Rewiring Education

for People and Planet

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the Education Commission

A GLOBAL PLATFORM ON EDUCATION

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Foreword

We are at a pivotal moment with no time to waste. We have less than eight years to 2030 and based on current progress, the future does not look bright. Unless we make a fundamental shift in the way we act as a global community, we will not meet Sustainable Development Goal (SDG) 4, and several others. It will not be enough to tinker with education systems on the margins of the larger development challenges. We must work together with new and unlikely allies other than education actors alone to reimagine how our interconnected systems – health, education, economic development, and the protection of our planet – can jointly deliver prosperity and peace for the present and future generations.

The 17 Global Goals are intimately linked and their achievement profoundly interdependent. No country can deliver high-quality education where children are not able to learn because they are hungry, required to work, take care of their families, or even when schools are shut due to environmental disasters or conflict. No country can make progress toward good health and well-being without access to nutritious food, safe and inclusive schools, and clean water. No country can attain sustainable economic growth where entrenched poverty and inequalities in learning and skills undermine human capital.

This necessary interlinkage among the SDGs is recognized in SDG17, which calls for multi-stakeholder partnerships and building robust, effective collaborations to deliver extraordinary results. These extraordinary results are what this report is about. **In this world of multiple, interconnected crises and ever-scarce resources, we must work together toward win-win solutions** and a plan of action that will deliver a united vision for prosperity, with people and the planet at its center.

Indeed, this vision was a key impetus for Dubai Cares to host the RewirEd Summit in December 2021 in partnership with Expo 2020 Dubai and in close coordination with the UAE Ministry of Foreign Affairs and International Cooperation at the Expo site. The Summit brought together new and unlikely allies to collaborate, reflect, innovate, and transform education. More than just ministries of education and global education leaders, the Summit convened ministries of youth, finance and technology, parliamentarians, the private sector, youth networks, community leaders, think tanks, and multilaterals representing 144 nationalities over 3 days to impel truly collaborative action globally. As stated by Amina Mohammed, Deputy Secretary General of the UN, the "RewirEd Summit deliberations provide an important building block for the Transforming Education Summit," and with this in mind, this report sets out a bold new vision for *"Rewiring Education for People and Planet"* – an ambitious way of working across sectors and stakeholders to seize win-win opportunities to realize an education transformation together with the wider development agenda.

Focusing on education alone is a missed opportunity to unlock its wider potential as the most effective vehicle to address the world's shared challenges and opportunities, and to harness its transformative power to determine the future well-being of people and the planet.

Education must be everybody's business.

Dr Liesbet Steer,

Executive Director,
The Education Commission

Dr Tariq Al Gurg,

Chief Executive Officer and Vice-Chairman,
Dubai Cares

Executive Summary

We are at an inflection point. We have a choice. A lost decade with more than 800 million young people left without opportunity, or a decade in which children and young people come of age well-educated, healthy, and equipped with the skills they need to navigate the complexities of an unknown future and have a full, productive, and happy life. It is a choice. A choice between the status quo or a new approach that reimagines education in a win-win partnership with the entire 2030 Agenda.

This report is a call to action to work across sectors, levels, and stakeholders to transform education together with a wider development transformation. Amid competing priorities and limited resources, we need to stop thinking in silos and recognize the powerful benefits of linking education investments to investments in other sectors to fuel a virtuous cycle of progress. Education is not just the birthright of every child; it is a powerful co-creator with efforts to reduce poverty, improve health, and develop sustainable economies and societies. This call to action builds on RewirEd 2021 – a summit convened by Dubai Cares to redefine education for a prosperous and sustainable future.

This transformation can only happen if we make a deliberate and concerted effort to stop talking about education alone. The report identifies six win-win solutions that can align action for an education transformation across sectors and stakeholders, three critical drivers that can sustain action over the long-term, and new strategies for mobilizing necessary financing. Taken together, these elements provide an actionable strategy to forge meaningful partnerships for transformative results.

Critical drivers: To incentivize collaboration and provide the foundation for the delivery of a sustained and mutually-beneficial transformation, for education and wider development sectors, three critical drivers are needed: collective leadership at all levels; connectivity and technology; and data-driven decision-making. These drivers can help strengthen the ecosystem to ensure that the proposed win-win solutions can be introduced, scaled, and sustained beyond the short term.

Win-win solutions: These priority actions can simultaneously drive progress in education and trigger mutually-beneficial impact for people and the planet:

- Expand early childhood programs to help end poverty
- Develop a team-based education workforce for good health and well-being
- Scale adaptive, inclusive, and engaging teaching to reduce inequalities
- Scale school meals and school health interventions to end hunger and improve health and well-being
- Create diverse and certifiable routes for youth to build skills and promote inclusive and sustainable economic growth
- Adapt education systems to build climate resilience and develop green skills

Financing: New strategies are needed to mobilize the resources necessary to match action with ambition, including promoting joint planning and cross-sectoral investments; leveraging the multilateral development banks (MDBs); and attracting new resources through new partnerships and innovative mechanisms like the International Finance Facility for Education (IFFEd). These strategies would supplement important and longstanding efforts to increase domestic revenues for development and increase international aid.

Image credit: UNICEF

Driving and sustaining collaborative action requires new incentive structures. To that end, we recommend that governments, in partnership with international and local actors:

- **Embed education in all relevant sections of national development plans and other sector strategies**, complemented by integrated strategic planning and mutual accountability frameworks that can align incentives and actions of leaders at all levels. Similarly ensure that education is considered as a concrete solution in global action toward the SDGs.
- **Embrace multisectoral financing approaches and tailor financing strategies to differentiated needs and contexts**, recognizing that countries can benefit from a variety of financial tools and vehicles for mobilizing grants, loans, and private and philanthropic investment.
- **Develop delivery-focused implementation approaches**, underpinned by strong data systems, to help connect actions within and across line ministries for achieving the goals of development and sector plans.
- **Harness, build on, and bring together existing platforms for collaboration, such as RewirEd, to expand coalitions of diverse stakeholders**, specifically targeting actors outside of education for joint action on transformation in education as well as other SDGs.

The time has come to recognize the interconnectedness of the SDGs and the powerful benefits of interlinking education and other efforts. Any child living with hunger understands that learning is more difficult without adequate nutrition. Any adolescent emerging from their school years without the skills they need to find work understands the consequences of education systems that are misaligned with job markets. Any family facing vulnerability to extreme climate events recognizes the importance of schools and skills for resilience and adaptivity.

> We urgently call upon governments, development partners, civil society, business leaders, teachers, and young people to work collaboratively across sectors, levels, and stakeholders to rewire education for people and the planet.

photo: Eyoel Kahssay/Unsplash

Part 1

Collaboration for Transformation

A critical juncture for the SDGs

We are at a midpoint for delivering on the promises of the SDGs, but without radical change, the outlook is grim. The world is facing the first rise in extreme poverty in a generation; food insecurity is increasing; climate change is leading to more frequent and prolonged extreme weather events; conflict and economic hardship are pushing record numbers of people from their homes and countries; and inequality is rising as vulnerable groups are disproportionally affected by compounding crises. **Beneath these overlapping global crises lies a comparatively silent crisis in education, where the depth of learning poverty and skills deprivation rarely captures front page news, but the situation is no less acute.**

Based on analysis as part of the newly launched World Skills Clock, if current trends continue, **more than 60 percent of the youth population – 830 million – will not have the basic skills necessary to thrive by 2030.** Less than 10 percent of youth in low-income countries (LICs) will have secondary-level reading or math skills[1] – increasing by only 1 percent from today's baseline. Without these skills, young people's ability to find decent employment, escape poverty, and withstand and solve complex challenges such as climate change will be severely diminished.

1 PISA level 2 or the equivalent level in TIMSS and national assessments.

The crisis across the SDGs

Nearly 700 million people (8.6%) live on less than $1.90 per day

Over 4 billion people globally (53%) have no access to social safety nets

700 million people (10%) are hungry

More than **5 million children** die annually before the age of 5

2 billion people (26%) lack access to safe drinking water

220 million adults globally (6.2%) are unemployed

Over **100 million people** are displaced

160 million children worldwide (10%) are in child labor

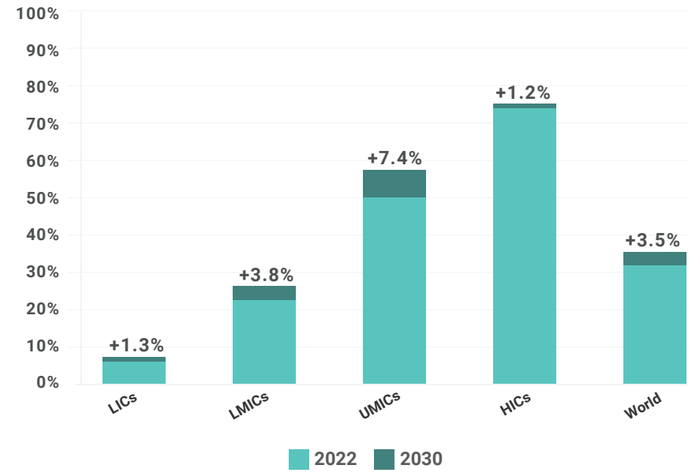
Over 3 billion people live in contexts that are highly vulnerable to climate change

See Source Materials for sources and more information.

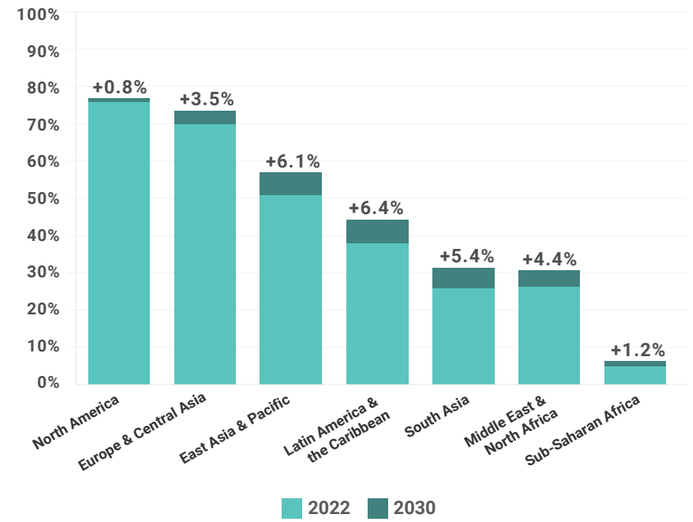
Figure 1.

The youth skills gap between the best and worst performing countries is projected to stay the same despite an already low baseline in low-income and sub-Saharan African countries

Simulated increase in share of youth aged 17-24 with secondary-level reading and math skills between now and 2030, by income



Simulated increase in share of youth aged 17-24 with secondary-level reading and math skills between now and 2030, by region



Source: World Skills Clock. See Source Materials for sources and more information.
Note: LIC = low-income country, LMIC = lower-middle-income country, UMIC = upper-middle-income country, HIC = high-income country

Education is everyone's business

Despite these crises, the world is witnessing unprecedented opportunities: people are living longer, are in better health, and wealth is surging for many. But these opportunities are not shared equally. Populations are not being left behind by accident but, in part, by siloed policy approaches that do not reflect the interlinked and compounding needs of poor and marginalized populations. Despite partnerships being a key mechanism for the delivery of the SDGs – as embodied in SDG 17 – prevailing efforts are still often organized along sectoral lines and operate in silos.

Addressing this challenge will require a fundamentally new way of operating – across sectors, levels, and stakeholders. The education sector often acts alone, without recognizing that transformation requires integration and collaboration across all SDG efforts. We know that hungry children struggle to learn, yet millions of children sit in classrooms unable to concentrate because education ministries see hunger as a health or economic problem. We know that people's ability to adapt to shocks caused by climate change depends on their education level. Yet, national adaptation strategies often focus on more technical solutions, like creating tools to boost the resilience of crops and improve the water supply. We know that rapid technological change has accelerated job disruption, but education systems are failing to equip children with the breadth of skills needed to secure jobs and boost inclusive growth because labor markets are seen as a matter for ministries of the economy and finance.

The time has come to link education to efforts across the SDGs to fuel a virtuous cycle of progress, as reflected in RewirEd's mission to ensure that education and learning are at the center of human development and investment. Investments in education can create societal and economic gains that are well beyond the value of spending and can strengthen a country's competitiveness and global position through improved human capital – the sum of a population's health, skills, knowledge, and experience.[1] One study estimates that 10 to 30 percent of income differences can be attributed to human capital. Other studies place this estimate even higher.[2] In sub-Saharan Africa, for example, a child born today will only be 40 percent as productive as they could be due to shortfalls in health and education provision.[3] Inequalities are projected to further widen if workers are unable to adapt to technological change and are forced to accept lower-skilled and lower-paying jobs or drop out of the workforce entirely as the number of medium-skilled and low-skilled occupations decrease.

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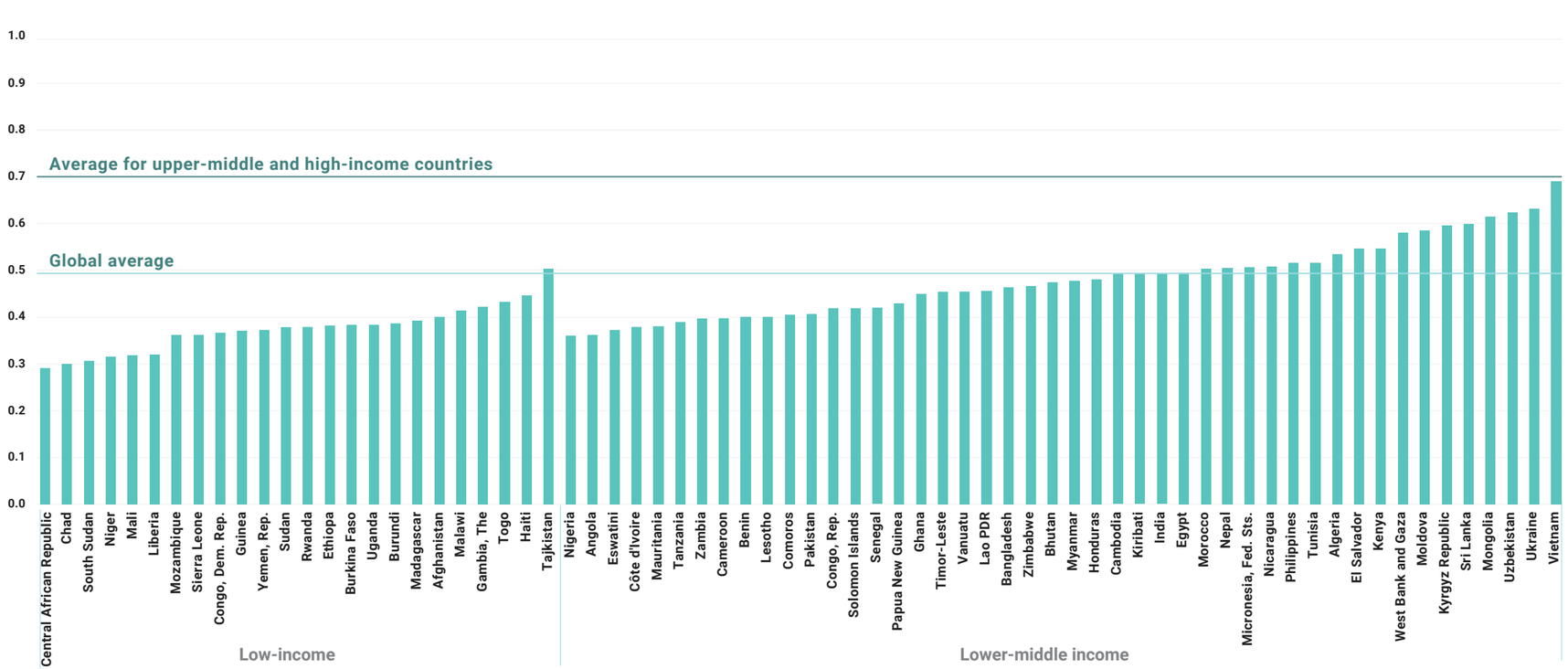
Figure 2.

In most low- and lower-middle-income countries, a child born today will not even be half as productive as if they had full health and a complete education

Human Capital Index (HCI) scores in low- and lower-middle-income countries



Source: World Bank Human Capital Index database. See Source Materials for more information.

Photo: Dubai Cares

Evidence shows that education has the potential to catalyze progress across the SDGs

Every $1 investment in a child's education in low-income countries yields as much as **$5 in returns** over a lifetime. For early childhood education, this increases to $9 in returns.[4]

171 million people could be lifted out of poverty if all students in low-income countries left school with basic reading skills.[5]

Universal secondary education for mothers could reduce stunting rates for their children by more than a third and **reduce under-five mortality rates by about one-fifth.**[6]

Improving educational outcomes could **reduce climate risks for 275 million children globally**[7] and reduce carbon dioxide emissions by nearly 70 gigatons.[8]

Immediate economic returns from investing in teachers

Returns to education are often focused on long-term income benefits but new analysis for this report provides an initial estimate of the immediate economic benefit of hiring teachers. This new analysis finds that each additional teacher hired can create, on average across all countries, an additional 1.22 jobs in other sectors as teachers use their salaries to buy goods from shops, meals from restaurants, and rent or buy accommodation. As the education workforce is one of the most dispersed professions, reaching more deeply into rural and remote areas than other sectors such as manufacturing or financial services, the economic benefits of this "employment multiplier" are more widespread and equitable in comparison.

If all low- and middle-income countries were to increase education spending by an average of 0.5%, **governments could create a combined 11 million new teaching positions**. Based on each country's unique employment multiplier, this could generate an additional **15 million jobs elsewhere in the economy**. Benefits could become even more widespread by expanding the definition of the education workforce beyond teachers to include, for instance, learning assistants.

These are conservative estimates. Wider benefits could include additional positive externalities generated around the school economy. The building of schools means construction jobs and once schools open, the local economy benefits from the purchasing of books, furniture, and other equipment, as well as the ability of parents to work due to their children being in school. Investment in teachers and the education workforce gives governments significant ability to rebalance economies and stimulate local labor markets, while simultaneously investing in their nation's future prosperity by supporting children to learn.

Source: Fab Inc and Education Commission analysis based on labor market data from the OECD and ILO, teacher salary data from the Education Commission Learning Generation costing model, data on teacher numbers of UNESCO UIS, and GDP data from the World Bank. See Source Materials for more information.

How education intersects with the global goals

Education holds the transformative power to determine the future well-being of people and the planet

Lifelong learning increases understanding and tolerance of different cultures and values

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Lifelong learning can break cycles of poverty across generations

1 NO POVERTY

Education provides access to nutritious foods via school meals

2 ZERO HUNGER

Education helps populations adapt to and address impacts of climate change

13 CLIMATE ACTION

4 QUALITY EDUCATION

3 GOOD HEALTH AND WELL-BEING

Quality education teaches healthier behavior and provides direct access to health services

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Higher-order skills drive research and innovation

8 DECENT WORK AND ECONOMIC GROWTH

Skills empower youth to attain decent jobs and be more productive

5 GENDER EQUALITY

10 REDUCED INEQUALITIES

Education fosters equality by promoting the social, economic, and political inclusion of all

A call to action for collaborative transformation

This report is a call to action for heads of state, governments at all levels, development partners, sector specialists, civil society, business leaders, teachers, and young people to collaborate on rewiring and transforming education for people and the planet. This means a radical departure from the status quo to reimagine how education systems can provide the children and youth of today with the skills, knowledge, and values they need to navigate the complexities of an unknown future.

As recognized in Dubai Cares' Framework for Global Education Transformation, "shaping the human of the future requires a whole of society approach," meaning across sectors (i.e., health, climate, etc.); involving different levels of decision-making (i.e., global, national, and subnational); and through multistakeholder engagement (i.e., communities, civil society, and the private sector). Put another way: "the starting point of the conversation is not what needs to be done to education but rather a multi-partner, cross-sectoral imagining of a village, district, city, or country's aspirations as a whole and the action needed of each 'partner' to enable progress towards those aspirations, [with] education as the driving force."[9]

The Framework highlights the importance of an adaptable, scalable, and flexible ecosystems approach for true transformation rather than fragmented efforts. In line with this framework, this report identifies three critical drivers for the delivery of an education transformation – collective leadership at all levels, connectivity and technology, and data-driven decision-making. The report also identifies six concrete win-win solutions that can align action across sectors and stakeholders. **These priority actions aren't exhaustive – nor, in some cases, new – but are cost-beneficial, supported by evidence, can be implemented in the short- to medium-term, and, most importantly for this report, hold transformative potential across multiple sectors.** Complementary case studies demonstrate impact at smaller scale and illustrate the potential of pursuing further collaboration for transformation at system levels. We also propose financing strategies to mobilize additional resources that respond to the differentiated needs of countries.

Taken together, these elements provide an actionable strategy to forge meaningful and unusual partnerships for transformative results. This report builds on discussions from RewirEd 2021, a summit convened by Dubai Cares that hosted over 100 conversations with education stakeholders and new and unlikely allies from 144 countries who came together to unlock new solutions in education – including a strong call from youth leaders for radical change.[10] It is further informed by the Education Commission's work to mobilize strong evidence and analysis to create pathways for reform and increased investment in education. Suggested action areas are also informed by recent efforts to determine what works at scale, such as the "smart buys" identified by the Global Education Evidence Advisory Panel.[11]

Dubai Cares Framework for Global Education Transformation

The Dubai Cares Framework for Global Education Transformation presents a roadmap for rewiring education for people and the planet. Using an ecosystem perspective with the human of the future at the center, it links education gains with broader ambitions for a prosperous and sustainable future – in line with nations' own visions. The framework calls for a complete transformation of teaching and learning, where and how it takes place, and for whom, with a particular focus on those left farthest behind and the power of partnerships as a critical enabler to achieve tangible progress for all children and youth, communities, and countries.

Photo: Dubai Cares/Rewired Summit 2021

"We can and must rewire education and this rewiring needs to start today, here and now. We no longer have the luxury of time. We diligently need to build education systems that help us live better with each other, with technology, and to live better sustaining our ecosystems for our complex planet."

Stefania Giannini,
Assistant Director-General for Education, UNESCO

Collaborative action for an education transformation

We need an education transformation to meet the ambition of the future. This does not just mean working together to address symptoms of the challenge; it requires thinking together to reimagine how to deliver on our promises to this and future generations.

Part 2

Critical Drivers of Delivery

Common barriers can hinder the most basic reform efforts, not to mention the seismic shifts required for an education transformation. To drive collective action and shift attention toward outcomes and results, many governments – from central leadership to provincial and local levels – are adopting delivery approaches across the whole of government or multiple sectors.[12] These are typified by strong leadership, target setting and prioritization, regular monitoring and adaptation, and clear accountability and incentives.[13] Accordingly, this report identifies three critical drivers that are needed to incentivize collaboration and provide the foundation for the delivery of a sustained education transformation: collective leadership at all levels; connectivity and technology; and data-driven decision-making. These drivers can help strengthen the ecosystem to ensure that the proposed win-win solutions can be introduced, scaled, and sustained beyond the short term.

Collective leadership at all levels

Political will and leadership at the highest levels are critical for providing joint visions, policies, structures, accountability mechanisms, and incentives throughout the system to drive behavior for transformative change. However, leaders will need to be empowered at all levels, in all sectors, and among all stakeholder groups to work together toward a shared purpose.

Collective leadership for collective impact will require a mindset shift.[14] First, people need relational trust to work together authentically.[15] This requires leaders to invest time in initiating partnerships, linking actors, and managing conflict.[16] Second, collective leadership will need to facilitate the collective understanding of challenges among diverse actors with different perspectives to find common solutions to complex problems and create a sense of mutual accountability.[17] Building powerful coalitions will be key. Third, evidence shows that distributed leadership drives shared decision-making, and can introduce adaptive processes, continuous feedback loops, and collective problem-solving to learn from and adjust implementation.[18]

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"I think we often tend to think that system change is government change, but what we've seen in communities is many people exerting what we would call "collective leadership." What we see is students and teachers and school leaders and system leaders and folks around the whole ecosystem, around kids and policymakers and government – we see leadership exerted at every one of those levels and we see where things are happening the fastest, people rowing in the same direction.

I think what we haven't done enough of in education is really intentionally invest in cultivating that leadership, and I hope that will come out of this pandemic era with a new recognition about the importance of local leadership."

Wendy Kopp,

CEO and Co-founder, Teach for All

Connectivity and technology

Connectivity and digital technologies can transform how people, businesses, and governments interact by easing communication, enabling more equitable information sharing, promoting data-driven decision-making,[19] expanding representation of voices, and stimulating accountability between citizens and leaders and across all levels.[20] However, nearly 3 billion people remain offline[21] and a lack of infrastructure is a major impediment, particularly for countries that tend to have high prices for mobile broadband connectivity and limited penetration.

But infrastructure alone will not be enough to bridge the digital divide. As recognized in the RewirEd Global Declaration on Connectivity For Education, a strong digital ecosystem is required – one that centers the most marginalized when recalibrating policies, actions, and investments in digital education and infrastructure.

Digital connectivity is a springboard for more equitable access to technology, upon which foundational skills and knowledge, among other essential learning, can expand and advance. Early evidence shows that digital technologies can enrich and personalize learning, accelerate rapid assessments, and facilitate teacher professional development and peer collaboration.[22] But the challenges of meeting the needs of the most marginalized students and their teachers, the need for high-quality content, and cost effectiveness at scale must be addressed. Partnerships between the public and private sectors and the involvement of teachers and other users will be critical for stimulating innovations to solve these issues. For example, coalitions such as Partner2Connect and the Edison Alliance can play an important role in catalyzing new partnerships and leveraging resources to prioritize connectivity.

Photo: UNICEF/UN0536009/Dejongh

"The RewirEd Global Declaration on Connectivity for Education provides a critical path forward to securing meaningful connectivity for all."

Sonia Jorge,
Executive Director, Alliance for Affordable Internet

Giga ensures that students and teachers can access the devices, skills, and content they need to make full use of connectivity.

Launched in 2019, Giga is a joint initiative between the International Telecommunication Union (ITU) and UNICEF that aims to connect every school to the internet and every learner to information, opportunity, and choice, so they are empowered to shape the future they want. To date, Giga has connected over 1 million teachers and students in 3,200+ schools and has mapped the connectivity levels of over 1 million schools across 42 countries to help target investment to where it is most needed. Giga has raised over $27 million from global partners including Ericsson, Dubai Cares, and the Musk Foundation and helped mobilize over $210 million to accelerate school connectivity around the world.

Data-driven decision-making

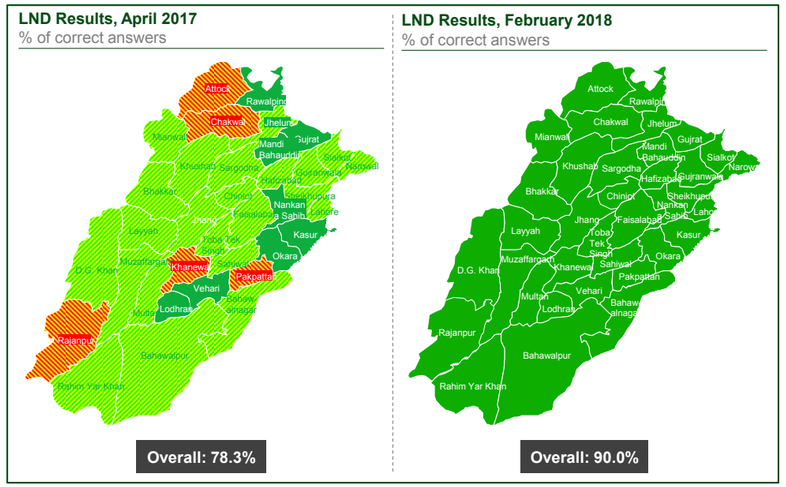
Data is essential for evidence and equity-based planning, decision-making, and delivery at all levels – and can help identify challenges and highlight areas where joint efforts can be most valuable. Furthermore, timely, reliable, and accessible data is critical for decision-makers to set targets, monitor and measure results, and be held accountable. Many countries are on the path to adopting integrated national data systems that collect data across sectors, and actively integrate stakeholders from civil society, the public sector, and the private sector into the data life cycle and governance structures.[23]

While fully integrated data systems are out of reach for many lower-income countries, strengthening the fundamentals of data systems – technical capacity for data production and use and ensuring that data is timely, reliable, coherent, and accessible – are essential first steps to transition to data-driven systems. Within education, the greatest obstacle is not a lack of data, but the need for synthesized, contextually relevant data for policymakers and practitioners to make informed decisions collectively.[24]

A delivery approach in Pakistan used robust data gathering to ensure evidence-based implementation

A delivery approach in Punjab, Pakistan used the existing school data collection mechanism to monitor progress and link it to performance accountability. School-level data on infrastructure, enrollment, student attendance, teacher attendance, and other indicators, collected monthly, formed the basis of heat maps that used traffic light colors that signaled whether districts were on or off track of meeting implementation targets. This data was presented at regular stock take meetings to inform decision-making, which led to continuous use at the district level.

See Source Materials for sources and more information.



"As some countries began reopening schools amidst COVID-19, the need for better data management and utilizing accurate data for policy and planning heightened more than ever. Utilizing data to diagnose the current system delivery and to collect accurate data is crucial in informing policy formulation and practices as the impacts of COVID-19 are affecting learning for millions of students."

Albert Nsengiyumva,

Executive Secretary, ADEA,
former Minister, Rwanda

Photo: Shutter.B_Shutterstock

Part 3

Win–Win Solutions for Education and the SDGs

Photo: UNICEF/UN0494304/Nesbitt

Solution 1 Expand early childhood programs to help end poverty

The problem

The conditions for lifelong and intergenerational poverty are set early in life. Eighty percent of the human brain is formed by age three, and ninety percent by age five.[25] In low- and middle-income countries around the world, 250 million children under the age of five are at risk of not reaching their development potential due to ill health, malnutrition, and lack of early stimulation and learning.[26]

High-quality early childhood programming can reverse the effects of adversity and boost social and emotional development, helping children to be resilient and thrive.

Yet systems worldwide face low enrollment in pre-primary education, lack of government investment in services for young children,[27] low demand for public services, such as child care and pre-primary education, lack of recognized qualifications for early childhood teachers and caregivers, and piecemeal provision as early childhood development (ECD) sits across multiple ministries and organizational mandates.

Only two percent of national education budgets in low-income countries are devoted to early childhood education[28] with the needs of the youngest refugees and displaced children overlooked and underfunded; just two percent of humanitarian funding supports ECD programming.[29]

The solution

Expand access to a holistic package of multisectoral services for young children and their caregivers that provides healthy nutrition, good healthcare, active stimulation, and engaging early learning.[30]

Going beyond formal education is critical: parent support groups and home visiting programs can support and educate parents as the child's first teachers.

Supporting parents and caregivers is essential to build a nurturing environment, which improves child and adolescent well-being and helps prevent violence against children and youth.[31]

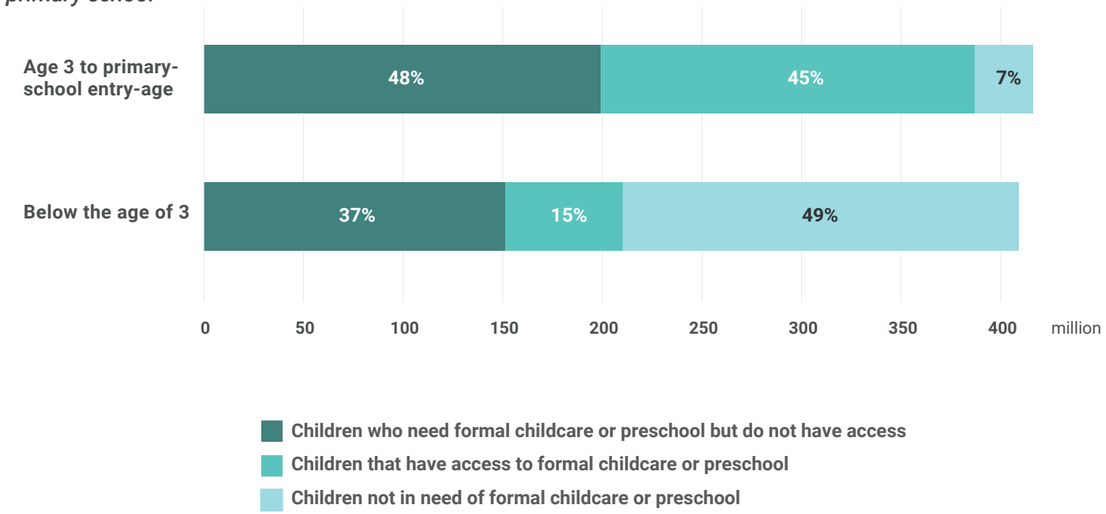
Complementary high-quality pre-primary education should harness approaches that support young children to learn in the most effective ways, for example through play, relationships, and interaction.[32]

These multisectoral approaches must be backed by national policy, costed and budgeted plans, regulations, and quality standards that can guide private sector and community-based programs.[33] Investments should also be made to support professionalizing the childcare and early learning workforce with formal qualifications, career pathways, and suitable remuneration.

Figure 3.

More than half of all children in need of childcare or preschool do not have access

Estimations of global childcare need, supply, and gap in access for children from age 0 to the age they enter primary school



Source: Devercelli & Beaton-Day, 2020. See Source Materials for more information.

Note: For children below the age of three, the need for formal childcare is based on estimates of the number of children with two working parents or single-headed households with one working parent. This is not to imply that this cohort of young children would not benefit from other ECD programs, such as programs that work with both parent and child to promote nurturing care.

Win-Wins for the SDGs

1 NO POVERTY

Integrated ECD programs are cost-beneficial,[34] with long-term returns in reduced poverty and income gaps as well as increased prosperity. Quality ECD programs have the potential to boost individual adult earnings by almost 25 percent.[35]

10 REDUCED INEQUALITIES

Quality ECD programs are among the most well-evidenced "equalizers" for closing gaps between disadvantaged children and their more privileged peers.[36]

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Interpersonal skills – fostered through secure, compassionate relationships with caregivers – decrease the potential of future conflict by improving social cohesion.[37]

CASE STUDY

Play to Learn integrates early learning and nurturing care into humanitarian response

In 2018, Sesame Workshop, BRAC, the International Rescue Committee, and NYU Global TIES for Children launched the Play to Learn program with the goal of establishing ECD as a core component of every humanitarian response. Funded by the LEGO Foundation, Play to Learn reaches families affected by the Rohingya and Syrian refugee crises with educational materials and programs that promote playful learning and nurturing care through a variety of channels, from play-based direct services to WhatsApp messages and interactive voice response calls, to broadcast media. Delivery models incorporate mental health support for children, caregivers, and facilitators, promoting the well-being of providers to foster healthy, supportive relationships with children and their families.

Impact

In its first three years, Play to Learn has reached over 668,000 children and caregivers through a combination of in-person, remote, and hybrid early childhood services. Children participating in programs have shown improved physical, cognitive, creative, and social and emotional skills, and caregivers have demonstrated more supportive interactions with their children and more gender-equitable attitudes. Play to Learn is collaborating with NYU Global TIES to rigorously evaluate several models of ECD programming in humanitarian settings.

See Source Materials for sources and more information.

Every $1 invested in early childhood care and development can lead to a return of as much as $17 for the most disadvantaged children.[38]

"Without learning opportunities in the early years, children start primary school already behind their peers. The impact is even more pronounced for the poorest, most marginalised children. This disadvantage can have long-term implications for children's learning and development. This is why it is so important that every child has access to two years of free, high-quality pre-primary education. Early years education promotes social and emotional development and helps children have a better grasp of basic literacy and numeracy skills. It increases their chance of finishing primary school. Not only does this opportunity for children put the education SDGs in reach, it puts the global community on track to end poverty and reduce inequalities."

Sarah Brown,
Chair, Theirworld

Solution 2 Develop a team-based education workforce for good health and well-being

The problem

Having enough effective teachers in the right places should be a top priority for governments, yet increasing the number of teachers alone is not enough to transform teaching and learning. Currently, schooling is largely based on an outdated model of one teacher/one class, where teachers work in relative isolation to fulfill multiple roles addressing a range of increasingly diverse student needs.[39] These needs are ever- changing – driven by demographic shifts, physical and mental health issues, crises, and the need for new skills – creating an enormous amount of pressure on teachers. In health, a team-based approach has led to better service delivery, outcomes, and cost-effectiveness.[40] Research from Chile shows that there are 4.5 nurses, midwives, and community workers for every doctor compared to just 0.3 teacher aids and support staff for every teacher.[41]

The solution

Create student-centered "learning teams" that bring together teachers, parents, the community, education support personnel, school and district leaders, and health and social sector professionals to ensure learners' numerous needs are met while enabling teachers to focus on teaching. Learning teams can also facilitate peer learning and collaboration within and between sectors and different stakeholders.[42]

This requires shifting from a workforce design with the teacher at the center to the learner at the center, like team-based models in health where the patient is at the center.[43] This does not necessarily require creating new roles but a reconsideration of existing capacity and skills. For example, community workers, trained volunteers, and parents can provide support in mother-tongue and targeted instruction for foundational learning;[44] specialist support roles have been effective in helping reach those left behind and enable inclusion;[45] and effective leadership at the school and district levels is strongly associated with better educational outcomes.[46] This holistic approach also nurtures students as they navigate the complexities of an unpredictable world.[47]

Health and social service professionals can collaborate with schools to meet the diversity of students' physical and mental health needs, particularly for children experiencing conflict or crisis.[48] Over time, learning teams can build networks across schools and sectors and use evidence to transform education systems into learning systems that are self-improving and adaptable to change.[49]

Figure 4.
Learning team design – putting learners at the center

Source: Education Commission, 2019.
Note: This diagram illustrates potential functions and roles, but learning teams will vary in every context and level in the system.

Win-Wins for the SDGs

3 GOOD HEALTH AND WELL BEING

Learning teams can identify and treat children's critical physical and mental health issues – including reducing rates of malnutrition and stunting, delivering immunization programs, providing targeted psychosocial support, promoting positive mental health, and increasing health literacy and healthy behaviors.[50]

10 REDUCED INEQUALITIES

Learning teams that include social workers, health organizations, and community organizations can provide resilience for continued learning for refugee children, including through life skills programming, school admission support, and responding to the psychosocial and emotional needs of students.[51]

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Learning teams can protect against and respond to violence against children, both within and out of schools. For example, integrating social service workers into school-based teams ensures that child protection concerns can be addressed effectively with the appropriate follow-up, referral, and coordination in the community.[52]

CASE STUDY

Community health volunteers facilitate inclusion in Kenya

The *Wasichana Wetu Wafaulu* (Let Our Girls Succeed) program uses a cross-sectoral "learning team" of community health volunteers (CHV), parents, teachers, and instructional coaches to improve learning outcomes and the health of disadvantaged girls in rural areas of Kenya. CHVs are typically responsible for collecting household-level data on vulnerable girls' school attendance and basic health information, but this role was expanded during COVID-19 when CHVs were the only education point of contact for most families. During the pandemic, teams used student assessment data to design no-tech paper-based tutorials delivered by CHVs to parents alongside marking guides. CHVs then shared parental feedback on student progress with teachers and program staff, as well as information on the risks or health challenges faced by the girls.

Impact

Research shows that 91 percent of health volunteers encouraged girls to access the radio/TV lessons, 67 percent encouraged parents to allow the girls access to lessons, and 78 percent undertook household visits to motivate girls to continue to study privately with the tutorials delivered. CHV diary entries also suggest that the program led to more positive parental attitudes in relation to girls' education.

See Source Materials for sources and more information.

"Teacher isolation is a flaw in education systems. A really important point here is that it takes a team to educate a child. Teachers need leadership and support to educate children and reach children with the greatest needs."

Susan Hopgood,
President, Education International

Photo: Education Development Trust

The potential of community education workers

Young adults in remote areas can be trained and formally included in the workforce to serve as last-mile community education workers, similar to the very successful Last Mile Health Worker model. For example, Last Mile Health Workers in Liberia increased the number of children receiving treatment for malaria from 26.2% to 56.8%, increased pneumonia treatment from 6.6% to 57.8%, and increased facility-based births from 55.8% to 84%.[53]

"It's essential that we identify ways to leverage high-potential young people from the same communities as students, and provide them with well-structured training and support. In doing so, we can truly extend our reach and provide quality education to the most vulnerable communities around the world."

Caitlin Baron, CEO, the Luminos Fund

Solution 3 Scale adaptive, inclusive, and engaging teaching to reduce inequalities

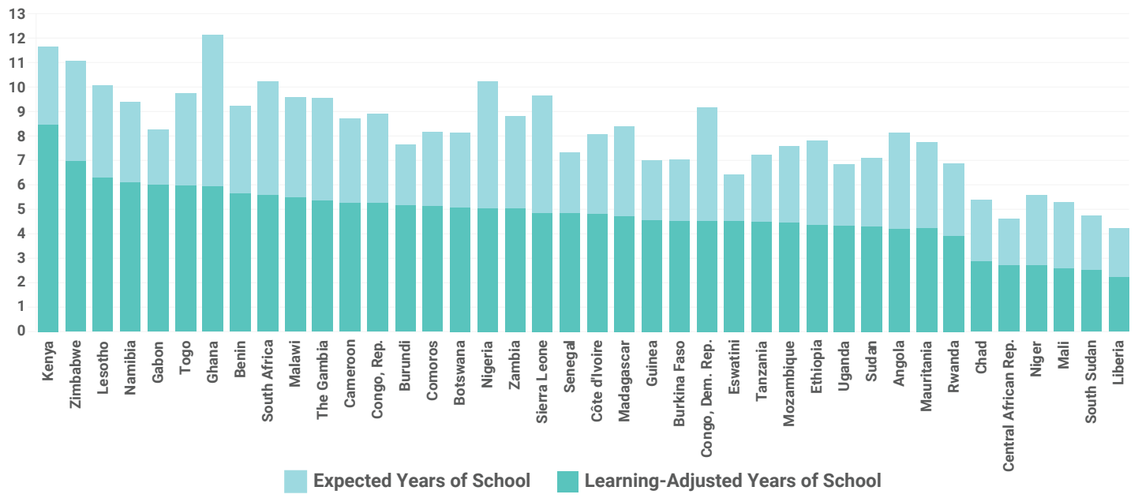
The problem

Globally, the most marginalized children face the biggest barriers to learning, leading to incalculable damage to their accumulated learning and lifelong opportunities.[54] In lower-income countries, many students lack foundational skills and lag far behind their respective at-grade content.[55] In sub-Saharan Africa, for instance, the learning loss from COVID-19 combined with existing poor-quality education may leave the average student with the equivalent of just 2.4 years of learning out of a total of 10 years of schooling.[56] The learning crisis, however, is not only a function of increasing inputs or getting more children into school. The current classroom model, where teachers deliver standardized content in a uniform manner, limits children's understanding and ability to connect different topics and knowledge.[57]

Figure 5.

On average, students in sub-Saharan Africa lose the equivalent of 3 years of learning due to poor quality schooling

Expected years of schooling and learning adjusted years of schooling in sub-Saharan Africa, 2020



World Bank Human Capital Index database. See Source Materials for more information.

Note: Calculated prior to effects of COVID-19.

The solution

Introduce and scale adaptive teaching approaches tailored to the level of each learner rather than by a prescribed syllabus based on age or grade. Personalized support, both within and outside the classroom, can help students accelerate learning and reduce inequities when targeted at students most at risk of falling behind.[58] To do this, teachers require training and support to use diagnostic and formative assessments.

Technology-enabled adaptive learning platforms have shown potential in supporting teachers to do this but it will be essential to work with technology companies to co-create cost-effective platforms for learning that can reach the most marginalized.[59]

Teachers will then need training and support to increase variability in instruction techniques to engage all students, including using more playful[60] and engaging[61] pedagogies so all children can develop socio-emotional and higher-order skills like complex problem-solving, critical thinking, creative thinking, and collaboration.[62]

Teacher and school leaders should be actively engaged in policy discussions and development of new teaching approaches – including technology solutions – and lead innovation, implementation, and knowledge sharing on them.

Win-Wins for the SDGs

10 REDUCED INEQUALITIES

More children are motivated to stay in school as instruction increasingly improves learning,[63] thereby increasing equity. If all students in low-income countries left school with basic reading skills, 171 million people could be lifted out of poverty (equivalent to a 12 percent cut in world poverty).[64]

8 DECENT WORK AND ECONOMIC GROWTH

More students are able to achieve the foundational and higher-order skills required for life and work in both formal and informal sectors,[65] further spurring economic growth. Achieving global universal basic skills could add $700 trillion to the world GDP.[66]

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Investment by the private sector in low-cost solutions for adaptive learning could expand the digital ecosystem and connectivity infrastructure for all.

CASE STUDY

Teaching at the Right Level accelerates foundational learning

In 2016, the Zambian Ministry of Education (MoE) introduced the Teaching at the Right Level (TaRL) approach, locally known as 'Catch Up', to children in grades 3-5. Teachers assess children on foundational reading and math skills using a simple one-on-one tool and then group them according to learning level rather than age or grade.

Teachers then provide materials and activities appropriate for each group, which children then use to learn collaboratively and individually. Assessment data is compiled and used by the MoE to allow them to pinpoint those areas in need of more support.

The delivery of the program is carried out by the MoE workforce with officials at different levels in the system facilitating trainings, monitoring progress, and supporting schools in their implementation efforts.

Impact

Evidence from a range of contexts shows that TaRL can deliver impressive learning gains for all children, particularly those who are most left behind. In 2016, during the pilot period of the Catch Up program, the share of children reading with basic proficiency (a simple paragraph or a story) grew by 18 percentage points -- from 34 percent to 52 percent; and in math, the share of children with basic proficiency (able to complete two digits subtraction) rose by 18 percentage points from 32 percent to 50 percent. In 2022, Catch Up was scaled to 3,300 schools, one-third of the total number of schools in the country. The MoE has indicated its desire to take Catch Up to a national scale.

See Source Materials for sources and more information.

A recent study with 3 countries in Africa found that about 90 percent of stakeholders indicated that their country policies were largely aligned with the need to have adaptive, inclusive, and engaging teaching, however research at the classroom level found that on average, only 38 percent of classroom practices observed showed evidence of these pedagogies fully taking place.[67]

High Touch High Tech – adaptive learning powered by technology

In Vietnam, the Education Commission collaborated with the UK's FCDO, Vietnam Ministry of Education and Training, Vietnam National University, and Arizona State University to prototype a High Touch High Tech program for 7th grade math that harnessed AI-enabled adaptive learning technology. Through this and complementary engaging learning approaches, results show that students gained 2 years of math learning in just one semester, with the greatest improvements made by lower-performing students.[68]

Solution 4 Scale school meals and school health interventions to end hunger and improve health and well-being

The problem

As millions of vulnerable children return to school having lost between 1-2 years of learning, there is a real and present danger that poverty and the deteriorating nutritional and health status of children triggered by the COVID-19 pandemic and magnified by the food crisis will derail the education recovery.

Children must be healthy and well-fed to take full advantage of learning opportunities – and education is a key determinant of health outcomes.[69] Undernutrition is associated with delayed school enrollment, impaired concentration, and drop-out before completion.[70] And many of the health conditions that are most prevalent among disadvantaged students (malnutrition,[71] intestinal worm infections,[72] and uncorrected myopia[73]) lead to absenteeism, grade repetition, and dropout.

But while investment in the health of children under 5 years is estimated at $29 billion, investment in children and adolescents over the period of 5 to 19 years is only $3 billion globally.[74] Holistic school health and nutrition (SHN) initiatives have not sufficiently reached the children most in need and many governments lack the fiscal space to introduce, expand, or restore programs following school closures.

The solution

Deliver school meals alongside complementary school health interventions (hygiene, vision, deworming, mental health services) as a frontline response to addressing hunger, malnutrition, and poverty, and thereby stimulating learning.

There is overwhelming evidence that well-designed and effectively delivered school meal programs (with strict quality standards) – especially when implemented with complementary health programs to maximize impact – can improve human capital through increased years of schooling, better learning, and improved health and nutrition.[75]

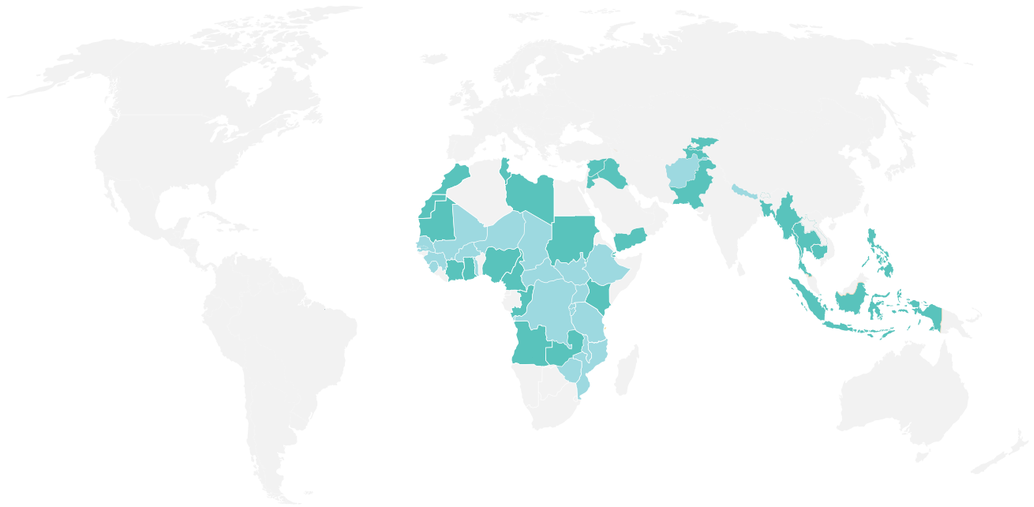
Children receive school meals every day in at least 161 countries from all income levels.[76] However, increased collaboration among government and international actors will be required to fill remaining gaps in delivery.

Some of this work has already begun and should be supported, such as through the School Meals Coalition, which aims to restore pre-pandemic programs and reach another 73 million of the most in-need children who had not previously been reached by 2030.

Figure 6.

An especially vulnerable subset of 73 million children facing extreme poverty live in countries with significant nutrition challenges and without adequate provision of school meals

Countries where school meals reach less than 80% of primary schoolchildren, where over 20% of children under 5 are stunted, and where more than 30% of women are anemic



Source: Drake et al, 2020; WFP, 2020. See Source Materials for more information.

Note: These figures were calculated prior to the COVID-19 pandemic

Win-Wins for the SDGs

2 ZERO HUNGER

School meals tackle the twin nutrition threats of childhood obesity and malnutrition by providing children with a healthy diet as well as education about nutritious foods.[77]

5 GENDER EQUALITY

SHN can be a strong motivator for parents to send and keep girls in school, allowing them to marry later and have healthier children.[78] SHN programs are also critical for girls in emergency situations, as they offer protection against threats such as forced and/or early marriage and gender violence.

13 CLIMATE ACTION

Climate-smart initiatives, such as Home Grown School Feeding, can help mitigate some climate change impacts by shortening food chains and minimizing food waste, and thus reducing carbon emissions.

CASE STUDY

The benefits of India's Mid-Day Meal Scheme extend to future generations

India's Mid-Day Meal Scheme (MDMS) is the world's largest school-feeding program, reaching 90 million children aged 6-13 across 1.1 million schools. Implemented in partnership with states, MDMS is a centrally sponsored scheme designed to improve the nutritional status of children; encourage disadvantaged children to attend school more regularly and help them to concentrate on classroom activities; and provide nutritional support to children in drought-affected areas during summer vacation.

Complementary health interventions include health check-ups for schoolchildren and the provision of deworming medicine, iron, and folic acid.

Impact

The MDMS has had a dramatic positive effect on learning, raising test scores by 5-10 percent across math and reading, with all children benefiting. Evaluation evidence also suggests that the MDMS has accounted for between 13-30 percent of India's progress in reducing stunting from 2006 to 2016.

Cross-generational benefits are also remarkable. Children born to mothers who received midday meals demonstrated reduced rates of stunting, with the largest effects seen for poor and middle-income households. Girls benefiting from the program were found to delay the age they give birth, have fewer children overall, and were more likely to give birth in a medical facility and receive sufficient antenatal care.

See Source Materials for sources and more information.

"It is imperative that the education sector connects the learning crisis to other crises and vice versa. Education plays a fundamental role in driving action to address challenges in health, hunger, climate, jobs, and more. The world needs to promote scalable, evidence-based solutions, such as school meals, for true transformation."

Carmen Burbano,
Director of the School Feeding Division, World Food Program

For every $1 invested, school meals produce $9 in economic and social returns.[79]

Solution 5 Create diverse and certifiable routes for youth to build skills and promote inclusive and sustainable economic growth

The problem

Young people need a breadth of skills – foundational skills; transferable skills; digital skills; job-specific skills; and entrepreneurial skills[80] – to participate in the workforce and adapt to a continuously changing landscape shaped by technology, demographic shifts, climate change, and crises. But nearly 3 in 4 youth lack the skills needed for employment and 60 percent of youth of upper secondary school age are out of school in low-income countries, compared to just 6 percent in high-income countries.[81]

Seventy-one percent of CEOs expect labor or skills shortages to disrupt their business over the next 12 months.[82] Adolescents and youth constitute the largest population in developing countries and not preparing young people for their future is a wasted opportunity for countries to build their human capital.[83]

Vulnerable youth are at greatest risk of losing out, which threatens to exacerbate existing inequalities; the unemployment rate gap between young people with and without disabilities is as high as 30 percentage points.[84]

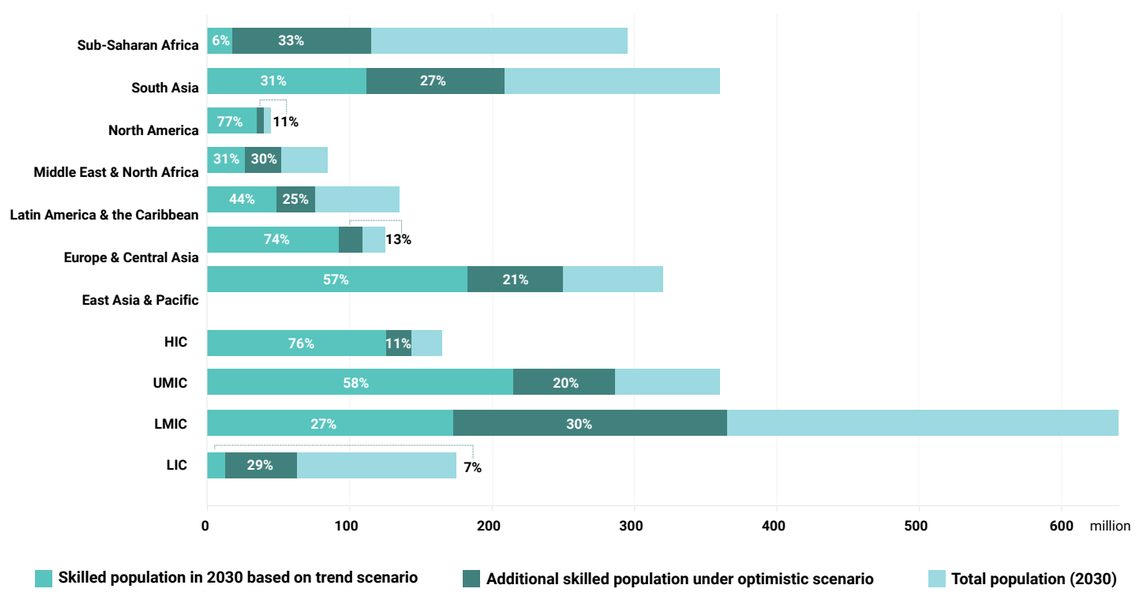
The solution

Work with employers and young people to create diverse paths to develop a full range of skills – including non-formal routes, alternative spaces for learning, catch-up and bridging programs, accelerated learning, and the use of digital platforms. By having multiple pathways to skills and livelihood opportunities, youth will be able to adapt to and proactively shape an unpredictable future.[85] This should include education institutions working with employers to design interdisciplinary, adaptable curriculums that allow students to easily move between areas of study, including between academic and TVET streams, and offering flexible and relevant certification options that capture a range of skills.[86] Impact assessments show that traditional youth training programs tend to be limited, expensive, and mostly with short-term impacts. However, training that is paired with practical opportunities in a work setting can be more effective.[87] Employers must then adopt skills-based approaches to hiring and developing talent by reconsidering work experience requirements, and accepting certifications from non-traditional institutions.

Figure 7.

Globally, 300 million more youth could have the skills needed to thrive if countries reach a benchmark equal to 50% of the youth skills gap in the best-performing countries

Simulated trend and optimistic scenarios of share of youth population (15-24) in 2030 with basic literacy and numeracy skills, including projected impact of COVID-19, millions



Source: World Skills Clock, 2022. See Source Materials for more information.

Win-Wins for the SDGs

8 DECENT WORK AND ECONOMIC GROWTH

Young people empowered with a breadth of skills can find better and higher-paying jobs and be more productive. Employers benefit from having a workforce equipped with in-demand skills and teams with diverse perspectives.[88]

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Youth equipped with higher-order skills are more likely to develop new technologies and spur innovation, and also provide the foundation for technology absorption.[89]

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Lifelong learning opportunities help people understand different cultures and values, and encourage conversation before conflict. The risk of war can be reduced by about 3 percent if the enrollment rate for secondary schooling is 10 percent higher than the average.[90]

CASE STUDY

The STAR program offers alternative pathways for youth skills and entrepreneurship development

In 2012, BRAC, UNICEF, ILO, and the Bureau of Non-Formal Education (BNFE) launched the Skills Training for Advancing Resources (STAR) program. The training builds on the traditional "master-apprentice" model, where out-of-school youth are placed as apprentices with local business people that are selected based on their reputation, literacy and technical skills, and experience. As part of the onboarding process, mentors are provided training on ILO's decent work standards that BRAC contextualized for the informal sector.

Youth training consists of four key components: (1) on-the-job training, (2) theoretical training, (3) soft skills and essential life skills training, and (4) foundational skills training (e.g., mathematics, Bangla, English, and digital literacy). The training is aligned with market-driven skills needs, high-demand trades, and the National Technical and Vocational Qualification Framework (NTVQF), allowing graduate apprentices to acquire Recognition of Prior Learning (RPL) certification and attain better-paid jobs both in the formal and informal sectors.

Impact

Since its inception in 2012, STAR has reached over 80,000 adolescents and youth, of which 58 percent were adolescent girls and young women and 5 percent were persons with disabilities. The job placement rate among participants is 95 percent. Moreover, graduates saw a 6-fold increase in income after securing jobs post-training and nearly 18 percent of graduates have set up their own businesses. The model is especially impactful for girls as it has been shown to reduce early marriage among female participants by 62 percent and delays in subsequent child birth.

See Source Materials for sources and more information.

"If we assume that we want to provide universal secondary education for all, the reality is that currently 50-70% of youth in Africa don't have access. So today, only using academic secondary school as the vehicle for post-primary education leads to a highly inequitable outcome. It doesn't have to be this way. While we wait for access for all, we have a moral obligation to build alternative pathways that prepare youth for dignified employment, so it's not all or nothing."

Boris Bulayev,
CEO & Co-founder, Educate!

Passport to Earning (P2E) is an example of cross-sectoral collaboration to develop a digital platform that will provide young people aged 15 to 24 with free, world-class, job-relevant skills training and digitized content from a range of public and private sector partners. Supported by UNICEF, Microsoft, Accenture, and Dubai Cares, the platform aims to skill 10 million young people and help 10,000 young people gain decent employment. It is currently being piloted with the Central Board of Secondary Education in India.

Solution 6 Adapt education systems to build climate resilience and develop green skills

The problem

Education is a climate-vulnerable sector in urgent need of adaptation. Extreme storms and flooding leave costly trails of destruction,[91] and schools are destroyed, damaged, or converted into emergency shelters and temporary sites for humanitarian aid.[92] Learners and educators suffer from trauma, grief, and a loss of hope, which affects their mental health and readiness to learn and to teach.[93]

Drought and heatwaves further interrupt teaching and learning, stressing already vulnerable school infrastructure, including WASH and energy infrastructure, as well as the physical health and cognitive functioning of learners and educators.[94]

The climate crisis threatens to exacerbate the learning crisis, especially for the most climate-vulnerable countries. Twenty-five of the 33 countries where children shoulder extremely high vulnerability to the impacts of climate change are located in Africa[95] – a continent where 87 percent of children live in learning poverty[96] and 63 percent of adults lack climate literacy.[97]

More fundamentally, education has not been prioritized in adaptation and mitigation strategies despite mounting evidence around the need for behavioral change and technical and transformative skills for an equitable green transition. Fewer than 40 percent of the Nationally Determined Contributions (NDCs), which are key national climate strategies, reference skills training and fewer than 30 percent reference climate change education.[98]

The solution

Adapt education systems for climate resilience – including infrastructure, the education workforce, content and pedagogy, delivery and support, monitoring and assessment, and policies and budgets – and position education as a key climate solution by prioritizing the teaching of skills that can prepare young people for a green economy.

At the most basic level, this means ensuring education facilities and their supportive infrastructure are adapted to withstand local climate events.

At the most transformative level, adapting education systems for a climate-impacted world means building climate literacy and a breadth of green skills among all learners and educators.[99] This is foundational to reducing climate vulnerability, enhancing adaptive capacity, and strengthening the climate resilience of individuals and society.

Stakeholders globally are beginning to identify society's baseline level of climate change awareness,[100] teachers' motivation and skills to teach climate change,[101] the education sector's treatment of climate change in curricula and education policies,[102] as well as the climate sector's treatment of education in climate policies.[103] It is time to move from diagnosis to action.

Education is not just a climate-impacted sector; it is also a powerful climate solutions sector that can unlock transformative behavioral and systems change.

Win-Wins for the SDGs

3 GOOD HEALTH AND WELL BEING

Climate-adapted education systems help to build the resilience and adaptive capacity of learners to thrive in the face of climate-induced adversity, improving children's physical, mental, emotional, and psychosocial health and well-being during and after climate-related disasters.[104]

10 REDUCED INEQUALITIES

Strengthening the resilience of education infrastructure to climate impacts means schools can better serve and protect society's most vulnerable members, including girls, children with disabilities, and children from households vulnerable to displacement. Investing in climate-resilient infrastructure has been found to be 12 times more cost-effective than disaster relief assistance.[105]

13 CLIMATE ACTION

Adapting educational content, pedagogy, and delivery to build climate literacy, climate consciousness, and a breadth of green skills can accelerate the path to carbon zero. Education for climate action has the potential to reduce up to 20 gigatonnes of carbon dioxide by 2050, a better outcome than more than three-quarters of the top climate solutions available today.[106]

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CASE STUDY

A whole-school approach improves environmental, financial, educational, and social outcomes

The Victorian Government's ResourceSmart Schools (RSS) program helps schools in Australia to minimize waste, save energy and water, improve biodiversity, and reduce greenhouse gas emissions. RSS adopts a whole-school approach by integrating sustainability into participating schools' curriculum and daily operations.

Schools complete a series of modules (on whole-school planning, establishing baseline data and creating action teams, and resource-specific modules on biodiversity, energy, waste, and water). In 2019, approximately 600 (~25 percent) schools across Victoria actively participated in the RSS program, with plans to scale further.

Impact

RSS has delivered measurable environmental, financial, educational, and social outcomes relevant to both climate adaptation and mitigation. Schools have demonstrated strong or moderate improvements in waste management (72 percent), biodiversity (63 percent), water (61 percent), and energy (55 percent) as well as improved student learning outcomes with regard to sustainability (62 percent). A recent evaluation also found that students at RSS schools were motivated to care for nature, wildlife, and the environment beyond schools and empowered to use their voice, take action, and make a difference.

See Source Materials for sources and more information.

In a study of 125 countries, researchers found that the death toll from floods, droughts, wildfires, extreme temperature events, and extreme weather events could be 60% lower by 2050 if 70% of women were able to achieve a lower-secondary-school education.[107]

Unlocking new solutions through continued innovation and experimentation

The RewirEd Provocations — statements intended to spur cross-sectoral action to address complex, systemic, and structural challenges — aimed to catalyze transformation in education through experimentation. One experiment, Play-Pluralism-Planet, was conceived by a coalition of organizations, including the Aga Khan Foundation, Schools2030, and UNICEF, and aims to re-imagine the role(s) of schools, systems, and societies in addressing climate change in and through education. Now in partnership with the Learning Planet Institute, Teach for All, and members of the 17 Rooms Initiative, seeds have been planted to advance a new, global platform through which ministries of education, educators, and young people can exchange actionable ideas, launch bold experiments, and become climate literate and climate compassionate leaders.

"Climate and education are interconnected. Learning should incorporate the climate aspect and various interrelated environmental crises in the formal curriculum to ensure that young people learn from the communities on how they have been mitigating and adapting from climate change to create a more sustainable future."

Alice Mukashyaka,
UNF Next Generation Fellow and Restless Development Advocacy Manager

Part 4

New Strategies for Mobilizing Finance

Education finance suffers from a causality dilemma: efforts to transform education cannot be developed without committed financing, but financing does not materialize without concrete solutions and confidence in their success.[108]

The win-win solutions proposed above seek to remedy the latter problem – these actions can be sold to finance ministers, parliaments, the private sector, banks, development partners, or board members as generating simultaneous impact across multiple SDGs.

Solving the other half of the causality dilemma requires thinking beyond existing instruments and embracing the collaborative approach proposed throughout this report. Approaches to education financing – and financing across all the SDGs more generally[109] – have long been focused on traditional public financing instruments, including increasing the share of education in domestic public spending and relying on grants from official donors to plug financing gaps. Both strategies are necessary but not sufficient.

Financing strategies must draw on all tools available and reflect different country contexts, including the level of domestic resource mobilization, available bilateral aid and grants from education-specific vertical funds like the Global Partnership for Education (GPE) and Education Cannot Wait (ECW), loans from international finance institutions, as well as private and philanthropic investment. The allocation of public and private resources can be guided by principles of progressive universalism — giving greatest priority to the most vulnerable — which are widely used in the health sector.[110]

This report proposes three strategies to mobilize *additional* financing to match action with ambition.

Photo: Dubai Cares

Strategy 1 Plan and invest across sectors to maximize investment in human capital

Despite efforts to increase the prioritization of education by governments and donors, increases in domestic expenditures have historically been driven by economic growth rather than the prioritization of education.[111] Moreover, the share of aid to education has been falling since 2010 – from 11.7 percent to 9.7 percent of total aid.[112]

New tactics for mobilizing domestic and donor financing are needed, particularly as pressures on budgets intensify with lower-than-projected revenue collection and rising global interest rates affecting debt repayments.[113]

Typically, education financing has been pursued through line ministries with narrow remits, which has prevented more creative solutions to fund education together with other SDGs at scale. As a result, efforts at prioritizing education are implicitly seen to cause the de-prioritization of other sectors. Governments must instead strengthen the links between planning and budgeting across sectors to safeguard and expand spending on the win-win solutions proposed in this report that will simultaneously accelerate progress on education as well as other SDGs.

At the country level, the development of integrated national strategies and financing frameworks can facilitate active engagement of all parts of government, including finance ministries and other line ministries, in joint service toward shared goals. Robust domestic financing frameworks can also facilitate funding from donors aligned with national policies rather than constrained by sector-specific allocation procedures.

For instance, in Niger, the World Health Organization has successfully positioned health workforce investment needs within a broader national development investment plan. This has enabled Niger's government to secure significant additional domestic and donor funding as part of a broader rural economic development initiative that includes education, health, job creation, women and youth participation, and economic empowerment.[114]

Responding to multiple, interrelated needs is particularly relevant for education in emergencies, where fragile populations face simultaneous crises. A people-centric (rather than sector-specific) approach to conducting humanitarian needs assessments delivers much greater and more effective humanitarian financing for investing in human capital.[115]

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Strategy 2 Leverage the multilateral development banks for greater impact

With an estimated global financing gap of $200 billion annually between now and 2030 and an annual bilateral aid budget for education of less than $10 billion, it is clear that traditional grant aid will never be able to meet countries' financing needs.[116]

It is critical to use mechanisms that can multiply scarce donor resources in new and unprecedented ways. As recognized in the recent G20 Review of the MDBs' Capital Adequacy Frameworks, the multilateral development banks – the World Bank and regional development banks – are one of the most efficient vehicles to leverage donor resources and deliver much-needed low-cost and long-term financing. This is because they have a unique ability to use their strong credit status and preferred creditor status to mobilize additional financing in capital markets.[117]

Using MDBs' leveraging power, there are two immediate opportunities to mobilize additional financing for education in low- and middle-income countries:

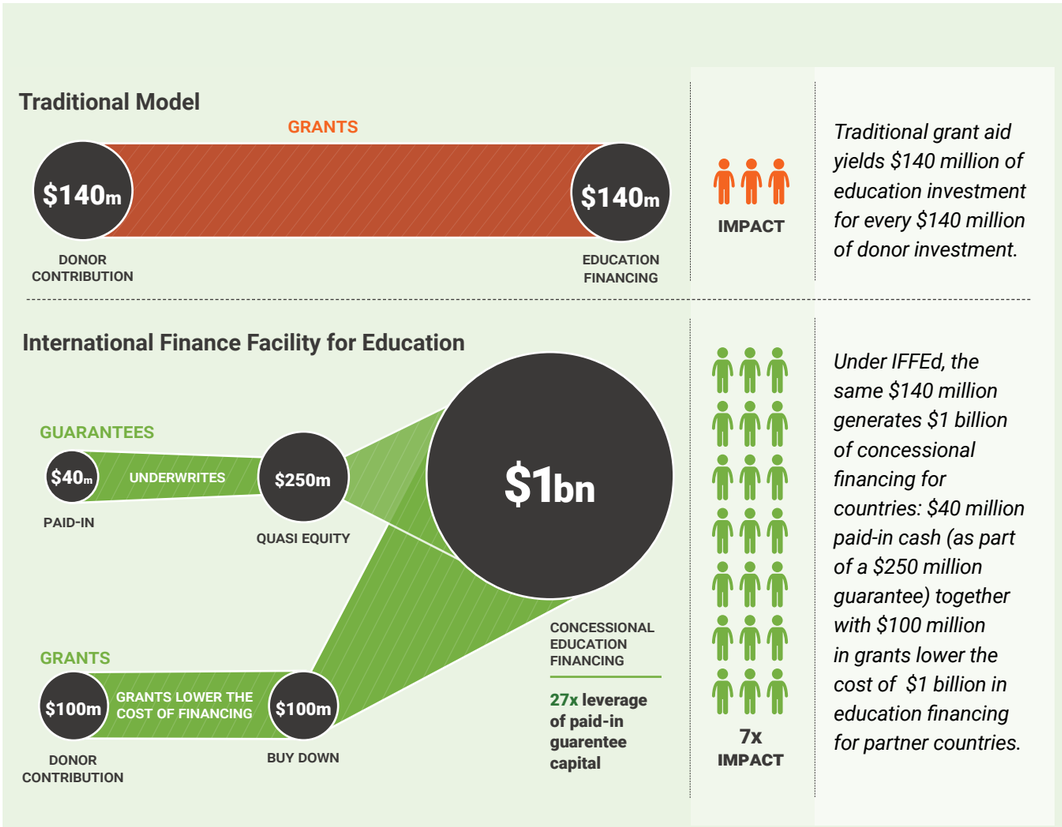
1. **Prioritizing financing for human development as part of existing efforts to grow low-cost financing for low-income countries.** For example, increasing the value of the next replenishment of the World Bank's concessional financing facility, the International Development Association (IDA), and raising the allocation to education from 11 percent to 15 percent could mobilize an additional $2.5 billion per year as compared to business as usual.[118]

2. **Establishing the International Finance Facility for Education (IFFEd) to further expand MDBs' capacity to provide concessional loans for education in lower-middle-income countries.** Through IFFEd, donors supply guarantees that MDBs can use to raise additional finance on the capital markets, and also provide grants to make loans more affordable. IFFEd targets its support to LMICs as these countries face particular "missing middle" financing constraints: they are too poor to mobilize adequate resources domestically and have become "too rich" to access aid and low-cost financing from MDBs. Using only $140 million in grants and paid-in capital from donors, IFFEd would be able to generate at least $1 billion in low-cost financing for LMICs.

"Given the shocking number of 222 million children and adolescents in crises today, of whom many are internally displaced and refugees, we need other funding mechanisms to share the responsibility and ensure sustainability. IFFEd is a transformative mechanism that will complement Education Cannot Wait's grant investments with low interest loans and thus provide a complete transformation and sustainability in refugee-hosting countries."

Yasmine Sherif,
Director, Education Cannot Wait

Figure 8.
$140 million in cash contributions to IFFEd produces $1 billion of affordable finance.



Source: IFFEd, 2022. See Source Materials for more information.

Strategy 3 Attract new financing from alternative sources

New investors are needed to fill financing gaps for underfunded services, including through alternative resources like results-based financing, philanthropic giving, and public-private partnerships. The flow of resources from innovative instruments is still very small, but certain tools have unrealized potential. For instance, the total volume of blended and impact investments related to education over the past decade was just **$1.5 billion, compared to nearly $16 billion in global healthcare.**[119]

Impact bonds are one of the more promising examples of results-based financing. Development and social impact bonds, as well as more general SDG bonds, can harness capital from the private sector to front-load investments and disperse risk with a focus on achieving results.[120] These financing mechanisms may be best placed in areas with high up-front costs but with potential for both short- and long-term returns, like ECD, school infrastructure, and digital goods. The Education Outcomes Fund is a key example of bringing together governments and impact investors and deploying those resources toward pay-for-success education programs.

Purpose-built funds can also mobilize additional resources by pooling financing from nontraditional sources, including foundations, private investors, philanthropists, and international finance institutions. For instance, the Smart Education Financing Initiative, developed by GPE and the Arab Coordination Group (ACG), provides $4 in additional funding for every $1 mobilized from the GPE Multiplier, potentially mobilizing up to $500 million in education financing for 37 countries in the Organization of Islamic Cooperation.

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"What we are seeing, particularly in the results-based financing space is that we are coming up with ways to de-risk these tools, by diversifying in the number of implementing partners and working with them in advance to make sure they have performance management systems in place, which are critical for these types of instruments, so that these organizations working on the ground can know in real time whether or not the children are learning. Results-based financing is one of the best ways to help financing that outcome and deliver it at scale."

Phyllis Costanza,
former CEO, UBS Optimus Foundation

Mechanisms are also needed to further stimulate philanthropic giving for global education, including from charities, foundations, and high-net-worth-individuals (HNWIs). While difficult to measure, data suggest that charitable funds and foundations do not invest as heavily in global education as compared to other sectors. For instance, nearly half of all funds from the subset of private donors that report to the OECD Development Cooperation Directorate (DAC) were directed toward health, whereas just eight percent was earmarked for education.[121] Additionally, charitable giving from HNWIs is low and largely directed to institutions for which they have direct personal connections, like universities and religious institutions, rather than large-scale social change efforts.[122] A new philanthropic fund, Greater Share, aims to address this imbalance by incentivizing both HNWIs and large private equity funds to allocate their returns on investment to charitable giving for global education. Mobilizing philanthropic giving is especially critical for refugee and crisis-affected populations that often fall through the cracks of traditional domestic and donor funding.

To further ease pressure on government budgets, public-private partnerships can be harnessed for TVET, post-secondary, and skills training more generally given relatively high private returns[123] and the interest for businesses to support students to have the necessary skills to enter the job market. This would create space for governments and the international community to place greater focus on maintaining sufficient resources for the most vulnerable, which are disproportionately concentrated at lower levels of education. To motivate additional investment, it will be essential to align incentives for collaboration and engage the private sector as both co-creators and co-funders, rather than focusing on financing alone. This means moving away from passive stakeholder engagement and toward a true spirit of partnership with philanthropists, foundations, and the private sector to jointly shape the thinking, planning, and acting around not only skilling and the school-to-work transition, but also in the whole education journey more broadly.[124]

Harnessing Islamic philanthropy for children in crisis

Philanthropy is a core tenant of Islam, realized through annual Zakat obligations and voluntary (Sadaqah) philanthropy to help lift others out of poverty and live with dignity. The concept of Islamic philanthropy has gone largely unnoticed outside the Muslim world, but this narrative is changing and Islamic philanthropy is being increasingly leveraged to address humanitarian needs.

For example, UNHCR's Refugee Zakat Fund, launched in 2019, have received $154 million in Zakat and Sadaqah funds that have served more than 4.3 million refugees or displaced people in 18 countries. Digital technology has stimulated additional lending, including the launch of the Refugee Zakat Fund mobile app. Another initiative, the Global Muslim Philanthropy Fund for Children (GMPFC), is a joint operation between UNICEF and the Islamic Development Bank Group that collates proceeds from private and public foundations, Zakat agencies, corporations, and individuals. Launched in 2021, GMPFC has so far contributed $5 million in Pakistan for health services; $4.2 million in the Cox's Bazar district in Bangladesh for health care and nutrition support; and $2.9 million in Jordan to support the Syrian refugee population in improving learning and well-being.

Part 5

Actions to Move the Agenda Forward

Photo: Dubai Cares

This report identifies siloed approaches as a barrier to increasing opportunity and equity for children and youth. For too long, governments and the wider international community have failed to learn lessons that are readily apparent to the children on the front lines of the global learning crisis.

Any child living with hunger understands that learning is harder without adequate nutrition. Any adolescent leaving school without the skills they need to find work understands the consequences of education systems that aren't aligned with job markets. Any family facing the threat of extreme climate events recognizes the importance of schools and skills for resilience and adaptation.

The silos around which public policies and the SDGs are currently framed do not reflect the interrelated, real-world experiences of children and youth. To rewire education for people and the planet, we must change incentives and create an enabling ecosystem for transformation to drive and sustain long-term collaborative action. .

This report sets out concrete priorities for a new approach based on evidence and opportunities for collaboration. Although this is not comprehensive, the win-win solutions below could transform millions of lives and catalyze significant progress on the SDG agenda.

To that end, we recommend that governments, in partnership with international and local actors:

1. **Expand early childhood programs to help end poverty**. Adopt national multisectoral strategies, costed plans, and joint monitoring frameworks to deliver play-based programs for responsive parenting and early learning from birth through to school entry.

2. **Develop a team-based education workforce for good health and well-being.** Invest in professionalizing workforces and create effective cross-sectoral learning teams with high-performing leaders, teachers, specialists, community workers, and health and social sector roles.

3. **Scale adaptive, inclusive, and engaging teaching to reduce inequalities.** Train and support teachers and school leaders to conduct regular diagnostic assessments and use adaptive, inclusive, and engaging teaching practices to accelerate foundational learning and develop higher-order skills. Where suitable, harness proven technology to adapt and enrich the learning experience.

4. **Scale school meals and school health interventions to help end hunger and improve health and well-being.** Governments and international organizations must collaborate to generate last-mile financing to reach children left behind.

5. **Create diverse and certifiable routes for youth to build skills and promote inclusive and sustainable economic growth.** Design interdisciplinary, adaptable curriculums that allow students to move easily between areas of study; offer new accreditation and certification routes; and support a better school-to-work transition.

6. **Adapt education systems to build climate resilience and develop green skills.** Integrate education into climate policies and financing priorities, including in NDCs and national adaptation strategies.

The Youth Declaration on Transforming Education presents youth's collective vision for an education transformation

The Youth Declaration process engaged nearly half a million youth from over 170 countries and territories through in-person and online consultations, surveys, and polls. All demands to Member States, governments, international organizations, the United Nations, civil society, and other key decision-makers are based on principles of collaboration and inclusion, underpinned by a call for meaningful youth engagement in design, implementation, and monitoring processes in policy and decision-making. Many of the other key principles are also aligned with the recommendations in this report, for example climate education and sustainability, the need for economic and social security, transformative financing, and digital education.

"In transforming education, we – the youth of the world - demand that our voices be heard, our lived experiences valued, our demands addressed, and our efforts, leadership, and agency acknowledged. We intend to achieve these goals not as passive beneficiaries but as partners and collaborators every step of the way."

Youth Declaration on Transforming Education

The report proposes that governments, the private and social sectors, youth, civil society, the education workforce, local communities, and the international community identify and create opportunities for multisector, multilevel, and multistakeholder efforts through three interlinked actions:

1. Embed education in all relevant sections of national development plans and other sector strategies, complemented by integrated strategic planning and mutual accountability frameworks that can align incentives and actions of leaders at all levels. Similarly ensure that education is considered as a concrete solution in global action toward the SDGs.

2. Embrace multisectoral financing approaches and tailor financing strategies to differentiated needs and contexts, recognizing that countries can benefit from a variety of financial tools and vehicles for mobilizing grants, loans, and private and philanthropic investment.

3. Develop delivery-focused implementation approaches, underpinned by strong data systems, to help connect actions within and across line ministries for achieving goals of development and sector plans.

4. Harness and build on existing platforms for collaboration, such as RewirEd, to expand coalitions of diverse stakeholders, specifically targeting actors outside of education for joint action toward transforming education as well as other SDGs.

We are at a pivotal moment, with no time to waste.

We urgently call upon governments at all levels, development partners, civil society, business leaders, teachers, and young people to rewire education for people and the planet.

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Figure 1. The youth skills gap between the best and worst performing countries is projected to stay the same despite an already low baseline in low-income and sub-Saharan African countries

World Skills Clock, 2022. https://skillsclock.io/

Calculations use data on learning proficiency from UNESCO UIS and population data from the Wittgenstein Centre Human Capital Data Explorer (medium SSP2 scenario). Predictive modeling is used to fill data gaps for countries without learning assessment data. Simulations assume a dampening effect on skills attainment for the year 2020 due to COVID-19. See: https://skillsclock.io/methodology.pdf

In the trend scenario, the share of young people with basic skills follows a linear trend based on the past.

Figure 2. In most low- and lower-middle-income countries, a child born today will not even be half as productive as if they had full health and a complete education

World Bank Human Capital Index (HCI) Database. https://databank.worldbank.org/source/human-capital-index

The HCI is a composite index that combines measures of a country's health and education. The resulting index ranges between 0 and 1. A country in which a child born today can expect to achieve both full health (no stunting and 100 percent adult survival) and full education potential (14 years of high-quality school by age 18) will score a value of 1 on the index. See: World Bank (2020). "The Human Capital Index 2020 Update".

Figure 3. More than half of all children in need of childcare or preschool do not have access

Devercelli, Amanda E., and Frances Beaton-Day. 2020. "Better Jobs and Brighter Futures: Investing in Childcare to Build Human Capital." Washington, DC: World Bank.

Calculations are based on World Bank Databank Health, Nutrition and Population Statistics: Population estimates for 2018, including all children up to primary-school-entry age (as defined by each country's official entry age for primary).

For children under the age of 3, need is based on ILO FLFP participation rates for each country to estimate the number of children with working parents. For children age 3 to primary-school-entry age, estimates include the number of children included in the official preprimary age group in each country (for most countries, preprimary starts at age 3, and in almost all countries it starts by age 4), or based on the methodology for children below 3 for children in countries that do not start preprimary school at age 3.

The estimated gap in access is based on subtracting supply estimates from the number of children estimated to need childcare. Supply estimates are based on latest enrollment rates for preschool-age children (UNESCO UIS statistics, accessed July 2020) and estimated childcare enrollment rates for children below the age of 3 (and for children ages 3 to 5 that live in countries where official preschool start is later than age 3) extrapolating from countries with available data.

Figure 4. Learning team design – putting learners at the center

Education Commission. 2019. "Transforming the Education Workforce: Learning Teams for a Learning Generation." Washington, DC: Education Commission.

Figure 5. On average, students in sub-Saharan Africa lose the equivalent of 3 years of learning due to poor quality schooling

World Bank Human Capital Index (HCI) Database. https://databank.worldbank.org/source/human-capital-index.

Expected Years of School is calculated as the sum of age-specific enrollment rates between ages 4 and 17. Age-specific enrollment rates are approximated using school enrollment rates at different levels: pre-primary enrollment rates approximate the age-specific enrollment rates for 4 and 5 year-olds; the primary rate approximates for 6-11 year-olds; the lower-secondary rate approximates for 12-14 year-olds; and the upper-secondary enrollment rate approximates for 15-17 year-olds. Enrollment rates are retrieved from UNESCO UIS, supplemented with with data provided by World Bank staff. Estimates are current as of March 2020.

Learning-Adjusted Years of School are calculated by multiplying the estimates of expected years of school by the ratio of most recent harmonized test scores to 625, where 625 corresponds to advanced attainment on the TIMSS (Trends in International Mathematics and Science Study) test. See Filmer, Deon P., Halsey F. Rogers, Noam Angrist, and Shwetlena Sabarwal. 2018. "Learning-Adjusted Years of Schooling (LAYS): Defining a New Macro Measure of Education." Policy Research Working Paper no. WPS 8591. Washington, DC: World Bank

Figure 6. An especially vulnerable subset of 73 million children facing extreme poverty live in countries with significant nutrition challenges and without adequate provision of school meals

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Figure 7. Globally, 300 million more youth could have the skills needed to thrive if countries reach a benchmark equal to 50% of the youth skills gap in the best-performing countries

World Skills Clock, 2022. https://skillsclock.io/

Calculations use data on learning proficiency from UNESCO UIS and population data from the Wittgenstein Centre Human Capital Data Explorer (medium SSP2 scenario). Predictive modeling is used to fill data gaps for countries without learning assessment data. Simulations assume a dampening effect on skills attainment for the year 2020 due to COVID-19. See: https://skillsclock.io/methodology.pdf

In the trend scenario, the share of young people with basic skills follows a linear trend based on the past. In the optimistic scenario, each country decreases its difference to the best-performing country by 25% in 2025 and by 50% in 2030.

Figure 8. $140 million in cash contributions to IFFEd produces $1 billion of affordable finance

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