing systems, information collection processes and information-processing systems which can provide decision-makers at their respective levels (from school level to the central level through the various administrative layers of the system) with accurate and regularly updated information, presented in the appropriate format for action to be taken at each level. Monitoring can be further strengthened through improved data systems and their utilization, by integrating various quality data from education management information systems, household surveys and learning assessments, while leveraging technology, big data and AI.

## Conclusion

In conclusion, all stakeholders in education and beyond must make concerted innovative efforts in all policy domains to strengthen the resilience and effectiveness of education systems across all levels of education, adopting a system-wide perspective for genuine, sustainable learning recovery and transformation beyond COVID-19 and accelerated progress towards SDG4-Education 2030.

**TRANSFORMING EDUCATION AND ITS SYSTEMS**  #APREMC2022

## UNESCO – a global leader in education

Education is UNESCO's top priority because it is a basic human right and the foundation for peace and sustainable development. UNESCO is the United Nations' specialized agency for education, providing global and regional leadership to drive progress, strengthening the resilience and capacity of national systems to serve all learners. UNESCO also leads efforts to respond to contemporary global challenges through transformative learning, with special focus on gender equality and Africa across all actions.

## The Global Education 2030 Agenda

UNESCO, as the United Nations' specialized agency for education, is entrusted to lead and coordinate the Education 2030 Agenda, which is part of a global movement to eradicate poverty through 17 Sustainable Development Goals by 2030. Education, essential to achieve all of these goals, has its own dedicated Goal 4, which aims to *"ensure inclusive and equitable quality education and promote lifelong learning opportunities for all."* The Education 2030 Framework for Action provides guidance for the implementation of this ambitious goal and commitments.

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