SPOTLIGHT ON BASIC EDUCATION COMPLETION AND FOUNDATIONAL LEARNING IN AFRICA

2022

Born to learn

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Cover image: GEM Report/Stephen Ouma
Caption: Empowering boys through education has become a challenge in Kenyan society since the government and non-governmental organizations began giving girls a greater platform and more opportunities, making up for long-time neglect. But boys also need the opportunities education provides to explore the world and the many options open to them.

Any errors or omissions found subsequent to printing will be corrected in the online version at www.unesco.org/gemreport

The Education 2030 Incheon Declaration and Framework for Action specifies that the mandate of the *Global Education Monitoring Report* is to be 'the mechanism for monitoring and reporting on SDG 4 and on education in the other SDGs' with the responsibility to 'report on the implementation of national and international strategies to help hold all relevant partners to account for their commitments as part of the overall SDG follow-up and review'. It is prepared by an independent team hosted by UNESCO.

The *Global Education Monitoring Report* team is responsible for the choice and the presentation of the facts contained in this book and for the opinions expressed therein, which are not necessarily those of UNESCO and do not commit the Organization. Overall responsibility for the views and opinions expressed in the report is taken by its Director.

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About the African Union

The African Union is a continental body consisting of the 55 member states that make up the countries of the African continent. It was officially launched in 2002 as a successor to the Organisation of African Unity (1963–1999). The African Union is guided by its vision: 'An integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in the global arena.'

About the Association for the Development of Education in Africa

The Association for the Development of Education in Africa (ADEA) is first and foremost a forum for policy dialogue. Established in 1988, at the instigation of the World Bank, as a framework for better coordination among development agencies, it has evolved into a pan-African institution, based at the African Development Bank and built on a genuine partnership between African ministries of education and training and their technical and external partners.

It is a network of policymakers, educators and researchers, and, with its capacity to foster policy dialogue and pool ideas, experience, lessons learned and knowledge, serves as a catalyst for education reform and promising policies and practices. One of its major objectives is to encourage exchanges among ministries of education and between them and development agencies. It is recognized as a major actor in the processes of dialogue, sharing and learning for qualitative change in education aimed at promoting Africa's development.

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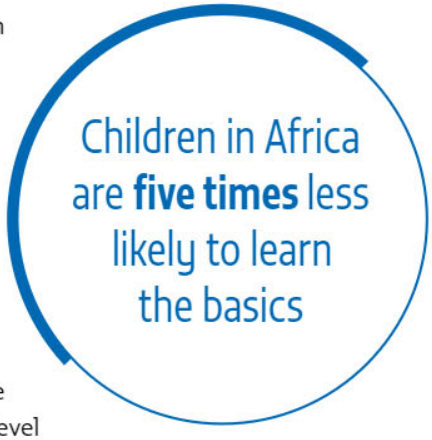
SHORT SUMMARY

Ensuring universal basic completion and foundational learning helps balance education development. It is a precondition for equitable learning and for inclusive and cohesive societies. Even without taking into account the potential impact of the COVID-19 pandemic, however, today, one in five children of primary school age remains out of school, one in three children does not complete primary school on time, and one in four never completes it.

Increasing availability of data on learning has shown just how low learning levels are: all children are born to learn but only one in five children reaches the minimum level of proficiency by the end of primary required for them to continue their education.

The Spotlight series aims to inspire national and continental dialogue on foundational learning and support countries as they follow up on their national SDG 4 benchmarks. Three cycles are envisaged between 2022 and 2025, each covering some 12 countries of which five will be examined in depth, resulting in a country report prepared in dialogue with national stakeholders and education ministries. The focus countries for the 2022 *Spotlight Report* were the Democratic Republic of the Congo, Ghana, Mozambique, Rwanda and Senegal.



The series builds on the mandate of the African Union to oversee the implementation of the Continental Education Strategy for Africa, on the Association of Development of Education in Africa's position as a high-level convener of education policymakers and on the GEM Report's comparative advantage for cross-national research of high quality combined with its editorial independence.

unesco

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

Foreword

Considerable progress has been made towards increasing access to education at the global level and more specifically in Africa. As a result of education policy reforms, coordinated efforts and the commitment from governments, development partners and communities, more children than ever are accessing education today. Despite the progress, however, one in five primary school-age children in sub-Saharan Africa is still out of school; of those in school, only about one in five reaches minimum proficiency in reading and mathematics by the end of primary.

The recent African Union Declaration on transforming education towards the achievement of the Continental Education Strategy for Africa (CESA) and Sustainable Development Goal 4, along with other commitments, have identified the learning crisis and addressing foundational learning as recognized priorities. For its part, UNESCO continues to affirm the importance of literacy and numeracy as key building blocks for continued learning and for higher-order skill acquisition. Along with five other development partners (UNICEF; World Bank; USAID, UK Government Foreign, Commonwealth & Development Office; Bill & Melinda Gates Foundation), UNESCO worked to issue a commitment to action on advancing foundational learning at the Transforming Education Summit convened by the UN Secretary-General in September 2022. By endorsing it, governments and partner organizations formally commit to taking urgent and decisive action at the highest political level to secure foundational learning for all children and to implement policies that will help to achieve targets under SDG 4.

The launch of this Spotlight series is timely as it seeks to support these aspirations for improved quality, equity, inclusion and efficiency in the education sector. The report, which places a strong emphasis on foundational skills, features important new data on completion and learning, and the knowledge it generates is critical for understanding the state of education, embracing the need for change and guiding action. By defining learning standards, setting targets and monitoring outcomes within the education system, governments can shape and inform their national vision. Such visions should place emphasis on classroom-based factors, including the provision of textbooks that draw on how children learn, promotion of home language instruction, and provision of quality, well-trained teachers who are supported, including by school leaders.

A shift in progress will require better coordinated external assistance to further institution building and the provision of public goods to support foundational learning. UNESCO supports the provision of public goods and better educational planning, including through the national SDG 4 benchmarking process which offers the opportunity for countries to set out-of-school, completion and learning targets.

The Spotlight initiative serves to forge pathways for countries to learn from, adapt and adopt good practice that can potentially fast-track their own progress. A unique partnership between the African Union, the Association for the Development of Education in Africa (ADEA), and the *Global Education Monitoring Report*, the Spotlight initiative opens up space for governments to dialogue and exchange on common challenges and potential solutions.

By making the findings of this report actionable, it is my hope that national governments and development partners will take decisive action to empower all children with the necessary foundational skills to realize their full potential, because all children are *Born to Learn*.

Stefania Giannini
Assistant Director-General for Education, UNESCO

Foreword

Africa's ambitious future will be built on and by its human capital. With the largest population of young people of any continent, education must be the driving force for the continent to fully harness its talent. This urgency is recognized by the recent declaration that education will be the African Union's (AU's) theme for 2023, announced by ministers in charge of Education and of Science, Technology and Innovation to the Fourth Specialized Technical Committee on Education, Science, Technology and Innovation (STC-ESTI).

Investing in education, especially in the midst of global pandemics, has become ever more important to ensuring sustainable growth and development. There is increased recognition among member states and actors in Africa that all growth – be it economic, social or societal – is underpinned by education. Such commitment has resulted in a renewed emphasis on improving the learning outcomes for all children, and a strengthened drive for efficient and self-sufficient education systems.

Through the implementation of the Continental Education Strategy for Africa (CESA 16-15), programmes are designed to transform Africa's education and training systems, from early childhood education development (ECED) to tertiary education, in order to deliver the human capital requirements for driving socioeconomic development on the continent. As a vital ingredient for lifelong success, developing human capital must start with foundational learning as it is the first step taken by learners on their education journey.

The outcome declarations from the STC-ESTI and the AU Transforming Education side event meeting have put foundational learning by acquiring literacy and numeracy at the core of the priorities for education in Africa. However, the challenge in many countries remains the quality of the learning. Important measures are being tried, tested, replicated and scaled up across Africa, many of which are documented in this report, and the results are promising. They must however be accompanied by conditions that allow for sustained efforts and long-term planning.

The *Spotlight Report* offers the needed diagnostic, analysis and lessons around good practice. It is encouraging to see policy commitments on foundational learning and to witness governments and their partners taking proactive steps to address the persistent learning challenges. The Spotlight findings are important to inform policy dialogue and to allow lessons to be shared widely as countries seek solid solutions.

As we continue along this decade of action towards achieving the CESA and the shared global commitments set out in the 2030 Agenda for Sustainable Development, one of the greatest tools at our disposal is solidarity: No country has to go it alone. Along with accurate data and knowledge of what works, peer learning is perhaps the most useful tool in the toolbox for member states in Africa. By providing the spaces for policy and decision makers to engage in peer learning and exchange, we are committed to playing our part and supporting progress on foundational learning in Africa.

H.E. Prof. Mohamed Belhocine,
Commissioner for Education, Science, Technology and Innovation (ESTI)
African Union

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The report provides a thematic emphasis on the Continental Education Strategy for Africa 2016–25 and on selected Sustainable Development Goal 4 benchmark indicators. It aims to support a policy dialogue mechanism on foundational learning, Leveraging Education Analysis for Results Network (LEARN), hosted by the African Union. The team is grateful for the strategic guidance received from H.E. Prof. Mohamed Belhocine, Commissioner for Education, Science, Technology and Innovation, and from Hambani Masheleni, Nicholas Omondi Ouma and Merouane Arim, also of the African Union Commission, as well as from Adoumtar Noubatour and Lukman Olawale Jaji of the Pan-African Institute of Education for Development.

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This continental report draws on background papers, country case studies and, especially, five focus country reports, whose research team members are acknowledged below. The team would also like to

thank stakeholders who shared their perspectives, including policymakers, civil society representatives, development partners, district officials, school leaders, teachers and community members.

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- Madagascar (school feeding): Pierre Varly and the World Food Programme country office
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- Sierra Leone (learning assessment): Pierre Varly
- South Sudan (teachers): Samuel Buol Malith and the team at Windle Trust International

Background papers
- Helen Abadzi: Teaching methodology to support foundational learning in Africa, with examples from the teaching of Arabic in early grades in Egypt
- Jörg Baten: Schooling, literacy and numeracy in 19th century Europe: Long-term development and hurdles to efficient schooling
- Cirenia Chavez Villegas, Benoit d'Ansembourg and Carolina Vergara Lamarre (Office of the United Nations High Commissioner for Refugees): Central African refugees in the Democratic Republic of the Congo
- Fernanda Gándara (GEM Report Fellow): Insights from a large-scale bilingual assessment of literacy from the Democratic Republic of the Congo
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- Aigly Zafeirakou: Operationalizing programs supporting improvements in teaching and learning implementation in Benin, Côte d'Ivoire and Senegal

Contents

Executive summary

Universal basic education completion and foundational learning are the two key stepping stones for more advanced skills that support economic and social development and for equitable and inclusive societies. However, today, one in five children of primary school age in Africa remains out of school, one in three children does not complete primary school on time and one in four never completes it. Only around one in two children in rural areas and one in three among the poorest complete primary school.

Data on learning are inadequate, but what data there are clearly show that learning levels are very low. All children are born to learn, yet only one in five children who reach the end of primary school achieves the minimum proficiency level required for them to continue their education and fulfil their potential. When completion and learning statistics are combined, the results show that children in Africa are around one fifth as likely as children in the rest of the world to be prepared for the future. These statistics predate the COVID-19 pandemic, whose negative impact on learning has been major.

African countries have committed to two ambitious agendas – the 2016–25 Continental Education Strategy for Africa and Sustainable Development Goal 4 – and foundational learning is at the heart of both. They also participated in the SDG 4 benchmarking process. Overall, two in three countries have a national target for the out-of-school rate for children of primary school age, four in five have a national target for the primary completion rate, and one in two has a target for the minimum proficiency rate in reading and mathematics in early grades and at the end of primary education. These provide a basis for substantive policy discussion within and between countries. By 2030, African countries aim to reduce their out-of-school rates by almost two thirds and to increase their primary completion rate from 70% to 85%. They aim to increase the percentage of students with minimum proficiency at the end of primary education by 0.9 percentage points per year in reading and by 1.4 percentage points in mathematics.

Yet the scant data that exist on past trends suggest that African countries will struggle to achieve those targets without major changes. Since the 1970s, analysis of people who left school after five or six years shows that primary schools' ability to ensure even rudimentary literacy skills for this group has declined in 13 of 31 African countries with data. In 60% of countries, the rates have remained stable over this long period. It is striking how low they are.

The extremely adverse conditions faced by children and education systems in Africa are key to understanding the challenges. Among socioeconomic factors, poverty and malnutrition weigh heavily: In 2020, 31% of children were too short for their age. Conflict and instability also affect children's learning conditions by increasing anxiety and stress, making the trip to school unsafe and other issues. Of the world's 28 countries that reportedly experienced at least one incident of military use at schools or universities between 2015 and 2019, 15 were in Africa.

Colonialism has led to linguistic fragmentation within countries. The percentage of the population whose home language is a national language is 15% in western Africa and 21% in central and eastern Africa. Children are overwhelmingly taught in a language they do not speak at home, more so in Africa than any other world region. Even partial use of home language is associated with a higher probability of learners being literate

after a full primary school cycle. But despite countries' growing understanding of the role of home language, policy uptake remains limited. Implementation challenges include limited teacher capacity to use home languages, unavailability of materials in home languages and community opposition. Consequences include underdevelopment of a literate environment and a reading culture, which also affects the availability of books, especially for children. In 21 of 30 countries with data, households own, on average, fewer than three children's books, and the poorest own none.

A unique set of challenges is presented by children who are poor and malnourished, unprepared for school and speak a language different from that of instruction, yet pedagogical approaches often do not prepare teachers for them. Not enough time is dedicated to actual reading activities, with repetition and discipline used to keep classes in order.

In addition to insufficient teacher education, poor school conditions, limited instruction time and a lack of textbooks and learning materials of good quality leave teachers ill-equipped for their role. Teacher guides are not suitable to make up for gaps in initial teacher education. Head teachers tend to be selected not as instructional leaders but as administrators doing tasks unrelated to ensuring that children learn. Local education officers often lack the skills, approaches or means to help struggling schools and teachers. Ultimately, expectations may not have been set by the education ministry or properly communicated, explained and backed by the political leadership.

Although African governments, on average, spend a higher percentage of their budget on education than in other parts of the world, lack of finance is a significant constraint. Absolute levels of spending remain grossly inadequate at about US$50 per student per year in low-income countries. External financing is still a potentially major influence, as it tends to focus on development activities, and the negotiation and review of funded programmes offer opportunities for substantive dialogue. However, there are questions on whether donor-led programmes focus on the right issues, are coherent, ensure coordination between partners, are cost-effective and sufficiently engage governments and national experts.

The Spotlight series

The Spotlight series aims to support countries as they follow up on their national SDG 4 benchmarks, as well as to inspire national and continental dialogue on foundational learning and lead to a peer learning mechanism embedded in continental institutions.

Three annual cycles are envisaged between 2022 and 2024, each covering some 12 countries, of which 5 will be examined in depth to prepare a country report in dialogue with national stakeholders and education ministries. These country studies are based on the Spotlight series' analytical framework, which identifies seven factors with key roles in improving foundational learning outcomes and thus removing a major barrier to universal completion: vision on foundational learning; teaching and learning; teachers; school management; school support and monitoring; community and parental engagement; and learning assessment.

The focus countries for the 2022 Spotlight Report are the Democratic Republic of the Congo, Ghana, Mozambique, Rwanda and Senegal. In addition, case studies were prepared on the Central African Republic (language of instruction), Kenya (district education officers), Madagascar (school feeding), Malawi (textbooks), Sao Tome and Principe (early childhood education), Sierra Leone (learning assessment) and South Sudan (teachers).

Key messages

- All children are #BorntoLearn, but in Africa they are five times less likely to learn the basics than children elsewhere. One in five primary school-age children on the continent is still out of school; a quarter will never complete primary education. Not addressing foundational skills will have a compound impact over time, leaving children less likely to continue their studies and fulfil their potential in inclusive and cohesive societies.

- The spotlight needs to be turned on children's learning. Despite improvements in learning assessments, there are no data on the learning levels of two-thirds of African children.

- Providing the minimal conditions to improve participation and learning outcomes matters. Today, only one in three primary school students in Africa receives a school meal. Just one in five is taught in their home language. Each textbook is shared by three students, on average, yet having one's own textbook can increase children's literacy scores by up to 20%.

- Teachers can transform learning in the classroom with the right support and training. Yet, in half of the 2019 PASEC participating countries, grade 2 teachers in at least a quarter of schools had not received any professional development opportunities in the two previous years.

- Selection, recruitment and development processes of school leaders need to be strengthened to ensure leaders are driven towards learning improvement. In 14 countries, almost 30% of early grade students were taught in a school where the head teacher had not received professional development.

- Despite education being a priority for governments, resources remain inadequate. Around 40% of development aid to the region is spent on basic education but often supports short-term projects rather than institution building. Of the 114 mainly donor-funded learning assessments in the 12 Spotlight countries since 1995, only 75 have publicly available and accessible reports and only 25 have associated microdata that are easily accessible.

Key findings

This report focuses on why learning levels are low. It comes at a moment when more African countries see improving foundational learning as a national challenge and want to do something about it. Accelerated progress requires setting an explicit target, centring it in the national education vision and monitoring it. But there are obstacles blocking the political decision to do this.

Even when there is a target, few governments communicate it sufficiently to all levels of the education system. Moreover, there are insufficient data describing not just learning levels but also trends so that countries have a good evidence base for realistic and ambitious targets. For instance, only 14 of 55 countries have information on learning from at least two points in time. Most are francophone countries that participate in the PASEC assessment. PASEC and the SACMEQ assessment, which helped build capacity in anglophone countries, can be pillars on which to construct an African learning assessment system. But many improvements are needed, which in turn require sustainable financing. External financing has lacked a strong focus on national capacity development. Of 114 learning assessments in the first 12 Spotlight countries since 1995, only 75 resulted in publicly available and accessible reports and only 25 have easily accessible microdata.

Many African countries have started to recognize the need to simplify curricula and refocus them on foundational literacy and numeracy in early grades as a prerequisite for more complex learning tasks in later grades. Yet overly complex and overloaded early-grade curricula remain a concern. Despite extensive development assistance programmes, the quantity and quality of textbooks and teacher guides remain insufficient. In Burundi, Cameroon, Chad and Niger, more than half of grade 2 pupils had to share textbooks with two or more classmates.

There is a critical lack of trained teachers, with 56 pupils per trained teacher in sub-Saharan Africa. According to PASEC data, grade 2 teachers in at least a quarter of schools had not received professional development opportunities in the two years prior to the survey. The content of teacher education is often not organized in a way that prepares trainees to teach early grades. Recent assessments suggest that most teachers in Africa lack sufficient competencies to teach basic literacy and numeracy skills effectively. Successful interventions in improving foundational learning outcomes, especially in low-resource settings where teachers work under adverse conditions, typically involve a structured approach to teaching these skills, support systems for teachers that include teaching and learning materials, and continuous feedback and formative mechanisms.

School leaders' role in improving learning outcomes in Africa has been neglected despite increasing evidence of their importance. Too often, head teacher selection is neither transparent nor fair, jeopardizing both education system effectiveness and teacher motivation. In 14 countries, almost 30% of early-grade students were taught in a school where the head teacher had not received professional development. Head teachers are not just managers but also pedagogical leaders. Yet in practice, more attention is paid to administrative tasks than pedagogical transformation and support. There are relatively few female head teachers in Africa despite their demonstrated ability for transformational leadership. All these challenges are magnified in the case of district education officers, whose role is to support schools but who are at a greater remove from the reality of the classroom and more used to performing administrative compliance tasks.

Ensuring parental and community engagement is one of the most effective mechanisms for change. Many children grow up in disadvantaged home environments. For instance, they may be malnourished, which undermines their cognitive development. Yet coverage of school feeding programmes, in most cases drawing on community contributions, is limited and domestic funding covers only 38% of the cost. Early childhood education can offset other aspects of home disadvantage. African countries are trying to expand such services, with some focusing on expected learning standards. But they are constrained by scarcity of professional staff. Ultimately, ensuring meaningful community participation in school management remains a top policy priority in Africa. The emphasis should be on empowering parents to raise their voices, which may not necessarily require access to formal data, as is often assumed.

There is an inverse relationship between government and household spending on education. In countries where governments spend too little, households spend too much. Although African governments prioritize education in their budgets, the budgets are often very small. Most of the education budget tends to be absorbed by teacher salaries, leaving little to finance reforms that could improve foundational learning. External financing, while declining in relative terms, is thus likely to remain an important resource for many poorer African countries' education systems. While donor-funded project evaluation activities have expanded considerably, there is little systematic programmatic and strategic evaluation focused on foundational learning. Answers to key questions on achievable progress rates, necessary national institutions, acceptable cost parameters, coordination and accountability are pending.

Recommendations

Given the historically low levels of learning on the continent and the evidence that they are improving very slowly, fresh thinking is needed to translate the commitments in the Continental Education Strategy for Africa and SDG 4 into focused, coordinated, well-informed and appropriately funded actions. The following recommendations lay out an action plan for driving change.

At the student level

1. **Give all children textbooks:** *Ensure that all children have teaching materials that are research-based and locally developed*

Every child is born to learn but no child can do so without a textbook, especially when books are scarce at home. The low quality of early-grade textbooks in Africa requires them to be reviewed and revised, focusing on improving, simplifying and refocusing the curriculum and teacher training. While textbooks need to be based on cognitive science, they should also be developed locally, with substantive teacher participation. Their use needs to be evaluated regularly to enable continuing improvement. The benefits of closer collaboration between countries in early-grade textbook research and development should be explored, especially as regards pooling resources and expertise.

2. **Teach all children in their home language:** *Give all children the opportunity to first learn to read in a language they understand*

The vast majority of African children are taught in a language they do not speak at home. This slows or even prevents early acquisition of reading and writing proficiency. The use of a child's first or home language for up to six or eight years, alongside the introduction of a second one, initially as a subject and later as a parallel medium of instruction, is widely considered the most effective policy, despite considerable practical implementation challenges. Governments should support and actively communicate bilingual education policies, while being flexible enough to respond to context.

3. **Provide all children with school meals:** *Give all children the minimum conditions to learn*

Children cannot learn if they are hungry. Yet only one in three primary school students in Africa receives school meals. Governments have relied extensively on external assistance for school meal programmes and only rarely turned them into nationally funded and owned programmes. Governments and their development partners must engage communities to expand and institutionalize school canteens, preferably emphasizing home-grown and locally purchased school meals that are sustainable and nutritious. As climate change is likely to increasingly affect agriculture, governments need to design school meal programmes to be ready to help regions vulnerable to natural disasters.

At the system level

4. **Make a clear plan to improve learning:** *Define learning standards, set targets and monitor outcomes to inform the national vision*

Standards should be set for the skills children need to master by each grade. These standards should be reflected in the curriculum, pedagogy, teacher preparation and textbook design. They should be monitored over time through an integrated national assessment programme, from the classroom to the national level, with results reported to communities, teachers, and local and central administrators to ensure understanding and buy-in. Monitoring data should be used to set national targets on learning proficiency and governments should show strong political leadership by communicating them at all levels, including to teachers and parents. The national SDG 4 benchmarks are the starting point, but many countries will need to revisit them as better data are collected. National assessment

systems could benefit from participating in one of the two regional assessment programmes, PASEC and SACMEQ. Closer collaboration and pooling of resources between the two could strengthen their ability to meet the challenge.

5. **Develop teacher capacity:** *Ensure all teachers use classroom time effectively through training and teacher guides*

Too few teachers are trained to impart foundational skills. As a result, unsuitable teaching methods are still used in many classrooms. Governments embarking on policies that improve curricula and textbooks need to invest heavily in teacher guides to make up for the fact that even the best initial teacher education reforms will take a long time to reach students. Teacher guides need to be upgraded to be aligned with new textbooks, provide a solid basis for lesson planning, steer teachers to assess learning in classrooms, encourage them to develop their own teaching and learning materials, and help them adapt flexibly to diverse classroom circumstances.

6. **Prepare instructional leaders:** *Restructure support mechanisms offered to teachers and schools*

Arguably the most neglected education policy area is the selection and development of education leaders at the school and district levels who can deliver the government's vision on improving foundational learning. School leaders need to be selected on merit associated with their commitment to develop all children's potential and their ability to inspire others to do so. They need to be able to coach struggling teachers, create an atmosphere in which teachers can learn from each other, efficiently manage resource constraints and effectively communicate with communities. They also need to understand changes in curricula, textbooks and assessment methods. District education offers should be held to the same expectations. They need to be assigned clear responsibilities that include a focus on learning outcomes, instilling in them a sense of purpose linked to the national vision.

At the continental level

7. **Learn from peers:** *Reinvigorate mechanisms allowing countries to share experiences on foundational literacy and numeracy*

As the African Union prepares to dedicate 2023 to education, it should seize the opportunity to place foundational learning at the heart of the peer learning mechanism of the Continental Education Strategy for Africa. Underpinned by best practice on foundational literacy and numeracy and evidence of where policies have worked, this mechanism is needed to strengthen countries' resolve for change, creating a shift towards action to prepare children for the future.

At the international level

8. **Focus aid on institution building:** *Shift from projects to the provision of public goods that support foundational learning*

Donor-supported programmes should be embedded in national policy and based on extensive consultation. They should increase the scope for national solutions to ensure sustainability. Evaluations of donor operations should focus on improvement of learning outcomes instead of the impact of individual projects. As donors mobilize to follow up on the Commitment to Action on foundational learning made at the Transforming Education Summit, they should dedicate more effort to institution building to deliver the key building blocks for improved foundational learning outcomes: textbooks, teacher guides, teacher and education leader capacity development, and assessment – all geared towards pedagogical reforms.

1 Introduction

School time in Nakhon, Kassena Nankana district, Ghana. (CREDIT: Axel Fassio/CIFOR)

Africa is pursuing two ambitious and complementary education agendas. Sustainable Development Goal 4 (SDG 4) is part of the global 2030 Agenda for Sustainable Development, which embodies efforts to marry two development objectives: one focused on people and poverty reduction and the other on the planet and environmental protection. Its 10 targets include a clear shift of emphasis to education outcomes, with school preparedness, minimum proficiency in reading and mathematics, and skills for work being added to adult literacy, the only learning outcome monitored before 2015. The spirit is best captured in SDG target 4.1, which calls on countries to 'ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes' by 2030.

The 2016–25 Continental Education Strategy for Africa (CESA) declares that, to fulfil its destiny, 'the continent has to come to terms with its education and training systems that are yet to fully shed the weight of its colonial legacy and its own tribulations as a relatively new political and economic entity and player in the world arena' (African Union, 2016). The fourth of CESA's 12 strategic objectives echoes the growing emphasis on learning: 'Ensure acquisition of requisite knowledge and skills as well as improved completion rates at all levels and groups through harmonization processes across all levels for national and regional integration'.

Africa has pursued the goal of universal primary education completion since most of its nations emerged from colonial rule in the 1960s. Rapid enrolment growth in the 1970s and early 1980s came to an abrupt halt in the latter half of the 1980s. Structural adjustment policies and cuts to social spending in response to mounting debt took their toll on education and other social development indicators. Enrolment growth resumed in the late 1990s as a global movement succeeded in its appeals for debt relief, which led to a resumption of social spending, supported by an increase in aid flows that helped finance abolition of school fees, one of the policies adopted during structural adjustment. Following rapid progress in the 2000s, however, expansion slowed again in the 2010s. As of 2020, without taking into account the potential impact of the COVID-19 pandemic, one in five children of primary school age is out of school, one in three children does not complete primary school on time, and one in four never completes it.

The global emphasis on learning has been fuelled by concerns that unprecedented rates of education expansion in the Global South have not resulted in acquisition of the skills children and youth need for personal development and countries need for social and economic development. Interest in learning has also been fuelled by the increasing availability of data that enable comparisons on learning achievement, at least in standardized assessments of reading, mathematics and science. Emerging evidence on Africa suggests levels of learning that are so low as to undermine the vast development potential. Although estimates are imprecise due to insufficient data, it is believed that only one in five children reaches the minimum level of proficiency by the end of primary required for them to continue their education or to fully benefit from subsequent schooling.

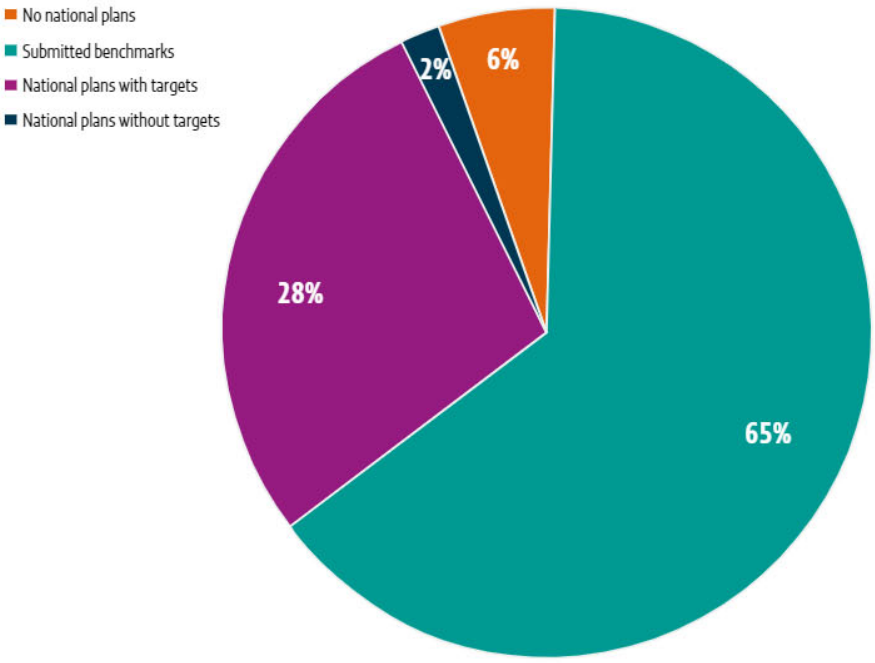
The challenge is concentrated in the early grades. Within the broad set of targets and issues covered by the global and continental education agendas, ensuring universal basic education completion and foundational learning helps structure and balance education development. Achieving these twin objectives is necessary to build skills and competencies at higher levels of education. A focus on foundational learning does not mean neglecting other targets, since it is closely connected to them. Foundational learning is supported by early childhood education for school readiness and by appropriate learning environments. It is also a precondition for equitable learning in other domains and for developing secondary and post-secondary education, including providing good candidates to the teaching profession. Ensuring that all children have a solid education foundation in their first few years is the most solid proof of government commitment to the goal of inclusive and cohesive societies.

African countries have been setting national targets on school attendance, completion and learning. Steps have been taken since 2017 to fulfil a commitment in the Education 2030 Framework for Action, which called on countries to establish 'appropriate intermediate benchmarks ... for addressing the accountability deficit associated with longer-term targets'. Seven SDG 4 benchmark indicators were agreed in 2019, including the three indicators addressed in this report: out-of-school rates, completion rates, and minimum proficiency rates in reading and mathematics. The benchmarking process, under the auspices of the African Union, reached its first milestone in August 2021 when countries were requested to submit benchmark values, i.e. national targets for 2025 and/or 2030. As of September 2022, two in three African countries have submitted national benchmarks for at least some indicators; another 28% have not yet taken an active part in the process but have set targets on some of these indicators in their education sector plans (**Figure 1.1**).

FIGURE 1.1

Two in three African countries have submitted benchmark values

Distribution of African countries with respect to benchmark value submission



Source: UIS and GEM Report estimates.

Considering both benchmark submissions and targets in plans, two in three countries have a national target for the out-of-school rate for children of primary school age, four in five have a national target for the primary completion rate and one in two has a target for the minimum proficiency rate in reading and mathematics in early grades and at the end of primary education (**Figure 1.2a**).

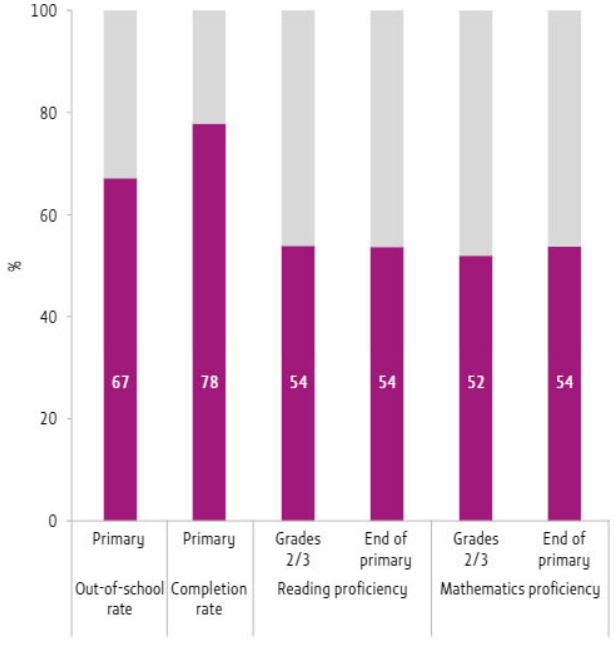
The quality of these national targets varies. Participation targets are based on accurate evidence and can be considered ambitious but realistic. Between 2015 and 2030, countries aim to reduce their out-of-school rates by almost two thirds, from 19% to 7%, or by 0.8 percentage points a year. They also plan to increase their primary completion rate from 70% to 85%, or by 1 percentage point a year. Learning targets are less consistent. Many countries have not set their baseline levels on the basis of internationally comparable data, as such data are not yet embedded in national education management information systems. There is not enough evidence for a reliable estimate of past trends to which national targets could be compared. Countries aim to increase the percentage of students with minimum proficiency at the end of primary education by 0.9 percentage points a year in reading and by 1.4 percentage points in mathematics. Targets for early grades in the two subjects are even more ambitious (**Figure 1.2b**).

However, what is important is that there is at last a basis for substantive policy discussion at the national level that is explicitly linked to the continental and global agendas. Benchmark setting defines countries' contribution to the common CESA and SDG 4 goals. It enables them to contextualize the monitoring of progress and link their national education agendas with regional and global ones. It also helps strengthen national planning processes, focuses attention on remaining data gaps and contributes to countries' mutual learning on the best way forward.

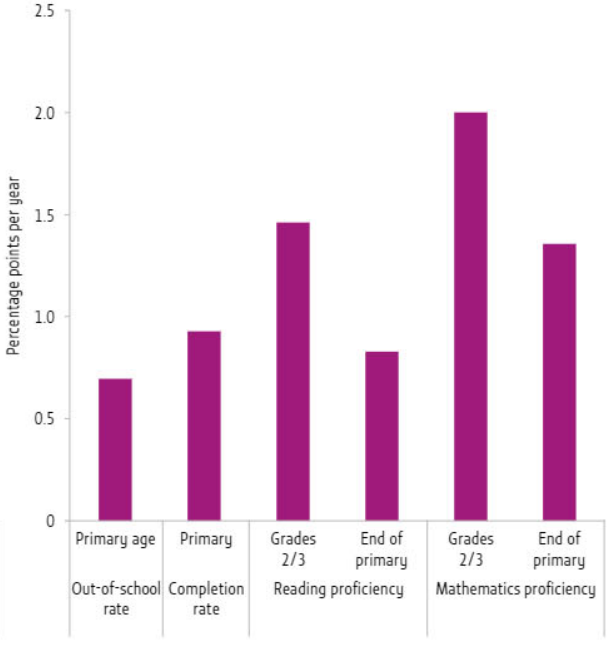
FIGURE 1.2

African countries aim to increase primary completion and the share of students at the end of primary with minimum reading proficiency by one percentage point a year

a. Share of African countries with a national target for 2030, by benchmark indicator



b. Absolute annual percentage point increase in national targets for selected benchmark indicators, Africa, 2015–30



Source: UIS and GEM Report estimates.

This introductory chapter reviews key questions confronting policymakers about how African countries can improve foundational learning and, through it, achieve universal basic education completion. It then introduces the Spotlight report series: the analytical framework through which foundational learning is approached, its positioning relative to efforts at the national and continental levels, and the methodology.

Various factors challenge African education systems

Two questions frame African countries' quest to accelerate progress towards foundational learning. The first is whether Africa is facing a learning 'crisis' – in other words, a deterioration of conditions triggered by education or socioeconomic factors – or whether the low levels of learning are a 'legacy', the result of a specific historical context and conditions that delay or slow down progress. This issue is important for setting reasonable expectations of starting points and achievable progress. Resolving the question is difficult, as it requires hard data on learning over time, which are scarce. However, some imperfect household survey data can help identify patterns.

Demographic and Health Surveys have included a question on direct literacy. Adults aged 15 and older are asked to read a simple sentence up to 10 words long. The question has been addressed only to individuals who had not progressed past primary school, even though, in many countries, some adults who have attended secondary school are unable to read the sentence. One proxy measure of quality is how many adults who have left school after completing five or six years could read the sentence fully. This rate can be disaggregated by age to indicate whether the measure has changed over time: in other words, whether schools have become more successful in ensuring that individuals who left school after completing primary acquired rudimentary literacy skills. Although the assessed literacy level is low, an analysis presented in this report suggests that this measure is correlated with minimum proficiency levels. Moreover, the analysis enables up to a 40-year trend to be monitored, from the mid-1970s to the mid-2010s.

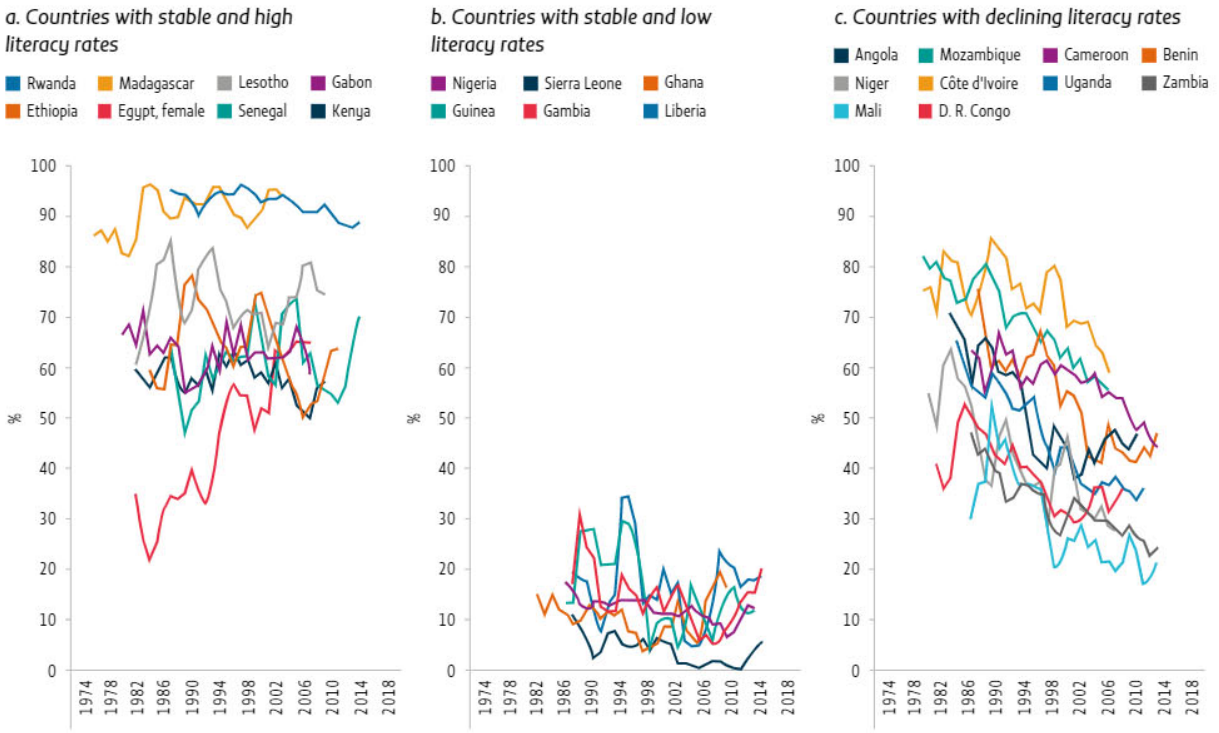
Three groups of countries can be broadly distinguished. First, those that have achieved 'high' and stable literacy rates among people who completed their education after five or six years. In Ethiopia between 1984 and 2011, about two thirds of such adults had achieved rudimentary literacy. While the rate fluctuates, there has been no long-term trend. Egypt, for which only data on women are available, is the only country where the rate has improved over time (**Figure 1.3a**). The second group of countries, mostly concentrated in anglophone western Africa, have achieved 'low' and stable literacy rates. In Nigeria between 1986 and 2013, one in eight adults who left school after completing five or six years had achieved rudimentary literacy (**Figure 1.3b**). Third, some countries have experienced an appreciable decline in the education system's ability to ensure that children leave primary school with even rudimentary literacy skills. This group has some similarities: On average, one in two adults who left school after five or six years had rudimentary literacy skills throughout the period. But between the earliest and most recent observations, the literacy rate decreased by about 20 percentage points, or about 35%. It fell by more than 45% in Mali, Niger and Zambia (**Figure 1.3c**).

Primary schools' success in reliably imparting even the most rudimentary skills has declined in 13 of the 31 African countries analysed. This finding would be consistent with the story of a learning 'crisis' were it not for two important factors. First, in 60% of countries, the rates remained stable over a long period. Evidence on the long-term stability of schooling quality was also shown in a study of a rudimentary measure of numeracy based on how inaccurately adults reported their age (Ferber and Baten, 2022). Second, stability has been maintained in a context where education systems have increasingly been absorbing children who are among the least

FIGURE 1.3

Primary schools' ability to ensure even rudimentary literacy skills has declined in 4 in 10 African countries

Percentage of adults who have completed their education after five or six years of school and who can read a simple sentence, selected African countries, mid-1970s to mid-2010s



Source: GEM Report team estimates based on Demographic and Health Surveys.

ready for school in the world. Those who complete their education after only five or six years become an increasingly selective group over time, in the sense that they come from more disadvantaged households (Le Nestour et al., 2022). It is therefore important to be cautious when referring to a learning 'crisis': What is most striking about education in Africa is not the decline but the historically low levels of learning achieved after a full primary school cycle.

This analysis leads to the second main question. Among factors that explain learning outcomes, which can education policymakers influence, and which cannot be influenced, as they relate to broader socioeconomic conditions? While the question is too big and complex to be fully answered, it is necessary to explore it so as not to forget the adverse conditions African children face and the responses needed to overcome them.

Among socioeconomic factors, poverty and malnutrition weigh heavily. The effects of iodine, iron and other nutrient deficiency on brain development have been widely documented (Walker et al., 2007; Prado and Dewey, 2014). There are advances in scientific methods to document these effects, not just through neurophysiological tests but directly on brain structure (Galler et al., 2021). A key indicator of malnutrition is the stunting rate, or percentage of children under 5 who are too short for their age. Africa has both the highest stunting rates and the slowest progress in reducing them. Between 2000 and 2020, the percentage of children under 5 who were too short for their age decreased by 26% (from 42% to 31%). But during the same period the stunting rate fell by 41% in Asia (from 37% to 22%) and by 37% in Latin America and the Caribbean (from 18% to 11%).

Short-term associations between nutrition and learning achievement are difficult to establish, as both measures change slowly. Yet there are some notable associations. Globally, the five countries with the lowest stunting rates among those that achieved the fastest reduction in stunting over at least 20 years are China, the Islamic Republic of Iran, Kazakhstan, Mongolia and Peru. Two of those have taken part in cross-national assessments over 20 years and have achieved the fastest progress in them. The Islamic Republic of Iran, where the stunting rate fell from 24% in 1995 to 5% in 2017, had the fastest increase in the percentage of grade 4 students with minimum proficiency in mathematics in the Trends in Mathematics and Science Study, from 44% in 1995 to 68% in 2019. Peru made nutrition a key national policy objective (Marini et al., 2017). Its stunting rate fell from 37% in 1991 to 11% in 2020, while it had the fastest increase in the reading score of 15-year-old students between 2000 and 2018 in the Programme for International Student Assessment. Research evidence also confirms the strong role improved nutrition has played in learning in Peru (Monge Zegarra et al., 2017).

Long-term associations are particularly relevant. In an important recent study, long-term variation in an indirect measure of numeracy, estimated for a large sample of subnational areas in Africa, was found to be related to malnutrition levels, using both average adult height and rainfall variation at time of birth, after controlling for education levels (Ferber and Baten, 2022). This evidence complements similar historical evidence on the long-term effect of nutrition on numeracy levels in Europe, using average adult height (Baten, 2022).

Conflict and instability also affect children's learning conditions, from increasing anxiety and stress to making the trip to school unsafe. Between 2015 and 2019, more than 1,000 attacks on schools were reported in the Democratic Republic of the Congo. Nigeria, which experienced over 1,500 attacks on schools between 2013 and 2017, has seen a more recent de-escalation. More than 100 such attacks were reported between 2015 and 2019 in Burkina Faso, Cameroon, the Central African Republic, Somalia and South Sudan. Of the world's 28 countries that reportedly experienced at least one incident of military use of schools or universities in that period, 15 were in Africa. And of the 17 countries that reported child recruitment in armed conflict at or on the way to school, 7 were in Africa (GCPEA, 2020).

Children are overwhelmingly taught in a language they do not speak at home. The percentage of Africa's population whose home language is a national language is well below the average for the rest of the world: for instance, 15% in western Africa and 21% in central and eastern Africa, compared with 63% in East Asia and the Pacific, 70% in South Asia and 94% in Latin America and the Caribbean (World Bank, 2022). The use of home language for instruction is important for a range of education outcomes (Benson, 2004). It has been demonstrated that even partial use of home language is associated with a higher probability of learners being literate after a full primary school cycle (Laitin and Ramachandran, 2022).

In the analysis of literacy presented above, the only countries that consistently achieved near-universal literacy rates were the few that had essentially one national language in addition to a colonial language, such as Madagascar and Rwanda (Figure 1.3a). The use of English instead of local languages is associated with higher inequality in learning outcome distribution and lower performance of learners from the poorest households. In Lesotho, among students from the poorest 20% of households, the share demonstrating fundamental reading skills was 8% when the assessment was in English but 27% in Sesotho. In Zimbabwe, the share of the poorest quintile demonstrating fundamental reading skills was 6% in English, 13.5% in Ndebele and 21% in Shona (UNESCO, 2020).

Country-specific studies are more ambiguous, but this is because few countries have managed to implement policies that provide several years of home language schooling, which is needed for the benefits to be realized. A pilot programme in Cameroon showed strong effects from home language use on reading in early grades, but these tailed off in upper grades, and learning levels remained low

overall (Laitin et al., 2019). In Kenya, there was no advantage for learning outcomes in English, Kiswahili and mathematics from the use of home language (Piper et al., 2018). In Ethiopia, introduction of home language was credited with a higher probability of attending and of being at the right age for grade (Seid, 2018), but impact on learning was less clear (Chocoine, 2019).

Bilingual language policy implementation challenges include limited teacher capacity for use of home languages, unavailability of materials in home languages and community opposition. In Zambia, many communities are concerned that another group's language may be imposed on them or that their children may be excluded if they do not learn in the colonial language (Ramachandran and Rauh, 2021). Overall, despite countries' increased understanding of the role of home language, uptake of such policies has been limited. An index of language policy shows that between 1960 and 2010, anglophone countries' policies remained stable, with at most one home language used at scale, while francophone countries only experimented with the pilot use of one home language, on average (Albaugh, 2015; UNESCO, 2016). Consequences include underdevelopment of a literate environment and reading culture, which also affects the availability of books, especially for children. In 21 of 30 countries, households owned fewer than three children's books, on average. In sub-Saharan Africa, the average was only 0.2 children's books for households in the poorest quintile, against 10.6 books in the richest quintile (UNICEF, 2022).

A unique set of challenges is presented by children who are poor and malnourished, often living in unsafe environments, unprepared for school due to home environments that offer little stimulation, not receiving compensation from other social programmes and being taught in a language they do not speak or understand. Compounding this situation are education factors related to pedagogy and system management: limited teacher and system capacity to deliver education of good quality (Evans and Acosta, 2020).

Pedagogical approaches are often not adjusted to classrooms' mix of challenges (Abadzi, 2006). Teachers may themselves have struggled with their education trajectory and professional development. They tend to be unprepared to teach at the level of disadvantaged students, a task whose complexity is underappreciated; indeed, the least experienced teachers are often assigned to early grades. Too much time in class may be spent writing on and copying from the board or monitoring students as they work on their own, instead of dedicated to actual reading activities. Most time tends to be spent addressing the whole class, with students listening passively, or asking the class for mechanical repetition instead of guiding individual students and providing them with feedback, working in groups or asking questions. Few teachers encourage effort and explain their lessons, instead resorting to inappropriate and punishing measures (RTI, 2015).

System management can fail teachers in multiple ways, in addition to not equipping them with appropriate skills for the job during initial training. Poor school conditions distract students from their lessons. Instruction time is often limited. Textbooks and learning materials may be unavailable or pedagogically inappropriate. Teacher guides, if they reach the intended users, are too often inadequate, even though they should provide reliable guidance to make up for any gaps in initial teacher education. Head teachers may be selected not as instructional leaders but as mere administrators doing multiple tasks unrelated to ensuring that children learn. Local education officers are sometimes a missing link, lacking the skills, approaches or means to help struggling schools and teachers. Ultimately, expectations may not have been set by the education ministry – or, if they have, they may not have been properly communicated, explained and backed by the political leadership.

Although African governments, on average, spend a higher percentage of their budget on education than governments in other parts of the world, lack of finance is a significant constraint. Absolute spending levels remain grossly inadequate,

at about US$50 per student per year in low-income countries. While external financing is dwindling in relative quantitative terms, it remains a potentially major qualitative influence, as it tends to focus on development and innovation, and the negotiation and review of funded programmes offer an opportunity for substantive dialogue. However, questions remain whether donor-led programmes focus on the right issues, are coherent over time, ensure coordination between partners and follow modalities of support that sufficiently engage governments and national experts.

The Spotlight series aims to inspire national and continental dialogue on foundational learning

The Association for the Development of Education in Africa (ADEA) and the Global Education Monitoring (GEM) Report have two objectives in introducing the Spotlight report series on the twin challenges of universal basic education completion and foundational learning in Africa:

- Enabling local research teams to develop recommendations in selected countries, in dialogue with government, to influence policy review and mobilize advocacy so as to improve education outcomes in line with national benchmarks.
- Compiling a solid evidence basis for a peer dialogue mechanism at the continental level, under the auspices of African institutions, that engages multiple actors that can bring change.

The series is part of ADEA's efforts to expand the range of policy issues it covers so as to best serve its members' needs, using its strengths as a high-level convener of African education policymakers. The series is also aligned with GEM Report efforts to develop regional outputs that link global perspectives with national challenges, combining its comparative advantage in high-quality cross-national research with its editorial independence.

The Spotlight report series aligns with the African Union/UNESCO CESA/SDG 4 Continental Monitoring Report, which is currently scheduled to be published three times by 2030. In between its publication years, Spotlight will offer a thematic, in-depth perspective. It also aims to support countries as they pursue achievement of their national SDG 4 benchmarks on attendance, completion, learning and other indicators.

The Spotlight series envisages three annual cycles between 2022 and 2024, each covering some 12 countries. Of these:

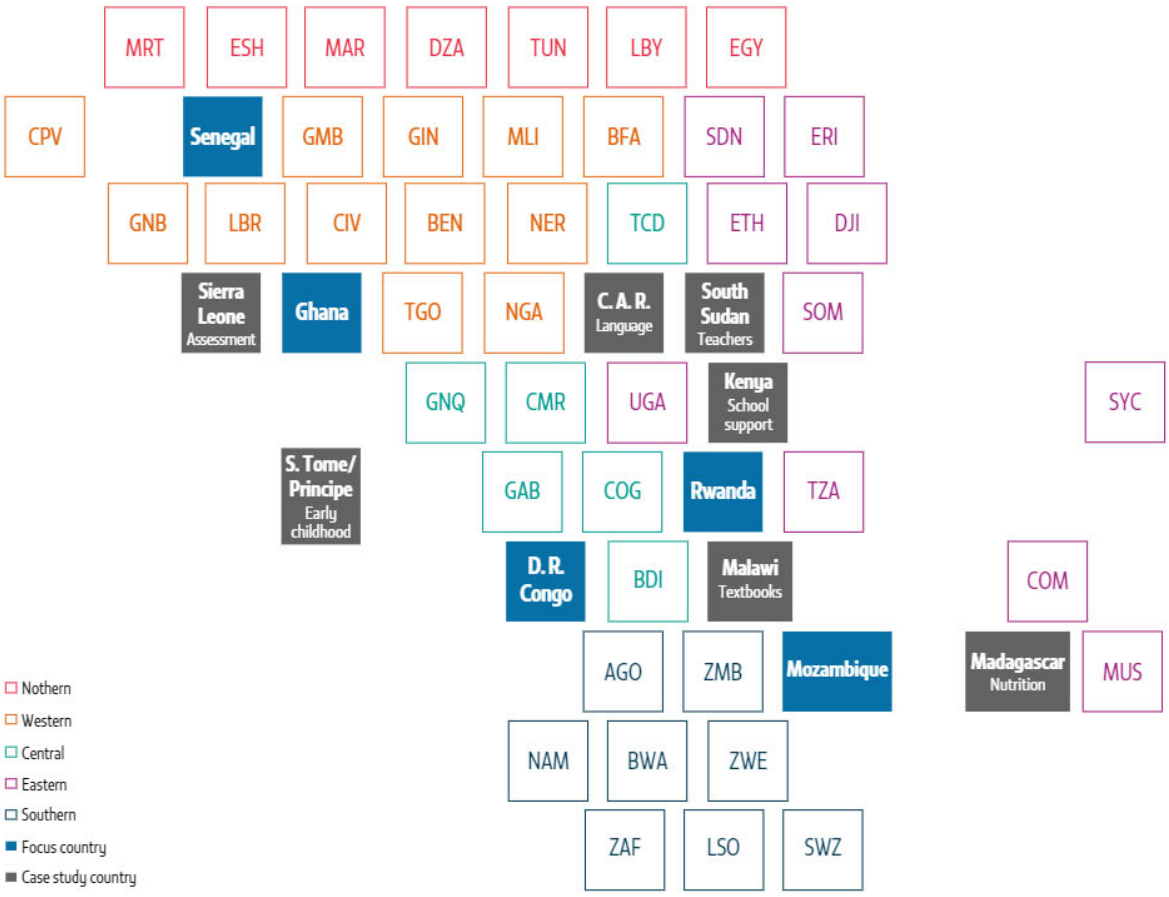
- Five are focus countries, ideally one per region (West, Central, South, East and North), for which a concise subsector analysis is carried out, leading to a country report that documents challenges and good system-wide practices. These reports are to be prepared in dialogue with national stakeholders that determine the priorities and with education ministries, which steer the discussion and validate the content.
- One or two additional countries per region are covered through short case studies focusing on a particular factor deemed important for improving education outcomes.

The country reports and case studies, other background papers and data analysis are the main inputs synthesized by this Spotlight continental report. During this first cycle, no focus countries were included from northern Africa. Instead, there were two focus countries from western Africa (**Figure 1.4**). The focus countries were the Democratic Republic of the Congo, Ghana, Mozambique, Rwanda and Senegal. Evidence presented on the five focus countries in this report usually draws from the country reports unless otherwise specified.

FIGURE 1.4

The Spotlight series aims to cover a representative group of countries

Countries included in the 2021/2 Spotlight cycle



Source: GEM Report team.
Note: The country names associated with ISO codes can be found at the Annex.

Case studies were prepared on the Central African Republic (on the language of instruction), Kenya (on district education officers), Madagascar (on school feeding), Malawi (on textbooks), Sao Tome and Principe (on early childhood education), Sierra Leone (on learning assessment) and South Sudan (on teachers).

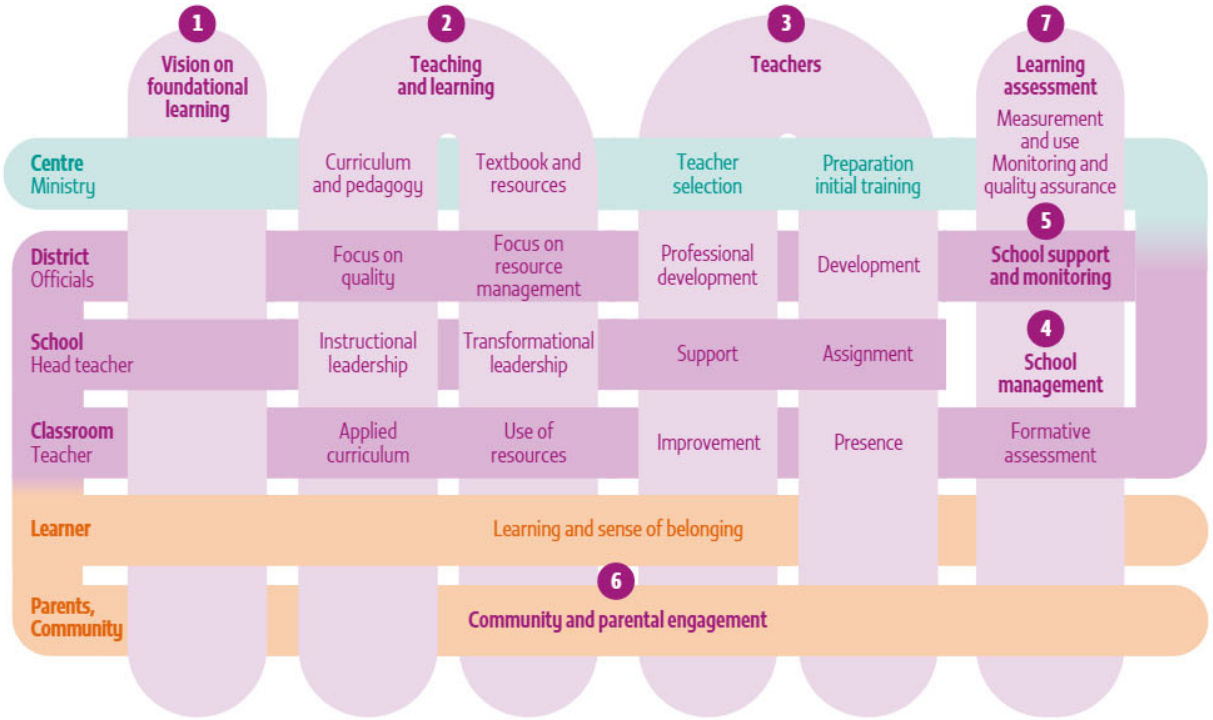
Additional research was commissioned on improved teaching of Arabic in Egypt; system reforms on textbooks, pedagogy and teacher education in Benin and Côte d'Ivoire; and the historical impact of nutrition on foundational learning. Moreover, the GEM Report's partnership with the UNESCO Institute for Statistics was mobilized for analysis of national SDG 4 benchmarks, out-of-school rates and learning outcomes.

The Spotlight analytical framework identifies seven factors which play a role in improving completion rates and foundational learning outcomes, taking into account the political economy context in which system change occurs (**Figure 1.5**).

FIGURE 1.5

Improving completion and foundational learning requires a system-wide approach

Spotlight report series analytical framework



Source: GEM Report team.

1. A country needs to have a clear vision to improve learning for all children, with full understanding and buy-in from all education leadership levels, from the ministry to local authorities to school personnel. This is expressed through specific targets that are monitored and reported on.

2. This vision should be reflected and communicated via policy decisions on the 'what' (curriculum) and the 'how' (pedagogy) of teaching and learning in early grades, including language of instruction and the use of appropriate materials, especially textbooks.

3. The vision should also be reflected in policy decisions on teacher preparation and management. Practical solutions are needed to prepare teachers to address the extraordinary circumstances they encounter in classrooms.

4. Head teachers need to be prepared to focus on instructional leadership. For that reason, they need to be appointed to supervise and support teachers and to communicate with parents and communities, and their management skills should be nurtured and developed to these ends.

5. Schools need to be supported by local education authorities performing supervision and monitoring tasks, effectively providing the latest information and communicating expectations for improvement.

6. Community and parental engagement can strengthen school responsiveness to external scrutiny and monitoring. Efforts need to overcome barriers to such participation due to lack of confidence and resources.

7. Reliable data on completion and, especially, on learning are needed. An assessment system is needed that monitors progress on what students are expected to learn and is linked both to classroom processes and to international standards.

This first iteration of the Spotlight continental report introduces key policy issues pertaining to each of the seven factors to help stimulate national and continental dialogue on ways to improve learning levels across Africa. Chapters 2 and 3 describe where the region stands with respect to out-of-school, completion and minimum learning proficiency rates. Chapter 4 reviews the extent to which countries have established national visions on foundational learning and the role learning assessments have played. In Chapter 5, a focus on teaching and learning in the classroom introduces the importance of connecting vision, curriculum, pedagogy, and teaching and learning materials. Chapter 6 addresses teacher issues and, in particular, how best to support teachers as key actors in policy reforms that seek to improve levels of foundational literacy and numeracy. Chapter 7 examines the topic of school support and emphasizes the important role of school leaders. Chapter 8 identifies selected aspects of parental and community engagement that contribute to the success of reforms with foundational learning at their core. Chapter 9 reviews financing of education policies across the continent. In conclusion, Chapter 10 provides recommendations at the student, system, continental and international levels.

2 School attendance and completion

Epaphrodite, 6, walks with his friends to Save the Children's reading club in Ngororero district, Rwanda. (CREDIT: Jonathan Hyams/Save the Children)

- African countries' progress in enrolment has slowed down and one in five primary school-age children remains out of school.
- Rapid demographic growth is a major challenge to reducing out-of-school populations in many countries and will remain a challenge in the coming years.
- Due to late entry and grade repetition, a large share of primary school students in many countries are over-age.
- One in three children does not complete primary school on time and one in four does not complete even several years late.
- Gender gaps in attendance and completion have closed in most countries but children in rural areas and from poor households are lagging behind their urban and richer peers.

KEY INSIGHTS

- The number of out-of-school children increased by 1.7 million between 2012 and 2020, especially in central and western Africa
- Countries' national targets show a commitment to more than halve their out-of-school rate, from 19% in 2020 to 9% in 2030
- In the Central African Republic, Kenya and Malawi, one third of pupils are at least two years older than expected for their grade
- The primary completion rate in Africa increased from 52% to 67% in 20 years. Between 2000 and 2020, 15 countries increased their completion rates by at least 30 percentage points
- Only around one in two children in rural areas and one in three among the poorest complete primary school

> *"As a nation we really need to prioritize basic education because it is the foundation."*
>
> National stakeholder workshop participant in Ghana

Improving foundational learning starts with ensuring all children attend and complete primary school. A target of achieving universal primary education in Africa by 1980 was set in 1961 at a UNESCO conference in Addis Ababa. The 1990 World Declaration on Education for All in Jomtien raised the level of ambition to universal primary completion and pushed the global deadline to 2000. At the 2000 World Education Forum in Dakar, the deadline was postponed to 2015. Despite considerable acceleration in the first decade of this century, Africa missed the deferred target, which had also been adopted in the meantime as part of the second Millennium Development Goal. Africa is not expected to achieve the target even by the 2030 Sustainable Development Goals deadline. This assessment is based on past rates and on countries' national targets for 2025 and 2030. It does not take into account the potential impact of COVID-19, which may mean the achievement of target will be delayed even further.

This chapter provides estimates on access to and completion of primary education in Africa, at least up until the onset of COVID-19. The estimates rely on improved methodology making efficient and effective use of multiple data sources. The chapter also documents disparity in access and completion within countries, covering the entire continent.

One in five primary school-age children is not in school

Following structural adjustment programmes in the 1980s and 1990s, under which governments had to cut social spending, the rate of growth in social indicators, including school enrolment, slowed or even reversed in some countries, fuelling a movement in support of debt relief and the formulation of the Millennium Development Goals. The recovery of social spending helped finance policies such as school fee abolition, which led to rapid increases in education access in the early 2000s. However, before 2010, there were already signs that the momentum was fading.

One theory on the slowing of progress reflected in official data is that it is due to poor data quality. For instance, while the primary adjusted net enrolment rate in sub-Saharan Africa, which is based on administrative data, increased by just three percentage points in 10 years, from 76% in 2008 to 79% in 2018, the primary completion rate, based on household survey data, rose by nine percentage points over the period, from 52% to 61% (UNESCO, 2020).

The discrepancy could indicate that countries gradually improved school system efficiency, ensuring that fewer children repeated classes and more children completed among those enrolled. But alternative explanations may also be linked to collection and processing of administrative data. School census data collection has been challenging in some countries with large out-of-school populations.

The Global Education Monitoring Report and the UNESCO Institute for Statistics have developed a model for more efficient and effective use of data from multiple sources.

This has prevented a more accurate, up-to-date picture from emerging. Another major challenge is the uncertainty of population estimates, which affect education indicator processing. Complementary data from household surveys, which could help address some of these issues, have not yet been mainstreamed in official estimates.

The *Global Education Monitoring Report* (GEM Report) and the UNESCO Institute for Statistics (UIS) have developed a model for more efficient and effective use of information from multiple sources (GEM Report and UIS, 2022). The estimates do not dramatically change the overall picture: Almost one in five children was out of school in Africa just as the COVID-19 pandemic led to extended school closures across the continent. But the model suggests that progress in the 2010s did not slow as much as administrative data indicated (**Figure 2.1a**). Southern Africa saw the most abrupt deceleration: Between 2006 and 2020, its out-of-school rate among children of primary school age fell by just three percentage points to 11%. During the same period, the out-of-school rate in northern Africa decreased to only 3% (**Figure 2.1b**).

The rate of progress in improving access to school has been exceeded by the rate of population growth. As a result, the number of out-of-school children increased by 1.9 million between 2012 and 2020, from 37 million to 38.9 million (**Figure 2.2a**). Out-of-school populations increased in central Africa (by 0.9 million) and western Africa (by 1.8 million) but remained constant in eastern and southern Africa (**Figure 2.2b**).

By incorporating survey information and making fuller use of the data to carry out short-term projections, the model also helps fill gaps for countries with incomplete or completely missing administrative data. For instance, administrative data had not been published since 2000 for the Democratic Republic of the Congo and Malawi, since 2010 for Guinea-Bissau and Nigeria and since 2012 for the Central African Republic and Kenya. For one third of the continent's 55 countries, the most recent administrative data were published in 2017 or before. No administrative or survey data have been reported for Libya and Somalia as a result of long-term conflict and insecurity.

In four countries, it is estimated that more than half of all children are out of school: Central African Republic (50%), Equatorial Guinea (55%), Eritrea (51%) and South Sudan (62%). Overall, the median difference between the model estimates is higher by just one percentage point than the estimates relying exclusively on administrative data. However, for several countries the two estimates diverge by much more: The out-of-school rate estimated by the

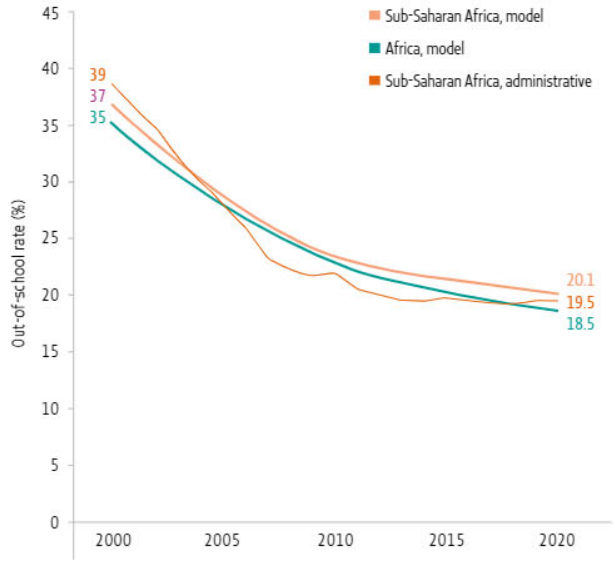
For one third of the continent's 55 countries, the most recent administrative data were published in 2017 or before.

FIGURE 2.1

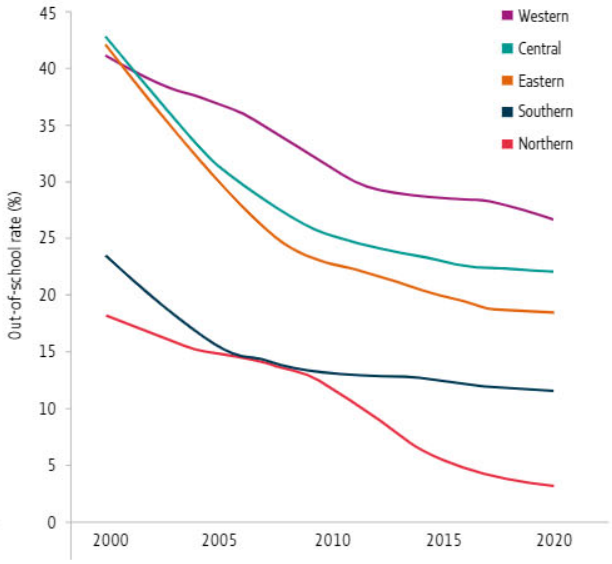
Progress in reducing the out-of-school rate slowed after 2010

Out-of-school rate, primary school-age children, Africa, 2000–20

a. By estimation method



b. By region



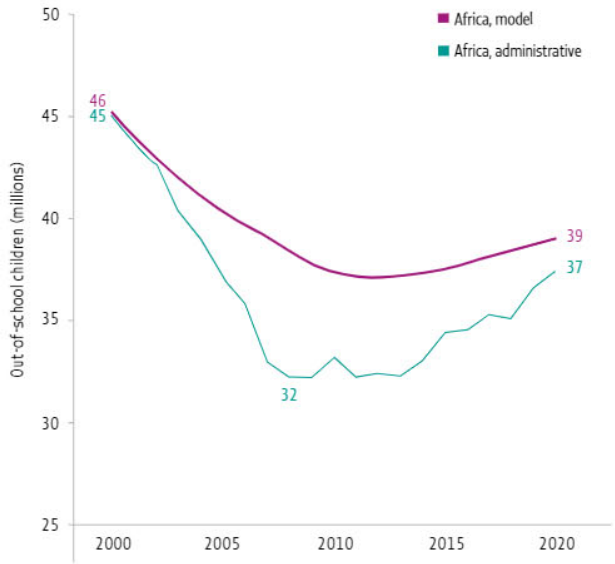
Sources: GEM Report and UIS estimates (model estimates) and UIS database (administrative data).

FIGURE 2.2

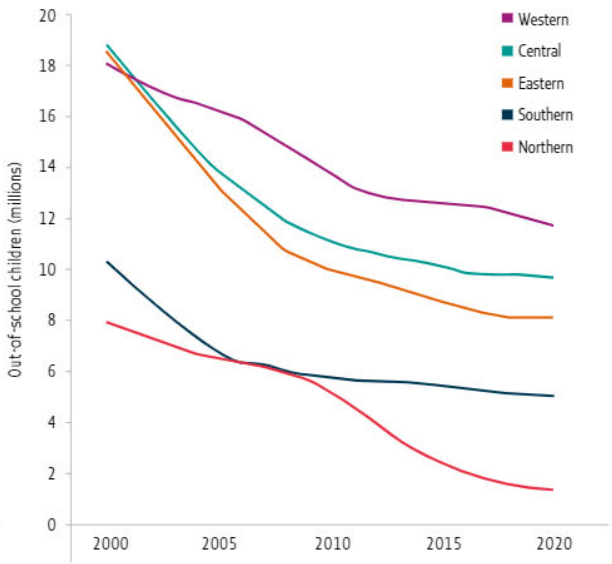
The number of out-of-school children of primary school age began increasing in the 2010s, especially in central and western Africa

Out-of-school population, primary school-age children, Africa, 2000–20

a. By estimation method



b. By region

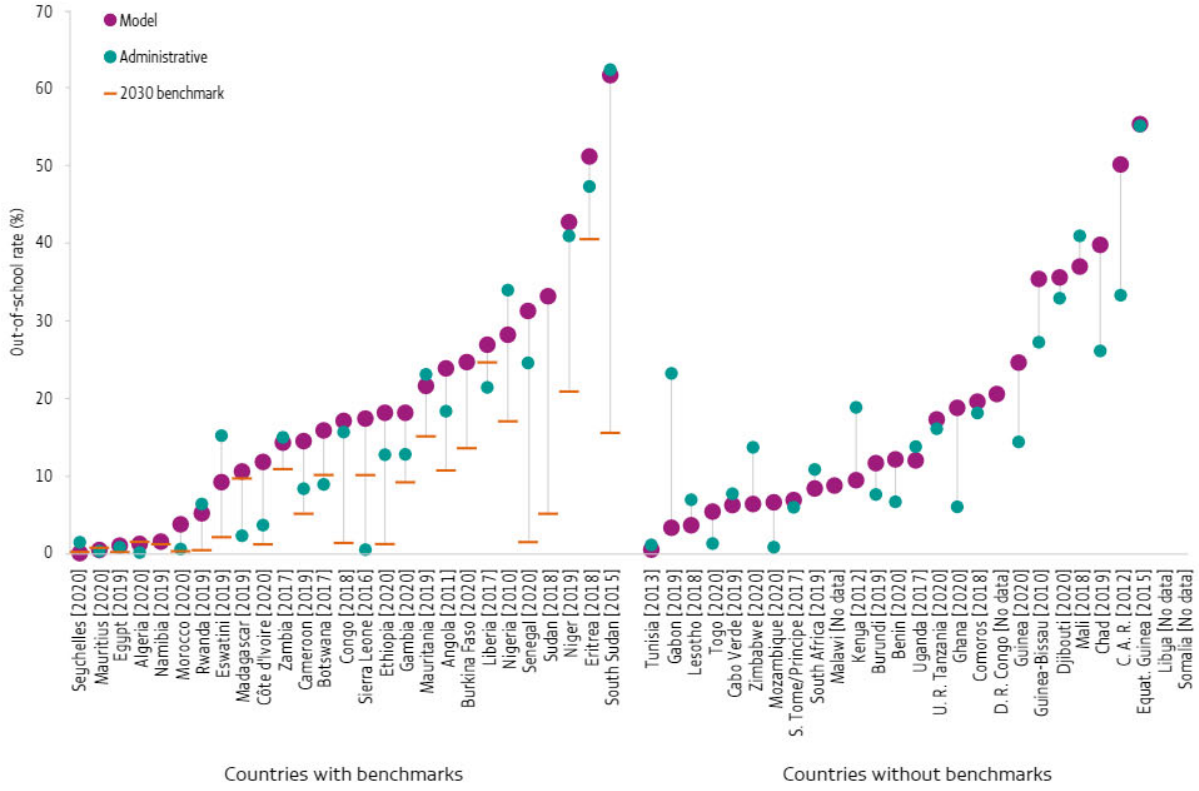


Sources: GEM Report and UIS estimates (model estimates) and UIS database (administrative data).

FIGURE 2.3

Variation in out-of-school rates by country is considerable

Out-of-school rates in Africa, primary school-age children, model and administrative data estimates and national 2030 benchmarks, by country, 2020



Note: The number in brackets refers to the year for which the latest administrative data are available.
Sources: GEM Report and UIS estimates (model estimates) and UIS database (administrative data).

model is lower in Eswatini, Gabon and Zimbabwe and higher in Chad, Ghana and Sierra Leone (**Figure 2.3**). A likely reason for the latter type of discrepancy is that administrative sources collect student age indirectly and may be less likely to capture it correctly than survey data, which ask households to directly report their children's age. Widespread late enrolment and grade repetition, discussed later in this chapter, mean the model tends to estimate higher out-of-school rates among children of primary school age and lower out-of-school rates among adolescents and youth of secondary school age.

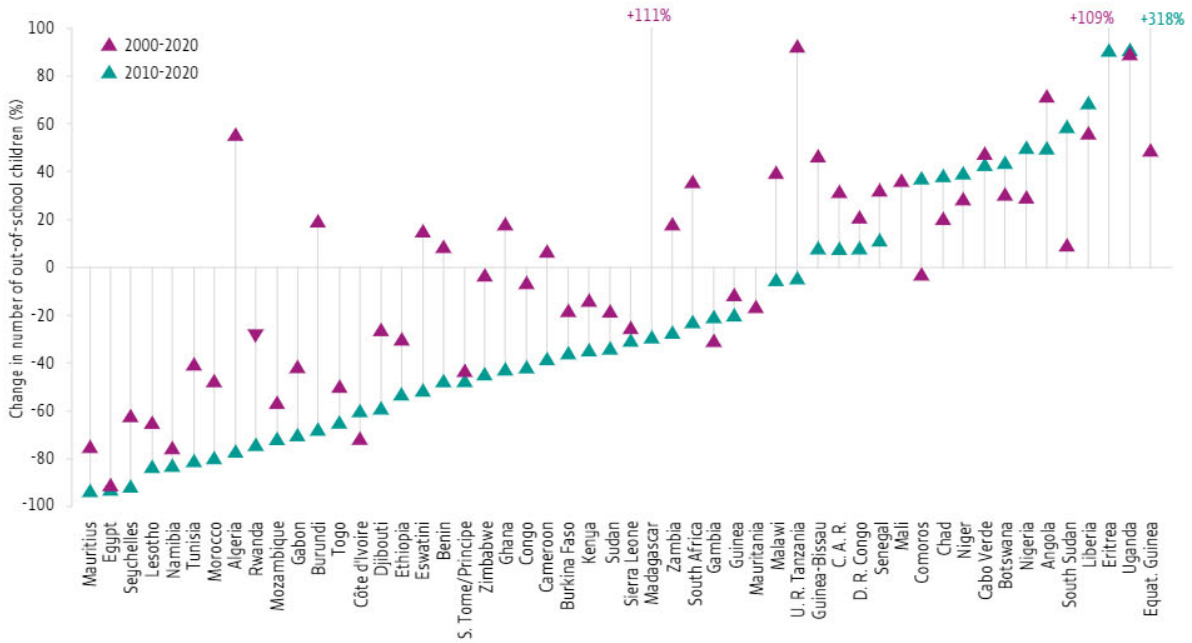
As described in this report's introduction, with the support of the UIS and the GEM Report, countries have been setting national SDG 4 targets (benchmarks) for 2025 and 2030 on selected indicators, including the out-of-school rate. In total, 50% of counties have submitted a benchmark for the primary out-of-school rate. Collectively, these

> *"Congo, Ethiopia, Rwanda and Senegal aim to universalize primary education by 2030."*

FIGURE 2.4

Many countries drastically reduced their out-of-school population from 2000, while others saw it grow, especially after 2010

Change in the number of out-of-school children, by country, 2000–20 and 2010–20



Source: GEM Report and UIS estimates.

countries aim to reduce their out-of-school rate, on average, from 19% in 2020 (according to model estimates, or 16% according to administrative data) to 9% in 2030. The degree of ambition varies widely by country. In relative terms, the most ambitious are Congo, Ethiopia, Rwanda and Senegal, which aim to universalize primary education by 2030. In absolute terms, Senegal and South Sudan have the most ambitious targets, aiming to reduce their out of-school rates by 30 and 46 percentage points, respectively, even though those rates have stagnated since 2010. Sudan has the third-most-ambitious target, aiming to reduce the out-of-school rate by 28 percentage points, following a decade during which the rate fell by 15 percentage points, one of the largest improvements observed in the period.

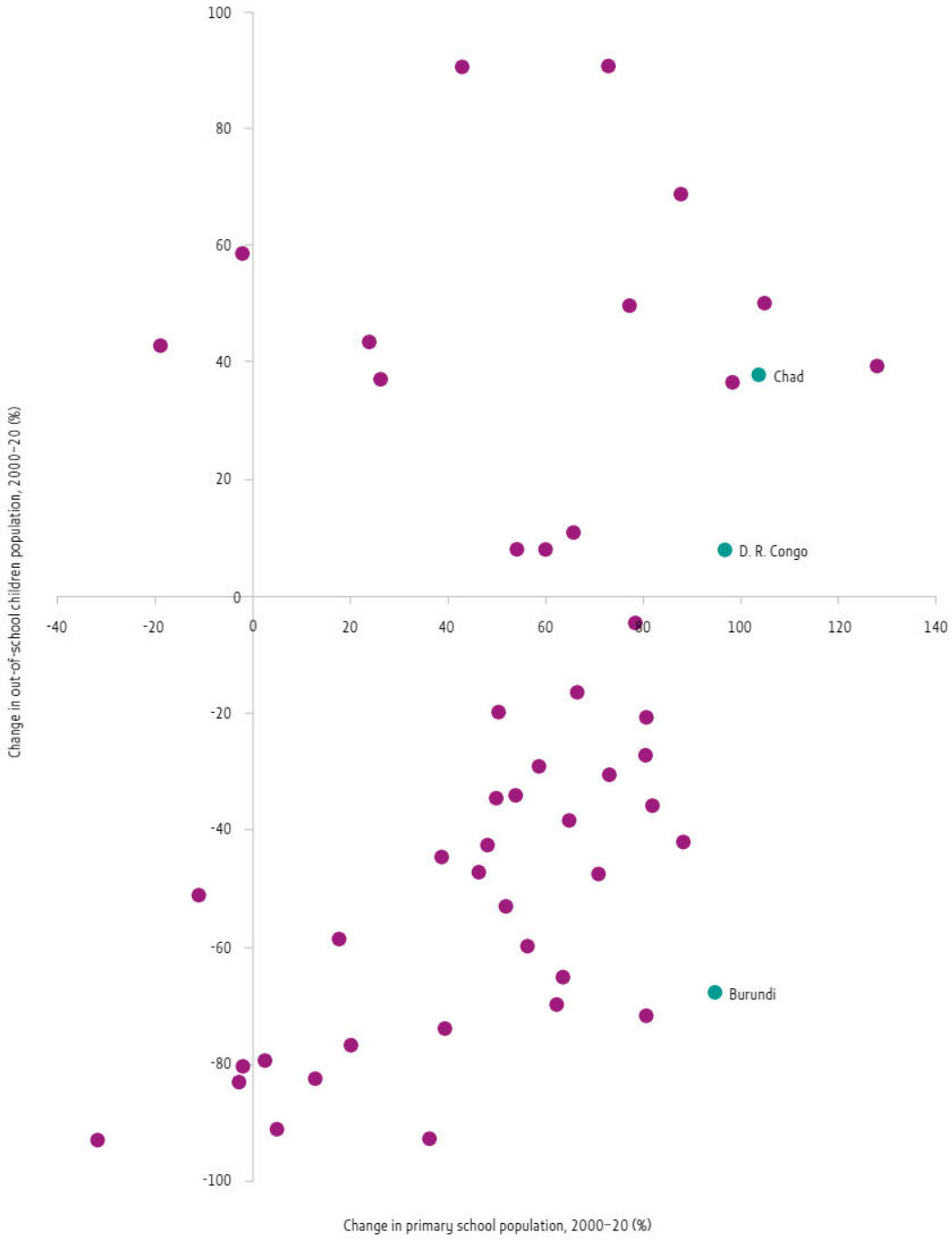
Several countries achieved rapid progress towards universal primary education between 2000 and 2020. In relative terms, among countries where the out-of-school rate exceeded 20% in 2000, Burundi, Mozambique, Rwanda and Togo reduced their rate by at least 80%. Most countries achieved faster progress in the first half of the period, with Mozambique and Togo among a minority of countries that achieved faster progress after 2010. In absolute terms, Burkina Faso, Burundi, Ethiopia and Sudan reduced their rate by at least 40 percentage points. All four achieved at least two thirds of this progress by 2010; in Burundi, almost all progress was in this period, as the rate fell drastically from 58% in 2000 to 14% in 2010 and then to 11% in 2020.

Ethiopia achieved the largest reduction in the out-of-school population between 2000 and 2020, by 3.5 million, while Egypt, Mozambique and Sudan reduced theirs by 1 million. By contrast, Nigeria experienced the largest increase, by 3.2 million, while Niger and Uganda saw their out-of-school population increase by 0.5 million. In relative terms, Algeria, Morocco and Tunisia in northern Africa and Lesotho, Mauritius, Namibia and Seychelles in southern and eastern Africa reduced their out-of-school population by about 80% (**Figure 2.4**).

FIGURE 2.5

Countries whose primary school-age population grew faster found it more difficult to reduce their out-of-school population

Change in primary school-age population and in out-of-school children population, 2000–20

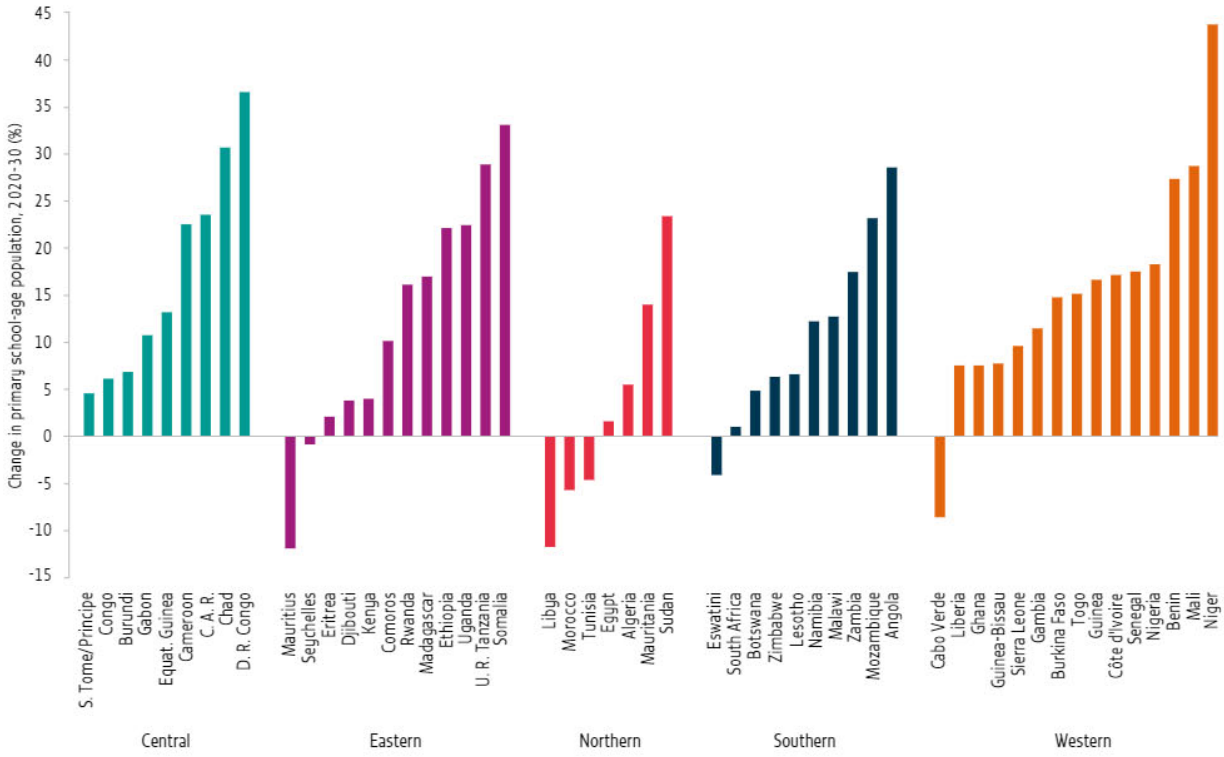


Source: World Population Prospects, UN Population Division.

FIGURE 2.6

In eight countries, the primary school-age population will grow by at least a quarter in the 2020s

Primary school-age population change, 6- to 11-year-olds, 2020–30



Source: World Population Prospects, UN Population Division.

The challenge of reducing out-of-school populations in the face of rapid demographic growth should not be underestimated. Over the past 20 years, a negative association can be observed, on average, between the growth rate of the primary school-age population and countries' ability to reduce the out-of-school population. Still, success varies widely even among countries that experienced the same population growth. For instance, the out-of-school population fell by 68% in Burundi, stagnated in the Democratic Republic of the Congo and increased by 38% in Chad over 2000–20, while their school-age population doubled (**Figure 2.5**).

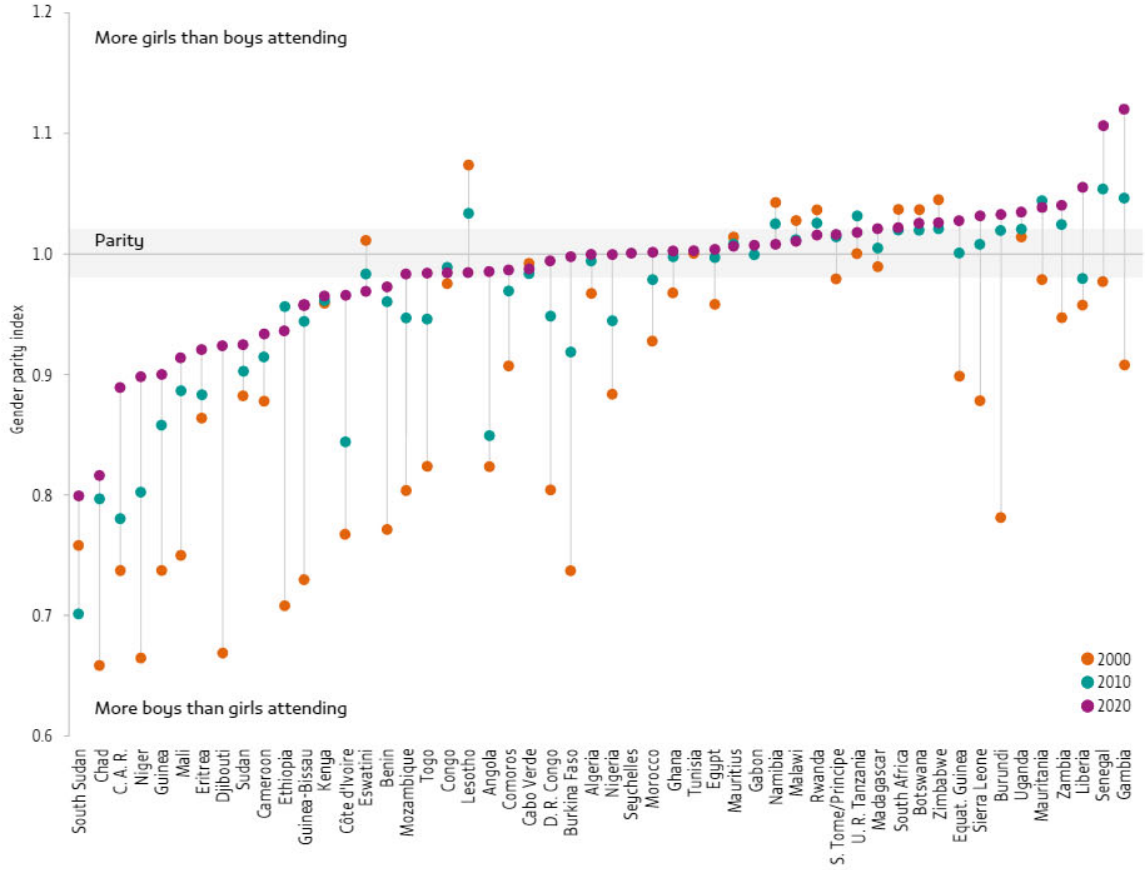
The primary school-age population in Africa is expected to continue increasing in the 2020s, although its growth rate is projected to slow from 30% in 2010–20 to 18% in 2020–30. Growth will vary significantly by region, from 30% in central Africa to 2% in southern Africa. Eight countries' population is expected to grow by at least 25%. The fastest growth rate (43%) is expected in Niger (**Figure 2.6**), which will have seen its primary school-age population more than triple from 1.9 million in 2000 to 6.3 million by 2030. By contrast, the primary school-age population will have fallen by 40% in Mauritius.

> *"The primary school-age population in Africa is expected to grow by 18% in 2020–30."*

FIGURE 2.7

There has been consistent progress towards gender parity

Gender parity index, primary school-age children attendance rate, by country, 2000, 2010 and 2020



Source: GEM Report and UIS estimates.

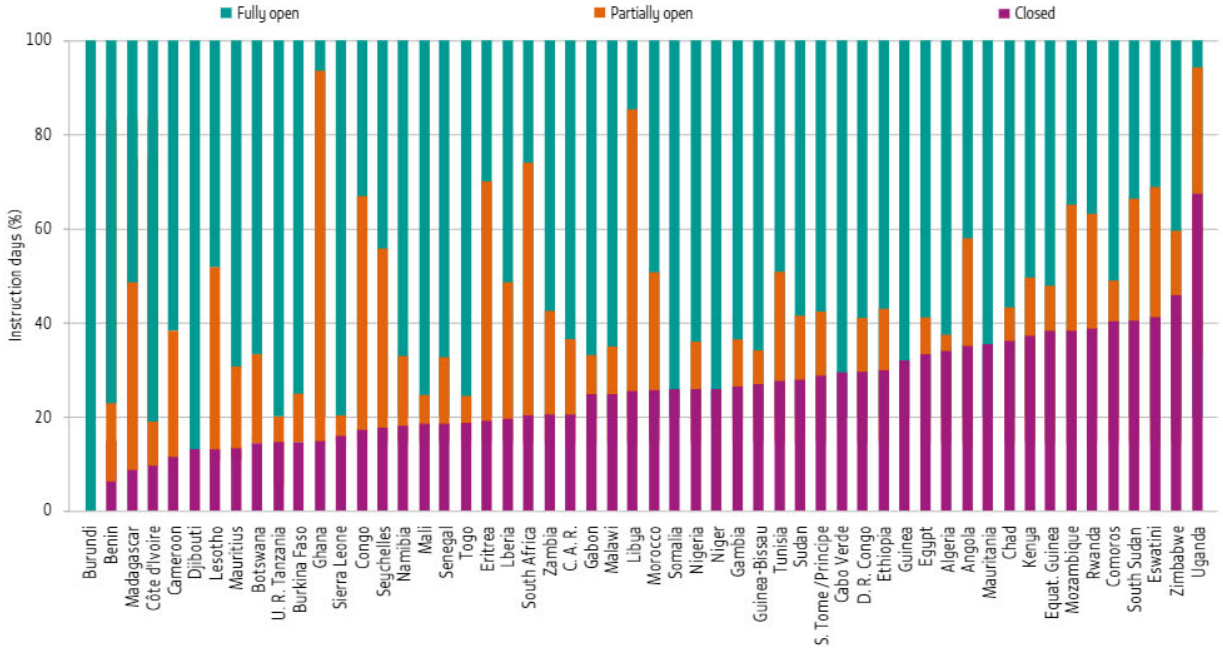
Progress towards gender parity in school attendance has been rapid in Africa. Almost every country has moved closer to parity in the last two decades. Some countries, including Benin, Burkina Faso, the Democratic Republic of the Congo and Mozambique, achieved it despite starting from highly unequal positions in 2000. Djibouti, Ethiopia and Guinea-Bissau also made rapid progress, even if they had not achieved parity by 2020. In the Central African Republic, Guinea, Mali and Niger, there are still only 9 girls enrolled for every 10 boys. The disparity is largest in Chad and South Sudan, where 8 girls are enrolled for every 10 boys. At the other end of the spectrum, Lesotho and Namibia eliminated boys' small disadvantage, while the Gambia and Senegal are unusual in having moved from a small access gap for girls to a larger gap for boys (**Figure 2.7**).

The model improves understanding of past trends but is not as sensitive at capturing the impact of COVID-19 on enrolment. Assessing that will require more and consistent information over time. Initial evidence from UIS administrative data in 2021 suggests that the impact may be negligible at the level of primary school-age children. This is consistent with some survey evidence. In Ethiopia,

FIGURE 2.8

Variation in school closure duration among countries was considerable

Distribution of instruction days by school closure status, by country, March 2020 to October 2021



Source: GEM Report team analysis of UNESCO school closure database.

a survey split between a period of school closure and a period of partial reopening found that, by the second half of November 2020, almost all children had either returned to school or, if not, intended to do so when school reopened (Agness et al., 2021). While the impact may not be immediate, it may be gradual. In Ghana and Senegal, dropout rates did not change, remaining low at 2%, but repetition tripled in Ghana, from 3.5% to 10.5%, and doubled in Senegal, from 6.3% to 11.4% (Abreh et al., 2021; Mbaye et al., 2021). Repetition can later trigger dropout, especially if it is also accompanied by declines in learning levels.

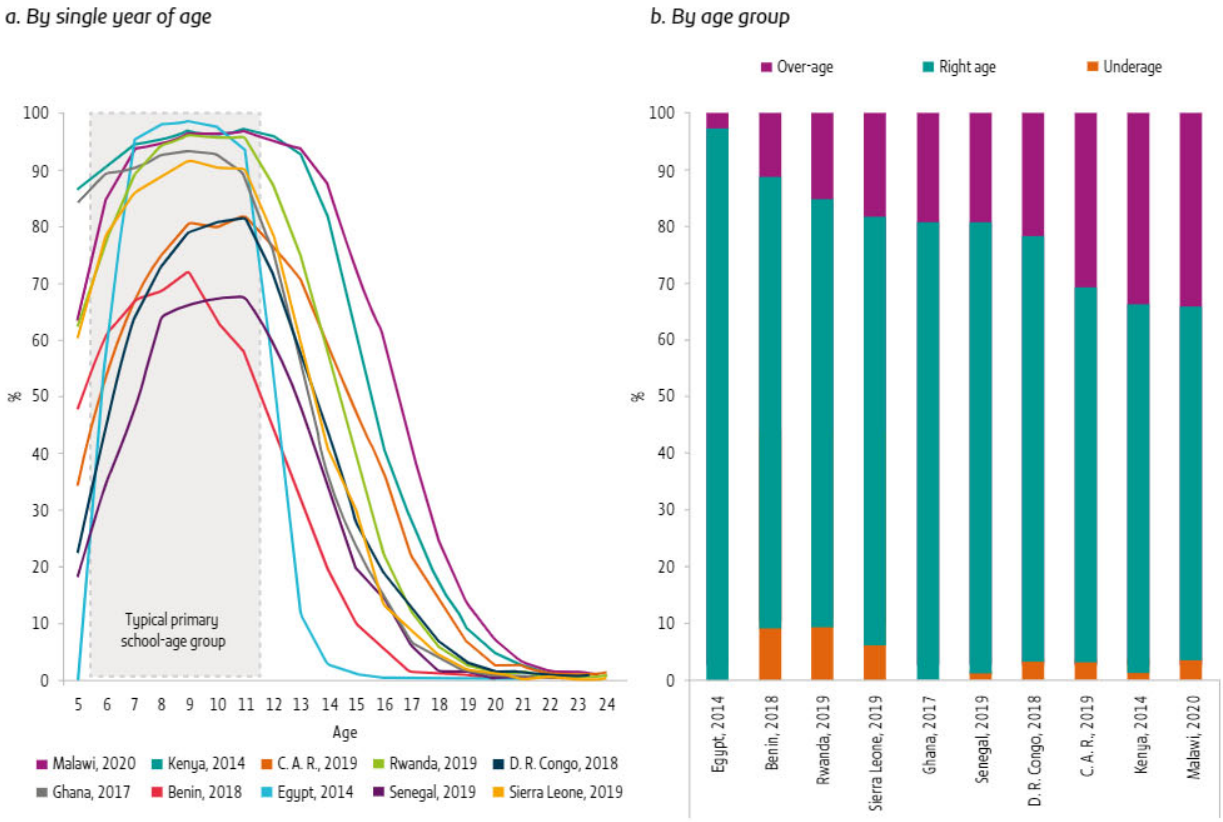
In any case, the impact will vary by the extent to which education systems were affected. Between March 2020 and October 2021, schools were closed for 25% of instruction days and partially closed for 18%, less than in other world regions. There was also wide variation among countries. In Burundi, schools did not close at all, while in Uganda they closed for 95% of instruction days (68% fully) and in Ghana for 94% of instruction days (15% fully). The countries with the longest duration of full closures after Uganda, at about 40%, were Comoros, Eswatini, Mozambique, Rwanda, South Sudan and Zimbabwe (**Figure 2.8**).

> *Initial evidence suggests that the impact of COVID-19 on enrolment may be negligible at the level of primary school-age children.*

FIGURE 2.9

In the Central African Republic, Kenya and Malawi, a third of primary school students are over-age

Age distribution of primary school students, selected countries, 2010s



Source: GEM Report team analysis based on household surveys.

Household survey data show that a considerable proportion of primary school students in some countries are over-age, the result of both late entry and grade repetition. In Egypt, almost every student attends primary school on time. But in the Central African Republic, Kenya and Malawi, one third are at least two years older than expected for their grade (**Figure 2.9**). This lowers the probability that students will eventually finish primary school.

One in four children does not complete primary school

As with out-of-school rates, analysis of completion rates is based on a novel methodology that combines multiple survey and census data. The completion rate is a new indicator, the most recent addition to the SDG 4 global indicator list, as it was endorsed by the Inter-agency and Expert Group on SDG Indicators only in 2020. Education statisticians have historically referred to the completion rate as the percentage of

students who complete an education level among those who started that level. However, with SDG target 4.1 focusing on the percentage of children who 'complete free, equitable and quality primary and secondary education', it is clear that the rate needs to reflect the percentage of all children who complete an education level, regardless of whether they started it.

The completion rate improves on the measure of completion traditionally used: gross intake rate to the last grade of an education level. Based on administrative data, it has certain weaknesses. For instance, it is not easy to distinguish repeaters from non-repeaters, and a lack of accurate single-age population estimates makes this measure vulnerable to improbable year-on-year fluctuations. Poor understanding of such weaknesses led to wrong conclusions. For instance, the World Bank claimed in 2011 that the world was on track to achieve universal primary completion, a target that in fact will not be met even by 2030. It suggested that countries including the United Republic of Tanzania had achieved universal primary completion (World Bank and IMF, 2011), when one in five children there was not reaching the end of primary school. Analysis of data on the gross intake rate to the last grade of primary education for 2010–20 shows that 9% of observations in Africa and 31% of observations globally exceeded 100% – which is theoretically impossible – thus inflating primary completion rates.

The completion rate measures education attainment, but with a significant feature. It is defined as the 'percentage of a cohort of children or young people aged 3–5 years above the intended age for the last grade of each level of education who have completed that grade' (UN Statistical Division, 2021). In other words, the completion rate is a 'flow' measure of attainment, aiming to capture the peak of education development progress in the current generation, unlike 'stock' measures of attainment that tend to focus on adult cohorts. While a stock measure is relevant for analyses of countries' past education development, a flow measure allows for a timely reading of progress.

In the case of primary education, where the typical age group is 6 to 11 years, the completion rate is defined among 14- to 16-year-olds. Although this age group is older than that supposed to complete primary school, the analysis of over-age enrolment in the previous section shows that even it may underestimate the percentage of those who ultimately complete primary school: A considerable proportion reach the last grade of primary school with more than five years' delay. Hence the following analysis reports both on the 'timely' completion rate, as officially defined, and, for reference, the 'ultimate' completion rate.

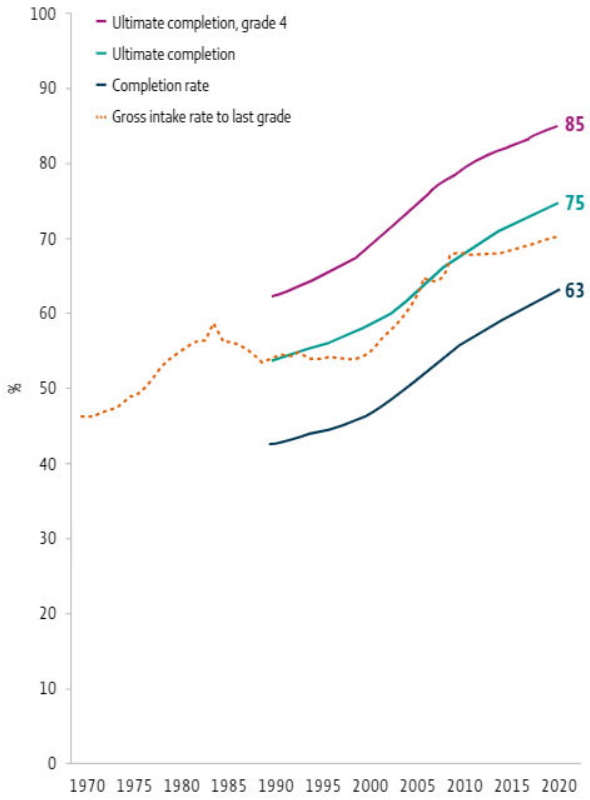
Survey data have their own challenges. Most countries conduct a survey every three to five years, at most, and the results are released at least one year later, a considerable time lag. Many countries conduct multiple surveys, which, for various reasons, may provide conflicting information. The new methodology addresses these challenges to reconcile various sources and maximize survey data utilization (Dharamshi et al., 2022). It follows an approach used by the international health community to measure flagship indicators based on multiple sources, such as the under-5 mortality and maternal mortality rates (Alkema and New, 2014; Alkema et al., 2016). The out-of-school and completion rate models and results are available at the Visualizing Indicators of Education for the World (VIEW) website.

One advantage of the gross intake rate is that the data series, at least for sub-Saharan Africa, goes back to 1970, albeit with the caveat that data systems were not advanced then. Still, this long-term perspective captures the reversal and stagnation that took place between 1985 and 2000. The results suggest that the gross intake rate and 'ultimate' completion rate are broadly consistent. The model estimates also show a large gap between timely and ultimate completion: Less than two in three children complete primary school on time while three in four do eventually. But this means that at the onset of COVID-19, one in four children was not completing primary school, i.e. not reaching a goal that was

FIGURE 2.10

One in three does not complete primary school on time; one in four never completes

Primary completion rate, sub-Saharan Africa, 1970–2020



Sources: GEM Report estimates (completion rate) and UIS database (gross intake rate).

first set to be achieved 40 years earlier but which at current rates will not be achieved by 2030. It is also estimated that 85% of children in sub-Saharan Africa ultimately reach grade 4; assuming that primary school finishes at grade 6, on average, this means there is a dropout rate of 15% in the last two primary school grades (**Figure 2.10**).

The primary completion rate in Africa increased from 52% to 67% in 20 years, which represents an annual increment of 0.75 percentage points. Progress slowed in the 2010s (6.5 percentage points) relative to the 2000s (8.6 percentage points) but not as much as in the out-of-school rate. There are considerable differences by region. Central and eastern Africa have the lowest completion rates at just under 60% but are also the regions that improved the fastest, at more than one percentage point per year. Western Africa caught up with southern Africa at just under 70%, even though it had started 10 percentage points behind in 2000. Northern Africa has the highest rate at 91% (**Figure 2.11a**). Among sub-Saharan African countries in 2020, the primary completion rate was 50% among low-income countries but 95% among upper-middle-income countries (**Figure 2.11b**).

Botswana, Mauritius and South Africa have achieved universal primary completion, and administrative data on the gross intake rate suggest Seychelles has also done so. Algeria, Egypt and Tunisia have rates around 95%, with administrative data suggesting this is also the case for Cabo Verde. The difference between the timely completion rate (those who reach the last grade 3 to 5 years after graduation age) and the ultimate completion rate (those who eventually reach the last grade) is very large in many cases. Liberia's timely completion rate is 29% but the ultimate completion rate is 61%, which suggests high levels of over-age enrolment. Another aspect of

> *"There is a dropout rate of 15% in the last two primary school grades in sub-Saharan Africa."*

FIGURE 2.11

Completion rates vary widely by region and income group

Primary completion rate

Source: GEM Report estimates.

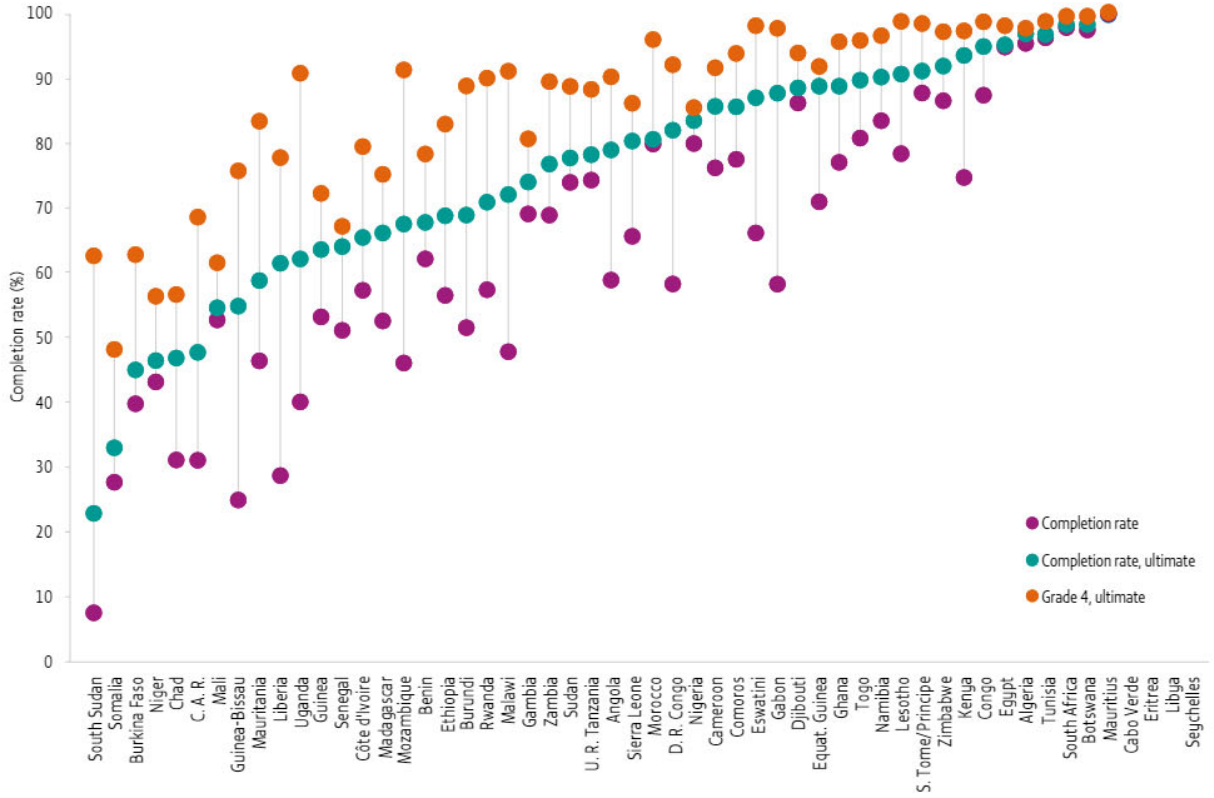
education system efficiency highlighted by the data is the gap between the percentage of children who ultimately reach grade 4 and those who reach the last grade of primary school. In Mauritania, 83% of children reached grade 4 but only 59% reached the end of primary, which suggests high levels of school leaving in upper primary grades. Overall, the timely completion rate is below 50% in 12 countries and the ultimate completion rate is below 50% in 6 countries. The lowest ultimate completion rates are observed in Somalia (33%) and South Sudan (23%) (**Figure 2.12**).

Between 2000 and 2020, 15 countries increased their completion rates by at least 30 percentage points; of these, 5 achieved an increase of about 40 percentage points, or 2 percentage points a year: Burundi, Ethiopia, Sao Tome and Principe, Sierra Leone and Togo. Almost 70% of countries have set primary completion rate benchmarks for 2025 and 2030. A few, including the Democratic Republic of the Congo, the Gambia, Madagascar, Mozambique and Zambia, set low benchmark values, close to their 2020 levels. But many countries set universal primary

FIGURE 2.12

In six countries, less than half of children ever complete primary school

Primary completion rate, by country, 2020



Source: GEM Report estimates.

completion as their national target, even some that start from a low 2020 level, including Burkina Faso, Mauritania and Senegal, whose completion rates were close to 50%. They would have to improve completion by five percentage points a year, which no country has yet achieved (**Figure 2.13**).

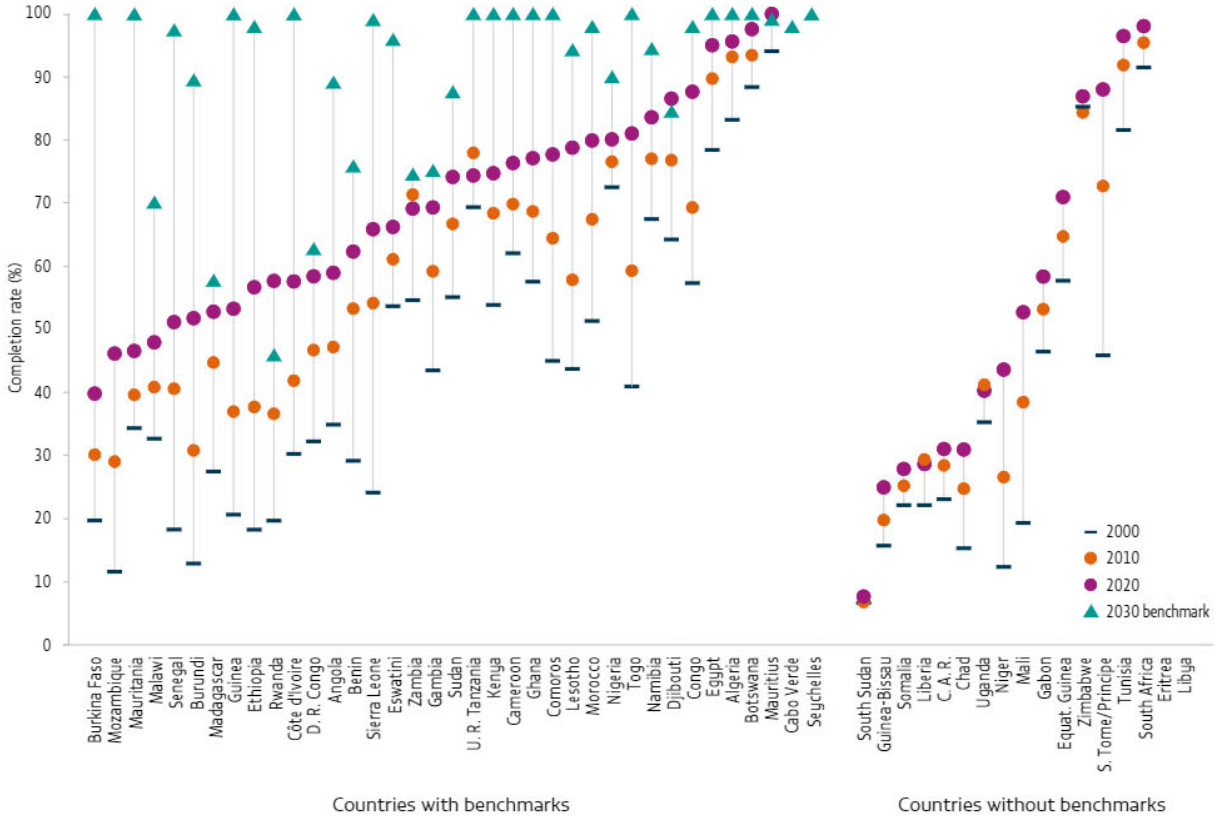
As with out-of-school rates, there has been major progress towards gender parity in completion rates. Gender parity was achieved in 2010 for reaching grade 4 and the last grade of primary school on time. In fact, girls are now more likely to progress through primary education on time: By 2020 only 92 boys

> *"The timely completion rate is below 50% in 12 countries and the ultimate completion rate is below 50% in 6 countries in the region."*

FIGURE 2.13

The fastest-improving countries in Africa increased their completion rate by two percentage points a year

Primary completion rate, by country, 2000, 2010, 2020 and national 2030 benchmarks



Source: GEM Report estimates.

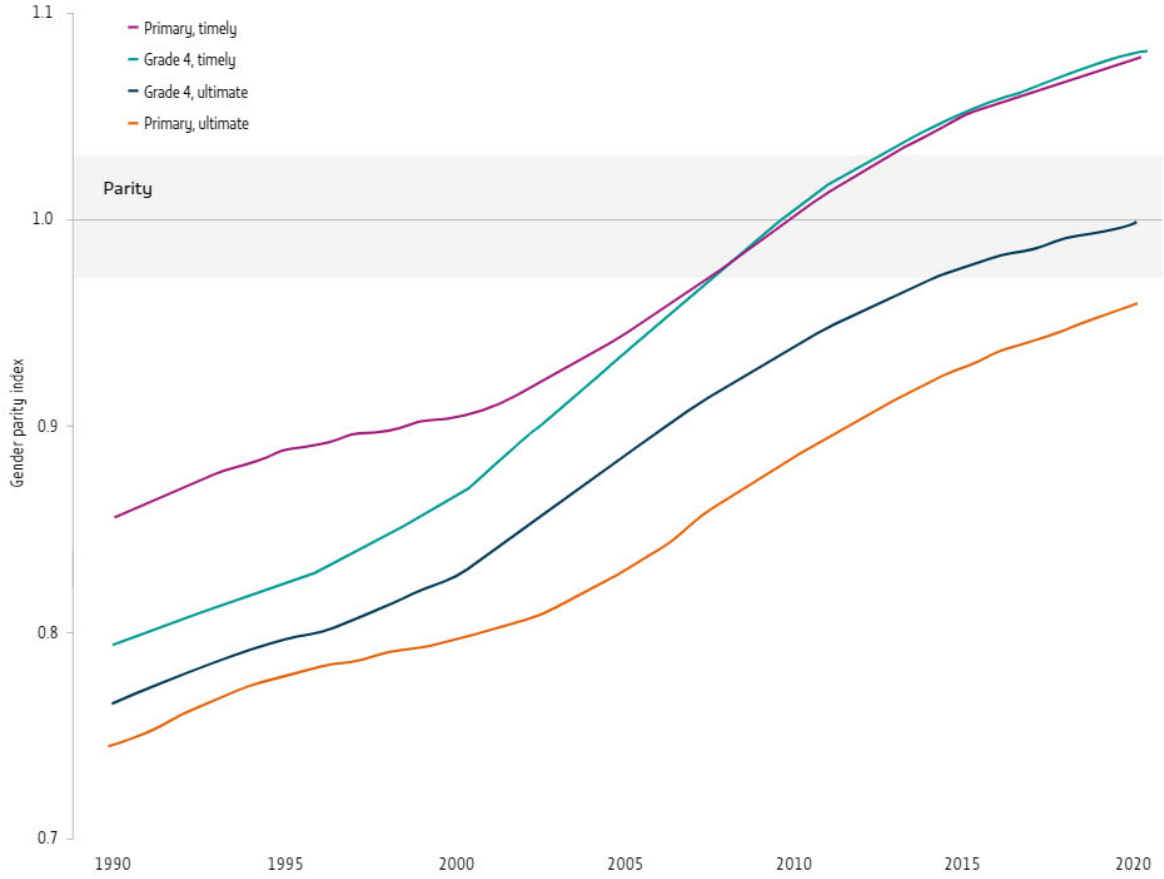
were reaching grade 4 and the last primary grade on time, for every 100 girls. This trend needs to be seen in conjunction with gender parity trends in eventual completion: Parity was achieved in 2020 for reaching grade 4. There remains a small disparity at girls' expense in the ultimate primary completion rate, with 96 girls eventually reaching the last primary grade for every 100 boys. However, the dynamic is such that even this gap will close in coming years (**Figure 2.14**).

While the gender gap has been closed in almost all countries, considerable gaps in completion rates remain between urban and rural areas. On average, 55% of children living in rural areas complete primary school, compared with 79% of children in urban areas. The largest gap is observed in Angola (74% urban vs 27% rural); large gaps are also seen in Guinea and Mozambique (**Figure 2.15a**). Wealth gaps are even larger. The largest are of the order of 70 percentage points, observed in Angola, Madagascar, Mozambique and Nigeria. In Nigeria, 97% among the richest fifth of households complete primary school, but just 27% do among the poorest fifth of households (**Figure 2.15b**). The location and wealth gaps are the best documented, with good data availability, but many other groups of children are at risk of not having access to and completing education of good quality, including refugees (**Box 2.1**).

FIGURE 2.14

Girls are more likely than boys to complete primary school on time and are about to achieve parity in the ultimate completion rate

Adjusted gender parity index, completion rate, sub-Saharan Africa, 1990–2020

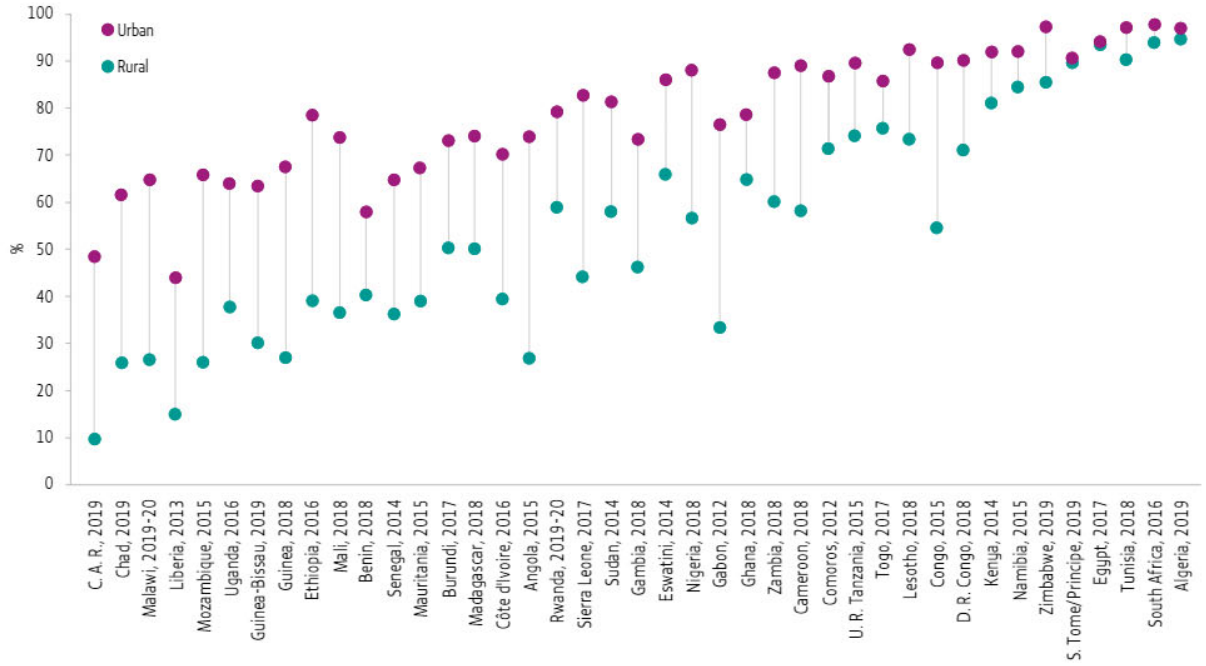


Source: GEM Report team estimates.

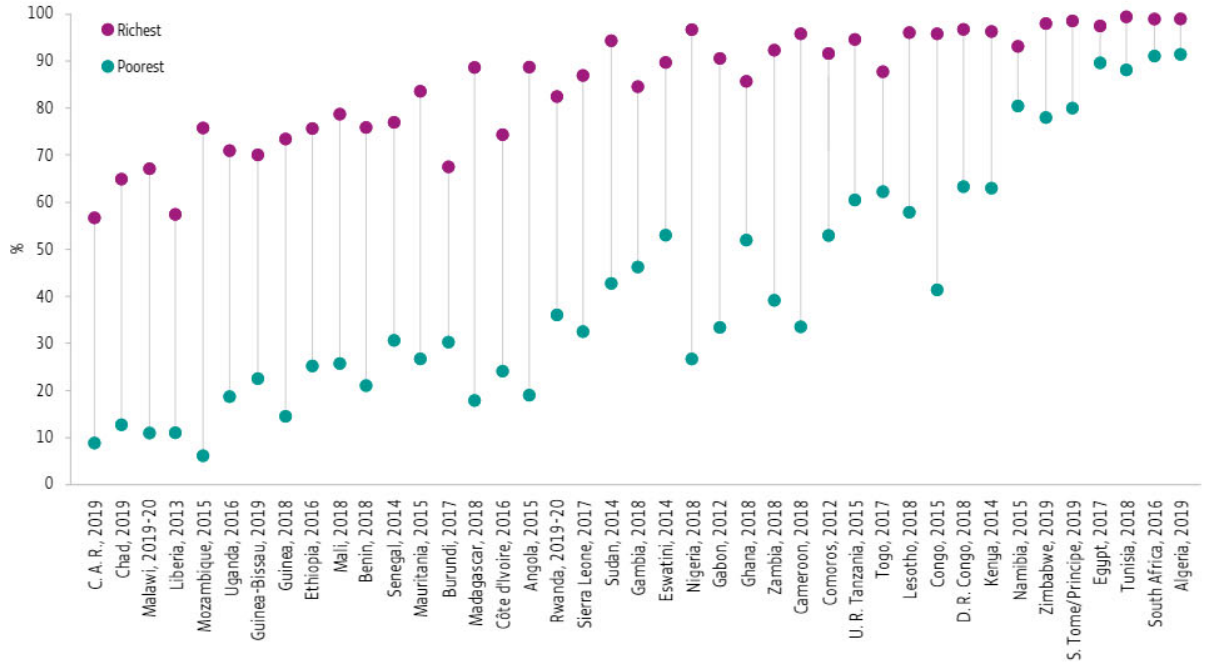
FIGURE 2.15

Among the poorest families, only one in three completes primary school

a. Urban–rural gap in primary completion rate, 2012–20



b. Richest–poorest gap in primary completion rate, 2012–20



Source: World Inequality Database on Education.

BOX 2.1

Central African Republic refugee children in the Democratic Republic of the Congo struggle to continue their education

The Democratic Republic of the Congo is committed to the inclusion of refugee children and youth in public schools, in line with the 2018 Global Compact on Refugees. At the end of 2021, there were 228,000 school-age refugee children in the country, of whom 34,000 were enrolled in school, most in primary education. Refugees from the Central African Republic, who have fled various waves of political violence and instability, including as recently as December 2020, are the largest group. About 72% of refugee children live outside camps within host communities and enrol in host community schools. But the three provinces hosting most refugees from the Central African Republic, Bas-Uele, Nord-Ubangi and Sud-Ubangi, are among the most underserved areas in the country. Of the 128,000 school-age refugee children from the Central African Republic, just over 9,000 attend school.

A team from the office of the United Nations High Commissioner for Refugees (UNHCR) visited Nord-Ubangi province in 2021 to assess the situation in 12 primary and 7 secondary schools, which enrolled about 2,300 refugee and 4,000 national children and youth. The two urban schools visited had brick walls and corrugated sheet metal roofs, while the rural schools were made of sticks and straw and thus were vulnerable to the frequent heavy rainfall and wind. In most schools, the crowded classrooms were too dark to allow children at the back to read and follow the lessons on small, worn-out chalkboards.

Most primary schools in the country are run by religious networks. The government has introduced a fee abolition policy but its implementation is gradual. The sector plan expects the government to assume responsibility for paying all teachers by 2025. The government now pays teacher salaries in only 5 of the 12 primary schools, so parents provide financial support. The fee structure varies by location, from US$2.5 to US$5 per child per month in villages to over US$5 in towns.

In 2021, the Education Cannot Wait fund awarded a US$2 million grant to UNHCR to enhance access to education in the communities visited. The one-year project aims to expand access to education by building 104 classrooms and adding water and sanitation facilities to double the 19 schools' capacity from 6,300 students to 11,800. Students will receive textbooks and school kits. The project will recruit 27 teachers and 3 supervisors to provide non-formal education for out-of-school children to help them re-enter formal or alternative education.

By paying all 191 teachers already working in the 19 schools, of which only 64 are on the government payroll, the project will temporarily relieve parents of the financial burden. Refugee parents will be included in parent–teacher associations. More teachers will be recruited, including from the refugee community. But since teachers without Congolese teaching credentials (i.e. a secondary school certificate in the general pedagogy option) have to pass a ministry test, only six teachers so far are refugees. Teachers will be trained in 6 sessions for a total of 30 days, including on foundational training for all teachers and on school management for head teachers. Training will cover curriculum delivery, child-centred approaches, classroom management, mental health and psychosocial support, and socioemotional learning. Learning circles will help teachers support each other in improving their skills. Teachers will also receive copies of the national curriculum.

Source: UNHCR (2022).

Conclusion

Detailed analysis of up-to-date and varied evidence using new and robust methodology helps show a clear picture of the progress made and prospects ahead for African countries in their out-of-school and completion rates. Almost one in five children is out of school, while one in four does not complete primary school and one in three does not do so on time. This means that 40 years after the target of universal primary education was set for Africa, the challenge is still unresolved, even if some countries have made strides by increasing their completion rates by two percentage points a year. The gender gap has closed but other gaps remain, especially among those living in rural areas and poor households.

3 Foundational learning outcomes

In Kaffrine, Senegal, a group of girls laugh as they attend a class at the Diamaguene Centre Franco-Arab school. (CREDIT: UNICEF/Tremeau)

- African countries' participation in learning assessments is relatively low, resulting in a lack of sufficient data to estimate learning levels and trends with precision. The best estimate is that, at most, about one in five primary school-age children achieves minimum proficiency in reading and mathematics and that progress over time is half as fast as in the rest of the world.
- Two regional assessments, PASEC in francophone countries and SACMEQ in anglophone countries, have made major efforts to help countries monitor learning but they still have room for improvement.
- Household surveys offer complementary information, even if they only assess learning achievement at a level below global minimum proficiency. Still, these surveys fill some gaps and help confirm that overall learning levels in Africa are very low.

KEY INSIGHTS

- Only 14 countries representing 15% of the school-age population in Africa have at least two data points on minimum learning proficiency that would allow the long-term trend to be estimated
- Since 2015, only 19 countries in reading and 18 countries in mathematics have reported data from school surveys
- According to household survey data, the proportion of grade 2 students with foundational reading skills is near zero in many countries
- Even among the richest children, only one in three acquires foundational reading skills by grade 3

> *... The greatest thing school gave me in life was the ability to read ...*
>
> Workshop participant in the Democratic Republic of the Congo

Access to school was at the centre of development efforts between 1990 and 2015 in Africa. Learning outcomes have become the main focus since 2015, even though universal primary, let alone secondary, completion will not be reached in Africa by 2030. A key reason for the change of focus is the perception that education expansion has not been associated with improved learning in many countries.

The change of focus brings with it the challenge of measuring learning outcomes. Participation in cross-national assessments has taken off, making it more likely that global progress in learning can be assessed in a comparable way. SDG global indicator 4.1.1 has been adopted to monitor minimum proficiency in reading and mathematics at three education levels.

In Africa, the technical and political process, under way since 2015, on defining and applying a global proficiency framework is difficult in the absence of sufficient and timely data of good quality. The two major regional cross-national assessment programmes, the Programme d'analyse des systèmes éducatifs de la CONFEMEN (PASEC) and the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) have made major efforts to improve their methods but still face challenges, some common, some distinct, which require a continent-wide approach. In any case, they do not cover all countries of the continent. Well-established international assessment programmes, notably the Trends in International Mathematics and Science Study (TIMSS) and the Progress in International Reading Literacy Study (PIRLS), which have helped build capacity in other parts of the world, are costly and arguably pitched at measuring higher levels of proficiency; they have been taken up only by a few middle-income countries, including Morocco and South Africa.

Still, combined information from these sources has provided an overall picture of low levels of learning achievement in Africa. Other sources complement the picture. A major school assessment programme funded by development assistance, consisting of the Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA), has been administered in many countries in Africa and shown that learners in grades 1 to 3 are struggling to acquire even more rudimentary skills than those expected at the global minimum proficiency level. But the programme has not become institutionalized, data are largely out of reach for planners and researchers, and there has been no emphasis on using it for reporting on the global indicator. Finally, household surveys offer complementary information on learning levels in Africa, even if not designed to measure minimum proficiency in terms of global indicator 4.1.1. This chapter combines information from multiple sources to consider the challenge of measuring learning achievement.

"Minimum proficiency levels in reading and mathematics have been established."

At most, one in five students achieves minimum proficiency in reading and mathematics

Minimum proficiency levels in reading and mathematics have been established (**Table 3.1**). Assessment programmes, which have independently defined their own proficiency levels, need to agree how these relate to the minimum proficiency level. This process involves background work that maps the content students need to have mastered at each proficiency level. In 2018, the UNESCO Institute for Statistics (UIS), the custodian agency for SDG global indicator 4.1.1, convened the providers of cross-national assessments for agreement on which of their levels matches the global minimum proficiency level (UIS, 2019a).

For instance, the minimum proficiency level in reading in early grades corresponds to level 3 in the PASEC assessment, described as 'Moving towards the perfecting of decoding skills, listening skills and understanding of written words', which means students should be able to 'understand explicit information in a short text which uses familiar vocabulary ... gradually developing links between spoken and written language and thus improving their decoding skills and expanding their vocabulary' while also being able to 'identify the meaning of isolated words' (CONFEMEN, 2020). The minimum proficiency level in mathematics at the end of primary education corresponds to level 5 in the SACMEQ assessment, described as 'competent numeracy', which means the student 'translates verbal, graphic or tabular information into an arithmetic form in order to solve a given problem' and 'solves multiple-operation problems' (SACMEQ, 2021).

Data on minimum proficiency levels in reading and mathematics at the end of primary education are available for 30 countries in 2013–22 (**Figure 3.1**): 10 took part in the 2019 round of PASEC, 11 in the 2013 round of SACMEQ, 6 in the one-off Monitoring Impacts on Learning Outcomes (MILO) project and 3 in the 2016 PIRLS and 2019 TIMSS. Overall, since 2015 there are data on learning levels for 40% of children in reading and 35% in mathematics.

TABLE 3.1

Description of minimum proficiency levels for reading and mathematics according to SDG global indicator 4.1.1

	Reading	Mathematics
By grade 2/3	Students read aloud and comprehend many single written words, particularly familiar ones, and extract explicit information from sentences. They make simple inferences when longer texts are read aloud to them.	Students demonstrate skills in number sense and computation, reading simple data displays, shape recognition and spatial orientation.
By end of primary	Students independently and fluently read simple, short narrative and expository texts. They locate explicitly stated information, interpret and give some explanations about the key ideas in these texts. They provide simple, personal opinions or judgements about the information, events and characters in a text.	Students demonstrate skills in number sense, computation, real world problems, basic measurement, 2D shape recognition, and reading and interpreting simple data displays.

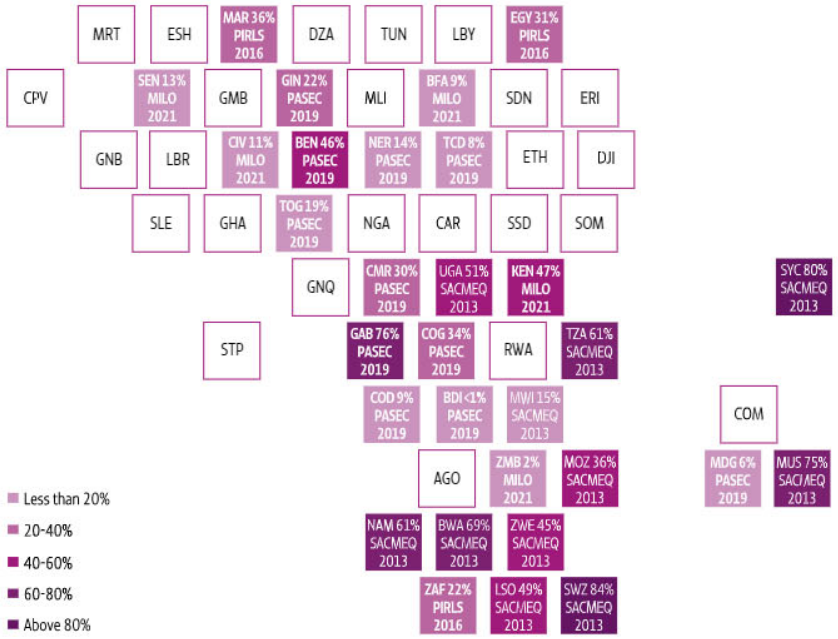
Source: UIS (2019b).

FIGURE 3.1

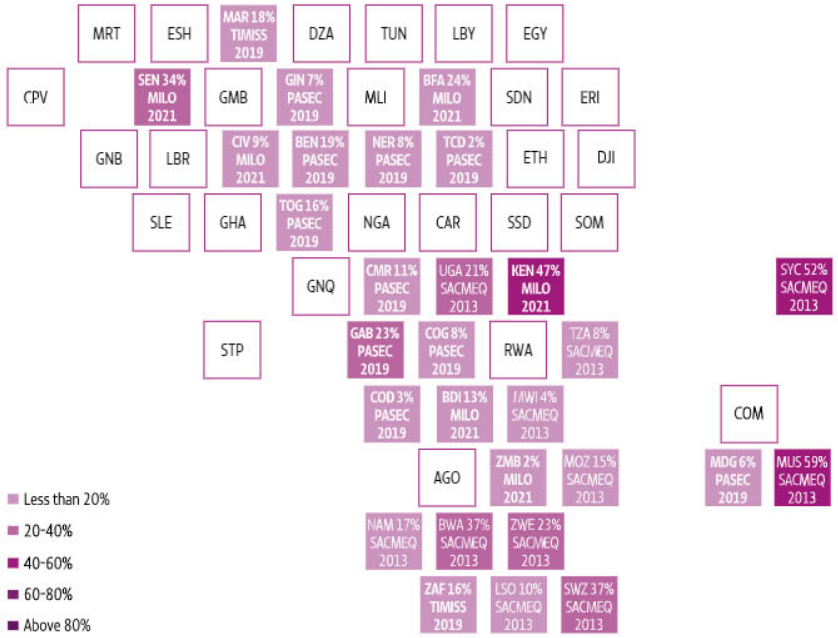
Few countries participate in cross-national assessments

Percentage of students achieving minimum learning proficiency at the end of primary education, 2013–22

a. Reading



b. Mathematics



Note: Each cell reports the percentage of students who achieved minimum proficiency and the source (survey and year). Countries are in **bold** if the data are from 2015 onward and regular if they are older. Data for the United Republic of Tanzania are from Zanzibar. The country names associated with ISO codes can be found at the Annex.

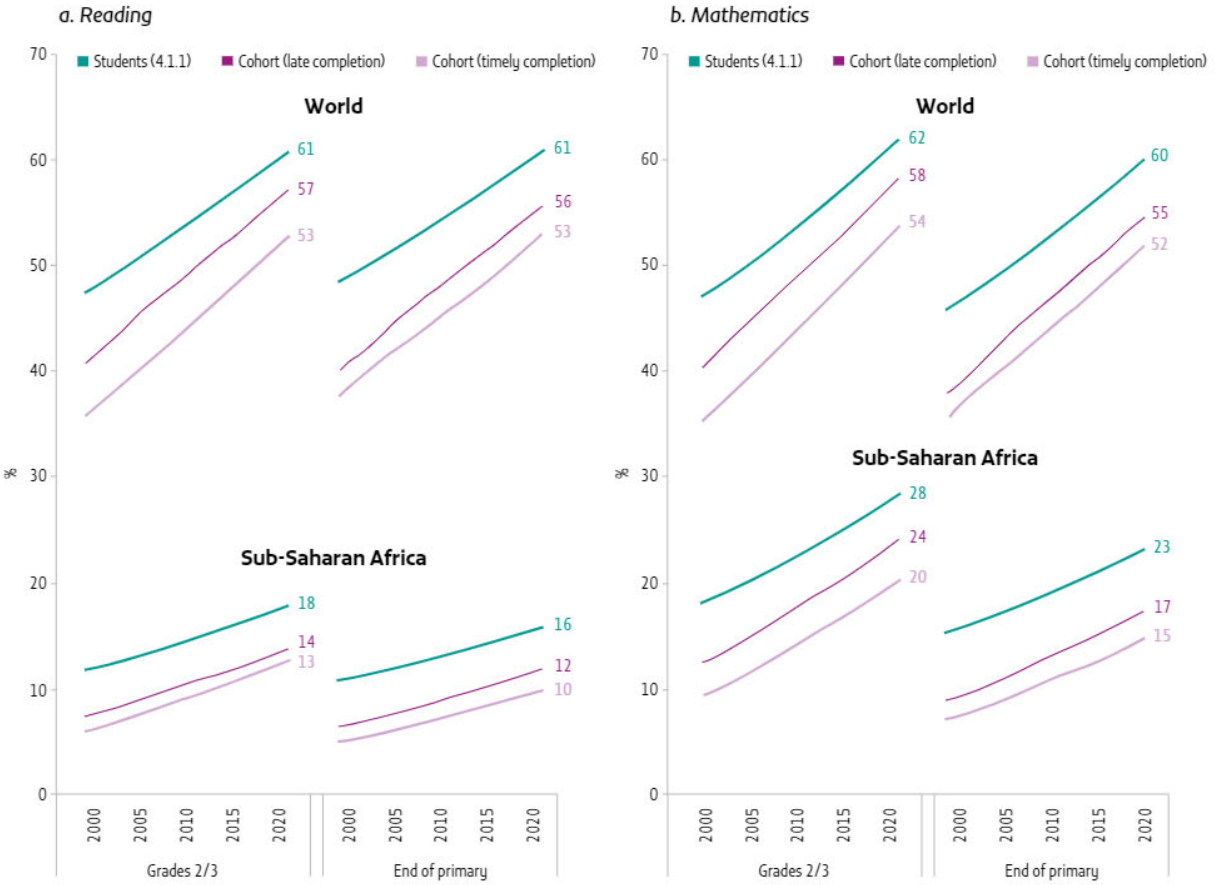
Source: UIS database, complemented with data from the MILO, PIRLS and TIMSS surveys.

The UIS has recently produced aggregate regional and global estimates. In sub-Saharan Africa, about 16% of students achieved minimum proficiency in reading by the end of primary in 2020, compared with 61% globally. Given that only 63% complete primary on time, just 10% of children achieved minimum proficiency by the end of primary (i.e. they are 'prepared for the future'), compared with 53% globally. In mathematics, some 23% of students achieved minimum proficiency by the end of primary (i.e. they are 'prepared for the future'), compared with 60% globally. With one in three children not completing primary school on time, that means 15% of children achieved minimum proficiency, compared with 52% globally. The percentage of students with minimum proficiency appears to have increased by 0.2 percentage points per year in reading and by 0.4 percentage points per year in mathematics in sub-Saharan Africa, or at roughly half the global rate. (**Figure 3.2**).

FIGURE 3.2

Few children complete primary education and achieve minimum proficiency in reading and mathematics in sub-Saharan Africa

Percentage of children and students achieving minimum learning proficiency, by subject and level, sub-Saharan Africa and world, 2000–20



Notes: The thick green line represents the percentage of students achieving minimum proficiency (SDG indicator 4.1.1). The thick purple line represents the percentage achieving minimum proficiency multiplied by the completion rate, i.e. the percentage of children who complete a level on time and have acquired minimum skills (SDG indicator 4.1.1 multiplied by SDG indicator 4.1.2). The thin purple line represents the percentage of students achieving minimum proficiency multiplied by the ultimate completion rate, i.e. the percentage of children who complete a level, even late, and have acquired minimum skills.
Sources: UIS estimates (learning) and GEM Report estimates (completion).

"Learning data from household surveys offer valuable insights, including on learning disparity by individual characteristics."

Overall, these data mean that children in Africa are seven times less likely than children in the rest of the world to be prepared for the future in reading and five times less likely to be prepared for the future in mathematics. But there are several caveats with respect to these estimates' validity. The evidence base for establishing trends is weak. Only 14 countries report two data points, of which 11 are PASEC countries that took part in the 2014 and 2019 rounds. These countries represent just 15% of the school-age population in Africa and hence cannot be considered representative. Doubts have also been expressed about the robustness of these trend data, at least in some of the 11 PASEC countries. In Benin and Congo, the rate of progress exceeded three percentage points per year between 2014 and 2019 for the end of primary, which is outside the range generally considered feasible. Six countries in reading and five in mathematics also recorded implausible rates of progress for the grade 2 level. Another type of inconsistency, at least relative to results in the rest of the world, is that PASEC shows low correlation between reading and mathematics results at the end of primary and low correlation between early primary and end of primary results (Gustaffson, 2022).

Although there has been considerable investment in methods to ensure comparability, documentation still needs to improve (**Box 3.1**). Some of these problems are not unique to Africa. Producing comparable estimates on indicator 4.1.1 is one of the biggest challenges in education statistics and has given rise to multiple approaches, many of which have been tested in Africa (**Box 3.2**)

Household surveys can fill data gaps with complementary information

Regional learning level aggregates are estimated from school surveys, but since 2015 only 16 countries in reading and 18 countries in mathematics have reported data from such surveys. To estimate learning levels in other countries, household surveys are a potential supplementary source of information.

The learning data that household surveys collect cannot be formally linked to the minimum proficiency level because, to do so, more test items would need to be administered than is possible in the time spent at a household. While the collected data are pitched at a lower level of proficiency, they still offer valuable insights, including on learning disparity by individual characteristics. When the surveys are carried out in countries where there are also data from robust learning assessments, they provide further insights that can be used to impute data for countries lacking robust learning assessment data.

In decreasing order of skill complexity, three potential associations can be made between school- and household-level assessment results. The first is with the foundational learning module of UNICEF's Multiple Indicator Cluster Surveys (MICS). The module is administered to a sample of 7- to 14-year-olds who may or may not be in school. Foundational reading skills are defined as the abilities to correctly read 90% of words in a short story and correctly answer three literal and two inferential questions.

BOX 3.1

PASEC is a pillar of monitoring education progress in Africa

PASEC is a programme of the Conférence des ministres de l'Éducation des États et gouvernements de la Francophonie (CONFEMEN), an intergovernmental body that helps coordinate education policies across French-speaking countries. The PASEC technical team ensures countries' participation, organizes each survey round and provides technical support on all aspects, from questionnaire design and data collection to data analysis and report writing. Each country funds national data collection and writes the national report. The programme, which initially worked separately with each country, reached two milestones in 2014, when the first round of simultaneous data collection took place, and in 2019, when the second round was carried out with the purpose of producing comparable data over time (UIS, 2022).

Ensuring policy relevance is a major challenge. For the 2014 round, the regional synthesis report was published in mid-2016 and the last country report in December 2017. For the 2019 round, the synthesis report was published faster, in December 2020, in line with international best practice, but no country report had been released by mid-2022. Such delays undermine the possibility of using the results for national policy dialogue, as data may be considered not timely in relation to current policy issues. PASEC's work is affected by the absence of a streamlined funding procedure to ensure that countries can finance national data collection and produce national reports. With no systematic approach to funding data collection once countries confirm their participation, the amount and modality of financial support that countries receive to carry out each survey round have varied.

The volume and complexity of work continue to grow, yet the PASEC secretariat's size and composition have not expanded accordingly to cover the range of country needs. The PASEC technical team of 7 staff members must currently support 15 countries. Countries' financial and human resources are often too limited to cover all the skills and activities required to carry out a PASEC survey. The PASEC technical team has to take part in national report writing and national analyses, even those that are the responsibility of national teams, such as reviewing the school database for the sampling frame. The heterogeneity of national teams' skill sets and the PASEC technical team's inability to support all countries at once means resources are diverted away from the team's key functions, such as ensuring comparability among countries and over time. Only one of the seven staff members is fully dedicated to data analysis and the team lacks in-house expertise in psychometrics. Even when PASEC trains national staff, the beneficiaries often leave to take other positions. Finally, resources for dissemination are insufficient and national teams rapidly shift to other tasks once data collection is over.

These concerns need to be addressed since the 2024 round is on its way: All the 2019 countries have agreed to participate again, and discussions are under way with the Central African Republic, Comoros, Guinea-Bissau, Mauritania, Mozambique and Tunisia. Moreover, the PASEC technical team responded favourably to CONFEMEN's demand to add a grade 9 assessment. Resolving national funding to cover data collection, analysis and dissemination would enable the PASEC technical team to focus on quality assurance protocols.

In 2021, UNESCO, UNICEF and the World Bank established the Learning Data Compact, committing to 'increase the availability, use and impact of learning data' and 'provide a more equitable, flexible and efficient mechanism to expand country capacity, for the production and use of good quality data, for better education policies' (UNESCO et al., 2021, p. 1). Such promises of support should also take into account the need to support countries. Funding could be tied to a commitment to carry out large-scale assessments that meet international standards (UIS, 2018).

> *"The evidence base for establishing learning trends is weak."*

BOX 3.2

The production of comparable learning estimates is a work in progress

The reliability of regional and global estimates of learning trends depends on the quality of each national and cross-national assessment and the frequency with which these assessments are carried out. But it also depends on the accuracy with which each assessment is mapped onto the global proficiency scale. To address this challenge, efforts led by the UIS aim to improve mapping robustness and increase the range of options for countries to link their assessment results with the global scale (Montoya, 2022). These efforts look at various assessments, often designed very differently, to determine whether they are linked through common underlying concepts that make them comparable. Such linking efforts may be statistical or non-statistical.

One non-statistical method is the approach used so far to report on indicator 4.1.1: mapping assessments' proficiency levels on one another based on their narrative descriptions. Another non-statistical method involves experts carrying out a pedagogically informed review of test items to evaluate their difficulty relative to the minimum proficiency level. The latter approach is particularly suited to reviewing national assessments – which are not designed to be internationally comparable – to confirm whether the information they produce can be linked to the global minimum proficiency level. This approach has been piloted in a few African countries, including Ghana, Kenya and Lesotho, although it has not yet been used to report on global indicator 4.1.1. It has revealed that the design of national assessments is not always robust and the quality of test items may be too weak to allow meaningful monitoring of learning over time, even within a given country.

Statistical methods vary in sophistication. The simplest builds on countries that have participated in different assessment programmes. For instance, Mauritius participated in both PASEC and SACMEQ, potentially allowing the results of the two surveys to be linked, although admittedly with a large margin of error (Altinok et al., 2018). In the next section, analysis for this report similarly tries to correlate results between assessments, while recognizing there is no pedagogical value in this exercise.

More sophisticated, research-based approaches link not just aggregate but individual learner ability. For instance, the same students can be asked to sit for two different tests to quantify the relationship between them. In one such case, the Rosetta Stone project, students in three African countries, Burundi, Guinea and Senegal, took both the PASEC test and TIMSS/PIRLS. The study found that the two surveys' design, while not identical, was similar enough to translate results between them, albeit with a considerable margin of error given differences in the measured constructs, construct coverage, curricular differences and sample sizes (UIS, 2022).

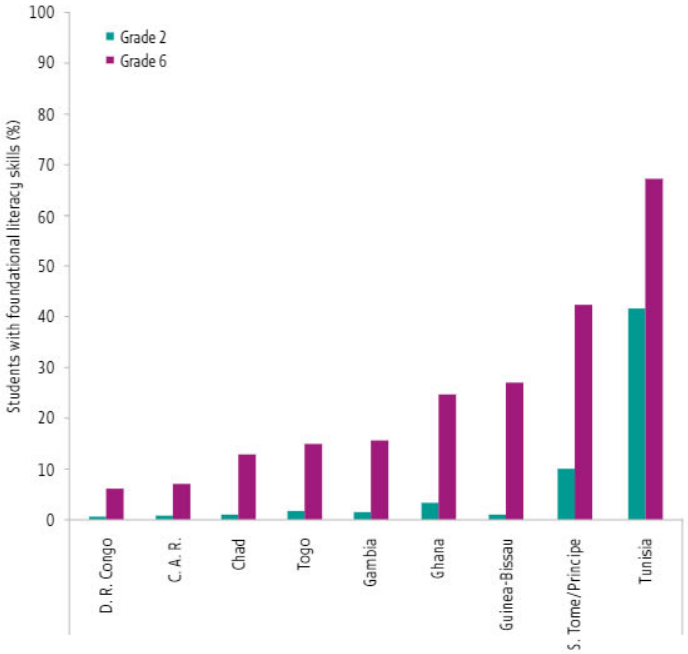
A different approach involves students taking tests that include a mini-test calibrated with enough items aligned to global content to identify in a reliable manner the global items designed to assess the global minimum proficiency level. The UIS took this approach in administering the MILO assessment, which covered six African countries: Burundi, Burkina Faso, Côte d'Ivoire, Kenya, Senegal and Zambia. The objective was to assess the impact of COVID-19 before and after school closures, which had affected all the countries except Burundi. As part of the project, two types of comparisons were made. First, over time: Students at the end of primary education took the PASEC in the four francophone countries and a national assessment in the two anglophone countries. Second, between countries: A module that embedded items from a global item bank to assess achievement of global minimum proficiency was added to the test (UIS and ACER, 2022). Access to the global item bank and calibrated mini-tests can help countries report on the global indicator, develop capacity and improve their national assessment's quality at a low cost.

FIGURE 3.3

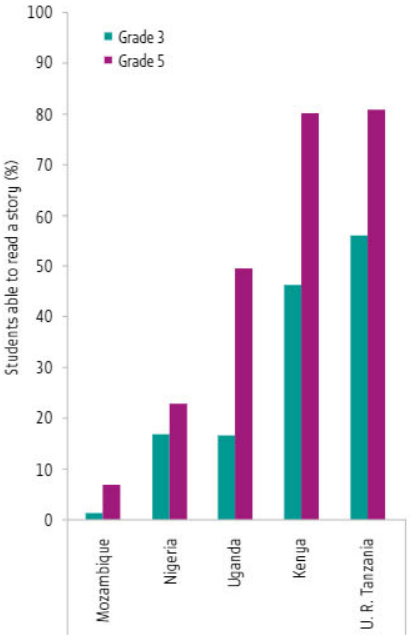
Household surveys provide supplementary information on learning achievement levels below minimum proficiency

Selected measures of foundational reading skills

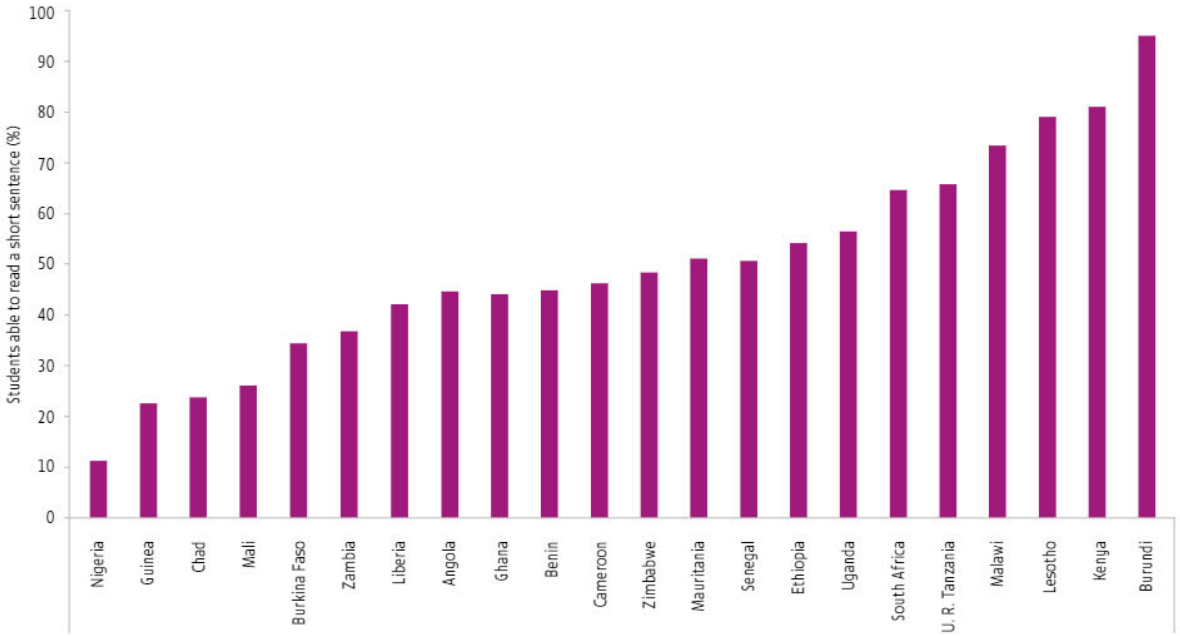
a. Percentage of students with foundational literacy skills, MICS, 2017–19



b. Percentage of students able to read a story, PAL Network, 2015–17



c. Percentage of 15- to 19-year-old women with 5 or 6 years of education able to read a short sentence, DHS and MICS, 2014–18



Source: GEM Report team analysis of DHS, MICS and PAL Network data.

The proportion of grade 2 students with these skills is near zero in most countries. In Togo, for instance, 2% of grade 2 students and 15% of grade 6 students had these skills in 2017 (**Figure 3.3a**). Foundational numeracy skills are defined as the abilities to correctly do a number reading task, a number discrimination task, an addition task and a pattern recognition task.

The second association is with the citizen-led assessments of the People's Action for Learning (PAL) Network, which measure reading and mathematics skills in school-age children. Children are given tasks in reading (through which they are classified as non-readers or beginners, or as able to read words, sentences and a whole story) and arithmetic (children are classified as able to do none of the tasks, beginners, able to recognize numbers 1 to 9 or 10 to 99, and able to subtract, multiply and divide). The highest achievement levels are, respectively, being able to read a story and to do multiplication or division. As with MICS, these are below the global minimum proficiency level. In a representative sample of six states in Nigeria, 17% of grade 3 students and 23% of grade 5 students could read a story in 2017 (**Figure 3.3b**).

The third association, and the least precise, is with the MICS and Demographic and Health Survey (DHS) adult literacy questions. Respondents receive a card with a short sentence and are assessed on whether they can read it fluently. For the purposes of this analysis (as in Chapter 1), the data used refer to 15- to 19-year-old respondents who had attended school and left after completing five or six years. This sample selection aims to capture the ability of a group with the same level of education attainment, albeit with socioeconomic characteristics that change over time, to read a short sentence. For instance, just a quarter of 15- to 19-year-olds with five or six years of education can read a sentence in Chad, Guinea and Mali (**Figure 3.3c**).

Combining data from school and household surveys of learning achievement in countries that had taken part in both types helps show how the percentage of students with minimum proficiency according to school-based assessments (measuring SDG indicator 4.1.1) relates to the percentage of students with an alternative, lower measure of proficiency from household-based assessments. Results were compared between the two types of survey at the national level and for population subgroups by sex, location, wealth and a combination (e.g. rural females). The objective was to assess whether household survey data could help predict minimum proficiency levels (as measured by SDG indicator 4.1.1) in countries without data.

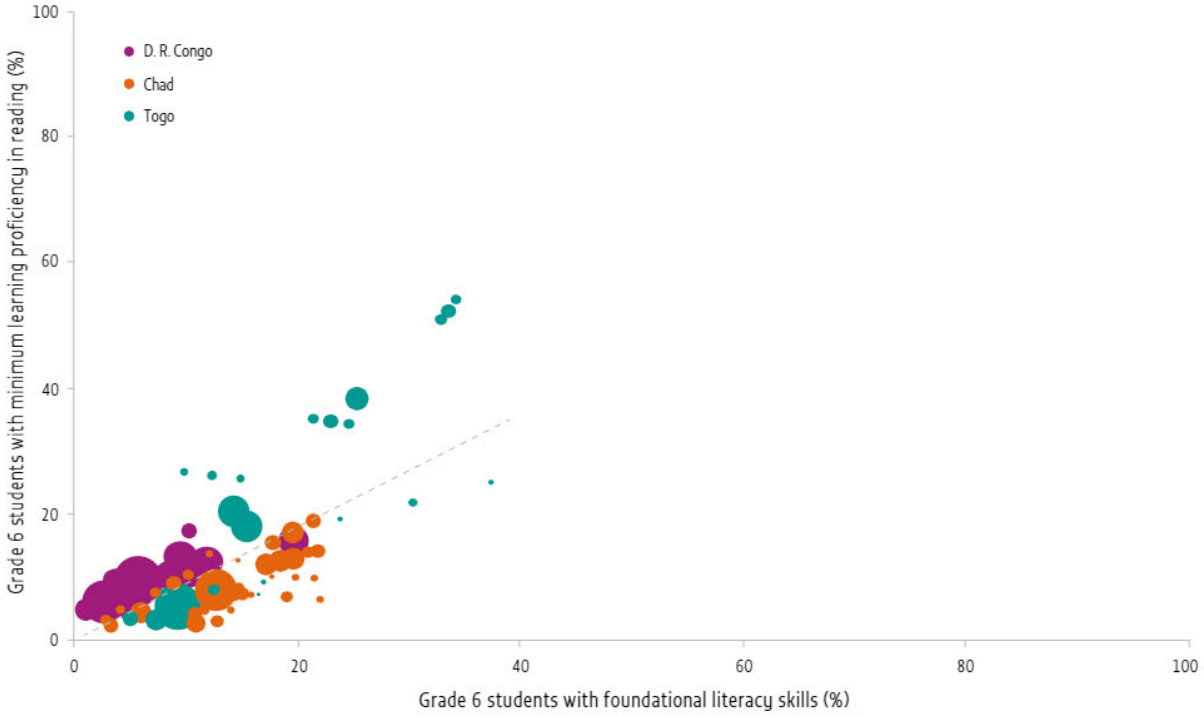
In most cases, even though each household-based source assesses different learning outcomes than school-based sources, there is evidence of a positive relationship between their respective measures. In particular, there are strong positive correlations between the percentage of grade 6 students achieving minimum proficiency in PASEC and the percentage of grade 6 students found in MICS to have foundational literacy skills (**Figure 3.4a**); the percentage of grade 6 students achieving minimum proficiency in SACMEQ and the percentage of grade 6 students able to read a text in the PAL Network surveys (**Figure 3.4b**); and the percentage of grade 6 students achieving minimum proficiency level in MILO and the percentage of 15- to 19-year-olds who had completed their education with five or six years of schooling (**Figure 3.4c**).

Based on these associations, minimum proficiency values were imputed for countries with household survey data. Due to the high level of uncertainty involved, the data are reported in five groups (**Figure 3.5**). Among countries with direct or imputed data, 45% of countries in reading and 60% of countries in mathematics were in the lowest group, with less than 20% of students achieving minimum proficiency. Overall, the main message does not change: About one in five students in Africa achieves minimum proficiency in reading and mathematics at the end of primary education, although the probability cannot be ruled out that this estimate could be revised upwards if more up-to-date results from eastern and southern Africa became available.

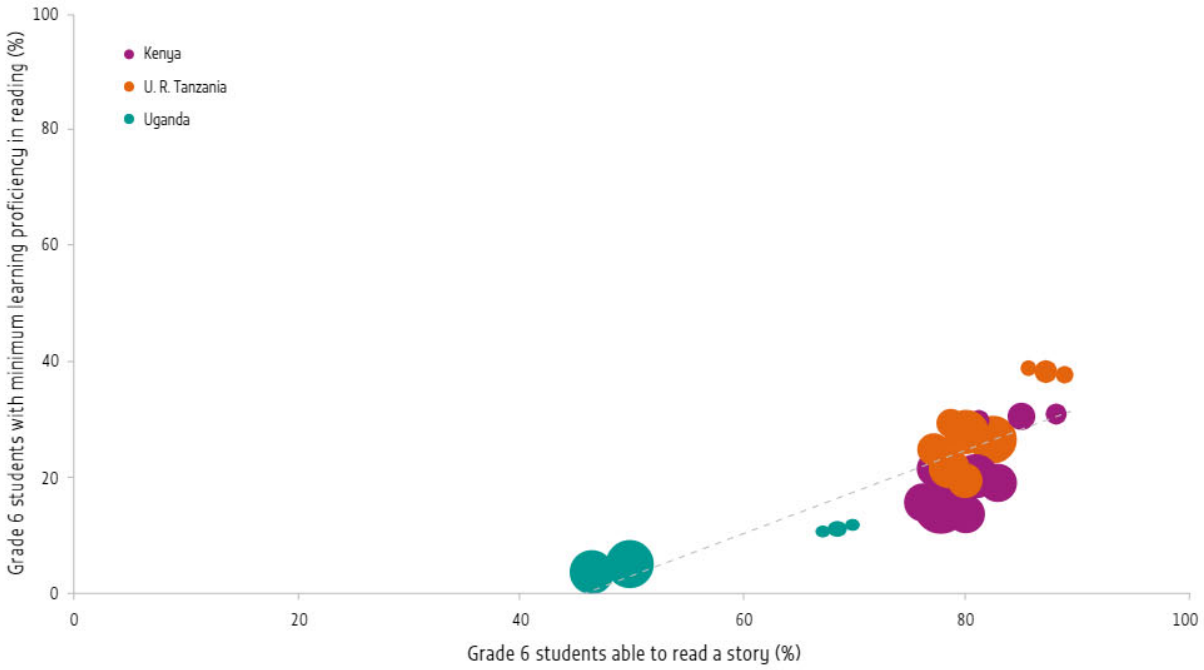
FIGURE 3.4

Learning outcome measures of school and household surveys may differ by level but are strongly positively correlated

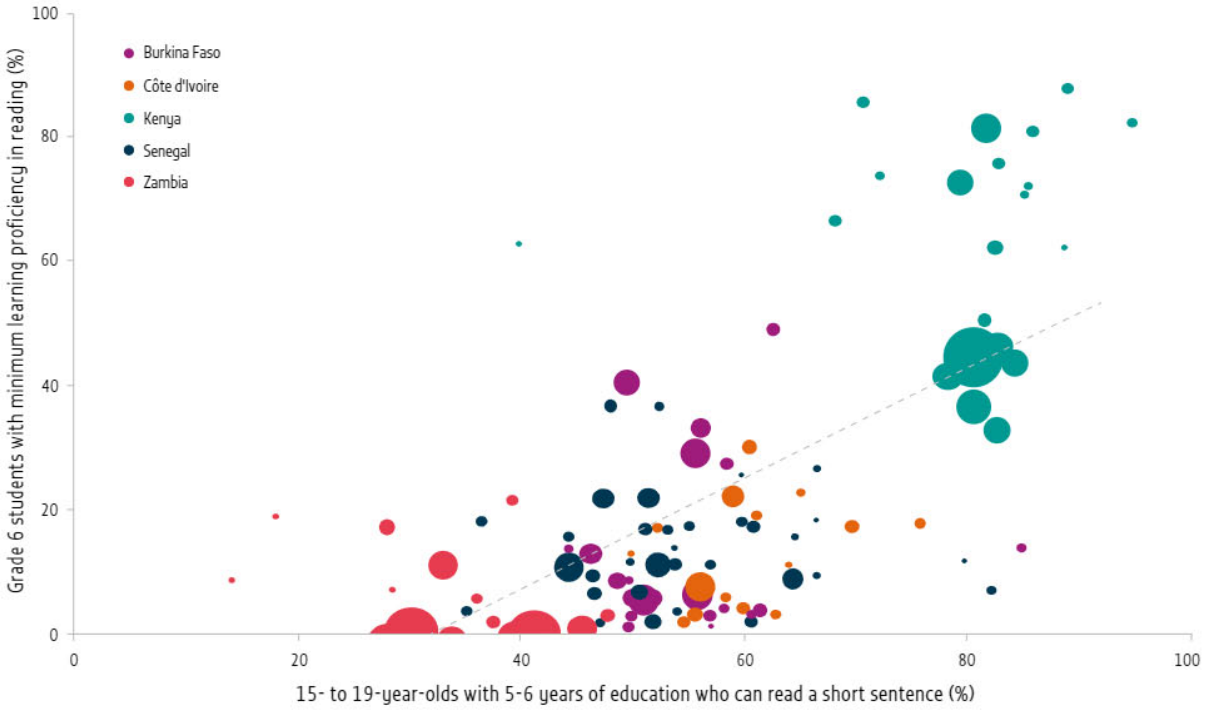
a. Grade 6 students who achieved minimum proficiency in reading in the PASEC assessment and grade 6 students with foundational literacy skills according to the MICS household survey



b. Grade 6 students who achieved minimum proficiency in reading in the SACMEQ assessment and grade 6 students who could read a story in the PAL Network citizen-led assessments



c. Grade 6 students who achieved minimum proficiency in reading in the MILO assessment and 15- to 19-year-olds who completed their education with 5 or 6 years of schooling and could read a short sentence in the DHS and MICS surveys



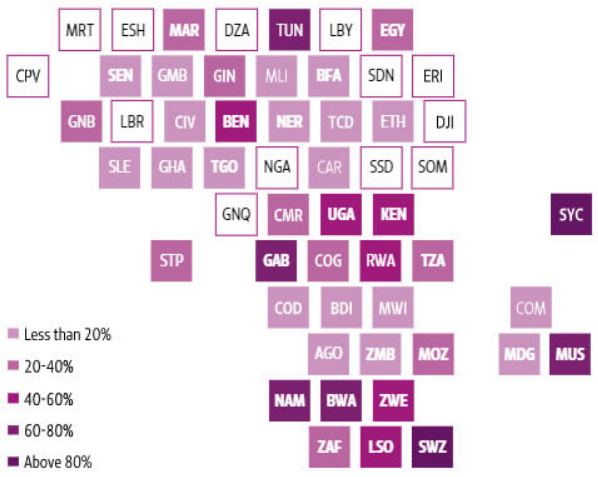
Notes: Each bubble represents the percentage of a particular demographic group meeting some standard of learning proficiency. The bubble size represents the number of observations for that group in the survey sample.
Source: GEM Report team analysis of DHS, MICS, MILO and PASEC data.

FIGURE 3.5

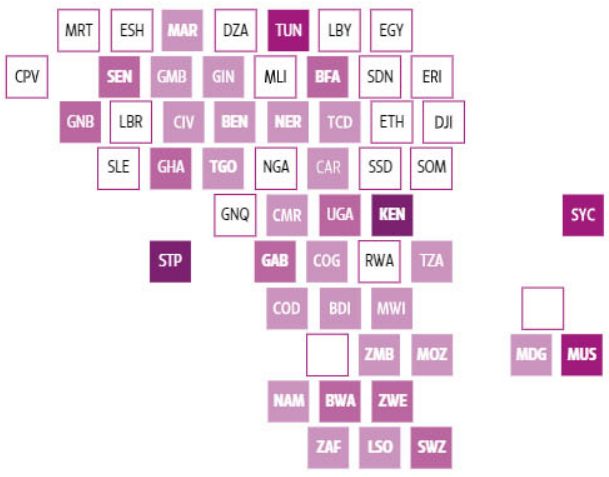
In 60% of countries with data, less than one in five students achieves minimum proficiency in mathematics at the end of primary school

Percentage of students achieving minimum learning proficiency at the end of primary education, directly sourced and imputed values, 2013–22

a. Reading



b. Mathematics



Note: Countries are in **bold** if the data are from a direct estimate and not imputed. The country names associated with ISO codes can be found at the Annex.
Source: UIS database, complemented with MILO, PIRLS and TIMSS data and GEM Report estimates.

Lower levels of proficiency need to be monitored

Given the low learning levels and rates of progress, would specifying another level of proficiency, more sensitive in identifying progress in foundational skills, help policymakers understand change and guide policies to make such change happen?

Household surveys can provide such insights (**Box 3.3**). For instance, evidence from the MICS foundational learning module shows that the percentage of children with foundational literacy skills remains below 10% among students of primary school graduation age in countries including the Central African Republic, Chad and the Democratic Republic of the Congo. For this group of children, there is no information on their skills for policy purposes apart from knowing that they do not reach the established standards (as defined by MICS) of reading without mistakes and answering a small number of literal and inferential questions. The same applies to foundational numeracy skills. However, it is possible to explore variation in data at a lower level of skill to understand what children *are* able to do.

This concept of the learning trajectory, put forward by the Research on Improving Systems of Education (RISE) programme as an analytical tool, can be used to simulate the impact of policy approaches to improve learning, informed by a range of international databases. For instance, achieving universal primary and lower secondary completion would have only a small impact on learning by itself. Achieving equality would also have limited impact on learning, as even children in urban areas or from rich households lack foundational literacy skills. Even if countries closed the gap in learning outcomes between children from the richest and poorest 20% of households, two in three children would still not be reading for understanding by grade 3 (**Figure 3.7**). In collaboration with the RISE programme, the results of a range of such simulations have been made available for users to explore on a new page of the GEM Report's Scoping Progress in Education (SCOPE) website.

BOX 3.3

Learning trajectories can be explored to identify bottlenecks in African education systems

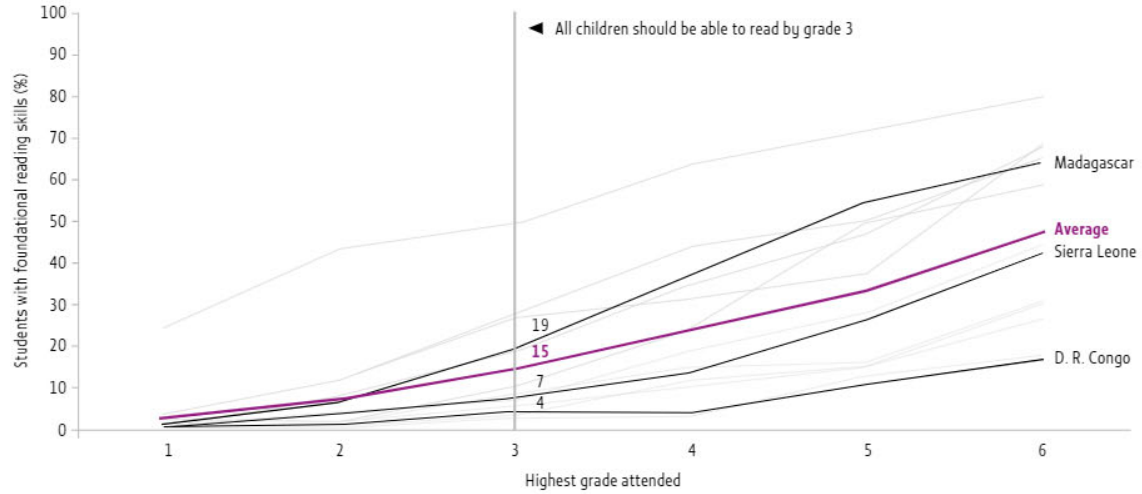
National and cross-national assessments measure learning only at a particular age or grade, usually relatively late in schooling. Household surveys are constrained in the type of learning outcomes they can assess but the data they generate allow a detailed analysis of the age and grade at which children acquire foundational skills.

Analysis of 13 countries that have administered the MICS foundational learning module shows evolution over time in the percentage of children reading a simple 70-word story aloud correctly and answering three literal and two inferential questions. This is a set of skills children are expected to master by grade 3 to pass from the 'learning to read' stage to that of 'reading to learn'. Yet, on average, only 15% of children have acquired foundational reading skills by grade 3 and 47% by grade 6 (**Figure 3.6**). The effect of not achieving these foundational skills compounds over time, as children continue to fall behind in a curriculum that outpaces their actual rate of learning, raising questions about the relevance of instruction.

FIGURE 3.6

Just one in two grade 6 students has acquired foundational reading skills

Percentage of students who acquire foundational literacy skills, by highest grade attended, 13 African countries, 2017–20

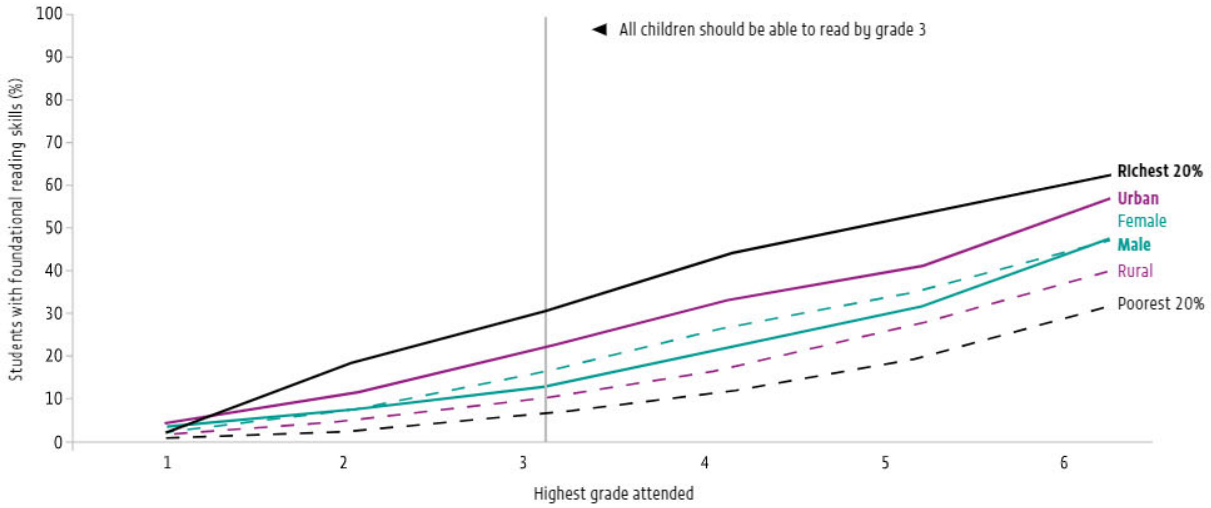


Source: RISE programme estimates based on MICS data.

FIGURE 3.7

Only one in three of the richest children acquires foundational reading skills by grade 3

Percentage of students who acquire foundational literacy skills, by grade, sex, location and wealth, 13 African countries, 2017–20

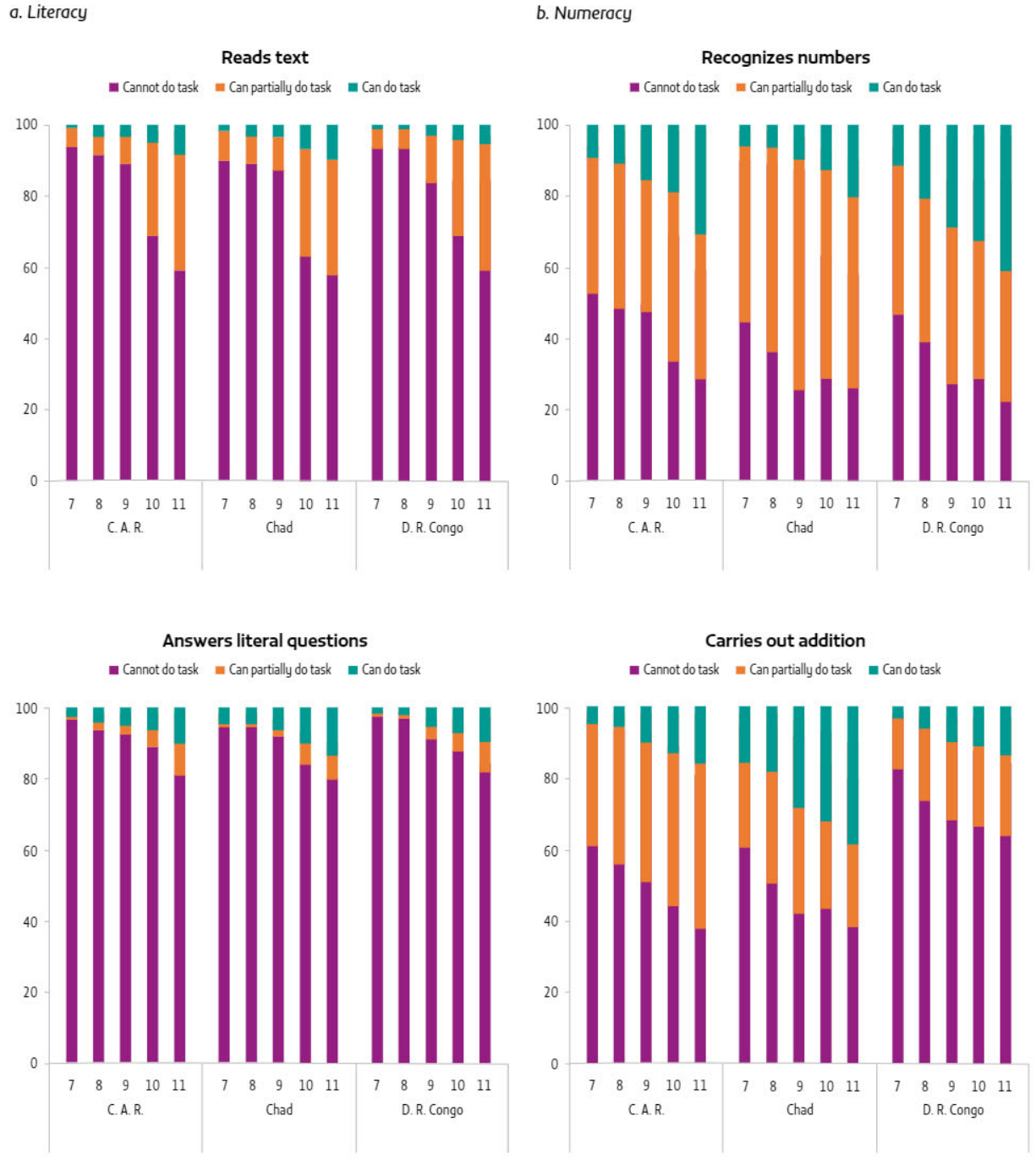


Source: RISE programme estimates based on MICS data.

FIGURE 3.8

A closer look at household survey data reveals more information on children's literacy and numeracy skills

Percentage of children responding correctly to foundational literacy and numeracy questions, by age, Central African Republic, Chad and the Democratic Republic of the Congo, 2018–19



Source: GEM Report estimates using MICS data.

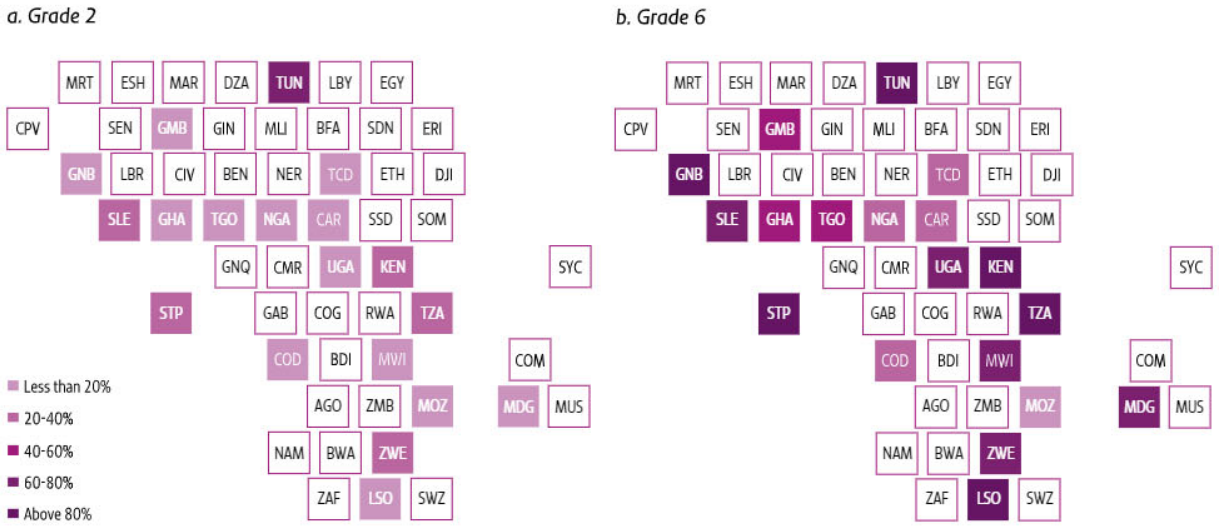
"About 2 in 10 grade 2 students and 6 in 10 grade 6 students could carry out addition."

In Chad, 42% of 11-year-olds could read the relevant text and 28% could answer literal comprehension questions fully or partly (**Figure 3.8a**). In terms of numeracy, 74% of 11-year-olds could recognize numbers and 62% could carry out addition fully or partly (**Figure 3.8b**). It is possible to consider a level of proficiency below the global minimum that would respond better to the context of African countries where literacy and numeracy skills are very low. For instance, this level could be defined as being able to read a story or carry out addition. In 12 of 19 countries with such data, at most 1 in 10 grade 2 students could read a text of that level. In Kenya, Sao Tome and Principe, Sierra Leone, the United Republic of Tanzania and Zimbabwe, between 2 in 10 and 4 in 10 students could read a text. Tunisia stood apart with two in three students able to read a text (**Figure 3.9a**). By grade 6, 88% of students in Lesotho could read a text in Sesotho and 78% in Zimbabwe could read a text in Shona. About three in four students could read a text in Guinea-Bissau, Malawi and Uganda. But only half had acquired this skill in the Gambia, Ghana and Togo (**Figure 3.9b**).

FIGURE 3.9

Household surveys show low reading skill levels

Percentage of students able to read a grade 2 level text, by grade, 2015–19



Note: The country names associated with ISO codes can be found at the Annex.
Source: GEM Report estimates based on MICS and PAL Network data.

About 2 in 10 grade 2 students and 6 in 10 grade 6 students could carry out addition. This foundational numeracy skill is more equally distributed among countries than the literacy element. In a group of 14 countries, the percentage of grade 6 students who could carry out addition ranged from 50% to 75% in all countries except Central African Republic and the Democratic Republic of the Congo (about 30%). By contrast, the percentage of grade 6 students who could read a text ranged from 50% to 100% in all countries except Central African Republic, Chad and the Democratic Republic of the Congo (about 30%).

Conclusion

The focus of the 2030 Agenda on learning outcomes has motivated efforts to link data from school surveys of learning achievement. The result is a growing realization that only about one in five primary school age children in Africa achieves the newly defined minimum proficiency level in reading and mathematics for monitoring progress towards SDG target 4.1. The estimated levels and trends need to be treated with considerable caution, given the relatively low participation rates in learning assessments in Africa, the limited number of countries for which there is more than one observation and the weaknesses of the two main regional cross-national assessment programmes, which sometimes lead to results that need to be triangulated.

Complementary evidence has come through household surveys in recent years. While these are not designed to monitor the global minimum proficiency level as school surveys do, they offer important insights into system efficiency and inequality by individual characteristics. They provide an opportunity to monitor lower proficiency levels in skills such as ability to read a grade 2 text, which may be more relevant for policy purposes in the majority of African countries where learners are struggling to learn to read. However, while household surveys fill important gaps, school surveys should remain the priority. Countries need to develop the capacity to both organize effective national assessments and participate in cross-national school-based assessments.

4 Vision and learning assessments

Candida Alberto Inácio, 12, in grade 5 at the Galinha primary school in Muanza, Sofala province, Mozambique. This was the first school in Mozambique fully rehabilitated with funds from the Global Partnership for Education after Cyclone Idai devastated many of the country's schools in 2019. (CREDIT: GPE/Carine Durand)

- Countries often explicitly put foundational learning at the centre of their national visions for education. Yet, there is usually some distance between the wording of a vision and the means to achieve it.
- A common obstacle preventing the alignment of a vision with a realistic target is the lack of regularly collected data of good quality on learning outcomes. While there has been progress in monitoring learning outcomes in recent years, learning assessments are not adequately integrated in the policy process. Data are often not available and are underutilized.
- Too many national actors remain unaware of the vision on foundational learning and of the results of national and cross-national learning assessments. This undermines the implementation of national strategies to improve foundational literacy and numeracy.
- Development partner support to learning assessments has translated into an emerging continental capacity to monitor learning but improved coordination and a stronger focus on national capacity development are required.

KEY INSIGHTS

- Only one third of sub-Saharan African countries have submitted national SDG 4 benchmarks for students reaching minimum proficiency levels in basic education by 2030
- Participating countries in PASEC almost doubled, from 8 at the onset of the project in 1993/94 to 15 in its most recent round in 2019
- Overall, 20 sub-Saharan African countries have developed a national assessment policy framework, while 6 are establishing one
- Of the 114 learning assessments in the 12 Spotlight countries since 1995, only 75 have publicly available and accessible reports and only 25 have associated microdata that are easily accessible
- Of the 39 USAID-funded EGRA surveys listed in the EGRA Tracker database, only half are available and even fewer can be downloaded

"When we do not know where we are going we sail on sight and work at a loss."

Spotlight workshop participant in the Democratic Republic of the Congo

Taking a systems approach to education policy involves giving structure and direction to complex policy processes. The Spotlight series' analytical framework highlights the catalytic role of a political vision that includes improvement in foundational learning for all children as the keystone of national education policies. Political ownership, leadership and clarity on what should be achieved, by whom and when are necessary conditions for education reforms aiming to improve foundational learning (Piper, 2022; Piper et al., 2018). Defining a realistic yet ambitious vision thus stands as the first step to be undertaken by policymakers. And in an endeavour already fraught with obstacles, the vision needs to be communicated to all levels of the education system, including schools and their communities.

Spotlight country research confirms the importance of addressing these issues and sheds light on three challenges as governments seek to define and establish national visions with foundational learning at the centre. First, the vision needs to be translated into tangible and easily understood targets, although, in the absence of data on foundational learning levels and their determinants, it is difficult to set meaningful targets and benchmarks. Second, in many instances, a political vision focused on learning is developed in national policy documents, but important actors are not aware of changes in policy directions and objectives. Policy decisions need to be communicated, understood and applied by all stakeholders. Third, it is necessary to align all actors with the same vision. Lack of coordination adds to the burden of chronically understaffed national teams. This chapter explores these issues in more detail across the region, with a particular emphasis on the importance of having benchmarks and national assessments to drive education policy development.

An education vision should be based on foundational learning targets and policies

Having a clear, articulated and shared vision to improve foundational learning is the main prerequisite for successful efforts to increase education quality. At the national level, an education vision is established in sector plans and realized through laws, policies and programmes. At the regional and international levels, visions are laid out in official declarations and resolutions and disseminated through transnational structures and collaboration. Both agendas succeed notably when countries commit to reach specific, time-bound targets, which serve as guideposts. Thus, countries need sufficient data that capture levels and trends and are comparable over time and with other countries.

The five Spotlight focus countries all make efforts to monitor learning outcomes and set targets to support a vision that includes foundational learning, albeit with different degrees of success. In the Democratic Republic of the Congo, data remain scarce, but work has focused on ensuring consistency between the national vision and evidence-based diagnoses. The strategic directions of the Stratégie sectorielle pour l'éducation et la formation (Education and Training Sector Strategy) 2016–2025 were defined using earlier analyses of national examination, school census, the Programme d'analyse des systèmes éducatifs de la CONFEMEN (PASEC), the Early Grade Reading Assessment (EGRA) and household survey data (Democratic Republic of the Congo Ministry of Primary, Secondary and Professional Education et al., 2014). However, the strategy vision that all children will acquire the foundational skills described in the curriculum is not translated into actual targets on learning. None of the more than 30 indicators under this strategic objective refers to the share of students that will reach a specific learning level.

In Rwanda, addressing inadequate use of learning assessments was cited as the second-most-important priority to improve foundational learning. National actors stressed the importance of using learning assessments as primarily formative rather than summative tools to improve both student and teacher performance. The first strategic objective of the Education Sector Strategic Plan 2018/19-2023/24 is to enhance the 'quality of learning outcomes that are relevant to Rwanda's social and economic development' (Rwanda Ministry of Education, 2019, p.16). Contrary to the Democratic Republic of the Congo, Rwanda has established clear quantitative targets to monitor progress towards this vision: 'All children achieve basic levels of literacy and numeracy in early grades and beyond' and 'All learners enter primary school at the correct age and successfully complete 12 years of basic education' (ibid, p17). Each target is monitored by six indicators. Foundational learning is monitored through the Learning Achievement in Rwandan Schools survey, which was introduced in 2011 and is meant to take place every two years.

> *"[W]e were involved in STARS and we have seen that, yes, using phonics and then this targeted teaching really works. So the idea behind GALOP (Ghana Accountability for Learning Outcomes Project) is good but they need to share the assessment instrument so that schools can teach by level ... [T]he implementation so far, well, it could be better, although schools are grateful for the resources."*
>
> Spotlight workshop participant in Ghana

Ghana has recognized the need to articulate a comprehensive assessment system to accompany revision of the primary education curriculum. The Ghana Accountability for Learning Outcomes Project (GALOP) is working on a framework for learning accountability, which includes development of national standardized assessment tests at grades 2 and 4. In Mozambique, the results of The Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) and the national assessment suggested much lower levels of learning than those achieved in national examinations and helped raise awareness of the need for policy interventions that focus on improving foundational learning. The Plano Estratégico da Educação 2020–2029 uses data from both assessments to set a baseline and plans to continue using them to monitor progress against its foundational literacy and numeracy objectives (Mozambique Ministry of Education and Human Development, 2020).

Senegal's national learning assessment, the Système National d'Evaluation des Rendements Scolaires, and PASEC have enabled the country to track progress on foundational learning skill levels and define targets for students to reach foundational learning minimum proficiency.

These five experiences suggest that many countries struggle to develop a clear sense of their progress in foundational learning outcomes and to formulate concrete targets of where they want to be and by when. Support from international actors could be helpful in such cases. The 2030 Agenda for Sustainable Development had called upon countries to contextualize the SDGs and integrate them in their national policy processes. In response, the Education 2030 Framework for Action invited countries to establish 'appropriate intermediate benchmarks ... for addressing the accountability deficit associated with longer-term targets' (UNESCO et al., 2016, p5). Benchmarks, in other words national targets that are specific to countries' contexts and draw on education sector plans, can increase national ownership of regional and international agendas and enable policy dialogue, especially as they familiarize policymakers with other countries' experiences on ambitious but achievable rates of progress.

The intergovernmental Technical Cooperation Group, which helps develop the SDG 4 monitoring framework (**Table 4.1**), endorsed seven indicators for benchmarking. All are relevant for primary education in Africa but three are of particular relevance in formalizing and monitoring a vision towards universal primary education completion and foundational learning: the out-of-school rate (SDG indicator 4.1.4), the completion rate (SDG indicator 4.1.2) and the proportion of students reaching minimum proficiency levels in reading and mathematics (SDG indicator 4.1.1).

TABLE 4.1

SDG 4 benchmark indicators

Thematic area	Indicator		
Early childhood	Global indicator 4.2.2	Participation rate one year before primary	
Basic education	Thematic indicator 4.1.4	Out-of-school rate	(i) primary, (ii) lower secondary and (iii) upper secondary school age
	Global indicator 4.1.2	Completion rate	(i) primary, (ii) lower secondary and (ii) upper secondary education
Equity	Global indicator 4.5.1	Gender gap in upper secondary completion rate	
	Global indicator 4.1.1	Minimum learning proficiency	(i) early grades, (ii) end of primary and (iii) end of lower secondary, in (a) reading and (b) mathematics
Quality	Global indicator 4.c.1	Trained teachers	(i) pre-primary, (ii) primary, (iii) lower secondary and (iv) upper secondary education
Financing	Global indicator 1.a.2 and Education 2030 benchmarks	Public education expenditure	(i) as share of total public expenditure (ii) as share of gross domestic product

Source: UIS and GEM Report (2022).

FIGURE 4.1

Many sub-Saharan African countries did not submit benchmark values for the learning outcome indicator

Share of countries submitting national SDG 4 benchmarks for 2025 and 2030, by region, selected indicators

Source: UIS and GEM Report team analysis of national SDG 4 benchmark values submitted in 2021.

In 2021, all countries were invited to submit national benchmark values for 2025 and 2030. Sub-Saharan African countries engaged somewhat less than other regions (**Figure 4.1**). For instance, only one third of sub-Saharan African countries submitted national benchmarks for students reaching minimum proficiency levels in grades 2 and 3 and at the end of primary education, and the share drops to 15% for benchmarks at the end of lower secondary education, as very few countries in the region report on this indicator.

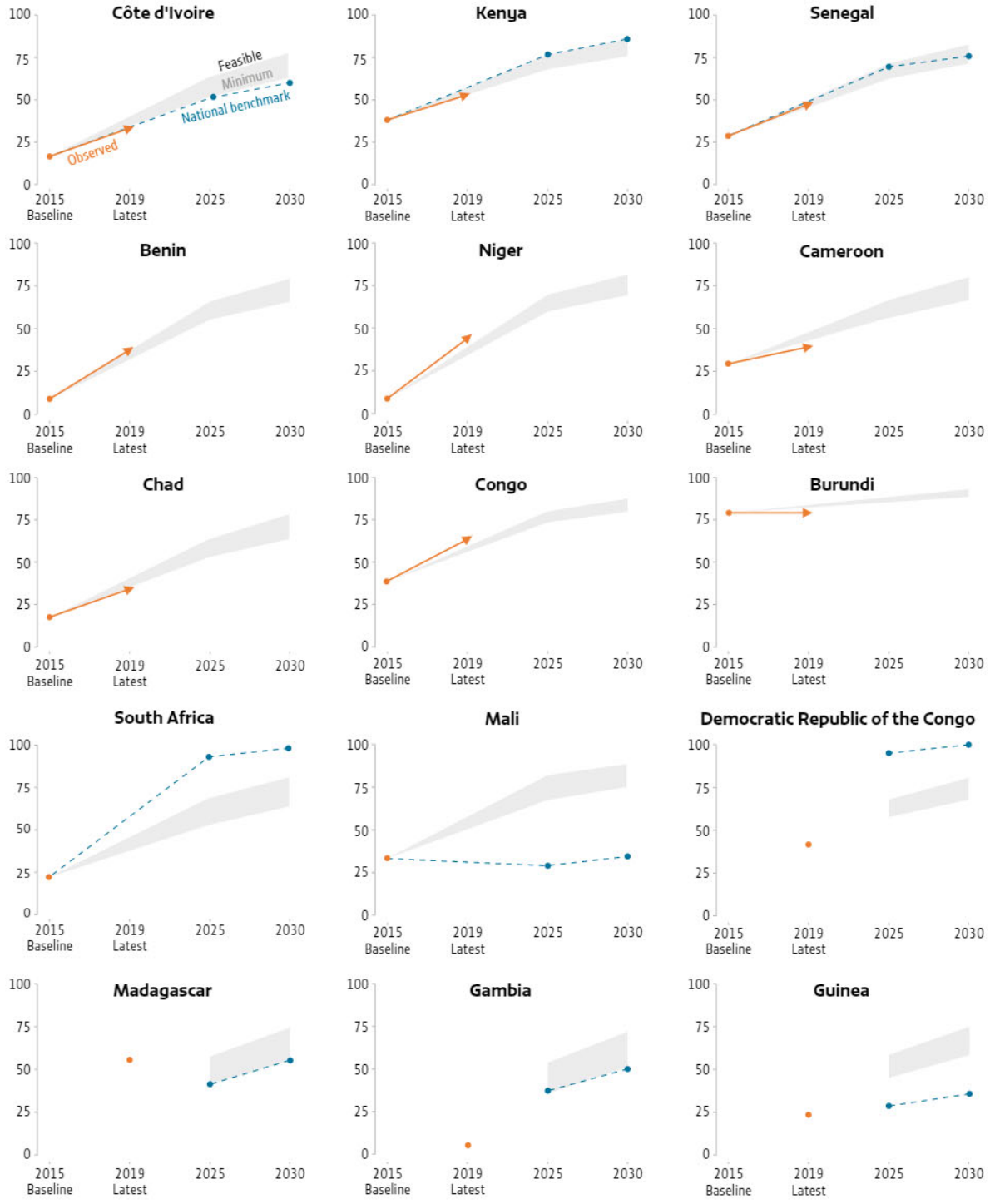
Even countries that submitted national benchmarks for 2025 and 2030 did not always use available evidence about past trends. In countries where data are largely missing or not consistently used for policymaking, there is a risk of unreachable benchmarks being set. The UNESCO Institute for Statistics and the GEM Report provided two reference points to support benchmark setting in countries without existing targets. These showed where each country would be by 2025 and 2030, given their starting points, if they continued improving at average progress rates ('minimum benchmark') and at rates achieved by the fastest-growing 25% of countries ('feasible benchmark').

Countries vary in setting targets that are achievable, unambitious or unrealistic. The Democratic Republic of the Congo aims to have 95% of its students achieve minimum proficiency in reading in early grades by 2025 and 100% by 2030. However, the most recent data show that only 42% of pupils reached minimum proficiency in 2019, indicating that the country would need to improve by nine percentage points per year on average by 2025. Madagascar set national benchmarks that did not reflect the available evidence on learning levels. In 2019, 55% of Malagasy pupils

FIGURE 4.2

Sub-Saharan African countries vary in their mix of realism and ambition when they set their national learning benchmarks

Proportion of students reaching minimum proficiency in reading at grades 2 and 3, with national benchmarks and actual progress since 2015, selected countries



Notes: The grey area represents minimum and feasible benchmarks, the orange line represents actual values and the blue line represents national benchmark values. Four data points are shown: 2015, 2019, 2025 and 2030.
Source: UIS and GEM Report team analysis of national SDG 4 benchmark values submitted in 2021.

> *[A]ll the stakeholders are there: the parents of the pupils, the representatives of the workers' unions, the CODEC (Collective of School Head Teachers). We share the results and point out the shortcomings. On arrival, we detail remedial strategies to be implemented.*
>
> Spotlight interviewee in Senegal

reached minimum proficiency in early grades, yet the benchmark for 2025 was set at 41% and that for 2030 at 55%. Other countries, including Côte d'Ivoire and Senegal, appear on track to achieve their ambition to improve foundational learning (**Figure 4.2**).

Countries achieve different growth rates from the same starting point. In 2014, the percentage of students with minimum proficiency in reading in early grades was roughly the same in Cameroon and Senegal: just under 3 in 10 pupils. But Senegal improved at a rate equivalent to 3.8 percentage points per year, while the annual rate for Cameroon was less than half as high, according to the data reported by PASEC, prior to Rosetta Stone study amendments.

Some countries have not established national benchmark values even though they have relevant data showing high progress rates. Benin, Congo and Niger experienced growth rates almost twice as high as would be needed to reach the feasible benchmarks by 2025.

The benchmarking process illustrates the large data gaps preventing robust assessment of starting points and historical trends and thus the setting of well-informed benchmarks. Due to its lack of baseline estimates, sub-Saharan Africa is among the regions with the lowest shares of countries submitting national benchmarks for learning targets.

A vision on foundational learning should be based on assessment data

Learning assessments are a critical part of an evidence-based approach to developing a national vision focused on monitoring and, ultimately, to improving foundational learning. However, they are yet to become ingrained in education statistical systems as a trusted and legitimate source of information. And despite many more learning assessments being carried out, a key message that has emerged from Spotlight research is that the data collected could be used much more effectively and efficiently and are not leveraged enough to enable understanding of policy issues and generate policy change.

MORE ASSESSMENTS ARE BEING CARRIED OUT BUT FEW ARE BEING USED

As elsewhere in the world, an increasing number of learning assessments have been carried out in sub-Saharan Africa since the mid-1990s.

FIGURE 4.3

More countries have been carrying out learning assessments

Total number of nationally representative learning assessments, primary education, 12 Spotlight countries, 1995–2019

Source: UIS database.

Participating countries in PASEC almost doubled, from 8 at the onset of the project in 1993/94 to 15 in its most recent round in 2019. SACMEQ was piloted in Zimbabwe in 1995, then developed as a regional consortium, initially of 7 countries but reaching 15 by its fourth wave in 2013.

Participation in regional and, in a few cases, international assessments has helped build national capacity and has created momentum for the emergence of national learning assessment systems. For instance, capacity building provided through SACMEQ helped Lesotho and Zambia develop national assessments, even though they did not participate in the fifth wave of SACMEQ.

The Spotlight series's first cycle covered 12 countries. The number of nationally representative assessments of reading in primary education in these countries rose from one in 1995 to nine in 2013 and has since varied. Since 2009, there have usually been more assessments of reading competency than of mathematics proficiency (**Figure 4.3**). Between 2000 and 2021, the 12 countries administered 124 nationally representative assessments at the end of primary, compared with 110 in early grades. The two regional learning assessments have played a major role.

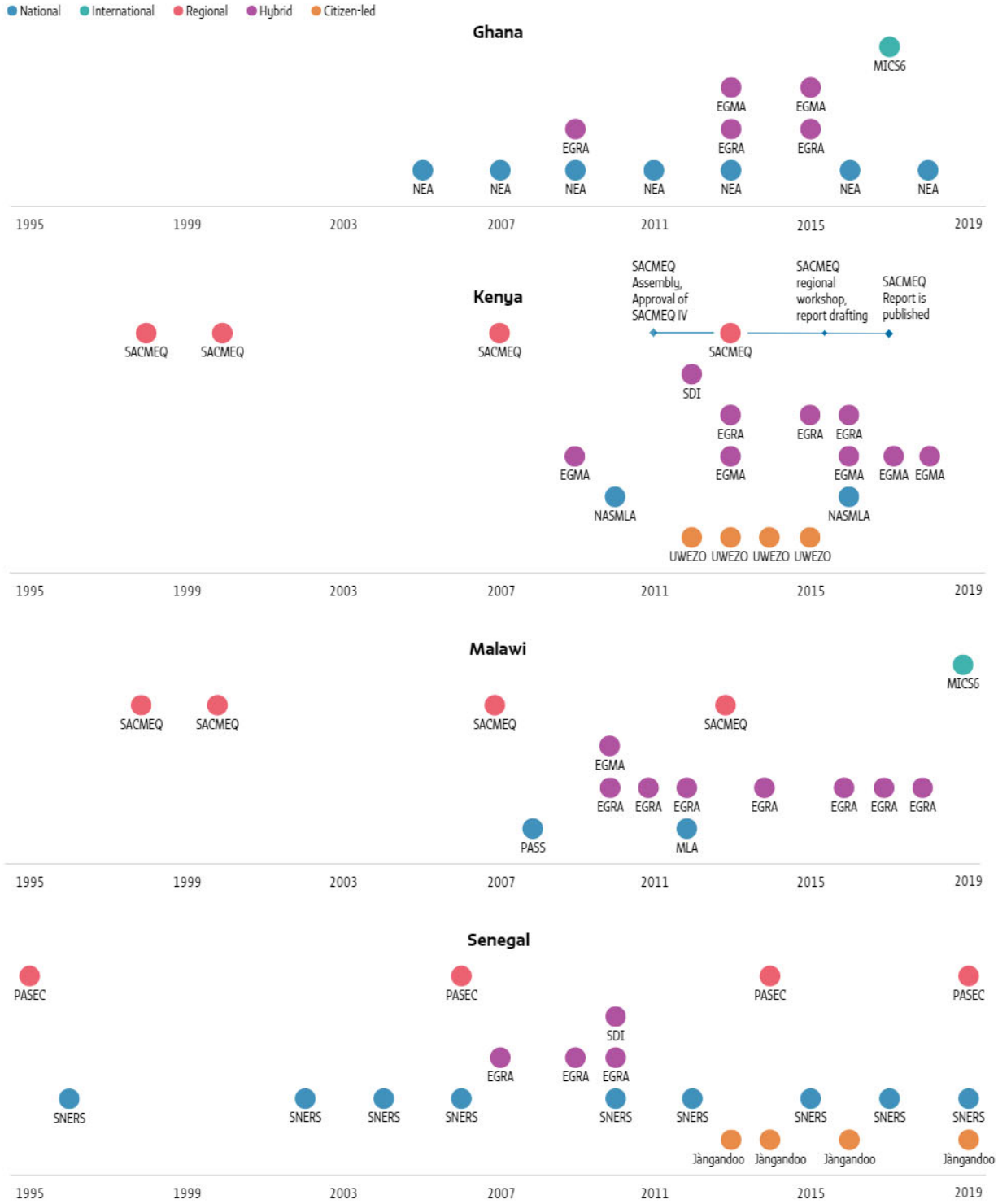
Ghana, Kenya, Malawi and Senegal have carried out 70 assessments since 2000, of which 23 since 2015, but only 5 have been used to report on the global indicators (**Figure 4.4**). In the 12 countries overall, only 17% of nationally representative assessments in literacy and numeracy have been used to report globally on SDG indicators 4.1.1a and 4.1.1b. In many cases, assessments do not meet quality criteria and cannot be compared with a common standard, or they simply have not been reviewed to see whether they meet such a standard.

In some cases, data are not made available and there is no appropriate dissemination strategy, so they are not analysed for policy and planning purposes (Raudonytė, 2019). Critical links are not made between the analytical potential of learning assessment data and development of evidence-based policy reforms and interventions. A study covering

FIGURE 4.4

The number of assessments carried out annually can stretch national capacity

Large-scale assessments, Ghana, Kenya, Malawi and Senegal, 1995–2019



Notes: Only nationally representative large-scale assessments are included, using the definitions in Wagner (2011) and in Raudonytė and Foimapafisi (2022). NEA = National Education Assessment, EGRA = Early Grade Reading Assessment, EGMA = Early Grade Mathematics Assessment, NASMLA = National Assessment System for Monitoring Learning Achievement, PASS = Primary Achievement Sample Survey; MLA = Monitoring Learning Achievement, SNERS = Système national d'évaluation des rendements scolaires (National School Performance Assessment System), SDI = Service Delivery Indicators.
Source: UIS database GEM Report team analysis.

> *As a leader, you must have a vision and bring all your team members on board that vision because you work through them. If you don't do this, you can't succeed.*

Spotlight workshop participant in Ghana

the Gambia, Ghana, Guinea, Namibia, Senegal and Zambia found that national assessment strategies were either absent or not fully implemented, results were not disseminated and data were not shared (Raudonytė and Foimapafisi, 2022). These issues need to be addressed as African countries seek to develop national visions focused on improving foundational literacy and numeracy.

Even when data from learning assessments are available, countries often lack capacity to analyse and use them (Elks, 2016; Raudonytė and Foimapafisi, 2022; Varly, 2022). The presentation of assessment data in education sector analyses remains descriptive and usually limited to illustrating low learning levels without exploring determinants of these low levels. It is often difficult to associate learning assessment results and policies put forward in education sector plans (Raudonytė and Foimapafisi, 2022).

COUNTRIES STRUGGLE TO COMMUNICATE A VISION ON LEARNING

A recurrent pattern is that local education officers are unaware of policy aims or how learning assessments can inform their work. Instead, they pay attention to high-stakes examinations, which tend not to communicate the same focus on quality improvement (Raudonytė and Foimapafisi, 2022). Actors interviewed in the five focus countries often mentioned that they were not aware of an education vision or that the relevant documents were being shared with staff at the district or school level.

In the Democratic Republic of the Congo, many local education stakeholders were unaware of the government's vision or did not know how to contribute to it. In the Spotlight report consultation, lack of communication was ranked the third-most-important factor to improve foundational learning. By contrast, Spotlight country research in Ghana highlighted the establishment of a clear national vision, understood at all levels. Stakeholders are generally aware of key strategic documents and of the overall focus on improving foundational literacy and numeracy. This was supported by a Reform Secretariat tasked with ensuring consistency across reform priorities and establishing national roadmaps towards achieving the Ghana Education Sector Plan 2018–2030.

Classroom observations in Rwanda highlighted substantial variation in pedagogical practices. Teachers in high-performing schools were more likely to use innovative approaches, aligned with the government vision, than teachers in low-performing schools. In Senegal, the government's basic education vision is seen as relevant, effective and shared by inspectorates and regional education staff. But there are signs that the vision is not fully understood at the school and classroom levels, where head teachers and teachers may have a different understanding of what needs to be taught and how.

The use of learning assessments underlies any effort to develop a shared national vision. Overall, 20 sub-Saharan African countries have developed a national assessment policy framework, while 6 are establishing one (IIEP, 2020). However, such frameworks are often not communicated to all levels. Ghana's government has initiated GALOP, an ambitious strategy to develop a sustainable learning assessment system. Yet discussions with national stakeholders indicated varying degrees of awareness, including at the central level, regarding

the existence of relevant documents on the national vision for policies on learning outcomes (Raudonytė and Foimapafisi, 2022).

Large-scale learning assessments have an impact only if results are widely disseminated and explained to the right stakeholders so they can be used to generate appropriate and informed actions. But these steps are often neglected; many countries do not share results with regional education officers, teacher unions and professional organizations, parents and communities. In other words, the wide availability of learning assessments, covering a range of grades and subjects, is not as positive as it might seem, considering the constraints on access to and use of their data.

For example, the US Agency for International Development (USAID) has attempted to implement a policy to foster sharing of data results and research output as an open resource for all stakeholders. Many countries in Africa have used EGRA/Early Grade Reading or Mathematics Assessments (EGMA), initially developed by RTI International, a US-based non-profit organization (Gove and Wetterberg, 2011). The survey tools are open source and can be used by any stakeholder interested in carrying out an early-grade assessment (USAID, 2016). The tools have been adapted to diverse local contexts and standardized procedures have been developed, in particular for projects funded by USAID. While results may not be fully comparable, a minimum level of quality is at least guaranteed across all USAID-funded projects. EGRA and EGMA have been used as the main tools to assess the impact of interventions, mainly funded by USAID, or to assess general levels of learning in a country.

USAID-funded EGRA data should in theory be made available through the USAID Development Data Library (DDL) (USAID, 2021). In 2014, all USAID staff, contractors and recipients of USAID assistance were obliged to 'submit any Dataset created or collected with USAID funding' (USAID, 2021, p. 11), an obligation also framed by the 2018 Foundation for Evidence-Based Policymaking Act (USAID, 2019). However, compliance levels are low. Of the 39 USAID-funded EGRA surveys carried out in Africa since 2014 and listed in the EGRA Tracker database, only half are available in the DDL (Global Reading Network, 2022). Moreover, a DDL record does not guarantee access, as several data sets in the DDL cannot be downloaded even after completing the USAID DDL sign-in procedure. Sometimes, even governments have no access to the data. Staff from Ghana's Ministry of Education had to have clearance from USAID staff in Washington, DC, before getting access to the data or releasing them (Raudonytė and Foimapafisi, 2022).

Other stakeholders struggle in similar ways. The United Kingdom initiated its Research Open and Enhanced Access Policy in 2012, requiring projects it funded to make their data freely available within 12 months of the final data collection and to enter all metadata for outputs in the Research for Development Outputs database (UK Department for International Development, 2013). Currently, the database includes only eight UK-funded data sets with education variables, none of which is an EGRA data set. Yet the EGRA Tracker database, which although not exhaustive has documented at least 170 EGRA surveys in sub-Saharan Africa since 2007, indicates the UK government has totally or partially funded at least 29 EGRA surveys. For the Spotlight series the GEM Report team has identified 114 nationally representative learning assessments in the 12 Spotlight countries since 1995. Of these, only 75 have publicly available and accessible reports and only 25 have associated microdata that are easily accessible (**Figure 4.5**).

The two regional cross-national assessments, PASEC and SACMEQ, have diverged in the degree to which they have made their data available. PASEC has followed the practice of international assessments, such as the Programme for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS), in making its full data set available within 18 months from when the surveys were carried out. But data for SACMEQ IV, from 2013, are still not available, while Kenya has carried out 11 learning assessments in primary education since then (**Figure 4.4**). This is just one example of the need to strengthen integration of SACMEQ into national education systems (**Box 4.1**).

FIGURE 4.5

Few sub-Saharan African learning assessment data sets are available for analysis

Number of learning assessments carried out in primary education, by report and data set availability status, 12 Spotlight countries, 1995–2019

114 Learning assessments **75** Reports available **25** Data sets available

Notes: Only nationally representative large-scale assessments are included. For each assessment, reports were searched and procedures to access the data were followed when a protocol was available and clearly established by the implementing or funding agency.
Source: GEM Report team analysis.

BOX 4.1

SACMEQ led the way to assessment in anglophone Africa but has lost steam

SACMEQ was created in 1995 to build regional capacity to implement, analyse and use large-scale learning assessments. The consortium has 16 member states and is coordinated by the SACMEQ Coordinating Centre (SCC), whose mandate is to provide technical assistance to consortium members and maintain the network of member countries, partners and funding agencies. The SCC moved from the UNESCO International Institute for Educational Planning in Paris to the University of Gaborone in Botswana in 2014.

The SACMEQ Research Committee (SRC) in Kenya provides scientific and technical oversight. Each member country has a national research coordinator and a representative at the SRC. The five SACMEQ rounds (1995, 2000, 2007, 2013 and 2019) followed a common process, with the SCC organizing the survey launch, workshops and meetings at key stages (e.g. data collection, data preparation, data analysis and report writing) and disseminating the results. Member countries are responsible for funding and implementing the assessment.

In its early years, the SACMEQ project spearheaded efforts to develop African-based capacity to implement large-scale learning assessments. SACMEQ was also perceived as aligning with countries' needs, visions and strategies, which led to its expanding membership. National experts tend to agree that SACMEQ helped build the foundations of a learning assessment ecosystem. Successes included the establishment of a functioning governance structure, communication channels between member countries and the SCC, early involvement of policymakers ensuring buy-in and ownership, a platform for visibility and policy dialogue, and the progressive transfer of skills, which helped countries eventually develop and maintain national assessments.

However, these early successes faded and several challenges have surfaced that could jeopardize the project's future. In the two last rounds, country commitment to and satisfaction with the process varied. Only few of the 16 member states carried out the assessment in 2019. Lesotho and Zambia, for instance, withdrew due to limited funding and insufficient support. By contrast, Kenya has received external funding from the Global Partnership for Education (GPE) targeted at supporting SACMEQ implementation. To remain relevant and effective, SACMEQ needs to strengthen its coordination and its support to countries as they seek to fund each SACMEQ round.

Challenges are associated not only with overall project coordination but also with differences in the way countries integrate the surveys in their national learning assessment policies. SACMEQ focal points at the country level are often left on their own, without much understanding of past developments and knowledge. The distribution of in-country roles and responsibilities is not always clear. This lack of clarity is connected to the SACMEQ operational model and the SCC's role. For instance, workshops, which played a key role in developing capacity to handle large-scale assessments, are sometimes attended by national representatives who lack the technical skills to benefit from the training or cannot share knowledge with colleagues. Country staff have highlighted the importance of ensuring that capacity building is directed at the right individuals and that more targeted training takes place at each step of the process.

The extremely slow pace of implementation means the project could lose relevance. Policy questions asked when a survey round cycle begins can change by the time the results are disseminated. Some delays are associated with inflexible coordination processes. For instance, Kenya completed its data collection and submitted data to the SCC, but cannot move to the analysis phase due to SACMEQ's collaborative approach, as other countries have not benefited from the same support and their data collection has not yet taken place.

The consortium needs to find solutions that will enable it to fulfil its original objectives. These include developing national and regional skills to monitor, evaluate and compare the quality of basic education among its members; generating information to be used by decision makers; and using innovative information dissemination approaches and a range of policy-dialogue activities to ensure that its research results are widely discussed, debated and understood by all stakeholders and ultimately used as the basis for policy and practice. As things stand, there is a clear risk that the consortium will be dissolved.

Source: Mohale et al. (2022).

There should be coordination around the national vision

Several development partners have been encouraging governments through their programmes to focus on foundational learning in their education sector plans. However, when development partners play an active role, it is important to ask to what extent they coordinate with governments and support the national vision. Coordinating around the national vision can be challenging, as Spotlight research discovered.

The Democratic Republic of the Congo has been a GPE partner country since 2012. France, the United Kingdom, the United States, UNICEF and the World Bank have regularly supported education policy interventions there. However, coordination mechanisms such as the Joint Sector Review are not yet perceived as fully functional: although it was envisaged as an annual process in the Stratégie sectorielle pour l'éducation et la formation 2016–2025, it has been convened only three times. Agreeing upon joint priorities and selecting which of its recommendations to implement remains a challenge (Democratic Republic of the Congo Ministry of Primary, Secondary and Professional Education et al., 2021; Taty, 2021). In Senegal, Joint Sector Review assessments indicated that donor activities had improved alignment but not harmonization, coordination and mutual responsibility (Universalia et al., 2019).

Mozambique and Rwanda have taken a more proactive approach to coordinating donor and development partner interventions. In Mozambique, the Fundo de Apoio ao Sector de Educação (FASE, Education Sector Support Fund), established in 2002, is both a funding and coordination mechanism to support education sector strategy implementation. Through FASE, Mozambique and the Cooperation Partners Group signed a memorandum of understanding in 2021 establishing a joint focus on learning and education quality.

In Rwanda, coordinating bodies are co-chaired by a senior official from the Ministry of Education and a development partner. Among coordinating bodies, the Education Sector Working Group has played a central role in ensuring coherence in implementation of education interventions. This programmatic coordination is combined with efforts to centralize external financial contributions to ensure that partners' support aligns with government priorities.

Ghana is trying to progressively become independent from external partners. In 2019, President Akufo-Addo charted a course, Ghana Beyond Aid, asking development partners to favour technical assistance to national teams over stand-alone projects and interventions. Some development partners, such as the United Kingdom, have engaged with this vision and provided technical assistance to the Ministry of Education's Reform Secretariat, which is the coordination body for realizing the education sector plan.

EFFORTS TO BUILD ASSESSMENT SYSTEMS ALSO NEED COORDINATION

One example of donor interventions not appearing to benefit countries is the case of learning assessments. When learning assessments are tied to external funding without a long-term plan, assessments stop when the main donor withdraws. For instance, Ghana participated in the 2007 and 2011 TIMSS assessments with funding from World Bank loans. After the support ended, Ghana did not participate in the 2015 and 2019 rounds (Begue-Aguado, 2021).

More importantly, dependence on external funding that is focused on short-term objectives may delay the development of national frameworks for learning assessments. For instance, donors tend to contract with service providers from their own countries rather than from the country whose capacity needs to be developed. If not explicitly addressed, this approach leads local actors to disengage as they perceive the collection of assessment data to primarily serve

international partners' interests (Raudonytė and Foimapafisi, 2022). In Guinea, national staff see large-scale learning assessments as more useful to external than national interests, or at best equally useful to both. Such perceptions hinder national use of the data and results (Raudonytė and Foimapafisi, 2021). Sierra Leone has seen a steady flow of funding to implement large-scale learning assessments in recent years. Yet, despite the presence of multiple actors, there is no trace of national capacity and no assessment has generated data that are reported against the global proficiency framework (**Box 4.2**).

BOX 4.2

Despite multimillion-dollar support, Sierra Leone is far from developing an integrated national system to monitor learning outcomes

Sierra Leone has benefited from several learning outcome data collection activities. Starting with an EGRA/EGMA survey funded by UNICEF in 2014, 10 large-scale assessments have taken place or are scheduled by next year in primary and secondary education, covering multiple grades. Four major development partners have supported these activities – the United Kingdom, the GPE, UNICEF and the World Bank. Most assessments have been carried out with international technical assistance. Although not all initiatives have revealed their costs, it can be estimated that at least US$10 million has been spent on assessment activities.

In 2021, Sierra Leone's government, supported by the GPE and UNICEF, created a national assessment unit (NASU) to oversee the development and implementation of large-scale learning assessments at all levels. A central element of the model is a link between NASU and the education ministry's Research and Curriculum Development unit, with joint training in curriculum analysis to ensure alignment between assessments and the syllabus. However, to date, only two NASU staff have been recruited out of the eight shown in the planned organizational chart.

Three challenges hamper learning assessments that support foundational literacy and numeracy, a situation that is by no means unique to Sierra Leone. The first is that use of learning assessment results is not integrated in policy processes. While results have been used to inform policymakers about learning levels, there has been no plan to link the different assessments to a common reference framework to inform policymakers about trends. Moreover, results have not been used to improve teaching practices. A committee of government, donor and development partner representatives has now been established to support using assessment data for policymaking.

The second challenge is the lack of alignment between development partners and the national education strategy. Donors have supported the idea of evidence-based policymaking but short- to medium-term projects do not tend to be coordinated. The focus is on short-term data collection and rapid publication of results, with less consideration for long-term objectives, notably the development of national institutional capacity for collecting, analysing and using data. Donors also have diverging perspectives on which skills should be tested and at what level. While development partners have begun showing signs of collaboration, it relies more on interpersonal relations than on formal mechanisms. In an attempt to address this issue, a coordination committee was established in 2022 and a deputy minister has been put in charge of following up learning assessment activities.

The third challenge pertains to the degree of outsourcing for learning assessment activities. Many stakeholders believe low implementation capacity will take several years to fix and large-scale learning assessments require outsourcing in the meantime. Others say outsourcing undermines the very idea of making assessment a core part of the vision for foundational learning improvement. In this view, NASU should carry out large-scale assessments, with support from external partners, so as to develop domestic capacity. To date, the former view has prevailed, with most service providers contracted more to deliver outputs than to develop capacity.

Source: Varly (2022).

Conclusion

Recent education sector plans indicate that African countries are increasingly focusing on foundational literacy and numeracy as building blocks for further education. Not only is foundational learning an objective in these plans but sometimes there is an intention to measure progress towards it. This trend has been supported by development partners in the region, notably through increased awareness of the low levels of learning highlighted by cross-national assessment results. However, the continent still has a long way to go to develop an articulated approach where vision meets evidence and is supported by a collective endeavour.

National visions and education strategies would benefit from improved quality, regularity and use of learning assessment data, which would help improve the credibility of the national benchmark values proposed for monitoring SDG target 4.1. While learning data are yet to be institutionalized, household surveys have become established as sources of evidence, analysis and recommendations on education. Under the oversight of national statistical offices, they follow a rigorous and standardized process for data collection, analysis and dissemination and are based on strong collaboration between development partners and national statistical offices.

To ensure that learning assessments become a trusted and legitimate source of information that contributes to building credible yet ambitious visions for education, countries and development partners need to better understand and integrate them as official education statistics. Key principles adopted by countries in the African Charter of Statistics (African Union, 2009) that entered into force in 2015 are meant to ensure that official statistics meet the test of 'practical utility' and need to underpin national strategies that aim to define and monitor the realization of an education vision in which foundational literacy and numeracy improvement is at the centre.

5 Teaching and learning

Francis Lesinga, a teacher at Umubano School near Kigali, Rwanda. (CREDIT: GEM Report/Kate Holt)

- Many African countries have started to recognize the need to simplify and refocus the curriculum on foundational literacy and numeracy competencies in early grades as a prerequisite for more complex learning tasks to be accomplished in later grades. Yet overly complex and overloaded early-grade curricula remain a concern.
- Where possible, given the extremely high level of linguistic diversity, early-grade reading and mathematics must be taught in the home language for a minimum of six years before switching to another language of instruction.
- Despite extensive development assistance programmes, the quantity and quality of textbooks and teacher guides remain insufficient. Yet evidence shows they are a prerequisite for learning in low-resource environments.

KEY INSIGHTS

- In 16 out of 22 sub-Saharan countries, at most one third of students are taught in the language they speak outside of school
- In Cameroon, 17% of grade 2 students who did not speak French at home reached minimum proficiency in reading, compared with 60% of those who did
- Children need to be taught in their home language for a minimum of six years to yield long-term benefits
- In countries including Burundi, Chad, Kenya, Malawi, Niger and Uganda, fewer than 2 in 10 students in the last primary grade owned a reading textbook
- PASEC and SACMEQ data found that having their own textbook can increase a child's literacy scores by up to 20%

"The new curriculum is very good, [it's] just that teachers find it hard to get resources. They try and find material from the internet to support [them]."

Interviewee in Ghana

Ensuring that all children acquire at least basic literacy and numeracy skills remains the main challenge for African education systems. Failure to overcome this challenge jeopardizes the acquisition of other skills and competencies that curricula aim to promote. Systemic reforms require a multipronged approach in which changes in pedagogical practices, language of instruction and teaching and learning materials, but also in assessment tools, teacher education and the engagement of parents and communities, are achieved jointly to realize the transformative vision laid out in ambitious curricula (Akkari et al., 2012; Spaull and Comings, 2019).

Since the early 2000s, many African countries have engaged in primary education system reforms (Akkari et al., 2012; Bashir et al., 2018; Chisholm and Leyendecker, 2008; Cunningham, 2018). However, such attempts have not always translated into improved learning outcomes. For instance, ambitious curriculum reforms in the 2000s in northern Africa attempted to introduce competency-based education but fell short of their objectives, as the role of teachers and parents had been underestimated throughout the process. In Algeria, Mauritania, Morocco and Tunisia, there was an overemphasis on curriculum development and not enough on teacher education, learning assessment and examinations (Akkari et al., 2012).

In Cameroon and Senegal, teachers in underserved and poor regions tended to use old curricula due to insufficient support and training (Akkari et al., 2012; Diagne et al., 2021; Mahamat, 2011). Mali and the United Republic of Tanzania attempted to centre pedagogical practices on competency-based education but without success (Pryor et al., 2012). In Niger, the curriculum moved from objective-based to competency-based and, more recently, to situational approaches (Schneuwly et al., 2019). In Namibia and South Africa, curriculum reforms did not progress because they were complex, it was unclear what they were trying to achieve, and they were disconnected from local cultures and realities (Chisholm and Leyendecker, 2008).

Actively ensuring coherence among the four levels of a curriculum – intentions, understanding, implementation and results – is perhaps one of the most important factors for success (Akkari et al., 2012; Alama, 2019). Yet a recurrent pattern is the large distance between them. To support

countries' search for the right set of consistent interventions to improve foundational learning, especially in disadvantaged communities, this chapter highlights three issues. First, the curriculum in early grades must be focused on ensuring that students acquire foundational literacy and numeracy skills. Second, students learn best in a language they already speak and understand; policies favouring an official language not spoken at home, such as a former colonial language, as the sole or primary language of instruction are setting children up for failure. Third, appropriate teacher guides and student textbooks need to be developed and made available for each student and teacher.

A more focused curriculum need not be less ambitious

The curriculum is the backbone of education systems. It reflects the national vision for education, associated learning objectives, the pedagogical approach, and system organization and coordination. It defines what, why, when and how students learn (Alama, 2019; Stabback, 2016). Reforms that focus on improving foundational learning involve either a review and revision of national curricula to adapt practices and objectives to the vision, or a stronger alignment of the curriculum within the system, including at classroom level.

Successful reforms have explicitly prioritized foundational literacy and numeracy and relied on fewer subjects instead of overloading the curriculum, ensuring that basic skills were acquired before moving to higher-order skills, especially for learners who did not speak the language of instruction (UNESCO, 2014; Zafeirakou, 2022). In Senegal, the Lecture pour tous (Reading for All) programme narrowed the curricular focus effectively to early-grade reading, leading to positive results (**Box 5.1**).

Often, however, curricular reforms in the continent have been unsuccessful (Akkari et al., 2012; Cunningham, 2018). Many have been overambitious and complicated instead of adding much-needed clarity, guidance and focus (Cunningham, 2018; Zafeirakou, 2022). Complex and overloaded curricula in low-resource settings can overwhelm teachers, who may skip tasks or fall back on what they know and are comfortable with (Abadzi, 2022). Moreover, overly complex curricula can increase education inequality. Analyses of textbooks and curricula in Uganda showed that the relatively abstract and academic orientation of the mathematics syllabus and learning materials favoured the most privileged students (Namukasa et al., 2010). In Ghana, variation was reported in the degree of implementation of a new curriculum. New pedagogical approaches aligned with the curriculum were used more frequently in the Central Region, while teachers in the Upper West Region did not benefit equally from the necessary support.

> *"The support we want is to be given enough books, because we have insufficient books ... [Y]ou can find one book on the whole bench."*
>
> Teacher interviewee in Rwanda

BOX 5.1

Attempts at curriculum reform in Senegal each tell a different story

Two experiences of curriculum reform in Senegal provide useful guidance for countries in the continent. The first story tells of mixed results. Senegal embarked on a long, drawn-out process to introduce competency-based pedagogy in 1996. Between 1996 and 2003, the curriculum was restructured and teaching and learning materials were developed. However, the programme's application was inconsistent, notably as a result of inadequate teacher guides. Between 2004 and 2010, the curriculum and teaching and learning materials were reviewed and revised (Sall, 2013). Between 2011 and 2015, local education administrations began to integrate the revised curriculum into their management and organizational practices. Teachers became substantially involved when the curriculum started to be widely disseminated and taught in 2016. While it is estimated that the curriculum reached 95% of teachers (Dramé et al., 2021), many still use objective-based pedagogy, as they have not received adequate support to change (Diagne et al., 2021).

A more recent reform, associated with two donor-funded projects, was more successful. The Japan International Cooperation Agency supported improvement of the mathematics curriculum and associated learning assessment system from 2015 to 2019, working in 2 of the country's 14 regions. And Lecture pour tous, a programme of the US Agency for International Development, sought to refocus and improve the reading curriculum in grades 1 to 3 (Diagne et al., 2021), with a systems perspective, working in seven regions and three languages: Pulaar, Seereer and Wolof (USAID and Senegal Ministry of National Education, 2022; Zafeirakou, 2022).

Lecture pour tous developed direct phonics-based instruction as well as teaching and learning materials adapted to the local context. More than 3 million decodable textbooks were distributed, with each student receiving one. They enabled children to use the knowledge of letter-sound relationships they had acquired up to that point to read words. Teachers were regularly trained and coached, and students were regularly assessed to produce formative feedback. School management committees were trained to increase parental and community engagement with students' reading. An initial assessment showed that student learning levels had improved in all languages and exceeded the target set for 2019.

The question is how to incorporate the experience of these recent interventions in mathematics and reading curricula into implementation of the Programme d'amélioration de la qualité, de l'equité et de la transparence – education/formation 2018–2030 (Quality, Equity and Transparency Improvement Programme – Education/Training), which seeks to develop a systems approach to foundational learning improvement.

EFFORTS TO REFOCUS CURRICULA ON FOUNDATIONAL SKILLS ARE EMERGING

Some countries have started putting foundational learning at the centre of curricula. In the Democratic Republic of the Congo, the curriculum has been refocused to stress the importance of acquiring the skills outlined in the National Reading Roadmap. Reading is now a main subject in the primary education curriculum and the government has established national performance standards for reading in French, Kikongo, Lingala, Swahili and Tshiluba (Brandt, 2020). In Ghana, the curriculum introduced in 2017 prioritizes time spent on foundational literacy and numeracy and assessment of progress in these two learning domains. The new curriculum also raises awareness of the importance of English phonic methods. Stakeholders are largely agreed on the need to formalize phonics teaching and integrate it into teacher training. In Rwanda,

the curriculum introduced in 2016 promotes literacy and numeracy as two of the basic competencies each student should master, highlighting how instrumental they are to fostering learning in other subjects. However, teachers have continued to prefer traditional methods, seeing the competency-based curriculum as too complicated.

Recognizing that its curriculum was too complex and ambitious in early grades and that teachers were ill-equipped to fully cover it, Benin revised and simplified the curriculum to improve reading and mathematics skills in early grades. A pilot project in 36 schools, supported by the Global Partnership for Education (GPE) in 2020/21, assessed the alignment between the new curriculum and teacher and learner needs while it produced new textbooks and teaching guides reflecting the simplified programme. An evaluation showed that learning levels improved more in pilot schools than in control schools. The country decided to universalize the revised curriculum in 2021/22 (Benin Government, 2021).

A focus on foundational literacy and numeracy in low-resource settings requires initially emphasizing explicit and well-structured instruction as a central piece of the overall curricular package (Abadzi, 2022; Zafeirakou, 2022). These building blocks must be put in place, with students executing basic literacy and numeracy tasks instantly and effortlessly, before complex and critical thinking skills can be developed in later grades. Evidence on cognitive and learning processes needs to be integrated in pedagogical practices and in teaching and learning materials (Abadzi, 2022).

Zimbabwe developed a new curriculum in 2015 whose central objective was to ensure that all learners acquired foundational literacy and numeracy skills. The curriculum's priorities change as students move up in the cycle. From early childhood education to grade 2, the emphasis is on acquiring basic literacy and numeracy. Grades 3 to 7 are meant to reinforce these foundational learning skills and introduce learners to a broader range of skills and knowledge. The syllabus becomes progressively more complex, inducting learners smoothly into exploratory learning, building on what they know (Zimbabwe Ministry of Primary and Secondary Education, 2015).

SIMPLIFIED CURRICULA ARE CRUCIAL FOR MARGINALIZED POPULATIONS

Refocusing the curriculum on foundational learning is also necessary to achieve equity and inclusion objectives. The Profiles Enhancing Education Reviews (PEER) website highlights interventions aimed at making primary curricula more inclusive. Libya has developed curricula for blind students and is developing curricula for pupils with intellectual disabilities. In Namibia, the 2014 Curriculum Framework for Inclusive Education called for a curriculum that is more responsive to learners with special educational needs, leading to the development of syllabuses for the visually, intellectually and hearing impaired and the redesign of examinations and learning assessments to take learner diversity into account.

> *"When you change the language of instruction for a student, it complicates things because they don't get to master the language and it hinders them from succeeding."*
>
> Teacher interviewee in Rwanda

BOX 5.2

South Sudan has tried to target some of its hardest-to-reach children

Pastoralists are considered among the most vulnerable communities worldwide, as they lack access to basic services. Access to education is a significant challenge: The formal education system is neither compatible with their lifestyle, as they move seasonally in search of pasture and water for their livestock, nor usually adapted to their needs. The Alternative Education System in South Sudan includes a Pastoralist Education Programme, which provides mobile primary education with teachers who travel with the community. However, the programme lacks a separate curriculum and specific teaching and learning materials.

In Lakes state, where about 80% of the population are pastoralists, 77% of girls and 61% of boys were estimated to be out of school (UNESCO, 2018). The ministries responsible for livestock, agriculture and education supported Pastoral Knowledge and Education for Resilient Livelihoods, a joint initiative of UNESCO and the Food and Agriculture Organization, which aims to introduce flexibility and relevance through Pastoralist Livelihood and Education Field Schools in 10 cattle camps. The project entailed development of a flexible, contextualized and participatory curriculum based on active, experiential learning. It focused on English reading and writing and complemented the formal school curriculum with aspects of livestock management and agriculture (Graham and Alabi, 2015). Community facilitators were trained to teach the curriculum and provided with adapted textbooks.

The approach proved to be well adapted to learners' needs and interests and was credited with increased participation, changes in attitudes towards learning, acquisition of foundational literacy skills and enhanced transition to the formal public school system (UNESCO et al., 2022). As a result, the project was scaled up during the second phase in 2019–21 to target 21 cattle camps in Lakes and Central Equatoria states and to train 40 additional community facilitators.

The education of nomadic communities is particularly challenging. Measures under the 2015 Kenyan Policy Framework for Nomadic Education targeted the curriculum and the use of the home language as a medium of instruction in early grades. In Somaliland, the Education Sector Strategic Plan 2017–2021, which committed to improving the relevance and strengthening the delivery of the primary curriculum, reviewed the alternative basic education curriculum to incorporate culturally relevant materials for students from pastoralist and nomadic communities. South Sudan has also made efforts to cater for such communities (**Box 5.2**).

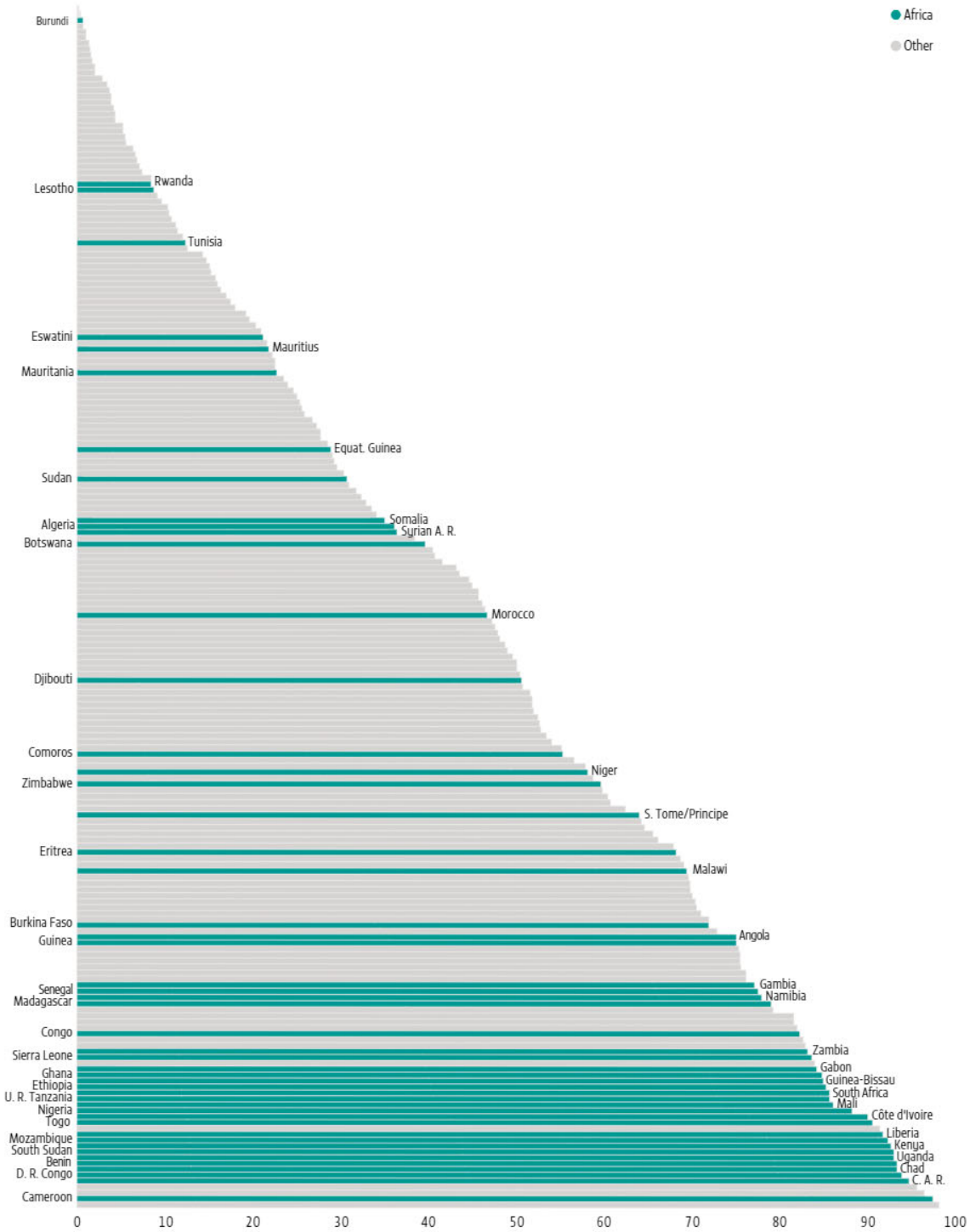
Language matters, a lot

Language of instruction is at the core of policy reforms that focus on improving foundational learning (Kamwangamalu, 2018; World Bank, 2021). Mother tongue or vernacular instruction in primary education lays the ground for future learning and sociocultural development (Adamson, 2021; Erling et al., 2021; Orwenjo et al., 2014; UNESCO, 2022). When not taught in the language they speak at home, children experience difficulties in following instructions and feel disconnected from the learning process. Where the language of instruction is foreign to both parents and children, students cannot

FIGURE 5.1

Many of the world's most linguistically diverse countries are in Africa

Probability of two randomly selected individuals having different mother tongues, 2017



Note: African countries are highlighted and labelled.
Source: SIL International (2017).

benefit from parental support. Yet, despite strong evidence on the positive effects of learning in the home language, the issue remains largely neglected in national policy and planning as well as in development partner interventions (Taylor-Leech and Benson, 2017; Tikly, 2016; World Bank, 2021).

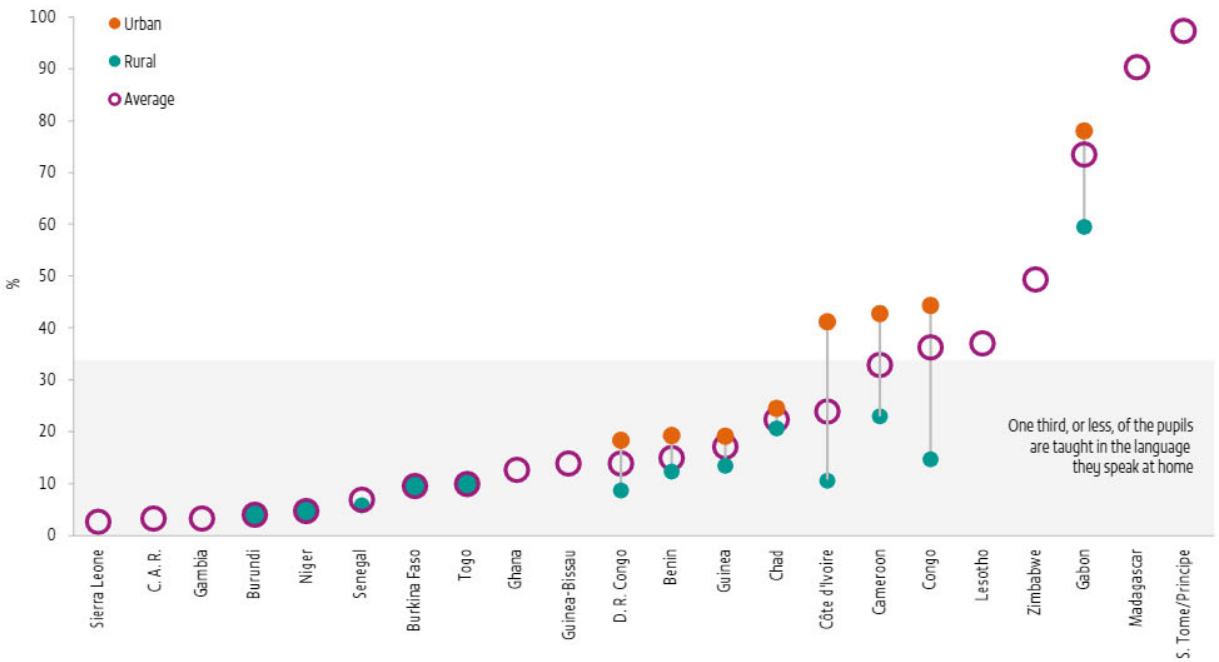
Africa has many of the world's most linguistically diverse countries (**Figure 5.1**). Yet in sub-Saharan Africa, children are often taught in a different language than the one they speak at home (UNESCO, 2022; World Bank, 2021).In the 22 sub-Saharan African countries with data only one fifth of students are taught in the language they speak outside of school (**Figure 5.2**). The challenge is greater in rural and remote areas (Bowden and Barrett, 2022; Di Carlo and Good, 2020). In Côte d'Ivoire, home to some 80 languages (Lewis, 2009), slightly less than one quarter of pupils speak French, the language of instruction, at home. The proportion ranges from 41% in urban areas to only 11% in rural areas (Seka, 2015). In Congo, 36% of all pupils are taught in their home language but only 15% in rural areas. A recent estimate indicates that developing bilingual education in less than 3% of the languages spoken in sub-Saharan Africa would help reach close to half of the primary school age population or 86 million children (World Bank, 2021).

Home language instruction has a significant impact on a child's probability of completing primary education (Bowden and Barrett, 2022; Schroeder et al., 2021; Trudell, 2016; UNESCO, 2016b). This can be inferred indirectly from the large increase in the share of students who speak the language of instruction at home between those in grade 2 and

FIGURE 5.2

The vast majority of African children are not taught in their home language

Percentage of students at the end of primary who have their first or home language as their language of instruction, selected countries, 2019

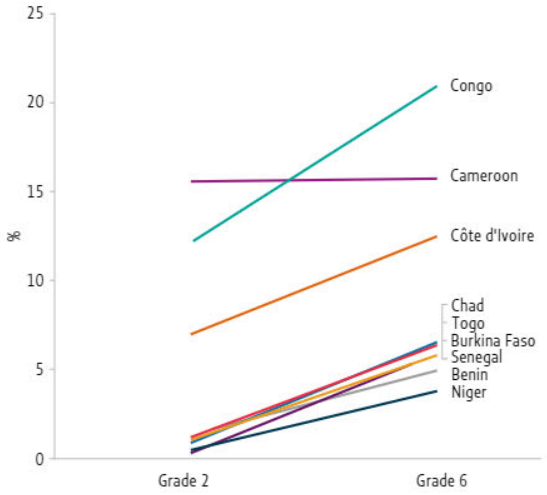


Source: UIS database.

FIGURE 5.3

Children who do not speak the language of instruction at home are more likely to leave school early

Percentage of students in early grades and at the end of primary education who have their first or home language as their language of instruction, selected countries, 2014



Source: PASEC 2014 data from the UIS database.

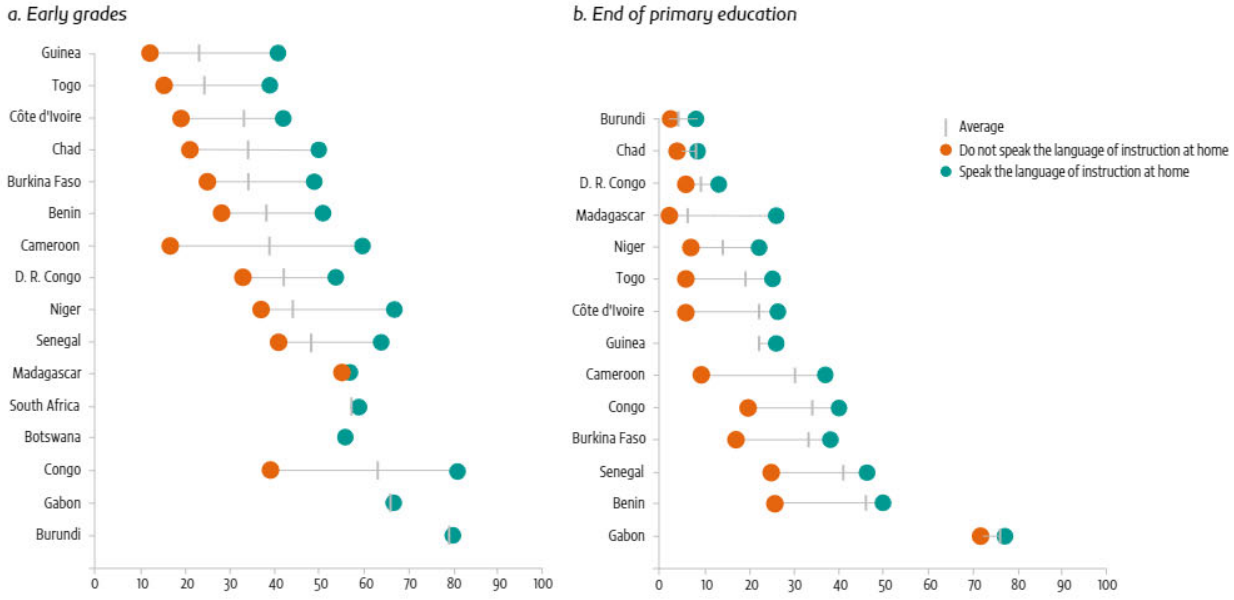
those in grade 6, indicating that students whose home language is not the language of instruction are more likely to drop out (**Figure 5.3**). In Congo, the share of students who speak the language of instruction at home increases from 12% in grade 2 to 21% in grade 6. In Benin, Burkina Faso, Chad, Niger, Senegal and Togo, about 1% of grade 2 students are taught in the language they speak at home, but the share grows to between 4% and 6% by grade 6.

Those who speak the language of instruction at home are more likely to achieve minimum proficiency in foundational skills. In Cameroon, 17% of grade 2 students who did not speak French at home reached minimum proficiency in reading, compared with 60% of those who did. In Congo, the respective percentages were 39% and 81% (**Figure 5.4**). Such gaps are not limited to literacy (Orwenjo et al., 2014). In Cameroon, 41% of grade 2 students who did not speak French at home reached minimum proficiency in mathematics in 2019, compared with 74% of those who did.

FIGURE 5.4

Students are less likely to achieve minimum proficiency when they do not speak the language of instruction

Percentage of children reaching minimum proficiency level in reading, by home language status, selected countries, 2019



Source: World Inequality Database on Education, using PASEC data.

Not speaking the language of instruction at home adds another layer of disadvantage for children already at risk. In Cameroon, 54% of students reached minimum proficiency in reading at the end of primary education, but only 35% of children in rural areas did so, or 18% of rural children who did not speak the language of instruction. In Togo, 39% of children reached minimum proficiency in reading, but the share among children in the poorest quintile who did not speak the language of instruction was only 7% (**Figure 5.5**).

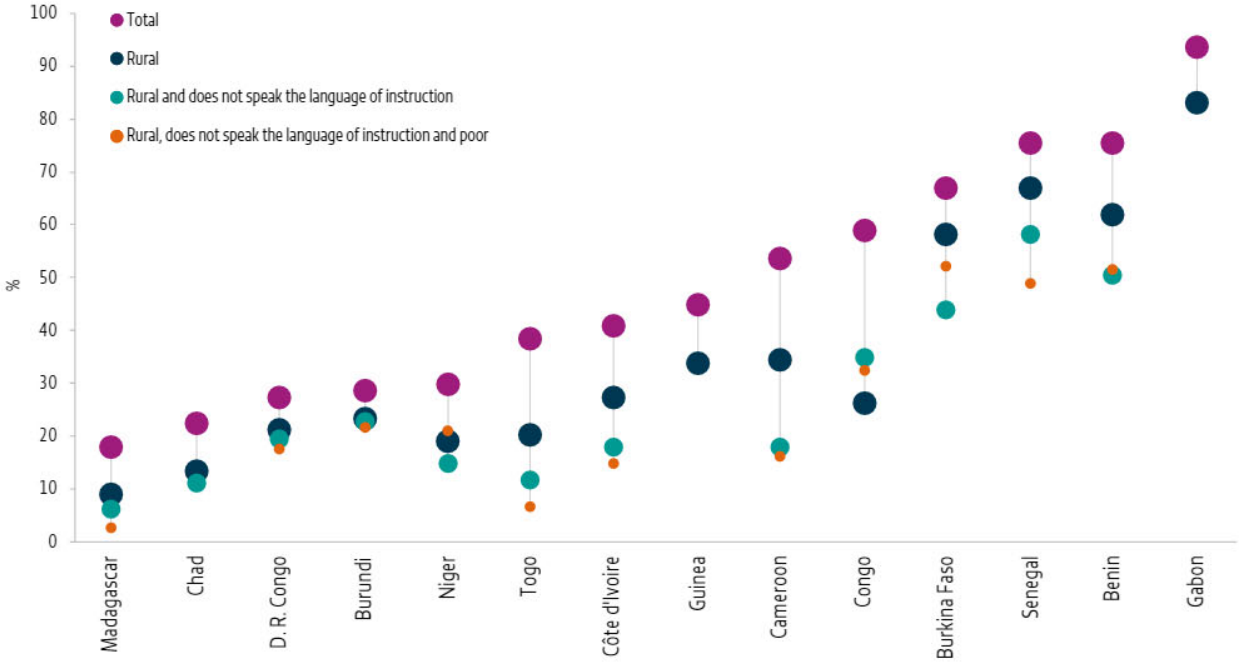
The consensus is that children need to be taught in their home language for a minimum of six years to yield long-term benefits or up to eight years in under-resourced environments (Erling et al., 2021; Maurer, 2010; Spaull and Comings, 2019; UNESCO, 2016b). Many countries in Africa have recognized the importance of home language instruction and are developing policies to improve it over the full course of primary education (Bowden and Barrett, 2022). In Namibia, the Revised Curriculum for Basic Education, introduced in 2015, prioritizes mother tongue instruction in the early grades (Josua et al., 2022).

Despite evidence supporting a minimum of six years of instruction in the home language, transition to the main medium of instruction still often happens too early for home language instruction to yield benefits. In countries where language policies vary by region, inequality in learning outcomes may result. In Ethiopia, students from regions that transition to English after eight years of home language instruction perform better, across a range of disciplines, than those who switch to English earlier, even those in more affluent regions (Bowden and Barrett, 2022). Similar results have been documented across Africa, including in Burkina Faso, Cameroon, Mali and Nigeria (Schroeder et al., 2021; UNESCO, 2016b).

FIGURE 5.5

Disadvantage related to location, wealth and language of instruction is cumulative

Percentage of children reaching the minimum proficiency level in reading, end of primary, total, rural, home language status and wealth, selected countries, 2019



Source: World Inequality Database on Education, using PASEC data.

Difficulties in policy implementation can lead to early transition. In francophone Africa, French often becomes the sole medium of instruction from grade 4 or even grade 3, notably for lack of financial or human resources. Niger had a clear policy to develop bilingual schools in some parts of the country, with the local language as the main medium of instruction and French progressively introduced from grade 1, up to a 50% split between the two languages by grade 5. However, lack of trained teachers led some schools to completely remove the local language and only teach in French by grade 3 (Maurer, 2010). There are also countries where early transition is official policy. In Seychelles, a large majority of pupils speak Kreol Seselwa as their mother tongue. However, teaching in Kreol Seselwa stops after grade 2 and education becomes essentially monolingual in English. As English is spoken at home more among richer families, the policy reinforces education inequality (Deutschmann and Zelime, 2021).

Reforms that introduce bilingual education must address a range of parameters to become effective. Enacting a language policy is only the beginning. Countries need to develop curricula, teaching and learning materials, and teacher education, as well as to achieve consensus for the policy (Maurer, 2010; Schroeder et al., 2021). Choosing particular languages of instruction over others is politically sensitive and should be based on a thorough understanding of social context. The Central African Republic provides an example of policy reform that builds on an understanding of the intersection between linguistic diversity and national identity (**Box 5.3**). By contrast, classroom observations in Rwanda highlighted how teachers preferred to continue using Kinyarwanda, the language spoken by students, over English, the official language of instruction.

BOX 5.3

The Central African Republic is taking steps to promote home language in education

The Central African Republic is relatively unusual in that it has one of the world's highest degrees of linguistic diversity but also a vernacular language, Sango, that is spoken by virtually everyone. Sango was formally recognized as an official language in 1991 and should have been one of two languages of instruction, alongside French, according to a 1997 law. Nevertheless, French remained the only language of instruction even though most people neither understood nor used it. Extremely low levels of learning were at least partially linked to a general lack of understanding of French.

The country is emerging from a prolonged conflict that ended in 2019 with the signing of the Political Accord for Peace and Reconciliation, which offers a window to rebuild a strong and resilient education system with foundational learning at its centre. The government introduced Sango as a language of instruction in its Education Sector Plan 2020–2029. A GPE-funded pilot intervention to support this policy is being coordinated by the Institut national de recherche et d'animation pédagogique (INRAP, National Institute for Research and Pedagogical Animation) with contributions from national experts at the Institut de Linguistique Appliquée and international experts. About 120,000 pupils in 550 schools will benefit from the programme, which aims to make Sango the language of instruction in the first two grades and extend its use alongside French at least until the end of primary education.

INRAP will coordinate the development of a new curriculum and related teaching and learning materials. These materials will take into consideration the faster pace of learning in Sango but also the fact that French will be taught as a foreign language. Teachers will be trained to teach in Sango and use the new materials and methodologies. Teachers, head teachers, parents and communities will be informed and involved to build national consensus on and understanding of the introduction of bilingual education. The greater appreciation of the use of Sango in education is expected to boost teacher confidence and capacity, contribute towards gender equality and social cohesion, and make the education system more resilient in emergency situations, such as conflicts and pandemics.

Source: Couralet (2022).

> *We appreciate the new curriculum, but the lack of textbooks is a problem for us.*

Teacher interviewee in Ghana

Additive models of bilingual education, entailing progressive development of two languages of instruction over a prolonged period, are preferable to subtractive models that simply remove home language and replace it with an official language (Bowden and Barrett, 2022; Maurer, 2010). In Malawi, seven languages are spoken by at least 1% of the population. Chichewa is a national language, spoken by around half the population. English is the official language and usually spoken as a second language by students. Children are taught in their home language in grades 1 to 4 and English is one of the subjects they study. From grade 5 until the end of primary, they switch to English instruction and study Chichewa among other subjects (Kendall, 2022). In Niger, implementation of the bilingual education policy started in 2015, when the government began developing teaching and learning materials for at least 5 of the 10 national languages (Fufulde, Hausa, Kanuri, Tamajaq and Zarma) and piloted a new bilingual curriculum at grade 1 in 500 schools to assess its effectiveness and scalability (Alama, 2019).

Appropriate teaching and learning materials are essential yet often missing

Without pedagogical and learning resources, teachers cannot deliver the curriculum, especially when new material and system reforms are being introduced. Governments need to ensure that all teachers have appropriate guides and all students have their own textbook; these are significant drivers of learning (Ross, 2010; UNESCO, 2016a; Zafeirakou, 2022). Textbooks and teacher guides are tools for a structured learning experience on which both teachers and students can build (Haulle and Kabelege, 2021).

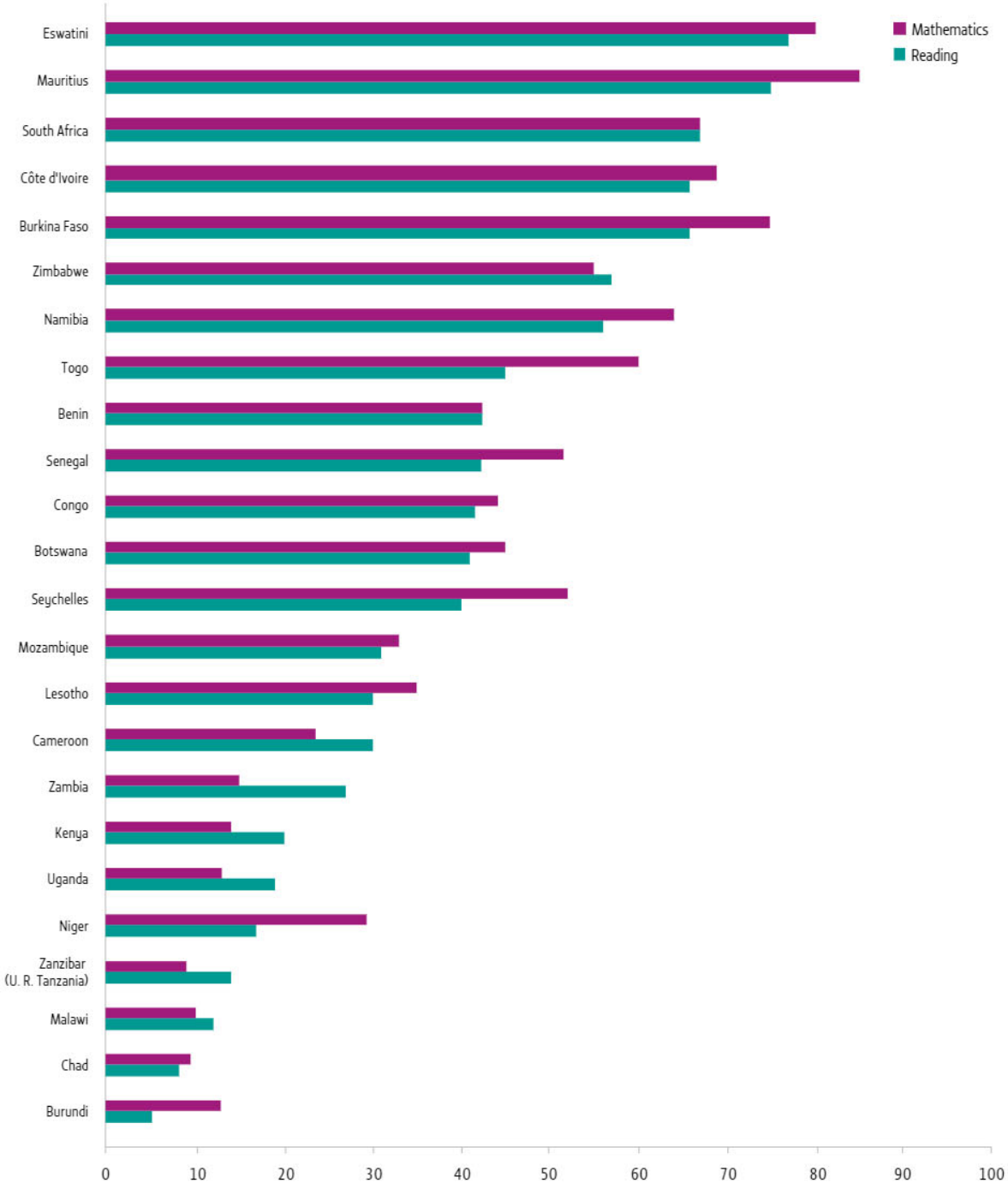
The absence or inadequacy of textbooks and teacher guides was mentioned in the five focus countries as one of the main issues undermining realization of education policies seeking to improve foundational literacy and numeracy. In the Democratic Republic of the Congo, textbooks and teaching materials remain inadequate despite initiatives by the government and development partners to produce and disseminate them. Stakeholders interviewed said textbooks were so misaligned with the curriculum that some local education offices chose not to share textbooks with schools. Classroom observations also revealed that in four out of five classes, the number of textbooks was insufficient and the books that were available were not used during the lesson.

In Ghana, not a single pupil had a textbook in any of the observed lessons. Lack of textbooks and teaching and learning materials was the most commonly cited issue hindering effective teaching and learning. While teachers followed the new curriculum meticulously, the lack of textbooks meant they spent time writing exercises on the board, which in turn limited the amount of pupils' practice. In Mozambique, just over one third of grade 3 students had textbooks in all subjects, with some regional variation. In Rwanda, the situation was better but still not fully aligned with policy objectives. Only two thirds of students in schools that performed less well had their own textbook, compared with more than four in five students in better performing schools.

FIGURE 5.6

African countries are far from providing one textbook per student

Proportion of students with their own textbook, end of primary, 2013–14



Sources: Awich (2021); CONFEMEN (2015).

In Senegal, two students usually share a textbook in French and mathematics (Diagne et al., 2022). Classroom observations highlighted substantial regional disparities: The share of students without textbooks was about 10% in Almadies but 20% in Podor and Goudomp. While teacher guides were developed following the curriculum reform, they are mostly available in digital format. Moreover, the guides were perceived as misaligned with classroom realities, including on issues of language. As a result, teachers under some Education and Training Inspectorates simply did not use them.

Overall, three main areas need attention with respect to teaching and learning materials: availability; quality, especially alignment with curricula and local context, such as language; and the role of local producers and distributors.

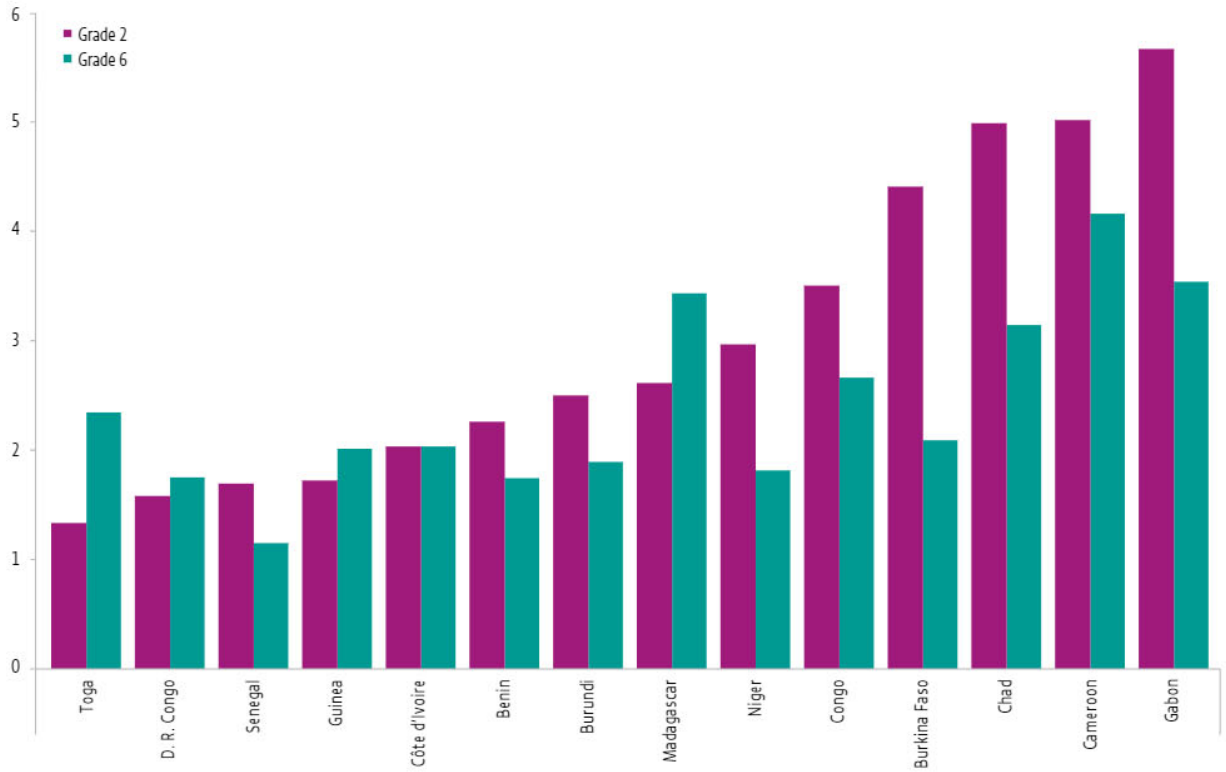
LACK OF TEXTBOOKS AND TEACHER GUIDES UNDERMINES OPPORTUNITIES TO LEARN

Not a single country for which data are available from the Programme d'analyse des systèmes éducatifs de la CONFEMEN and Southern and Eastern Africa Consortium for Monitoring Educational Quality surveys had reached universal access to textbooks by 2015 (**Figure 5.6**). Only in 30% of countries did more than half of students have their own reading textbook. In countries including Burundi, Chad, Kenya, Malawi, Niger and Uganda, fewer than 2 in 10 students in the last primary grade owned a reading textbook. In Cameroon, one mathematics or reading textbook was available for every 12 or more students, according to the UNESCO Institute for Statistics database.

FIGURE 5.7

Students in early grades are more likely to have to share their textbook

Pupils to reading textbook ratio, by grade, 2019



Source: GEM Report team analysis based on 2019 PASEC data.

PASEC data show textbook shortages being most prevalent in early grades, where they are needed more (**Figure 5.7**). In Gabon, six pupils share one reading textbook in grade 2 while four do so in grade 6. A similar pattern is observed in Burkina Faso, Chad, and Niger. The critical absence of textbooks compounds an already poor learning environment where most children do not own books at home. The 2019 PASEC survey showed only 45% of students in francophone Africa owning any books at home (CONFEMEN, 2019). The proportion ranges from less than one third in Burkina Faso, Burundi, Chad, the Democratic Republic of the Congo and Niger to more than 70% in Benin and Gabon.

Access to textbooks also tends to be geographically unequal. In Mozambique, while not representative, classroom observations carried out for this report revealed that in Zambezia province, there could be one mathematics textbook for eight pupils and one reading textbook for up to five pupils, while in Maputo city, the ratio was below the national average (**Figure 5.8**).

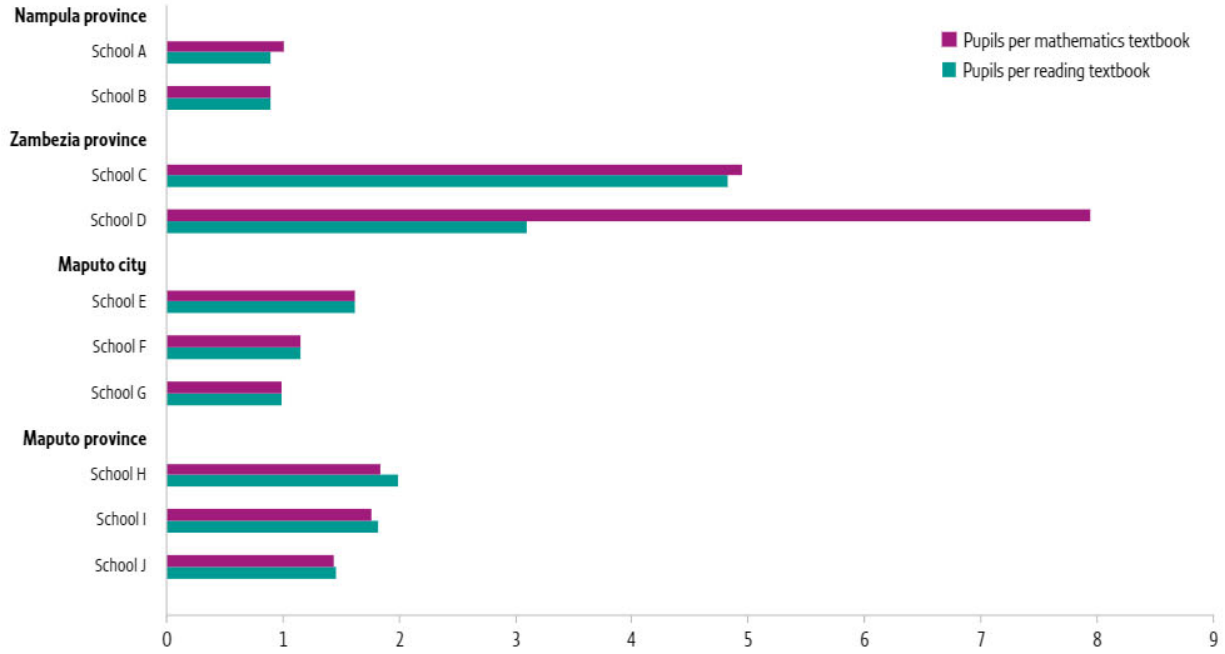
Without their own textbooks, students are not only unable to follow instructions in class but cannot study at home. Yet provision of quality textbooks is one of the most cost-effective ways to accelerate acquisition of foundational literacy skills (Read, 2015). In PASEC countries, the average learning achievement in reading of students who have their own textbook is significantly higher than that of students who share their book with two or more classmates; in Cameroon, Chad and Niger, the difference is more than 0.9 standard deviations (CONFEMEN, 2015). Earlier analyses of PASEC and SACMEQ data found that equipping each student with a textbook could increase literacy scores by up to 20% (UNESCO, 2016a).

While textbooks have received much attention in regional discussions (Fredriksen and Brar, 2015; Read, 2015), less has been said about teacher guides,

FIGURE 5.8

In Mozambique, there are regional disparities in textbook availability

Textbook availability, sampled schools in selected regions, Mozambique, 2021



Source: Mozambique Spotlight country report.

> *"The students are not able to learn on their own because there are no textbooks for them ... Although we are encouraging student-centred learning, the lack of textbooks is not helping."*
>
> Interviewee in Ghana

yet they are essential in settings where teachers are less educated and trained or where the curriculum is abstract and complex (Maurer, 2010). Teacher guides support the development of learning exercises, can be used by teachers to improve their skills, and provide a practical, applied view of the curriculum and how it is meant to be delivered.

In Malawi, the Primary Curriculum and Assessment Reform aimed for substantial changes in pedagogical approaches and content, with new teacher guides produced and distributed from 2009 (**Box 5.6**). Although teachers appreciated the guides' utility and ease of use, they rarely had access to them. In rural areas, teachers ended up relying on textbooks to develop exercises and activities in line with the new curriculum, but relevant information was limited (Kendall, 2022). In Rwanda, curriculum reforms changed the language of instruction but did not produce curricular materials and teacher guides (UIL and ADEA, 2011). In Uganda, mathematics textbooks were rarely accompanied by teacher guides despite the curriculum's density and complexity (Namukasa et al., 2010). In northern and francophone western Africa, teaching materials related to a competency-based approach were either not available to all teachers or did not offer enough guidance on teaching methods and practices (Akkari et al., 2012). Lack of guides was also considered a main reason for low levels of learning in Niger (Alama, 2019).

TEACHING AND LEARNING MATERIALS NEED TO BE ALIGNED WITH THE CURRICULUM

Even if teaching and learning materials reach classrooms, their quality can remain an impediment to the transformation envisaged by curriculum reforms. Language is a central issue in the production of teaching and learning materials (Read, 2015). In Senegal, early attempts at producing textbooks in national languages were based on literal translations from French to Wolof and Diola that ignored cultural specificities (Maurer, 2010). Rwanda adopted three official languages in 2003: English, French and Kinyarwanda. In practice, French was the official language of instruction in early grades until 2008, when it was replaced by English, which in turn was replaced by Kinyarwanda in 2015 – only for the system to revert to English in 2019. These rapid shifts hampered planning, as a new language of instruction requires new pedagogical guidelines, which should then be translated into teaching and learning materials. Senegal, for instance, introduced national guidelines on the teaching of reading and writing in French as a second language and then produced textbooks and teacher guides (Alama, 2019).

Textbooks that are based on adequate pedagogical methods and aligned with curricular objectives contribute to a systemic approach to improving foundational literacy and numeracy (Read, 2015). Successful projects in Benin, Gambia, Kenya and Senegal have used results from cognitive science

BOX 5.4

Decodable textbooks are being introduced for early grades in Benin

Since 2019, Benin has been implementing a system-wide curriculum and textbook reform based on research aimed at improving foundational learning. Two learning theories are often contrasted. Cognitive load theory argues that some pedagogical approaches create a cognitive overload in learners, requiring teachers to support and accompany them until the target skill is acquired. Constructivism posits that knowledge is better learned and absorbed when constructed by learners, with teacher input minimized. As is often the case, the choice is not between one or the other but about when and how to use each approach. It has been suggested that a combination of cognitivist and constructivist practices is more effective than each method practiced on its own (Derry, 2020; Upu and Bustang, 2021), but also that each method may be better suited for some skills than for others (Vogel-Walcutt et al., 2011). Teaching foundational literacy skills in early grades may be more effective through explicit and direct instruction (NSW Center for Education Statistics and Evaluation, 2017), especially in low-resource environments.

In Benin, decodable textbooks were perceptually enhanced and designed based on explicit instruction principles, following experience in France (France Ministry of National Education and Youth, 2019). Each lesson includes mostly words for which the student has learned the letter-sound association. The focus is on reading aloud practice, automaticity, fluency and comprehension. Efforts have also been made to ensure that all students have their own textbook, especially children with no books or reading materials at home. The decodable textbooks were designed by a national technical team whose members were trained to support the curricular revision. Each lesson has a similar and consistent structure and does not include letters or grammatical and syntactic elements that have not been introduced. Letter symbols and sounds are introduced one by one in each lesson and are accompanied by a substantial amount of content to practice decoding.

Considerable effort was also made to reduce the cost of textbooks, from US$8–10 to less than US$1. The new learning materials were positively received and rapidly integrated in teaching practice. The overall approach to curriculum reform follows best practices adopted in Senegal and Côte d'Ivoire. A midterm evaluation is planned by mid-2023.

Source: Zafeirakou (2022).

and perceptual learning to develop textbooks geared towards ensuring progress in children's foundational literacy skills. Key features of these textbooks are visual enhancement, guidelines and instructions that are aligned with curricular intentions, objectives, scope and sequence, and tailored to improve automaticity, fluency and comprehension (**Box 5.4** and **Box 5.5**).

By contrast, in the Democratic Republic of the Congo, despite heavy donor investment and a clear policy focusing on foundational learning, the curriculum and textbooks are misaligned. The World Bank's Projet d'appui au redressement du secteur educatif (Education Sector Project) invested US$26 million to provide textbooks and pedagogical materials for grades 1 to 4 between 2008 and 2014. It was followed until 2017 by the Projet de Soutien à l'Education de Base (Basic Education Support Project), through which the GPE and World Bank invested US$43 million to procure more than 22 million textbooks for grades 3 and 4 in French and mathematics. After 2017, the two organizations invested US$36 million in teaching and learning materials in the Projet d'amélioration de la qualité de l'education (Education Quality Improvement Project) to reach 10 million primary school students by 2022. Between 2014 and 2022, in the ACCELERE! project, the United Kingdom and United States funded the development and distribution of

BOX 5.5

Perceptually enhanced textbooks are being piloted in Egypt

Reading starts with perceptions. The size, shape and spacing of a script's features are of central importance as children learn to read and write. The ability to effortlessly perceive a script's symbols is a strong predictor of future performance. In the brain, the language networks receive inputs from the sensory networks. It is only after this step that comprehension starts to happen. Consequently, reading happens at the fastest speed when optimal size and spacing of letters is reached but also when individuals have had sufficient practice perceiving symbols and integrating them into words and sounds. Eventually, effortless recognition of words, which does not overload working memory, leads to the ability to process and understand large volume of text. Teachers are not always trained on perceptual learning, and the importance of the sensory system is often ignored.

Perceptually enhanced textbooks have been developed in a variety of languages and script types including Chichewa in Malawi, Telugu in India and French in Benin, Burundi and Côte d'Ivoire, as well as Arabic in Egypt, Jordan and the United Arab Emirates. In Arabic, perceptually enhanced textbooks start with the letters disconnected and use extra-large and spaced fonts that reinforce the script's visual features. In a two-month pilot project conducted by the American University of Cairo in rural Assiut, Egypt, in 2021, about 100 targeted students who had just completed grades 1 and 2 attended summer classes for about 1.5 hours, 6 days per week. They used perceptually enhanced textbooks developed with the support of the Al Qasimi Foundation. These included modern standard Arabic verbs and grammatical forms, which students were also taught to connect to the Egyptian vernacular.

These students demonstrated significant progress. First, their self-confidence improved. The proportion of grade 1 students who agreed to read a story increased from 15% at baseline to 93% at the end of the programme. Substantial progress was also observed in correctly associating letter-sound combinations. At the start of the project, 13% of the children failed to correctly pronounce any letter; by the end, only 1% could not achieve a single correct letter-sound combination. Conversely, the share of children making no mistakes increased from 16% to 47%. A larger pilot was scheduled to take place in mid-2022.

Source: Abadzi (2022).

2.8 million textbooks and teacher guides in nearly 5,000 schools. Yet while at least US$105 million has been invested in these 14 years, teaching and learning materials are perceived as inadequate and misaligned with the government vision.

TEXTBOOK PRODUCTION SHOULD REFLECT COUNTRIES' NEEDS AND RELY ON LOCAL PROVIDERS

Textbook contracting and procurement processes in Africa generate debate. On the one hand, increased textbook availability is heavily dependent on financial support. There is evidence that opening textbook procurement to competitive bidding can reduce unit costs. In Mozambique, the introduction of international competitive bidding resulted in a 17% unit cost reduction (Bashir et al., 2018). Ethiopia also managed to substantially improve its pupils-per-textbook ratio after introducing competitive bidding in 2009 (UNESCO, 2022).

On the other hand, cost reduction is not always associated with a guarantee of quality and relevance. In Malawi, cheaper textbooks supported by external partners contained grammatical errors and mistakes in content. Correcting them is dependent on the

BOX 5.6

In Malawi lack of development partners' coordination jeopardizes system-wide consistency

While donor funding is needed to develop and distribute teaching and learning materials, interventions should support a coherent national education vision. In Malawi, the results of donor funding policies and initiatives have had a mixed record in that respect. Following the introduction of the Free Primary Education policy in the mid-1990s, Malawi, experienced a surge in access that challenged quality. The primary gross enrolment ratio rapidly rose from 75% in 1990 to 144% in 2001 and has hovered around that level ever since. In 2013, SACMEQ results showed only 15% of pupils reached the minimum proficiency level in reading at the end of primary education. The 2018 National Reading Assessment found that 76% of grade 2 and 27% of grade 4 pupils could not read a single familiar word in Chichewa. Teaching and learning materials are mostly available in English and Chichewa, although at least six other languages are widely spoken. Interviews suggest that teaching and learning material quality in Malawi could be improved and that teachers are not trained adequately in how to use them.

Tensions emerge when donors heavily influence curriculum and system reforms. Pedagogies introduced in teacher practices may be inconsistent and contradictory. Over the past 20 years, the United Kingdom and United States have supported the two largest projects in Malawi involving production of teaching and learning materials. The projects differed in terms not only of scope and pedagogy but also of integration with the national education strategy. The Primary Curriculum and Assessment Reform (PCAR) began in the early 2000s to shift the system towards student-centred teaching and learning in grades 1 to 8. Textbooks developed for PCAR are short and provide little information, instead relying on students to co-construct knowledge. The National Reading Program (NRP) began in 2014 and has focused on grades 1 to 4. The pedagogical approach is based on more structured and standardized teaching, and relies on scripted teacher–student interactions, but with a curriculum that is not localized. Teaching and learning materials developed under PCAR and NRP coexist within the Malawian education system and teachers are meant to use both.

Moreover, governments are strongly influenced by donor preferences. The Malawi Institute for Education (MIE) is the national entity in charge of reviewing and developing the curriculum and teaching and learning materials. MIE recognized the limits of the PCAR teaching and learning materials and, together with national experts, called for a review and revision of the curriculum. But development partners did not support MIE's assessment. Instead, MIE received funds to provide capacity building on instructional materials developed in other projects. National guidelines for developing and producing teaching and learning materials were not followed and the national ownership and oversight of their development was significantly reduced.

Source: Kendall (2022).

next wave of support by the same donors (**Box 5.6**). Moreover, opening textbook production and dissemination to market mechanisms and reducing unit costs in the short run may favour external providers and hinder the development of national capabilities to respond to demand and reduce costs in the long run. And projects may not contribute to the local economy. For instance, the ACCELERE! project in the Democratic Republic of the Congo had the 700,000 teaching guides and textbooks required for the 2018/19 school year printed outside the country (USAID, 2021).

In linguistically diverse countries, international competitive bidding may not always be the ideal solution, given the need to improve and increase production of textbooks in national languages. Yet most competitive bidding processes favour international bidders that can produce materials in English and French at much lower cost than local firms (UNESCO, 2022). Policies that privilege home language, more often than not, do not need English or French textbooks for early grades, instead requiring textbooks aligned with additive or late-exit transition language-of-instruction policies. This is inherently linked to the system's capacity to produce teaching and learning materials in national languages and to ensure that all textbooks meet quality standards. In many instances, however, such capacity is associated with the level of external support. In Niger, textbooks for bilingual teaching and in national languages are mostly the product of collaboration with and support from international development partners and non-governmental organizations (Schneuwly et al., 2019).

Building regional and national capacity to develop, produce and disseminate textbooks in national languages thus becomes a significant challenge. African countries have started to address the issue. In Kenya, Rwanda, Uganda and the United Republic of Tanzania, most textbook publishing relies on African publishers (UNESCO, 2022). The United Republic of Tanzania returned to state-controlled textbook provision after a series of corruption and collusion scandals emerged following the introduction of a market-based system. In francophone Africa, there is evidence of high market concentration, with dominance by French-owned international publishers, such as Hachette, in countries including Cameroon, Côte d'Ivoire and Gabon. Côte d'Ivoire and Senegal have tried to increase access to the market for national publishers by introducing competitive bidding policies whereby national publishers can be favoured or allowed to place slightly higher bids than international publishers (UNESCO, 2022).

Development partners have started to support production of reading materials in national languages, building on the potential of technology. The Global Book Alliance was created in 2018 to increase national capacity to produce and disseminate high-quality reading materials in local languages to foster acquisition of foundational learning skills. Its members include international organizations, donor countries and civil society organizations. The alliance supported the African Union and the Association for the Development of Education in Africa in development of the Continental Framework on Book and Reading Policy Formulation in Africa (ADEA et al., 2019). The framework enshrines several objectives aimed at improving production of reading materials by and for Africans, including development of African authorship, publishing and book production. The alliance also initiated development of the Global Digital Library, led by the Norwegian Digital Learning Arena, which contains crowdsourced translations of books at all levels of literacy proficiency. Titles are available with an open licence and are print-ready, facilitating the use, reuse and adaption of reading materials at no cost (Global Book Alliance, 2018).

Conclusion

Education systems in Africa have been introducing reforms that explicitly focus on improving foundational literacy and numeracy competencies. A key principle is to improve alignment among curriculum, language of instruction, and teaching and learning materials. Evidence from research has been integrated in some cases to accelerate progress in early-grade reading.

However, the desired alignment between the various elements is often not achieved, and bare minimum conditions are yet to be fulfilled. Children still lack textbooks, the quality of available textbooks remains patchy, and countries have not managed to develop sustainable and cost-effective national textbook supply chains. One of the most important basic conditions for learning – starting to learn in a language children already speak – is largely ignored. Even where favourable language of instruction policies are proclaimed, they tend to be only partially implemented. Integrating Africa's cultural diversity into education systems is not only necessary to achieve inclusion but is a condition for accelerated progress in learning.

6 Teacher preparation and support

Students in Mrs Binta Ouedraogo Ilboudo's third-grade classroom share a textbook at Sandogo "B" Primary School in District 7 of Ouagadougou, Burkina Faso. (CREDIT: GPE/Kelley Lynch)

- There is a critical lack of trained teachers. Ambitious reforms have yet to adequately consider teacher recruitment and training.
- Teachers work under adverse conditions, even lacking chairs and desks as well as basic pedagogical support, such as teacher manuals.
- Assessments in recent years suggest that the majority of teachers in Africa lack sufficient competencies to teach basic literacy and numeracy skills effectively.
- Successful interventions in improving foundational learning outcomes, especially in low-resource settings, typically involve a structured approach to teaching these skills, support systems for teachers that include teaching and learning materials, and continuous feedback and formative mechanisms.

KEY INSIGHTS

- There are 56 pupils per trained teacher in sub-Saharan Africa
- Rwanda increased the number of teachers in public schools by 50% by recruiting and placing over 44,000 teachers in 18 months in 2021/22
- In half the countries for which 2019 PASEC data are available, grade 2 teachers in at least a quarter of schools did not have professional development opportunities in the two years preceding the survey
- Teaching quality and working conditions were identified as the top priority by all actors interviewed during the Spotlight research
- A recent study covering 13 countries, 8 of them in sub-Saharan Africa, found that projects with teacher guides could significantly increase reading fluency

"All teacher training modules, old and new, are very well prepared and available, but ensuring resources cover all provinces remains the challenging bottleneck."

Spotlight workshop participant in the Democratic Republic of the Congo

Governments' vision for education, as expressed in curriculum and other system-wide changes, will lead to improved learning outcomes only if teachers carry it out in classrooms. Alignment between curricular objectives and classroom realities, through teacher training and support, is therefore paramount (Bashir et al., 2018). Yet reforms aimed at improving foundational learning have often neglected teacher development. In all five Spotlight focus countries, respondents cited insufficient teacher availability, motivation and pedagogical support as key factors preventing reforms from reaching their objectives.

In the Democratic Republic of the Congo, the ambitious reform initiated in 2019 that introduced free primary education was not accompanied by equivalent ambition for teacher development. Poor working conditions, absence of professional development opportunities and low or even unpaid salaries were among the obstacles to effective teaching. In Ghana, the Education Strategic Plan 2018–2030, with its focus on learning outcomes, led to the development of the first national teacher standards and the introduction of teacher licensing. The entry standard for the profession was raised to a bachelor's degree in education. However, initial evidence suggests that teachers were not given enough support, and curriculum delivery was flagged as an issue. In Rwanda, teachers did not receive training to teach in English when it became the official language of instruction. In Senegal, schools that performed poorly had more teachers with insufficient mastery of the basic education curriculum.

Schools need more and better-qualified teachers

Teacher shortages are a long-standing issue. The continent had 4.5 million primary school teachers in 2019 but the most recent estimate suggests that, to meet SDG 4 by 2030, sub-Saharan Africa needs to recruit 2.3 million new teachers, along with 3.8 million to replace teachers who will have left the profession (International Task Force on Teachers for Education 2030, 2021). These teachers need to be qualified and effective. But the share of primary school teachers who are trained according to national standards, as monitored by SDG global indicator 4.c.1, fell from 84% in 2000 to 67% in 2020 (UNESCO, 2022a).

> *"The lack of means is a reality and yet the [Regional education staff training centres] are of critical importance for the training of teachers of lower grades."*
>
> Spotlight workshop participant in Senegal

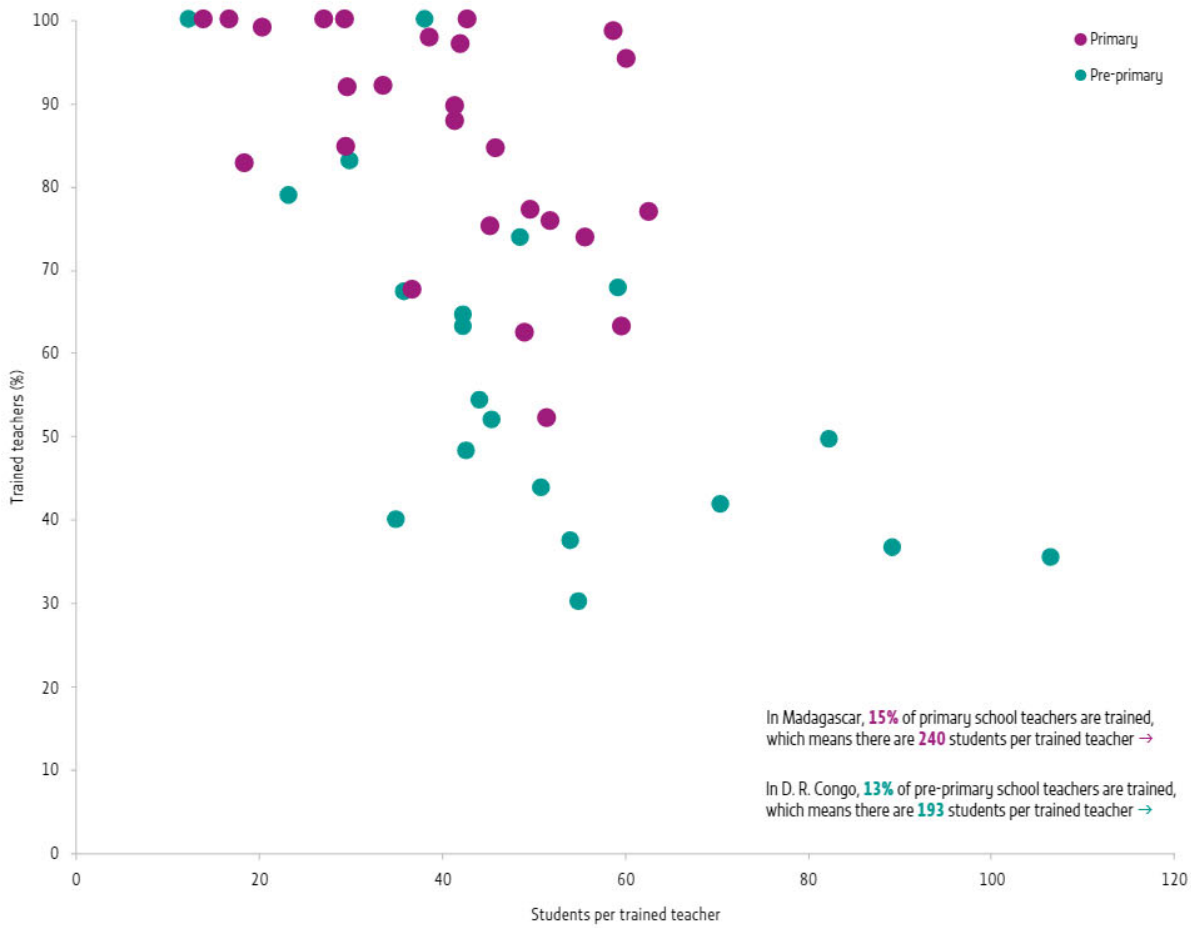
Overall, there are 56 pupils per trained teacher in sub-Saharan Africa, but this average hides wide variation (**Figure 6.1**). In Mauritius, almost all pre-primary and primary teachers have the minimum required qualification to teach, and there are 12 pupils per trained teacher, a ratio on par with those in high-income countries. At the opposite extreme, only 15% of primary school teachers in Madagascar meet national standards, with the result that there are 240 pupils per trained teacher. In one third of countries, the pupil/trained teacher ratio is 50 or higher. In Guinea, Rwanda and Sierra Leone, there are at least 60 pupils per trained teacher.

Senegal, with a pupil/trained teacher ratio of 45:1, is attempting to recruit teachers. It hired 5,000 teachers in 2021, of which around three quarters were for pre-primary and primary schools and *daaras* (traditional Koranic schools). Rwanda increased the number of teachers in public schools by 50% by recruiting and placing over 44,000 teachers in 18 months in 2021/22, with the aim to drastically reduce double shifts. In Mozambique, it is estimated that the country needs to add 12,000 teachers for its system to function. As many governments lack both funding and capacity, addressing trained teacher shortages often means getting support from non-state actors, as in South Sudan (**Box 6.1**).

FIGURE 6.1

There are relatively few trained teachers in Africa

Proportion of trained teachers and pupil/trained teacher ratio, selected countries, 2019 or latest available year



Source: UIS database.

BOX 6.1

South Sudan is addressing trained teacher shortages in adverse conditions

South Sudan declared its independence in 2011, emerging after more than two decades of civil war. Violence resumed between 2013 and 2018. The most recent peace agreement led to a national unity government in 2020. As the country attempts to rebuild, South Sudan finds itself with teachers who are either unqualified or were previously trained to use Arabic as the language of instruction. In 2019, 50% of the teacher workforce had not completed secondary education and 60% had not been trained. Teaching methods were unlikely to be effective and conducive to pupils' learning. In its early years of independence, South Sudan contracted more qualified and experienced teachers from Kenya and Uganda to close the teacher gap and strengthen a cadre of teachers who could train and mentor peers. But difficult working conditions led to some leaving early and discouraged others from coming.

To address such issues, the Ministry of General Education and Instruction recently initiated an outcome-based curriculum focused on foundational literacy and numeracy. The new curriculum prioritizes learning in the home language before moving to English. It is accompanied by a teacher training curriculum aligned with the new approach. An innovative feature of the latter is that it focuses not only on early childhood and the early grades of primary education – emphasizing the link between school readiness and foundational learning skills – but also on the importance of national languages in early years. As teachers can obtain qualified teacher status through pre- or in-service training in this curriculum, the number of trained teachers can be increased through both new recruitment and upskilling of teachers already in service. Admissions into pre- and in-service programmes have the same requirements and are established and controlled by the ministry. However, national capacity to train many new teachers is limited. In 2021, only 189 teachers were enrolled in national training institutes' pre-service courses. Moreover, most candidates do not specialize in early grades but prefer upper primary education.

Non-state actors support the training of in-service teachers. The Yei Teacher Training College, a private institution, forms part of a continuing professional development initiative allowing unqualified teachers to take a condensed version of the curriculum leading to qualified teacher status. This should enable the 1,500 currently enrolled in-service teachers to become qualified over the course of two years. A central feature of the programme is the link between teaching and activities that enrollees do in their own schools. Tutors accompany the teachers as they develop learning activities and provide support, including when activities take place in the classroom. The programme also uses guides developed for tutors for supporting teachers with each module of the course.

Windle Trust International, an international non-governmental organization, has supported the transition to English as the medium of instruction through intensive English courses for Arabic-speaking teachers as well as unqualified teachers. Since 2010, the trust has enabled the transition of over 15,000 teachers, while also helping teachers acquire professional skills in teaching foundational literacy and numeracy as well as in inclusive pedagogies for children with disabilities.

Source: Windle Trust International (2022).

Even teachers who meet national standards may not master the pedagogical methods at the heart of teaching foundational literacy and numeracy. In the Democratic Republic of the Congo, Mozambique and Rwanda, almost all primary teachers are reported to have the qualifications required to teach. But in Mozambique, analysis of teacher knowledge for the new Education Sector Plan showed that only 1% of teachers had mastery of 80% or more of the grade 4 curriculum and only 60% could perform double-digit subtraction, a skill taught in grade 3. Classroom observation in Rwanda showed that few teachers seemed to apply effective numeracy practice. Earlier reforms to improve teaching and learning did not lead to substantial improvement. Teaching quality and working conditions were identified as the top priority by all actors interviewed during the Spotlight research.

Teachers need to be supported

Most policy reforms show that working with and through teachers to improve foundational learning is critical (Cunningham, 2018). Teachers can help signal inconsistencies or challenges in education policies. Neglecting teachers in reforms can generate strong opposition and obstacles to policy implementation. In Rwanda, despite the recent change to English as the language of instruction, field visits observed most teachers teaching in Kinyarwanda.

Recent PASEC data illustrate variations in the conditions under which teaching takes place (**Figure 6.2**). In some countries, basic conditions, such as having a chair and a desk for the teacher, are not ensured for a large share of schools. In the Democratic Republic of the Congo, grade 2 teachers had a chair in only a third of schools, a desk in slightly over half and a chalkboard in around two thirds. Teachers often lack essential support for effective teaching. In Togo, grade 2 teachers were equipped with reading and mathematics teacher manuals in almost all schools. But in Chad, the proportion was around 40%. Other countries where teachers are ill-equipped include the Democratic Republic of the Congo, Gabon, Guinea and Madagascar, where grade 2 teachers do not have manuals in one third or more of schools.

In addition to harsh working conditions, teachers receive a low level of support from the system. In all countries, teachers receive some form of support from the head teacher. But in half the countries for which 2019 PASEC data are available, grade 2 teachers in at least a quarter of schools did not have professional development opportunities in the two years preceding the survey. In 10 out of 14 countries, grade 2 teachers in fewer than half the schools had received a visit from a pedagogical adviser with the express purpose of improving teaching in reading and mathematics.

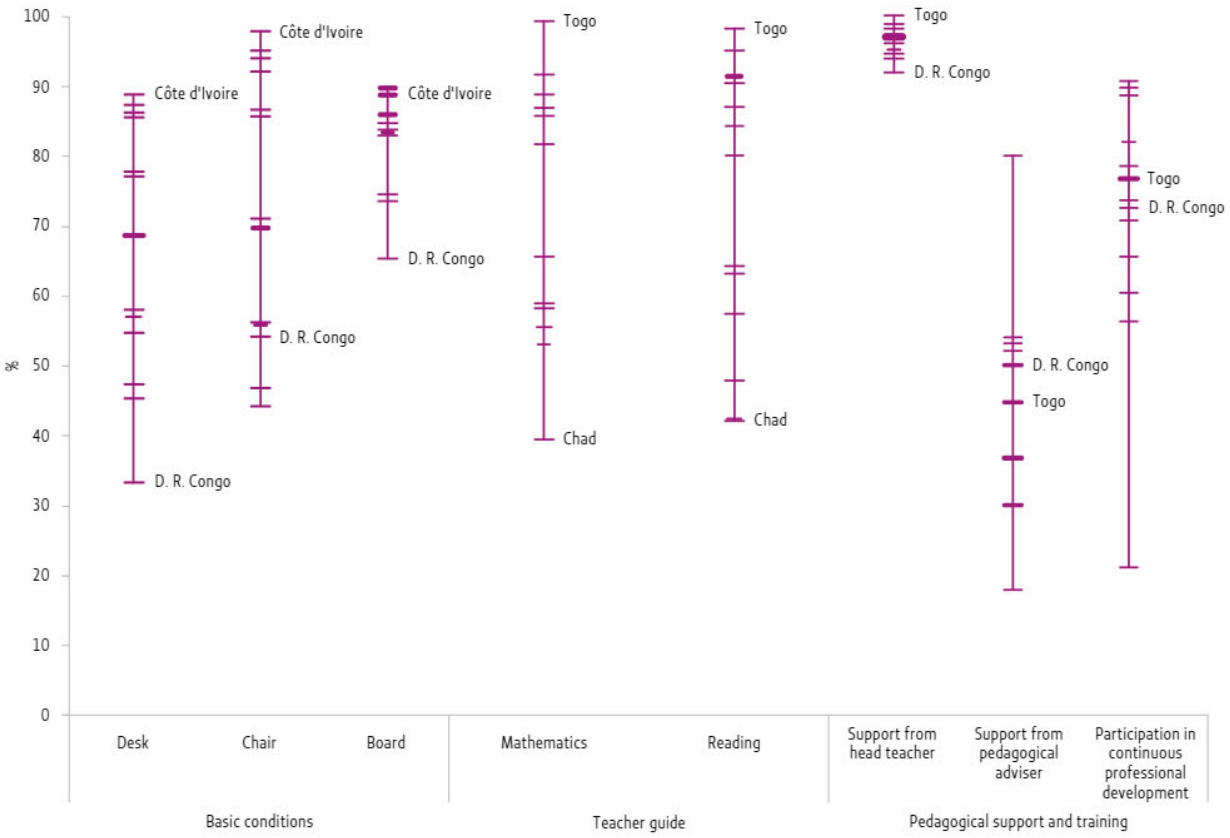
Field research identified teachers' lack of motivation as being associated with the profession's low status. Concern was expressed that those who leave the

> *"Teachers submit situational reports where they highlight their challenges and then we set targets to achieve them ... [T]he curriculum leads also consult them and get their difficult topics so that they are discussed at professional learning community meetings."*
>
> Spotlight workshop participant in Senegal

FIGURE 6.2

Teachers often face harsh working conditions with low levels of support

Share of schools where grade 2 teachers work under specific conditions, selected francophone African countries, 2019



Source: GEM Report team calculations based on the 2019 PASEC data set.

profession are often the most qualified. A salient issue was lack of motivation resulting from inconsistent and inadequate remuneration. Low earnings and inconsistent financial support were cited in Rwanda and Senegal as strong determinants of low motivation and teaching's weak draw as a profession.

In the Democratic Republic of the Congo, many teachers were not on the government payroll and depended on communities. Many teachers had not been paid for several years, while even when paid, their salaries were extremely low. The government recently made an effort to address this issue. The Opération rapide d'identification de nouvelles unités (Rapid Operation to Identify New Units) led to the identification of around 150,000 teachers eligible for inclusion in the payroll. More than 58,000 primary school teachers were paid in October 2020. During the COVID-19 crisis, it became more difficult for communities to provide support. Teachers not on the government payroll lost their main source of income. The number of teachers thus decreased, just as the introduction of the free primary education policy was leading to a surge in enrolment. The Equity and Strengthening of Education Project, funded by the World Bank, has provided direct budget support to contribute to teacher salaries.

Teachers need pedagogical support to change their practices

Improving foundational literacy and numeracy necessitates changes to long-standing traditional classroom practices followed by teachers. Such changes are only possible when teachers are well integrated in the process. In Ghana, the UK-funded Transforming Teacher Education and Learning project helped change pedagogical practice and teacher behaviour. But in many instances, teacher training has paid insufficient attention to pedagogical practices and has not managed to familiarize teachers with the required teaching approaches. In Rwanda, a study of 165 primary school teachers found that teachers had not embraced the new competence-based curriculum and its student-centred pedagogy (Otara et al., 2019).

An earlier study of primary school teachers in Ghana, Kenya, Mali, Senegal, Uganda and the United Republic of Tanzania showed that there was little focus in teacher education on learning how to teach reading and mathematics. Instead, teacher training programmes, ranging in length between six months in Senegal and three years in Ghana, focused a disproportionate amount of instructional time on subject content knowledge (Akyeampong et al., 2013).

In low-resource settings, it is essential to find innovative solutions that enable teachers to deliver effective teaching. However, training and encouraging teachers to adopt effective pedagogical practices, conducive to improved learning outcomes, is a sensitive issue as it intersects with teacher agency and autonomy, as well as issues of self-confidence and trust. There is no one-size-fits-all solution, but recent programmes have started to better align with long-known results pertaining to adult learning and more recent evidence on effective teaching in under-resourced contexts. Interventions need to be collaborative and progressively increase confidence as teachers become more proficient. Teachers need to have a clear reference structure they can trust as formative, not summative or linked to sanctions, and on which they can fall back and use to solve problems. In early grades in such settings, interventions that have shown promising results may be multifaceted but often include similar components, such as teacher coaching, professional learning communities and structured pedagogy.

The Learning at Scale study, funded by the Bill & Melinda Gates Foundation, recently released preliminary results on characteristics of successful large-scale programmes aimed at improving foundational literacy and numeracy (RTI International, 2021). The study identified eight interventions, including five in Africa, that resulted in significant learning outcome improvements. All were comprehensive intervention packages that

> *"[Due to] the lack of initial training on what is competence-based curriculum and how they should support students to develop those competencies (knowledge, skills, values), it is really hard for [teachers] to use the curriculum, the syllabus – which is very clear, well structured –but implementing it requires more than just transferring what is written to the practice, to the best practice in the classroom."*
>
> Education stakeholder in Rwanda

included specific instructional material to support teachers (teacher guides or materials specifically developed for the programme) and some form of continuing pedagogical support (external coaching or communities of practices and professional learning communities). Recent examples in Benin and Côte d'Ivoire, which led to promising results, also illustrate how complex and comprehensive approaches can be implemented (**Box 6.2**).

There is emerging evidence on the role of coaching in improving learning outcomes. Teacher coaching can take a variety of forms. Generally, coaches or pedagogical advisers observe teachers in classes and provide targeted feedback to improve pedagogical practices. Teacher coaching differs from other forms of professional development, such as teacher training, as it is intended to be individualized, time-intensive, regular and focused on tangible skills (Kraft et al., 2018).

BOX 6.2

In Benin and Côte d'Ivoire, evidence-based and system-wide approaches use targeted teaching methods

Recent initiatives in Benin and Côte d'Ivoire, funded by the Global Partnership for Education and supported by the World Bank, illustrate the importance of comprehensive, systemic interventions. In both countries, there is a high level of political commitment to an education vision that puts foundational learning at the centre; this vision is strongly supported by development partners.

In Benin, curricular reform undertaken since 2019 has focused on improving foundational literacy and numeracy. It covers grades 1 and 2 in 12,000 schools. In Côte d'Ivoire, a project called Mon enfant apprend mieux à l'école (My Child Learns Better in School) has been under way since 2018 and covers six regions. It draws on cognitive science and neuropsychology on how children learn to read in early grades. Encouraging initial results led the education ministry and development partners to consider ways to scale up to the national level.

National technical teams on literacy and numeracy were formed in Benin and Côte d'Ivoire, including civil servants from the ministry, inspectors, pedagogical advisers, trainers from teacher training institutions and retirees who contributed experience with past curricular reforms and the development of teaching and learning materials. As the focus is on early grades, national teams were trained on explicit pedagogy and scaffolding methods (which call on teachers to gradually transfer skills to students) in developing lesson plans, teacher guides, training modules and coaching systems.

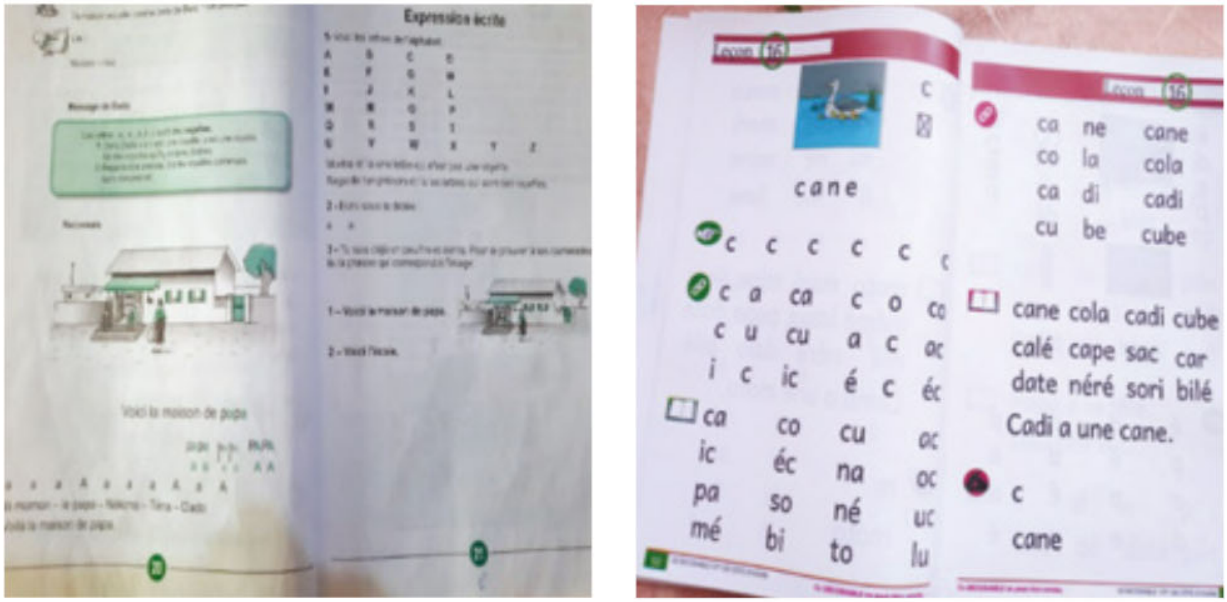
In both countries, curriculum revision began by defining clear and realistic learning outcome targets to be achieved by most children. Instead of completely rewriting the curriculum, the focus was on reformulating learning objectives and competencies to be achieved by the end of each grade. For example, Benin defined a minimum reading proficiency level at the end of grade 1 with clear reference to cognitive outcomes: All students should know the letter sounds taught during the school year and be able to decode syllables, simple decodable words and simple sentences with two to three decodable words with fluency and comprehension. These outcomes were communicated to teachers through teacher guides and training. In many cases, the expected outcomes were visible to all, as teachers often wrote them at the top of their chalkboards. Their simplicity and clarity also made it easier to communicate them to parents to foster better community support of the learning process.

The desired outcomes were supported by development of decodable textbooks, in which each lesson included mostly letter-sound relationships that the pupils had already encountered or been taught. National teams were trained to develop decodable textbooks based on knowledge of how children learn to read, perceptual learning and explicit instruction. Lessons were visually enhanced, were not overloaded with guidelines, and directly reflected the expected curriculum content and scope for the grade (**Figure 6.3**). They were accompanied by teacher guides with well-structured lesson plans and guidance for teachers to apply explicit instruction in support of the textbooks.

FIGURE 6.3

Decodable textbooks include letter-sound relationships that students have already encountered

Lessons in an ordinary language textbook and a decodable one, early grades, Benin



Source: Zafeirakou (2022). Left image: Decodable Textbook, under the curricular reform for Grade 1, Ministry of Pre-primary and Primary Education, Benin. Photo credit: Ministry of Pre-primary and Primary Education. Right image: French textbook, before the curricular reform of 2021-22. Ministry of Pre-Primary and Primary Education, Benin. Photo credit: Ministry of Pre-primary and Primary Education.

Teacher training modules in both countries were developed by the national teams. The same teams delivered hands-on practical training on lesson plans through demonstration, modelling and simulation, using the teaching and learning materials developed. Teacher training used a limited cascade approach with trainers at the national and regional levels. Regional trainers, trained by the national team, were in charge of training all teachers and head teachers participating in each programme. Regional trainers who were head teachers or had a leading role in their school also received training on coaching through the same model. In Benin, 13,000 grade 1 teachers and 12,300 head teachers had been trained in early grade literacy and numeracy by the beginning of the 2021/22 school year, and grade 2 teachers are expected to be trained before the 2022/23 school year starts. In Côte d'Ivoire, 2,800 head teachers and grade 1 to 3 teachers in the six regions had been trained by 2021. In both countries, revision of initial teacher training is ongoing so teachers can introduce the full curriculum package for early-grade teaching of literacy and numeracy.

Finally, both countries are developing mechanisms to provide teachers with continuous support by local actors. Head teachers, inspectors and pedagogical advisers will serve as coaches; more inspectors and pedagogical advisers will be hired; and school clusters will be mobilized to provide opportunities for additional support. Virtual platforms are being established to enable teachers to remain in touch with coaches and address pedagogical issues encountered during implementation. Formative feedback mechanisms are being implemented and teachers are being trained to assess students weekly and establish remediation plans. It is expected that data from learning assessments will also be used formatively to develop targeted training when needed.

Source: Zafeirakou (2022).

While evidence on coaching-based professional development remains limited in sub-Saharan Africa, some results have demonstrated its effectiveness, for instance in Kenya (Piper et al., 2018), Mozambique (Burchfield et al., 2017) and South Africa (Cilliers et al., 2018). In-class coaching was found to have more than twice the impact of centralized training in South Africa. A randomized evaluation in 180 public primary schools compared intensive training held at a central venue vs monthly coaching visits. Although results varied by class size and initial proficiency level, students of teachers who received coaching performed significantly better than those whose teachers had undergone centralized training. Teachers who received coaching were found to have continued using improved pedagogical practices one year after the intervention (Cilliers et al., 2018; Cilliers et al., 2022).

Several countries have started to introduce coaching-based support to teachers, including the Early Grade Reading Programme in Ghana (USAID, 2019) and the ACCELERE! project in the Democratic Republic of the Congo (Brandt, 2020). Benin, Côte d'Ivoire, Malawi and South Africa have introduced virtual coaching but these programmes have yet to show conclusive results, as face-to-face coaching has been shown as more effective to date (Cilliers et al., 2022; Zafeirakou, 2022).

Coaching can involve external coaches or peer-learning mechanisms. An alternative to coaching consists of professional learning communities, which depend not on a single individual but on the strength of collective experience to support members in solving issues they might encounter in the classroom. Such communities generally involve a group of teachers sharing lessons and activities with peers in order to improve teaching and learning through ongoing critical reflection on instructional practice (UNESCO, 2017).

Although professional learning communities are typically found in relatively rich countries, some promising examples in sub-Saharan Africa have been observed (Soares et al., 2020; Zulu and Mukeredzi, 2021). A recent review of empirical research highlights the positive impact such initiatives can have on teacher learning, teaching effectiveness, innovation and trusting relationships in schools (Nguyen et al., 2022). In Mozambique, a survey of 518 primary school teachers showed that professional learning communities had a particularly strong impact, both direct and indirect, on teaching practices (Luyten and Bazo, 2019).

In Zambia, the Lesson Study project, implemented with the support of the Japan International Cooperation Agency, initially consisted of teachers meeting monthly to share classroom challenges and develop lesson plans to address them. The first evaluation indicated new teaching practices had been successfully adopted and student learning outcomes improved (Jung et al., 2016). Scaling up, however, was not as successful, with only limited improvement

> *"Teachers submit situational reports where they highlight their challenges and then we set targets to achieve them … . [T]he curriculum leads also consult them and get their difficult topics so that they are discussed at professional learning community meetings."*
>
> Education stakeholder in Rwanda

observed. In Ghana, research for this report showed that weekly professional learning community sessions took place in high-performing schools in the Central Region but not at all in the Upper West Region.

Teacher guides and structured pedagogy are increasingly used as forms of instructional support in most world regions. Teacher guides are intended as clear, detailed tools to support teachers in instructional practice. The level of detail varies, from heavily scripted lesson plans dictating word by word what teachers should say to more lightly scripted lessons where teachers follow a rigorous structure yet have more autonomy to adapt it. The strict approach has led to intense debate, with critics believing such programmes can undermine teacher expertise and creativity, especially the ability to adapt to diverse student needs (Hoogeven and Rossi, 2019).

A recent study covering 19 projects in 13 countries, 8 of them in sub-Saharan Africa, found that projects with teacher guides could significantly increase reading fluency but that excessive scripting had a negative impact on programme effectiveness (Piper et al., 2018). Overall, studies tend to show that what matters is not whether a programme is scripted but the existence of a comprehensive structure that teachers can follow and fall back on when needed. This means the vision of 'teacher-proof' lesson plans, accessible even to untrained and unqualified individuals, may not be as achievable as suggested in earlier models of scripted teaching, such as those of the for-profit school chains Bridge International Academies, Omega Schools and Rising Academies (Härmä, 2021). Lessons in more recent programs are typically less scripted and shorter. In Kenya, grade 1 English lessons under the Primary Math and Reading Initiative in 2012–14 were more than five times as long as those in the Tusome Early Grade Reading Activity that followed (Piper et al., 2018).

In successful interventions, teacher guides were part of comprehensive interventions that had at their core a more structured approach to teaching, based on cognitive science, but also considered the support needed by teachers and their teaching conditions. The Gauteng Primary Language and Mathematics Strategy in South Africa was shown to be positively associated with improvements in early-grade mathematics. Implemented in over 1,000 primary schools, the initiative combined lesson plans, designed to expand the range of teacher pedagogical approaches, with learner materials of good quality and personalized instructional coaching to help teachers adopt more effective practices (Fleisch et al., 2016).

In Ghana, the Early Grade Reading Programme had a major impact on learning. It developed and distributed teacher guides with scripted lesson plans as well as textbooks in the 11 official languages of instruction, among other classroom materials. The programme built on phonics-based reading approaches and included teacher coaching and mentoring. It significantly increased reading proficiency in the Ghanaian languages as well as English, with students who took part in the programme being 10 percentage points more likely to achieve reading comprehension proficiency than their peers who did not (USAID, 2019).

> *"When you change the language of instruction for a student, it complicates things because they don't get to master the language and it hinders them from succeeding."*
>
> Spotlight workshop participant in Rwanda

Conclusion

Teachers are the most important component of education systems. However, ambitious national education policies, in the context of rapid demographic growth, put a tremendous amount of pressure on the teaching workforce in Africa. There are not enough qualified teachers, resulting in high pupil/teacher ratios, and many have not mastered a minimum set of necessary pedagogical skills. On top of that, teaching conditions are challenging, with insufficient infrastructure, teaching and learning materials, and development opportunities.

While there is often an emphasis on teacher failings, increased support is needed in the form of more teacher recruitment, decent pay and capacity development. In interventions that have managed to have an impact on teacher practices and student learning outcomes, a common denominator is a structured and trusted environment that helps teachers develop effective pedagogical practices for early grades. But most such programmes have not been scaled up to the national level and depend heavily on external support. It is necessary to integrate good practices into national education strategies and ensure a consistent and comprehensive approach to teacher training and support.

7 Teacher and school support

A USAID-supported training session for teachers in Mbandaka, northern Democratic Republic of the Congo. (CREDIT: Julie Polumbo/USAID EastAfrica)

- The role of school leaders in improving learning outcomes in Africa has been neglected, despite increasing evidence of their importance.
- Too often, head teacher selection is neither transparent nor fair, jeopardizing both education system effectiveness and teacher motivation.
- Head teachers are not just managers but also pedagogical leaders. Yet in practice, more attention is paid to administrative tasks than pedagogical transformation and support.
- There are relatively few female head teachers in Africa despite their demonstrated ability for transformational leadership.

KEY INSIGHTS

- School leadership has been estimated as accounting for up to 27% of school-related variation in student learning outcome
- In 14 countries, almost 30% of early-grade students were taught in a school where the head teacher had not received professional development
- In 12 of 14 countries in PASEC 2019, less than a third of grade 6 students were studying in a school with a female head teacher
- In 10 out of 14 participating francophone countries in PASEC 2019, reading scores of students with a female head teacher were significantly better than those of students with a male head teacher

> *When a certain school performs poorly academically, all channels, from the head of the school, sector, up to the district, are responsible for answering that problem.*
>
> Sector education officer in Rwanda

Delivering improved foundational learning outcomes requires a range of interventions that depart from how things have been done traditionally. Teachers and schools have been used to long-established ways of work and need support to embrace new methods. Reform initiatives cannot rely on one-off transmission of information. Changes need to be explained, questions answered, clarifications provided and practice monitored. Such follow-up requires a committed body of local education officers and school leaders who will ensure that teachers adhere to the spirit of the reform and corrections are made where necessary.

School leadership, in particular, was once listed as second only to classroom teaching in importance, accounting for up to 27% of school-related variation in student learning outcome (Bush and Glover, 2016; Leithwood et al., 2008). While this finding has been moderated since, effective school leadership – which fosters conducive learning conditions, applies the best pedagogical approaches, aligns curriculum and teacher practice and supports community involvement – is consistently shown to be fundamental (Leithwood et al., 2020; Robinson et al., 2009).

School leadership can be categorized into six dimensions: setting education goals; securing the right resources; creating educational connections between all actors; forming a community around student learning improvement; providing an environment open for discussion and problem solving; and selecting, developing and using fit-for-purpose tools when needed (Robinson et al., 2009). Applying and complying with the principles of the national education vision is strongly associated with the role of school leaders and head teachers. Schools with committed and competent directors have less absenteeism and their students enjoy more instruction time and higher professional standards. Schools with competent head teachers typically are early adopters of changes in pedagogical practices and their students have better learning outcomes.

However, scant attention has been paid to school leadership in Africa, whether in research (Hallinger, 2019) or in policy and practice (Bashir et al., 2018; Bush and Glover, 2016). For instance, a recent review of improving learning at scale (RTI International, 2021) did not address the issue of school leadership despite its prominent role in the policy interventions included and the literature on which the study drew. Another review, of instructional leadership in six sub-Saharan African countries, pointed out that no country analysed had a fully developed instructional leadership model (Bush et al., 2021). This lack of attention contrasts with the available evidence and with national stakeholder perspectives on what matters to improve learning outcomes. In all Spotlight focus countries, the importance of school leaders and head teachers has been highlighted as a key concern. Three main issues were recurrent: recruiting, selecting and training effective professional leaders; charting a course for action at school level that aligns with the national vision; and positioning school leaders as role models for reducing education inequality.

School leader selection and professional development are neglected policy issues

School leader selection in Africa has been frequently discussed (Bush and Glover, 2016). In many cases, there is no formal requirement for leaders to be trained managers. Although appointment criteria vary by country, it is usually implicitly assumed that years of teaching experience are equivalent to school leadership competency (Bush and Oduro, 2006).

Spotlight research shows that much attention is directed at transparency and fairness in the selection of school leaders. In the Democratic Republic of the Congo, a commonly expressed concern was the amount of discretion in head teacher selection, which is not based on objective criteria. This concern is fuelled by how system governance is split between government and faith-based organizations. In Mozambique, school leader recruitment was identified as lacking in transparency and rigour. Leadership positions, from district administrators to head teachers, are perceived to be based on political appointments, with little consideration of the competencies required for such positions. An education sector plan had called for documented and transparent competition to select head teachers, but no clear policy was enacted. Low levels of learning are partly associated with low levels of engagement of school leaders with the learning process.

In Ghana, lack of transparency and clarity on head teacher appointments has generated tensions among teachers (Donkor, 2015). The political nature of head teacher appointments has been observed in Liberia, Nigeria and Sierra Leone; it is linked to membership of specific ethnic groups or political parties, along with personal connections and religious ties (Moriba and Edwards, 2009; Ofoegbu et al., 2013). Seniority was found to be the main appointment criterion in Zambia, with prior training not a requirement (Kabeta, 2020).

School leaders tend to focus more on their managerial than their pedagogical role. This is partly explained by their lack of training. Early research on school leaders in Africa showed not only that they work in poorly equipped school environments with untrained staff who require substantial and continuous professional development, but also that they themselves are recruited for reasons other than their leadership capabilities, and that they receive insufficient induction and training (Bush and Oduro, 2006).

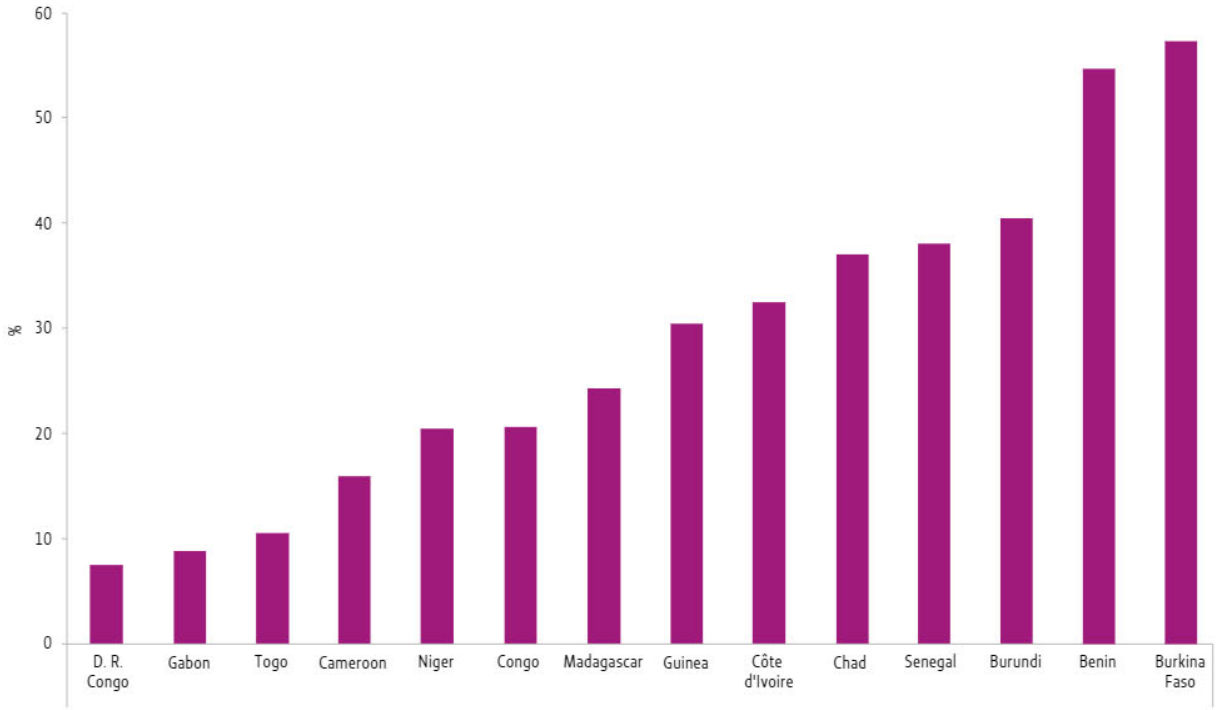
Leading a school has become increasingly complex and demanding (Bush, 2006). Leaders must be administrators, managers, pedagogical advisers, transformation agents, career counsellors and more. But too often, one or several of these roles are neglected. In Cameroon and Ghana, school leaders were found to focus mostly on administration and supervision rather than staff support and a collective vision (Besong, 2013; Zame et al., 2008). In 10 of 15 countries that took part in the 2007 Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) assessment, at least one third of primary school students had a teacher who did not receive regular pedagogical advice from the head teacher (Bashir et al., 2018).

The Spotlight research echoes such findings. In the Democratic Republic of the Congo, head teacher support was reported as absent because of lack of training. In Mozambique, the mere presence of the head teacher was seen as halving the probability of teacher absenteeism. Yet school leader selection and training were perceived at the local level to be ineffective and not conducive to changing school management practices. At the central level, training content and delivery were not questioned but stakeholders pointed to political motivations, personal interests, and absence of consequences when schools performed poorly. School leaders were also said to take on administrative and political responsibilities unrelated to their school duties.

FIGURE 7.1

In many African countries, school leaders have no professional development opportunities

Proportion of school leaders who have not undergone continuing professional development, 2019



Source: CONFEMEN (2020).

Analyses suggested that training tended to focus on school operations and teacher absenteeism control at the expense of pedagogical and teaching practices. Moreover, training opportunities were often inadequate (Bush and Glover, 2016; Donkor, 2015). In Senegal, head teachers were generally aware of their wide-ranging professional responsibilities and notably their role in coaching and supporting teachers at school, but struggled to monitor new curriculum implementation and promote compliance effectively. They were not trained in operational aspects, such as budget management, despite carrying such responsibilities.

In Zambia, a study noted that the majority of head teachers did not receive training before or after their appointment. Pre-service training opportunities offered little or inadequate content on school leadership. Training opportunities were limited. Only one institution, the National In-Service Training College, provided training on education management and leadership (Kabeta, 2020).

The most recent round of the Programme d'Analyse des Systèmes Educatifs de la CONFEMEN (PASEC, CONFEMEN Programme for Education System Analysis) assessment provides insights on the low level of continuing professional development for head teachers in francophone Africa. In 14 countries, almost 30% of early grade students were taught in a school where the head teacher had not received professional development; in Benin and Burkina Faso, the share was almost twice that (**Figure 7.1**).

Some countries, however, have started to address the issue of school leadership development. In Ghana, the best-performing schools observed during the Spotlight research had proactive head teachers who acted as models for their teachers and staff; took part in supervision, lesson observation and organization of

effective weekly professional learning communities; and set a high level of professional standards. Ghana is spearheading efforts to develop leadership to improve foundational learning. Ministry of Education reforms include a plan to establish the creation of a national institution dedicated to the training of head teachers and school leaders. The country has also adopted a Professional Education Leadership Qualification Framework (Ghana Ministry of Education, 2020) and associated professional leadership training in Ghanaian universities.

Development partners have supported related initiatives to improve learning. The Strengthening Teacher Accountability to Reach all Students programme, implemented in 2018 and 2019 by Innovations for Poverty Action, UNICEF and the Ghana Education Service, covered 140 schools in 20 districts and aimed to raise student achievement by improving head teacher and pedagogical adviser support through better monitoring, enhanced feedback and incentives to target teaching by ability rather than by grade. Schools that received training in targeted instruction (where students were assessed, and then taught in class groups according to their level) and targeted instruction plus management training had better reading and mathematics scores than schools in a control group without intervention. The approach was scaled up nationally as part of the Ghana Accountability for Learning Outcomes Project, which includes a component of school-based support and instructional leadership.

In Rwanda, head teachers are responsible for overseeing curriculum adoption and teacher pedagogical effectiveness. The Ministry of Education has developed targeted training in instructional leadership to help head teachers support their teaching staff's professional development. The Mureke Dusome (Let's Read) project, implemented between 2016 and 2020, aimed to improve literacy outcomes by reinforcing school leadership capacity. Between 2018 and 2021, VVOB and the Mastercard Foundation worked closely with the government to strengthen school leadership through continuing professional development support systems in a programme targeting 680 secondary schools in 14 districts. Professional development of school leaders was provided through certified courses in effective school leadership and through school leader professional learning networks. In schools where leaders were trained, support for teacher professional development was strengthened, teaching staff learning improved and collaboration between schools and communities increased (VVOB, 2021).

In Benin, Côte d'Ivoire and Senegal, large foundational literacy programmes emphasized the training of head teachers in instructional leadership (**Box 7.1**). In Botswana, where the practice was to appoint teachers with substantial teaching experience or to promote deputy head teachers as principals (Pheko, 2008), recruitment requirements were made stricter to include a bachelor's degree in primary education or its equivalent and at least 10 years of experience, including 2 years as a deputy head (Pheko et al., 2018). South Africa has also made efforts to professionalize school leaders. In 2007, the mandatory School Leadership Advanced Certificate in Education was established. Later, an Advanced Diploma in School Leadership and Management was introduced, in line with the South African Standard for Principalship policy (Zuze and Juan, 2018).

BOX 7.1

Benin, Côte d'Ivoire and Senegal trained head teachers as instructional and transformational leaders

Benin, Côte d'Ivoire and Senegal have recently implemented large foundational literacy programmes in which head teachers played a central role in ensuring adoption of new pedagogical practices and supporting teachers in their daily activities. Benin's programme, funded by the Global Partnership for Education, started in 2019 and targets all primary schools, focusing on reading and mathematics in grades 1 and 2. Mon enfant apprend mieux à l'école (My Child Learns Better in School), Côte d'Ivoire's programme, was launched in 2018 in 700 primary schools in 6 regions. In Senegal, the Lecture pour tous (Reading for All) programme between 2016 and 2021 aimed to improve reading skills in Wolof, Pulaar and Serer in four regions through phonics-based instruction and decodable textbooks in grades 1 to 3.

These programmes have been considered successful in raising learning outcomes. Their impact is partly attributed to individualized coaching, combined with shifting the role of head teachers from controlling, collecting data and supervising to supporting and mentoring teachers. In Benin, more than 12,000 head teachers were trained on coaching teachers in 2021/22. In Côte d'Ivoire, all 700 head teachers had been trained by 2021 to support teachers as they implemented the new literacy programmes. In Senegal, head teachers in participating schools were trained as coaches with a plan to visit teachers in their classroom at least twice per month. Inspectors also visited schools every quarter and provided further training and feedback to school directors and teachers.

Head teachers' proactive role as instructional leaders was not limited to individual coaching. In Senegal, where almost 80% of head teachers served as coaches, some two thirds also reported participating in Cellules d'animation pédagogiques (Pedagogical Animation Units), professional development sessions run by head teachers. In Côte d'Ivoire, inspectors meet monthly with teachers and head teachers from school clusters to discuss specific pedagogical issues and improve programme implementation. Such sessions are also planned for 2022/23 in Benin.

Source: Zafeirakou (2022).

Both instructional and transformational leadership are needed

The relative importance of instructional leadership (Abonyi and Sofo, 2019; Sibomana, 2020) and transformational leadership (Bush, 2014; Kwan, 2020) are often debated – specifically, whether student learning outcomes improve more if head teachers directly supervise teachers and monitor teaching practices vs inspiring teachers and building their capacity. In practice, head teachers' role straddles the boundary between control and support.

While policy statements in Nigeria, the United Republic of Tanzania and Zambia refer to head teachers as instructional leaders, there is little evidence of implementation (Bush et al., 2021). In Zambia, the 1996 National Education Policy identified instructional leadership as a priority to improve education quality, yet key instructional leadership functions are not prevalent in schools (Kabeta, 2020).

Effective instructional leadership has positive effects on learning outcomes. In Botswana, an analysis of high- and low-performing rural primary schools in the Kweneng region showed that better involvement of head teachers was associated with better academic results (Bakokonyane, 2022). In Lesotho, student performance in primary schools in Mohale's Hoek district improved when head teachers strongly supported teachers in their daily practice and motivated and inspired students through positive reinforcement (Teba-Teba and Makura, 2021). In Kenya, the recent Tusome programme combined

school support and monitoring with instructional and transformational leadership to build the system's capacity to teach foundational literacy and numeracy skills. The programme took advantage of real-time data collection to develop layers of accountability and formative feedback from the central level to the classroom level (**Box 7.2**).

Head teachers can improve student achievement by establishing benchmarks for their schools. In a rural district in Ghana, all interviewed head teachers reported having set specific goals to improve student results in the Basic Education Certificate Examination. Their decisions were informed by student reading proficiency levels, leading to targeted programmes such as extra classes for students in need of them (Abonyi and Sofo, 2019). Spotlight research in Ghana showed that the schools with better classroom practices were those where the head teacher set the overall tone and acted as a role model for teachers by conducting supportive supervision, observing lessons and setting standards for attendance, punctuality and lesson preparation. In these contexts, head teachers oversaw effective weekly professional learning communities and encouraged teachers to develop instructional materials.

The indirect effect of school leadership can also be significant. In Ethiopia, the commitment of school leadership and the extent of community engagement in school matters heavily influenced variation in access rates between primary schools in three zones of the South West Ethiopia Peoples' Region (Yadessa and Shemelis, 2022). In Mozambique, a study involving 95 primary schools showed that the effect of transformational leadership was large but indirect and mediated though professional learning communities and teacher learning (Luyten and Bazo, 2019). In Zambia, head teacher endorsement of interactive teaching and appropriate time commitment were essential factors for the implementation of continuing teacher professional development programmes (Haßler et al., 2014).

Supervision of system performance and curriculum implementation has, however, proven difficult. In Rwanda, school management is shared in general assemblies made up of parents, head teachers, teachers and even students. General assemblies approve budgets and action plans, as well as teacher bonuses. During the Spotlight research, stakeholders stressed the importance of clarity in supervision and monitoring structures, particularly where responsibilities overlap. It was felt that head teachers and deputy head teachers should play a more prominent role in supervision and monitoring, which is complicated by the many actors and the lack of clarity on roles and responsibilities. This results in application being inconsistent between schools, with the frequency of supervision visits ranging from weekly to annually. Supervision is often understood as an accountability mechanism. Head teachers consider it a way to ensure compliance and exert control over teachers. The Spotlight research indicated that a stronger focus was needed on supporting teachers in their mastery of pedagogical practices aligned with the competence-based curriculum.

In Mozambique, school inspections have been irregularly carried out despite a recent policy of at least three supervision visits per year to review teacher presence, classroom assistance and hygiene conditions. There are no incentives or sanctions for head teachers to improve learning conditions, and hence no pressure to perform better. Head teachers admitted that infrequent inspection was one factor behind poor teaching performance. In deprived areas, head teachers' dedication and professionalism thus play a critical role.

In Senegal, when head teachers' vision is not aligned with the national education strategy, policy operationalization is hindered, especially as head teachers are the main resource persons for new pedagogical directions and practices. Senegal has several layers of support to schools, including class visits, supervision visits, head teacher collectives, and educational and cultural activity units. Spotlight research stressed the need for strengthening head teacher effectiveness, especially in monitoring learning and compliance with the curriculum. Class visits need to be more frequent and professional learning communities developed.

BOX 7.2

Kenya's Tusome programme combined school support and monitoring with effective leadership at all levels

The USAID-funded Tusome (Let's Read) early-grade reading programme in Kenya was one of only a few interventions in Africa that led to a significant improvement in foundational learning and were implemented at scale (Bashir et al., 2018; Piper et al., 2018; RTI International, 2021). Launched in 2015, it supported some 3.3 million children a year in grades 1 to 3. As of early 2022, the programme had trained 77,000 primary school teachers and provided 26 million textbooks, reaching virtually all early-grade learners in the country (USAID, 2022). It was estimated that reading gains of grade 2 students in Kiswahili and English between 2015 and 2019 were equivalent to one additional year of schooling (Keaveney et al., 2020).

Key features of Tusome's success were continuous and close collaboration with government officials and involvement and training of staff at all levels of administration, down to the school level. A clear national vision for education, endorsed and promoted at all leadership levels, was instrumental in ensuring adoption of effective pedagogical practices across the programme. Efficient monitoring and support channels enabled rapid adjustment at the national, subnational and classroom levels.

Tusome's official launch by Kenya's president in 2015 provided the highest level of buy-in and ownership, enabling all stakeholders to associate Tusome with a national vision for education. Learning objectives at grades 1 and 2, set in collaboration with the Kenya National Examinations Council, were adopted as national benchmarks by the government, setting clear expectations from the start. They were used throughout the first cycle of teacher training to develop a shared notion of what children should be able to do to be considered proficient readers. The benchmarks were evaluated and adapted during the programme to consider subnational variations in starting points, as well as children with visual or hearing impairment.

Head teachers, curriculum support officers (CSOs) and instructional coaches made some 20,000 classroom observations every month. They collected and analysed data and provided feedback and support to teachers using recommendations from a tablet-based classroom observation tool. Head teachers were trained to be instructional leaders in their schools as they managed the development and use of new learning materials. CSOs received monthly or bimonthly feedback based on county-level and national Tusome technical team observations. CSOs and Tusome coaches were given the same training they would later provide to teachers, which equipped them with a better understanding of the pedagogical approaches used in the programme.

The programme included four levels of accountability. First, classroom observation and instructional support were included in CSO job descriptions as core responsibilities. Second, Tusome-related tasks were included in coaches' performance-based contracts and their evaluations. Third, the Ministry of Education and the Teachers Service Commission collaborated at the county level to institutionalize classroom observation and pedagogical support. County-level dashboards, presenting individual and aggregated pedagogical support data, became an important tool in monthly management. Finally, ministry officials received some 50 daily reports on classroom quality. When gaps were identified, support teams were sent to reinforce programme implementation. Tusome programme data were also shared with the cabinet secretary before meetings with county officials to discuss the level and quality of implementation and to reward high-performing officers.

Significantly, the programme had an exit strategy. USAID and its implementing partners handed over Tusome ownership and financial responsibility to the government, which now fully funds classroom observations, textbook printing and distribution, and teacher and CSO training. The programme was phased out in 2019 and merged into a new competence-based curriculum programme.

Source: Piper (2022).

Head teachers can be role models for gender equality

Spotlight research highlighted the role of head teachers as potential role models who inspire teachers and students. Female school leaders, in particular, can make a significant difference in student learning, through adoption of new pedagogical practices and a conducive learning environment. Female head teachers have been shown to adopt a leadership style that is well aligned with a supportive and adaptable environment, focusing on improving learning outcomes, student learning experiences and good teacher professional conditions.

Research in Côte d'Ivoire, Nigeria, South Africa, Uganda, the United Republic of Tanzania and Zimbabwe has shown that female head teachers are more likely to lead in a collegial, collaborative and caring manner, favour shared and inclusive decision-making, and foster transparency and information sharing (Dady and Bali, 2020; Dejaeghere et al., 2009; Lumby and Azaola, 2014; Moyo et al., 2020; Nosike and Nkasiobi, 2011; Oyeniran and Anchomese, 2018).

Female head teachers can be aspirational role models of female success for young girls (Lumby et al., 2010) and inspire girls to enter and stay in school (Egbetayo and Fakoya, 2020; World Bank, 2007). A female head teacher was a significant factor in parents' decisions to send girls to school in Somaliland (GPE, 2017). When women are under-represented in these positions, there are implications for girls' attendance and learning. In Ghana, acute under-representation of women in school headship and the consequent lack of female role models was shown to have negative effects on girls' attitudes to learning (Bush and Oduro, 2006).

A recent UNICEF study on teacher absenteeism in West and Central Africa showed that female leaders were more prone to use approaches that sensitize teachers to the importance of their role and actively encourage teacher attendance (Brossard and Bergmann, 2022). A study of female primary school head teachers in Abidjan, Côte d'Ivoire, pointed to the significant role of female school leaders in improving teacher commitment and ultimately student learning outcomes. Students in schools headed by a woman performed better than their peers in schools with male head teachers. In 10 out of 14 participating francophone countries in the 2019 PASEC, reading scores of students with a female head teacher were significantly better than those of students with a male head teacher (**Figure 7.2**).

Despite emerging evidence, women remain largely under-represented in school leadership roles (Brossard and Bergmann, 2022; Comba, 2021). In 12 of 14 countries in the 2019 PASEC, less than a third of grade 6 students were studying in a school with a female head teacher (**Figure 7.2**). In Burkina Faso, Chad, Côte d'Ivoire, the Democratic Republic of the Congo, Guinea, Senegal and Togo, less than a sixth did. In some cases, the absence of women in leadership positions contrasted significantly with the share of female teachers. In Niger and Zambia, women constitute half of the teacher workforce at the primary education level but only 17% and 21% of head teachers, respectively (Brossard and Bergmann, 2022). The situation is similar in South Africa: women teachers outnumber men teachers but are under-represented in school leadership positions.

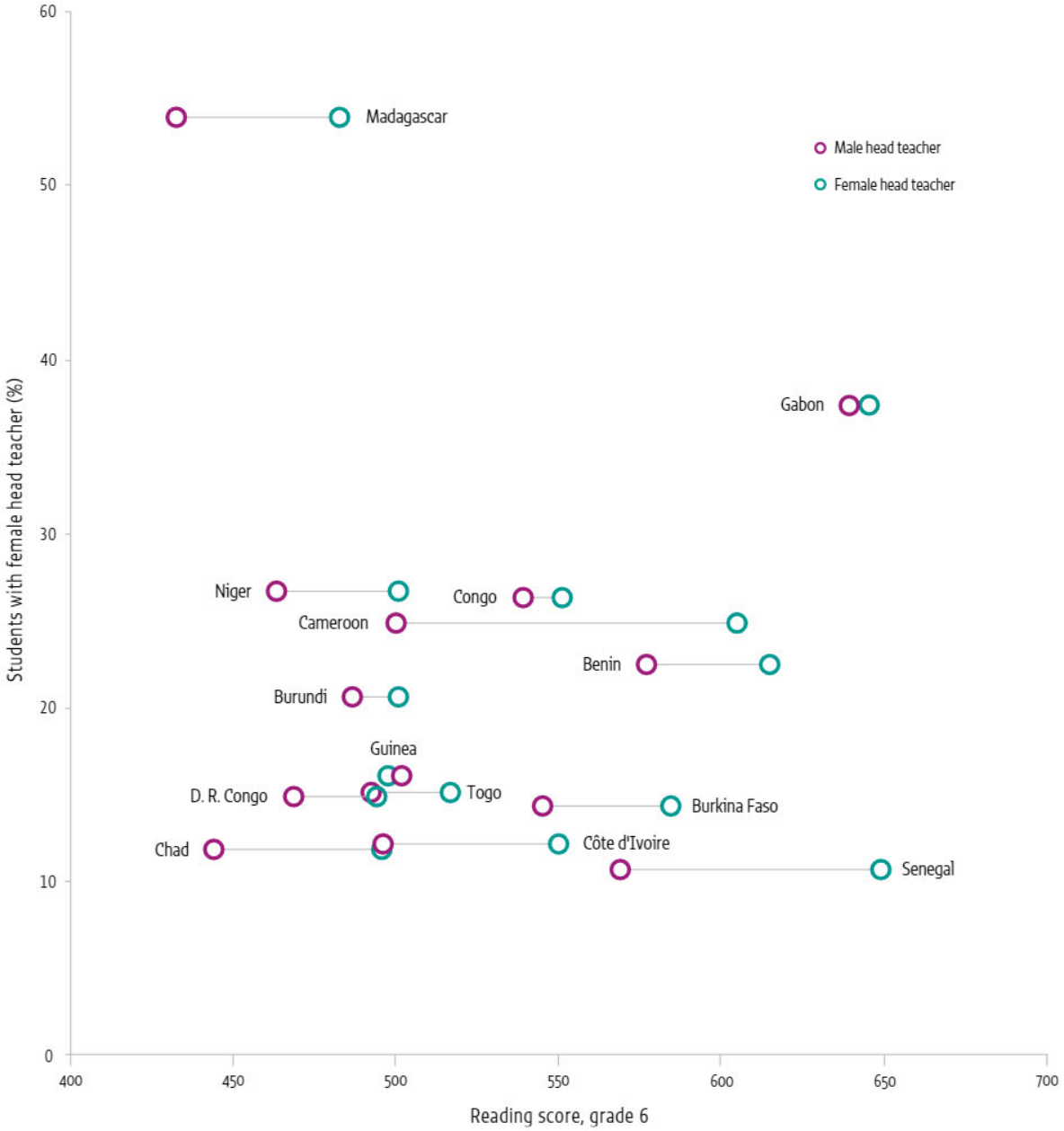
There are multiple reasons behind the gender gap in school leadership, including negative attitudes based on prejudice, traditional social customs and expectations of women that affect organizational culture (Netshitangani, 2018). In Ghana, cultural norms perceive women as vulnerable and they are discouraged from taking posts in poor rural areas (Bush and Oduro, 2006). Self-exclusion due to gender stereotypes was found to be the major cause of women's under-representation in primary school leadership positions in Zimbabwe. Although most female teachers in the study sample were qualified to undertake a headship position, most of them did not apply for promotion due to low self-esteem, the importance given to family responsibilities and lack of external support (Chabaya

et al., 2009). Negative teacher attitudes towards female head teachers were among the greatest barriers to effective primary school management in Masvingo, Zimbabwe (Makura, 2009). Gender biases in appointment and promotion procedures, lack of support and training, and rigid career paths associated with lack of transparency were the related structural and institutional factors associated with a relative dearth of headship opportunities for women (Barmao, 2013; Melka et al., 2022).

FIGURE 7.2

Students in schools with female head teachers perform better in reading, but female head teachers remain a minority

Reading scores, end of primary, by gender of head teacher, and overall proportion of pupils with a female head teacher, selected countries, 2019



Note: The vertical axis shows the national share of students with a female head teacher.
Source: CONFEMEN (2020).

Conclusion

Emerging evidence on the impact of competent, dedicated and effective head teachers on student learning makes it urgent for education systems to improve the selection, appointment and training of school leaders. Head teachers are charged with transmitting and implementing government policy. Their in-depth knowledge of their communities and their teachers' competencies can help build an important bridge between national ambitions and local realities. Through instructional leadership, head teachers can make sure that pedagogical changes and guidelines are implemented and adapted when necessary. Through transformational leadership, they inspire teachers and students to strive towards clear learning objectives.

While there has been much emphasis on control and accountability in defining the role of head teachers, the Spotlight research and recent academic literature show that their potential as a key pedagogical resource has been neglected. This is not the result of unwillingness to learn but rather lack of training and support. Also, while school leadership positions remain overwhelmingly occupied by men, female head teachers can, in some contexts, have better results in improving learning outcomes. Governments and development partners have begun to recognize the importance of effective school leadership. Several positive examples show that support to head teachers, especially at the district level, is an essential component of education policies that seek to improve student learning outcomes.

Head teachers and school leaders drive education systems' effectiveness. This effectiveness is further reinforced when balanced mechanisms for supervision and monitoring are established and help improve teaching practices and system management. Recent examples show that when monitoring and supervision reinforce educational leaders' knowledge and understanding of the situation across classrooms, schools, districts and provinces, the result is even more positive effects of leadership on teacher motivation, well-being and professional commitment, and, ultimately, on student learning.

8 Parental and community engagement

Success Amos, 12, and her mother, Comfort, 35, outside their home in Ushafa, Abuja, Nigeria. (CREDIT: GEM Report/Arete Photos)

- Early childhood education can offset the effects of growing up in disadvantaged home environments. While African countries are trying to expand services, with some focusing on the expected learning standards, they are constrained by scarcity of professional staff.
- High malnutrition rates undermine cognitive development. But the coverage of school feeding programmes, in most cases drawing on community contributions, remains limited and the programmes rely too heavily on external funding.
- Ensuring meaningful community participation in school management should remain a top policy priority in Africa. The emphasis should be on empowering parents to raise their voices, which may not necessarily require access to formal data as is often assumed.

KEY INSIGHTS

- Among the 20 countries with the world's lowest preschool participation rates, 14 are in Africa
- In Francophone Africa, students who attended some form of organized early childhood education scored in reading the equivalent of more than a year of learning
- One in three primary school students in Africa receives a school meal
- A cost-benefit analysis of school feeding programmes estimated that an investment of US$11 billion per year resulted in a return of US$156 billion through increased school attendance
- Domestic funding covers only 38% of the total cost of school feeding programmes in low-income countries

> *"[A] child who does not yet know how to read and calculate needs more help at home because the learning time in class is insufficient."*
>
> Teacher in Senegal

Parents and communities are not passive recipients of education policies. It is recognized that their engagement with teaching and learning can contribute to improved student outcomes (Pisani and Dowd, 2022). However, there is little evidence of parental engagement helping improve outcomes. In the Democratic Republic of the Congo, parents are usually represented in school management bodies but without having a clear impact on learning. In Ghana, schools are expected to have a school council where parents can contribute to school management and monitoring of pedagogical practices. However, cultural differences between communities and their effect on local expectations seem to have a larger bearing on whether schools and teachers adopt innovative practices. In Mozambique, most schools have a school council with parents and community members represented, but the Spotlight research suggests that strengthening their role in improving learning outcomes must be embraced as a top policy priority. In Senegal, community mobilization is one of the five key objectives of the PAQUET education reform to improve foundational literacy and numeracy. But the effectiveness of mechanisms to foster parental engagement with the pedagogical process remains weak. Parent–teacher associations rarely operate as planned, which can be detrimental for learning continuity between school and home.

Apart from participation in committees, other approaches have been used to target communities and support their engagement with the learning process, albeit with little evidence of success. In the Democratic Republic of the Congo, the Projet d'Amélioration de la Qualité de l'Education (Education Quality Improvement Project) aimed to disseminate learning assessment results to communities but so far has reached only provincial authorities, not schools or parents. In Ghana, national stakeholder workshops and regional education offices identified community engagement programmes as one of the top two policy priorities, but evidence of their success remains limited. In Mozambique, community mobilization at the start of the school year helps raise enrolment, but ultimately costs of education supplies, uniforms and transport often result in early school leaving. In Senegal, the Lecture pour tous (Reading for All) programme improved children's home learning environments by distributing textbooks and booklets to parents and caregivers.

> *"The school council works. We have held two quarterly meetings. One of the problems that the school council has solved is about the dropout of students, the issue of diligence on the part of the students and also on the part of the teachers."*
>
> Stakeholder workshop participant in Mozambique

> *"The connection between the school and community is not what it was in the past. We need to see how we can re-engage parents and community members so they work with the school to identify local resources to improve teaching and learning."*
>
> Stakeholder workshop participant in Ghana

In several cases, education and learning would not happen without community involvement. Communities help maintain school premises and build classrooms or even teachers' houses. The Home-Grown School Construction Approach in Rwanda is based on *umuganda*, a practice of community work one day per month. Communities also support other government programmes. In 2021, the Ministry of Education committed to deliver school meals to all children from pre-primary to lower secondary education (Rwanda Ministry of Education, 2021) and offered to cover 40% of the cost, with the remaining 60% to be covered by families, who can make cash or in-kind contributions, such as food items, labour and firewood.

Government must take popular demand for education into account. In the Democratic Republic of the Congo, parents have contributed substantially to education finance for decades. But school fees had become a heavy burden on many households, especially since learning outcomes were weak, so a policy of free primary education was introduced. In Ghana, where households account for the world's largest rate of education expenditure per unit of GDP, rural parents are starting to doubt the effectiveness of their investment. In Senegal, misalignment between primary education services and community expectations is cited as a principal factor in children leaving school.

Feedback and accountability mechanisms, meant to share results with parents and communities, can influence children's access, completion and learning. Parents and communities can question service delivery quality and demand that their children's schooling meet standards, although consistent engagement remains a long-standing challenge.

Building on insights from the Spotlight research, this chapter discusses three types of intervention in which communities have been identified as key stakeholders in guaranteeing that children acquire foundational literacy and numeracy skills: support to early childhood education; school feeding; and social accountability through sharing results on learning outcomes with parents.

Provision of quality early childhood education remains elusive

Access to early childhood education is an important building block of a child's education trajectory (Bundy et al., 2017; UNESCO, 2006). Acquisition of foundational learning skills does not start from a clean slate when children enter primary school but builds on earlier cognitive development, such as shape and sound recognition, speaking and listening, and a sense of numerical magnitude (Abadzi, 2022; Borisova et al., 2017). This continuum is especially important in low-income

countries, where opportunities for stimulation and school readiness may be particularly scarce for disadvantaged children (UNESCO, 2014; UNICEF, 2016). Pre-primary education can help compensate, for instance, by offering early exposure to print and books. The Continental Education Strategy for Africa 2016–2025 recognizes the development of early childhood care and education as 'the next frontier if Africa is to realize sustained quality education and training' (African Union, 2016, p. 15).

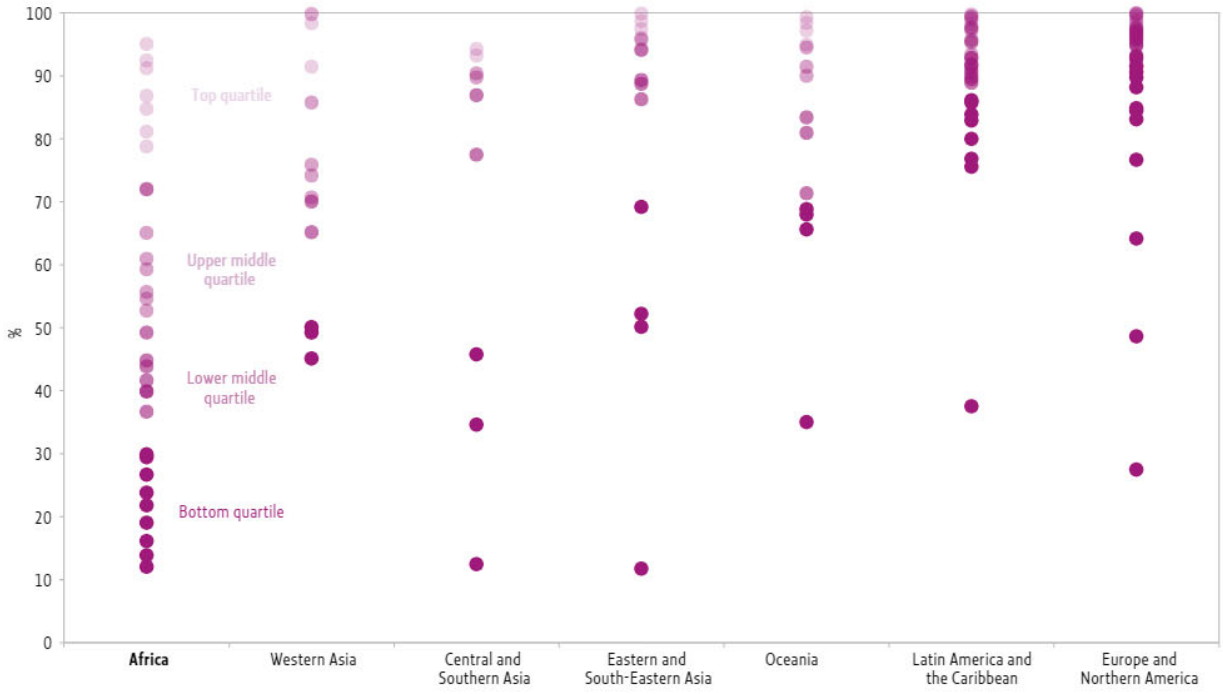
Yet participation rates in organized learning one year before the official primary entry age remain low in sub-Saharan Africa. Among countries with the relevant data, 14 of the 20 countries with the world's lowest participation rates are in Africa (**Figure 8.1**). The average participation rate in countries with administrative data is 51%. Participation rates for countries with household survey data are 10 percentage points higher, on average, as these data capture non-state institutions, including community institutions. In Senegal, for instance, the 2019 participation rate was 16% according to administrative data and 28% according to the Demographic and Health Survey. Even so, administrative data capture some registered non-state preschools: 45% of registered preschools were private and 15% were community preschools in 2020 – but in two regions, Louga and Sédhiou, communities managed and supported half of preschools, showing a significant community contribution to education (**Figure 8.2**).

Household survey data also capture the large disparities in access to preschool. On average, according to UNICEF data from 21 countries for 2017–20, children from the richest fifth of households are twice as likely to be in education (85%) as those from the poorest fifth (42%).

FIGURE 8.1

Among the 20 countries with the world's lowest preschool participation rates, 14 are in Africa

Participation rate in organized learning one year before the official primary entry age, by region, circa 2019

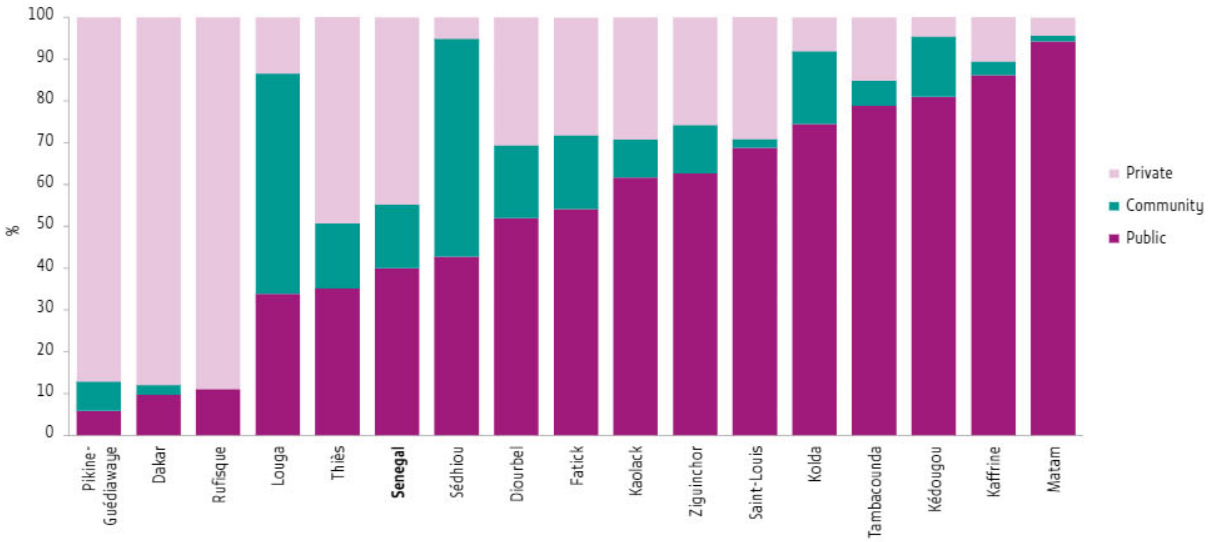


Source: UIS database.

FIGURE 8.2

In parts of Senegal, communities are major providers of early childhood education

Distribution of preschools, by type and inspectorate, Senegal, 2020

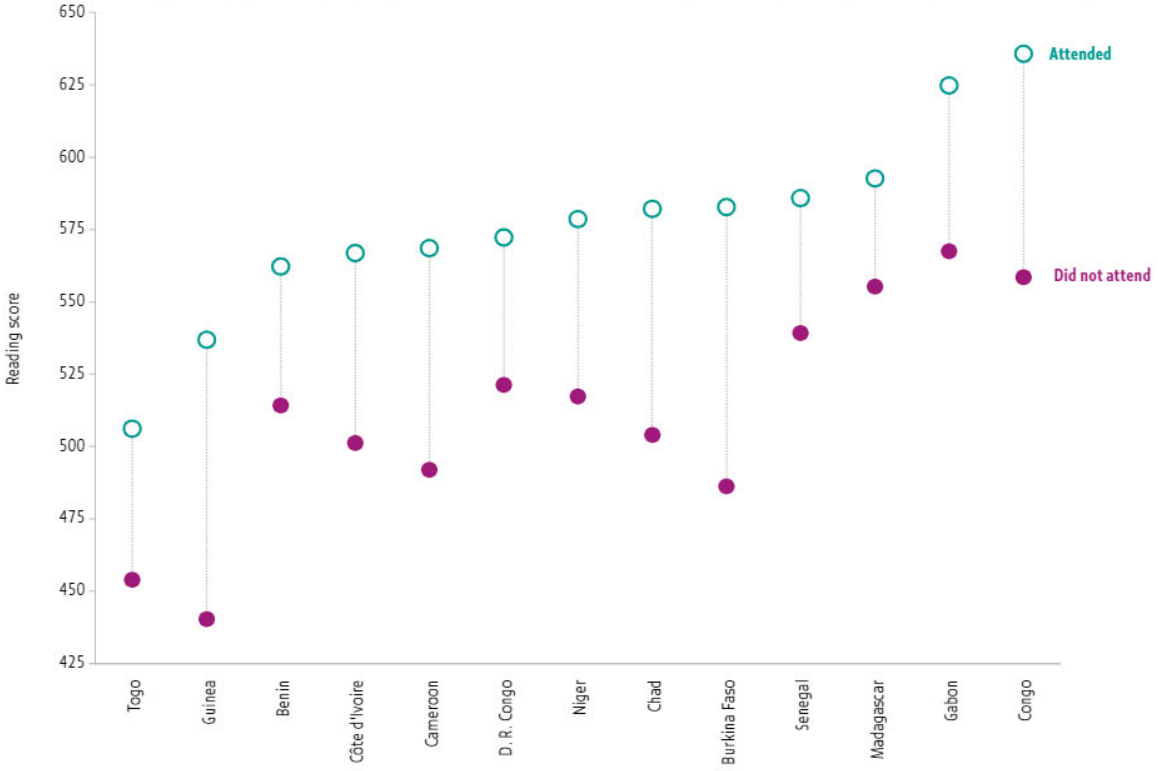


Source: Diagne (2022).

FIGURE 8.3

Those who attended preschool in Francophone Africa had a large advantage in foundational reading skills

Average reading score, grade 2, by early childhood education status, selected francophone African countries, 2019



Source: CONFEMEN (2020).

In Nigeria, 93% of the richest but 24% of the poorest 5-year-olds were in education. Such disparity at least partly explains the difference in foundational learning skill levels between students who have attended early childhood education and those who have not. Students who attended some form of organized early childhood education in 13 Francophone countries scored 66 points higher in reading, on average, than those who did not, which is equivalent to more than a year of learning. The gap reached about 100 points, or more than two years of learning, in Burkina Faso and Guinea (**Figure 8.3**). As countries begin to recognize the importance of this pivotal period in child development, more of them are making early childhood education compulsory, as in Sao Tome and Principe, to ensure that children have the necessary skills by the time they enter primary school (**Box 8.1**).

BOX 8.1

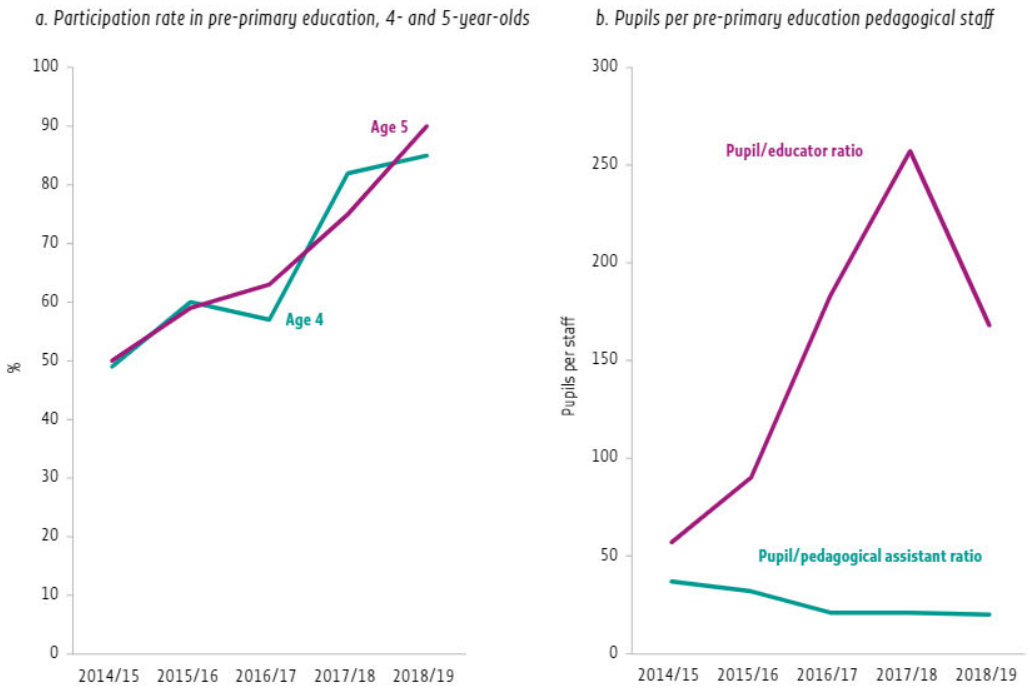
Sao Tome and Principe recognizes early childhood education as a determinant of foundational learning

In 2018, the government of Sao Tome and Principe updated its Education Policy Charter to recognize the need to invest in early childhood education as an important determinant of later education success. The charter declared preschool education to be free and compulsory for all children aged 4 and 5. Between 2015 and 2019, the share of 4- and 5-year-olds enrolled in pre-primary education increased from 50% to almost 90% (**Figure 8.4a**). This initiative was further formalized in 2021 with approval of a legal framework on preschool education. The Ministry of Education and Higher Education set two objectives: universal access for all children aged 4 and 5, with emphasis on equity and inclusion; and acquisition of relevant foundational skills through pre-primary education. Strategies to achieve these objectives include a focus on access for vulnerable groups, an integrated policy for all professionals in the preschool subsector, and better informed and involved parents and communities.

FIGURE 8.4

Access to pre-primary education expanded rapidly in Sao Tome and Principe

Selected pre-primary education indicators, Sao Tome and Principe, 2014/15 to 2018/19



Source: Government of Sao Tome and Principe.

Sao Tome and Principe participated in the Better Early Learning and Development at Scale initiative supported by the Global Partnership for Education (GPE) and UNICEF. The initiative supported the ministry in defining and articulating its vision for early childhood education in collaboration with civil society and religious institutions. Further support by UNICEF led to development of a national preschool curriculum and pedagogical materials, along with a monitoring system to ensure that the skills children acquire are aligned with the curriculum and relevant for further skills acquisition in primary school. To estimate school readiness at the end of preschool, educators and pedagogical assistants assess pupil achievement using an observation tool that collects information on cognitive, affective and motor development. The results are further analysed by pedagogical supervisors and must be presented upon entry in primary education.

However, challenges remain, as the surge in enrolment led to difficulties in maintaining the level and quality of educational staff. Between 2015 and 2019, the total number of pedagogical staff (educators and pedagogical assistants) increased by half. But while the pupil/pedagogical assistant ratio almost halved, from 37:1 to 20:1, the pupil/educator ratio nearly tripled, from 57:1 to 168:1 (**Figure 8.4b**). In other words, there has been a shift in the composition of the workforce, with more professionals who are less qualified. To address this challenge, in-service training sessions were organized to train educators and pedagogical assistants in developing teaching materials using local resources aligned with curriculum objectives. This practice aimed to help disadvantaged districts improve their practices despite having fewer resources. The World Bank will support further activities through the Girls Empowerment and Quality Education for All Project, which includes development of training modules; acquisition of teaching, learning and play materials for all preschools; and establishment of a pedagogical supervision system to foster professional development.

Source: Sao Tome and Principe Ministry of Education and Higher Education (2022), Costa et al. (2020).

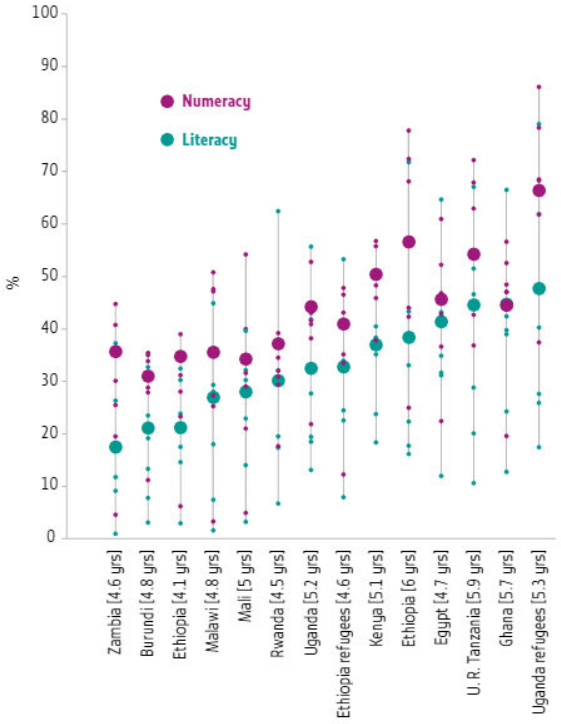
School readiness includes a wide range of cognitive, developmental and motor skills (Amod and Heafield, 2013; Peckham, 2016). Assessments of school readiness have proven useful when applied formatively to identify children who need support when entering primary education. One tool used in several locations in Africa is the International Development and Early Learning Assessment (IDELA) developed by Save the Children, an international non-governmental organization. It assesses four domains: motor skills, emergent literacy, emergent numeracy, and social and emotional skills. Across 19 project settings with children of the average age of 5, 37% had emergent literacy and 45% emergent numeracy skills (**Figure 8.5**). Within each domain, there was wide variation; for instance, in the emergent literacy domain, 16% of children were able to identify letters and 53% had oral comprehension. Rwanda was the first country to carry out a nationally representative school readiness assessment using IDELA, in 2021 (Dusabe, 2021).

Boosting caregiver confidence is an alternative way to support school readiness, especially where participation rates in organized learning are low (Borisova et al., 2017). Save the Children introduced the Emergent Literacy and Math at Home programme in Ethiopia and Rwanda. The programme included a package of simple, hands-on activities that could easily be integrated into a family's daily routine and strongly focused on making reading materials available to families. An evaluation showed that children who participated in the programme had gains comparable to or higher than those of children who went to preschool during the same period. Further, the programme made up for the effects of background characteristics, such as higher educated parents. By the end of the programme's implementation, children with low socioeconomic status achieved the same gains as their peers from better-off households (Borisova et al., 2017; Pisani and Dowd, 2018).

FIGURE 8.5

Many young children in Africa are not ready for school in terms of emergent literacy and numeracy skills

Emergent literacy and numeracy skills, 5-year-olds, selected project sites in Africa, 2016–20



Notes: The emergent literacy domain includes assessment of receptive and expressive literacy skills, as well as familiarity with the convention of printed text. Tasks (in green) include letter identification (16%), first letter sounds (23%), expressive vocabulary (34%), writing (37%), print awareness (46%) and oral comprehension (53%). The emergent numeracy domain includes assessment of foundational mathematics skills in areas such as geometry, measurement, number sense and problem solving. Tasks (in purple) include puzzle completion (18%), number identification (22%), one-to-one correspondence (42%), shape identification (43%), sorting and classification (47%) and addition and subtraction (52%). The sample ages ranged from 4.1 to 6.5 years, with an average of 5 years.
Source: Save the Children (2022).

School feeding is a cost-effective means of improving completion and learning

Children's health and nutrition are key factors affecting their school attendance, concentration, learning and cognitive development (Bundy, Nilanthi, Horton, Jamison, et al., 2017; Bundy, Nilanthi, Horton, Patton, et al., 2017). Africa is the region with the highest rate of malnutrition: Around 3 in 10 children under 5 are too short for their age. Central Africa has both the highest prevalence of malnutrition (37% in 2020) and the slowest progress (-18% since 2000) of the continent's regions (**Figure 8.6a**). This situation has been exacerbated by the COVID-19 pandemic and repercussions of the war in Ukraine. Food insecurity has been growing: It is more than twice as high in Africa (26%) as in the rest of the world (12%) (**Figure 8.6b**). Climate change, economic instability and enduring conflicts on the continent often combine to make access to food uncertain (FAO et al., 2021).

Interventions to mitigate the effects of hunger and malnutrition have been shown to be among the most cost-effective approaches to foster foundational learning improvement. It is well established that focusing on the window from conception to age 2, or the first 1,000 days, is critical for child health and development. But it is equally important to

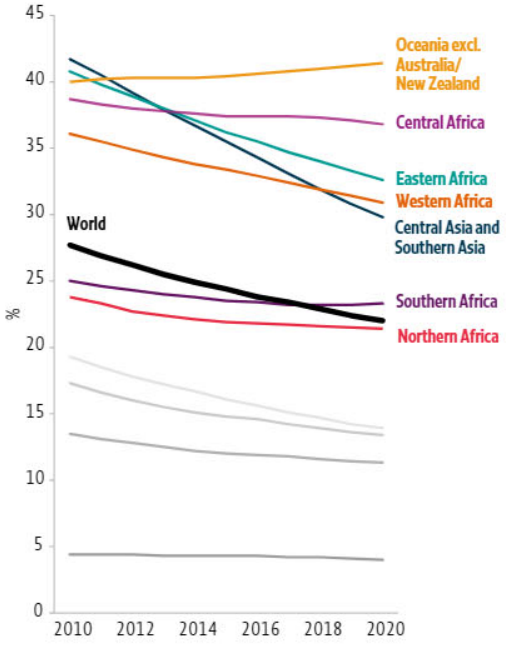
> *"Because of poverty, families cannot afford to let their children go to school. I suggest creating incentives such as school lunches. There is no hungry learning."*
>
> Teacher in Mozambique

FIGURE 8.6

The nutrition status of children and adults in Africa is poor and precarious

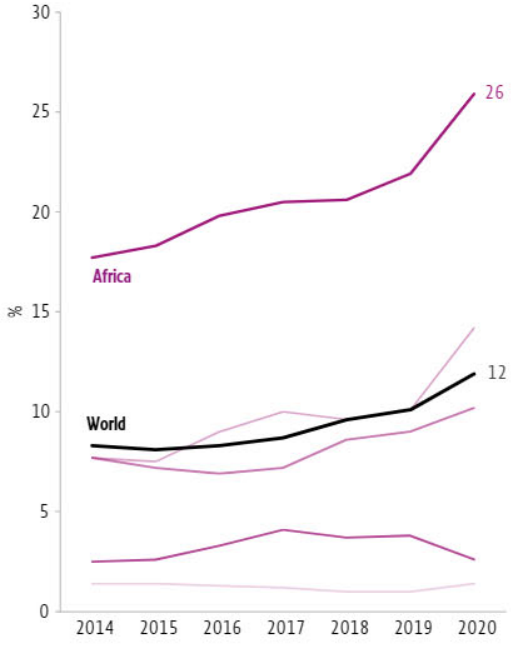
Nutrition indicators, by region, 2010s

a. Under-5 children stunting rate, 2010–20



Source: UNICEF et al. (2022).

b. Severe food insecurity, 2014–20



Source: FAO et al. (2021).

prolong support into the next 7,000 days in order to sustain early gains or offset some of the cognitive loss undergone by age 5 (Bundy, Nilanthi, Horton, Jamison, et al., 2017; Glewwe and Miguel, 2007). Recent research recommends expanding nutrition policies from early into middle childhood, up to age 12 (Bundy, Nilanthi, Horton, Patton, et al., 2017).

School feeding programmes have been identified as the third most effective intervention to increase enrolment and learning outcomes in Africa (Bashir et al., 2018). A recent cost–benefit analysis on school feeding programmes in 14 countries, 9 of which are African, estimated that an initial investment of US$11 billion per year had resulted in a return of US$156 billion through increased school attendance (Verguet et al., 2020). Such estimates could be considered conservative, as they include neither learning benefits nor health and economic benefits. The effect of school feeding programmes on learning achievement in sub-Saharan Africa has been estimated at 0.13 standard deviations, higher than in other regions (Bashir et al., 2018). In addition, school feeding programmes are considered among the most effective interventions to reduce gender disparity in access and participation when there is a high level of food insecurity (Mundy and Proulx, 2019). School feeding programmes are much more easily scaled up than interventions whose parameters are more dependent on the context in which they are implemented (Sandefur, 2022).

The 2019 Programme d'Analyse des Systèmes Educatifs de la CONFEMEN (PASEC) asked primary school students whether they felt hungry while at school. While this is self-reported, results hint at a

serious problem. On average, 4 in 10 primary students are often or always hungry at school in francophone Africa. In Burundi and the Democratic Republic of the Congo, one in three students was always hungry (**Figure 8.7**). Relative to students who declared they were never hungry, reading scores were lower by a third of a standard deviation for those who were always hungry and by a fifth for those who were often hungry (CONFEMEN, 2020). More research is needed on the relationship between hunger and foundational literacy and numeracy levels (Center for Global Development, 2022).

Several countries in Africa have invested in school feeding programmes, often with the support of development partners such as the World Food Programme (WFP). The Global Child Nutrition Foundation carried out two surveys of school feeding programmes, in 2019 and 2021. Data from the 2019 round showed that, in 39 African countries, one third of primary school students were covered by school feeding programmes, but that the proportion varied substantially by region, from 80% in southern Africa to just 2% in central Africa (**Figure 8.8**). No more than 2% of primary school students in the Democratic Republic of the Congo and Mozambique were covered. The share rises to 10% in Rwanda, 33% in Senegal and 55% in Ghana (Global Child Nutrition Foundation, 2019, 2021).

The success of school feeding programmes depends on five essential factors: existence of a policy framework, financial capacity, institutional capacity and coordination, design and implementation,

FIGURE 8.7

In Burundi and the Democratic Republic of the Congo, one in three primary school students is always hungry at school

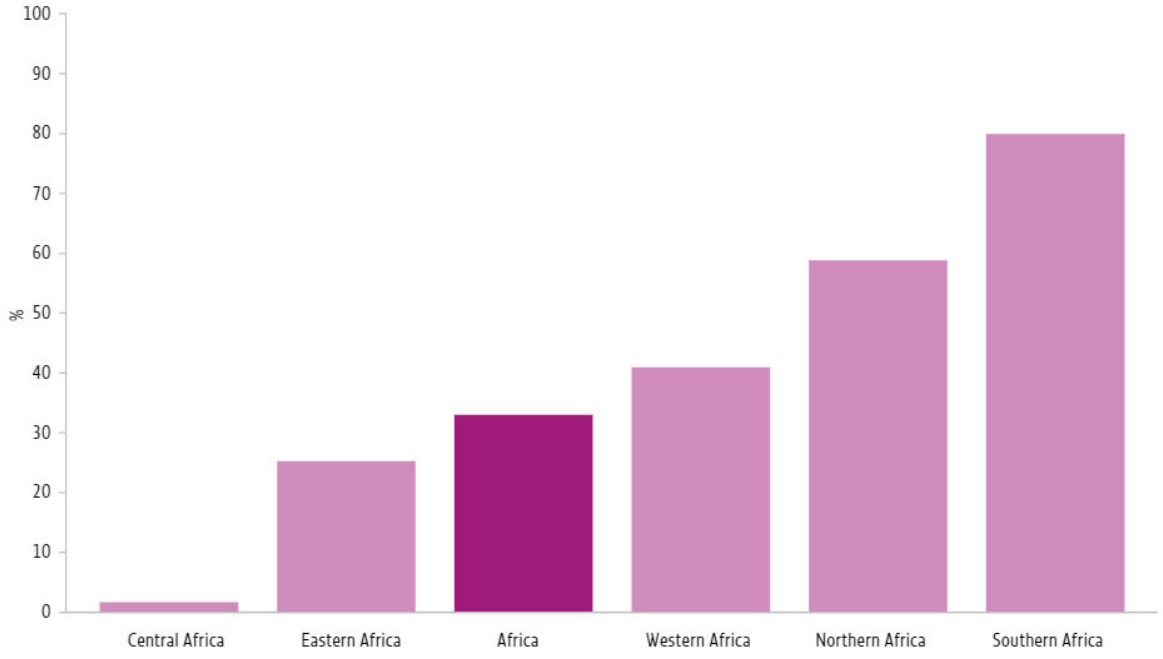
Proportion of pupils often or always hungry at school, Francophone African countries, 2019

Source: CONFEMEN (2020).

FIGURE 8.8

One in three primary school students in Africa receives a school meal

Proportion of primary school students covered by school feeding programmes, circa 2018



Notes: The Gambia and Namibia did not distinguish programmes by education level. The data correspond to the school year ending in 2018 for most countries, with some exceptions where the data are for the school year ending in 2019.
Source: GEM Report team calculations based on Global Child Nutrition Foundation (2019) data.

and community participation and ownership (Verguet et al., 2020). Communities frequently play a central role in programme delivery and effectiveness. In Nigeria, which has the continent's largest school feeding programme, covering 9.8 million primary school students, women are employed as cooks and aggregators and youth involved as programme monitors. Small-scale farmers are given preferential treatment in food procurement (Global Child Nutrition Foundation, 2019). Among Spotlight focus countries, community engagement was found to be key. Women were involved in food preparation and cooking in the Democratic Republic of the Congo and in Senegal. Although they were not paid, they received relevant training. Communities in Senegal also contributed condiments for the programme and some families contributed to school granaries. In Ghana, most caterers were women, who could thus earn income.

School feeding programmes are increasingly stimulating local agriculture and economies with the move towards home-grown and locally purchased food (World Food Programme, 2013). Kenya progressively introduced a government-led home-grown school meal programme. Local farmers and traders were mobilized to establish a functional local food supply chain. Parents helped coordinate procurement through school meal committees and often contributed to meal preparation and distribution. In Mozambique, smallholders were engaged to sell their agricultural products to programmes, increasing rural households' living standards (Global Child Nutrition Foundation, 2019). But home-grown and locally purchased school feeding programmes can face hurdles, as in Madagascar (**Box 8.2**).

BOX 8.2

Madagascar has been implementing a home-grown and locally purchased school feeding programme

In June 2021, Madagascar entered its most severe drought in 40 years. The combined effects of drought, ongoing soil desertification and economic crisis due to COVID-19 resulted in southern regions being ravaged by acute food insecurity and famine. This situation compounded difficulties already faced by a chronically undernourished population. The acute malnutrition rate stands at 6% and chronic malnutrition at 42%, the 10th highest stunting rate in the world (World Food Programme, 2021b). An earlier assessment showed that the impact of malnutrition on health, education, social participation and productivity could cost Madagascar up to 14.5% of GDP (Madagascar Government, 2015).

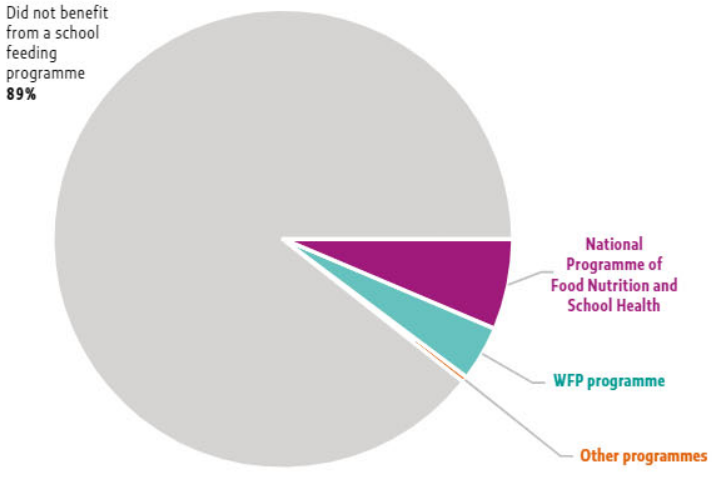
It has been estimated that 14% or 175,000 instances of grade repetition may be linked to stunted growth (Madagascar Government, 2015). Among adults aged 20 to 64, those who were not affected by malnutrition in childhood were more than twice as likely to have completed primary school than those who had suffered from stunted growth. The 2019 PASEC found that 44% of students were often or always hungry in school (CONFEMEN, 2020) (**Figure 8.7**).

Over the past 15 years, the WFP, UNICEF, the Japan International Cooperation Agency, the Adventist Development and Relief Agency, the World Bank, the UN Development Programme and CARE have supported school feeding alongside the government (Global Child Nutrition Foundation, 2020; Partnership for Child Development, 2016). Most large school feeding programmes take place in the southern semi-arid regions. The World Bank stopped support to school canteens in 2018 and resumed it in 2021. Despite these efforts, school feeding programmes reach barely 10% of primary school children (**Figure 8.9**).

FIGURE 8.9

Only 1 in 10 primary school children benefits from school feeding programmes

Primary school students, by school feeding programme coverage status, Madagascar, 2017/18



Source: GEM Report team calculations based on Global Child Nutrition Foundation (2020) data.

Madagascar has also begun the transition from programmes mostly funded and operated by external partners to nationally owned programmes. It launched the School Food Based on Local Purchases (ASBAL) programme in 2017, with financial and technical support from the WFP, GPE and World Bank. The programme favours local producers and suppliers and is aligned with seasonal availability and local preferences to improve access to markets and development of local farmer organizations. Its rations use products, such as cereal and fresh vegetables, from smallholder farmers living near schools (Partnership for Child Development, 2016). This innovative partnership relies on local communities, national vision and coordination, and international financial and technical support. Its direct costs were estimated at US$26 per student per year plus additional investment and support costs.

A WFP assessment of its school feeding programmes in Madagascar emphasized that adequate engagement with local communities was key to success. The assessment highlighted issues such as lack of coordination between local management and local communities, which jeopardized programme effectiveness. Limited acceptance and participation of the local community in decision making and implementation resulted in a sense of loss of ownership and progressive disengagement (World Food Programme, 2020).

However, the main challenge remains sustainability. The WFP faced funding shortages in Madagascar and had to prioritize decisions strategically. It thus favoured its traditional food distribution programmes over home-grown local purchases and consequently the scaling up of ASBAL was put off (World Food Programme, 2020). Moreover, local purchasing programmes have limits when the farming economy is hard hit by drought, as in 2021 when crop production was 50% to 70% below average in the south (World Weather Attribution, 2021). School feeding programmes in Madagascar remain vulnerable to external shocks because lack of sustainable funding leads stakeholders to react and adjust rather than build resilient interventions. More than 80% of beneficiary schools reported some interruption of WFP school feeding programmes in 2017/18 (World Food Programme, 2020).

Source: Varly (2022) with the support of the WFP Madagascar country office.

A critical challenge for African countries is transitioning to domestically funded and sustainable school feeding programmes. Globally, school feeding programmes are well established sustainable and constitute an effective safety net for around 388 million children. Domestic funding usually covers 90% of the costs. Kenya began working with the WFP in 1980 to provide school meals in the most deprived districts. In 2009, it started shifting to a government-led, home-grown school meals programme and took on the full cost in the 2018/19 budget (World Food Programme, 2018a,2018b). However, domestic funding covers only 38% of the total cost of school feeding programmes in low-income countries. In central Africa, governments fund only 3% of programmes, while in eastern and western Africa the regional average is about a third (**Figure 8.10**). The cost per child in Africa was US$26 in 2018, below Latin America and the Caribbean (US$40) and Asia and the Pacific (US$152).

In the medium to long term, the relative cost of school feeding is bound to decrease as GDP per capita grows and other primary education unit costs rise faster (World Food Programme, 2021a). But until this happens, low-income countries need sustained and predictable financial support. This is why communities play a crucial role. Most school feeding programmes in the region would likely not be functioning without their support. According to Global Child Nutrition Foundation data, 95% of programmes reported community engagement.

FIGURE 8.10

African countries differ widely in the extent to which they fund school feeding

Proportion of primary school students covered by school feeding programmes, circa 2018

Source: GEM Report team calculations based on Global Child Nutrition Foundation (2019) data.

Empowering communities with data helps but is often not enough

Community involvement in school governance, decision making and advocacy with local institutions can prove instrumental in improving children's learning outcomes. School-based management committees made up of parents, teachers and other community representatives can in certain conditions contribute to improved pedagogical practices and have generated momentum for shifting paradigms in educational approaches (Cheong Cheng, 2019; Cheong Cheng and Mo Ching Mok, 2007; UNESCO, 2017). Yet preconditions, such as sufficient resources or an enabling environment to translate community demands into actual change, are often not met (De Grauwe, 2004; Hevia and Vergara-Lope, 2019; Jarousse et al., 2019; Mejia and Filus, 2018; UNICEF, 2021).

Information about school performance and efficiency can potentially empower parents and local communities to engage with school governance and practices and express legitimate and relevant demands (Lopez Franco and Shankland, 2018). This is a core assumption behind the Data Must Speak (DMS) programme. Operating since 2014, DMS was initially co-funded by the GPE, the William and Flora Hewlett Foundation and UNICEF (UNICEF, 2021). In Africa, it was first implemented in Madagascar, Togo and Zambia and now also operates in Angola, Burkina Faso, Chad, Namibia and Niger.

School report cards are the main tool on which DMS builds its intervention to improve social accountability. They are generated from central sources, using data from education management information systems, then distributed to lower levels of governance: regions, districts and schools. Simplified school profiles for local communities, designed through participatory processes involving end users, are meant to give the data back to communities in accessible formats, using less text and more images, for people with low literacy and numeracy levels (**Figure 8.11**).

DMS has had a positive impact on the quality and use of data produced by education management information systems. However, its impact in terms of improving social accountability has not materialized. A recent evaluation of the project found that, while school report cards are considered at various levels, from education ministries to head teacher offices, dissemination to communities was more complicated, in some cases compounded by lack of comprehension. In Togo, school report card dissemination to parents and communities had to be stopped so they could be reviewed, redesigned and simplified (Jarousse et al., 2019).

For data to mobilize social accountability mechanisms that improve learning, at least two conditions need to be met. First, communities need to be able to use the data. Yet even the most simplified report cards can prove too complex to understand (Jarousse et al., 2019). Communities may not need quantitative information to formulate their demands. They understand education system problems through their life experiences. In fact, an approach based on a report card may only work in communities with already higher levels of education, potentially exacerbating inequality. Second, and related to the last point, communities may not be empowered to turn demands into action – and data may not be sufficient to empower them. Groups that are already excluded from political dialogue, either due to their lower levels of education or to the sociocultural context, can be similarly excluded from social accountability structures and dialogue (UNESCO, 2017).

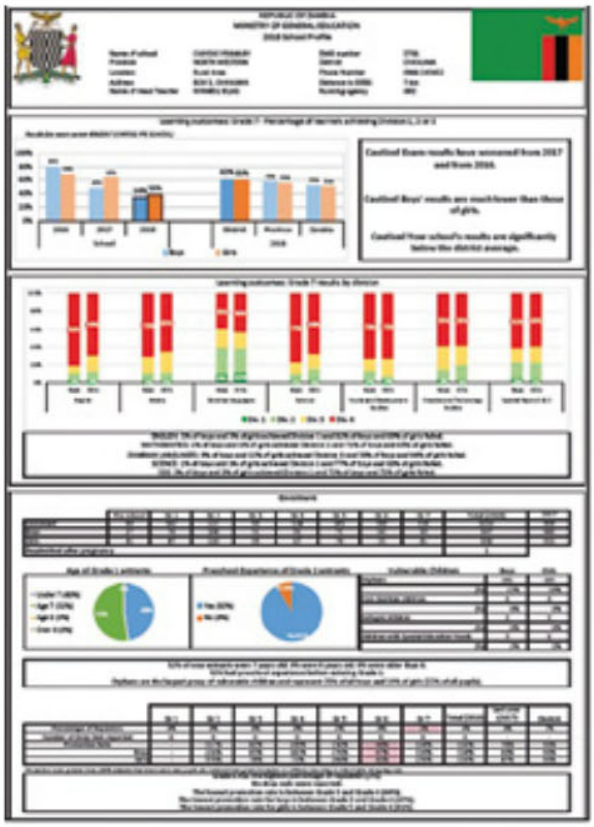
When data are not recent, even educated users will prefer alternative sources. In Togo, the school report cards distributed in 2017 were based on 2014/15 data, while local actors had access to more up-to-date information to feed into school management decisions (Jarousse et al., 2019).

FIGURE 8.11:

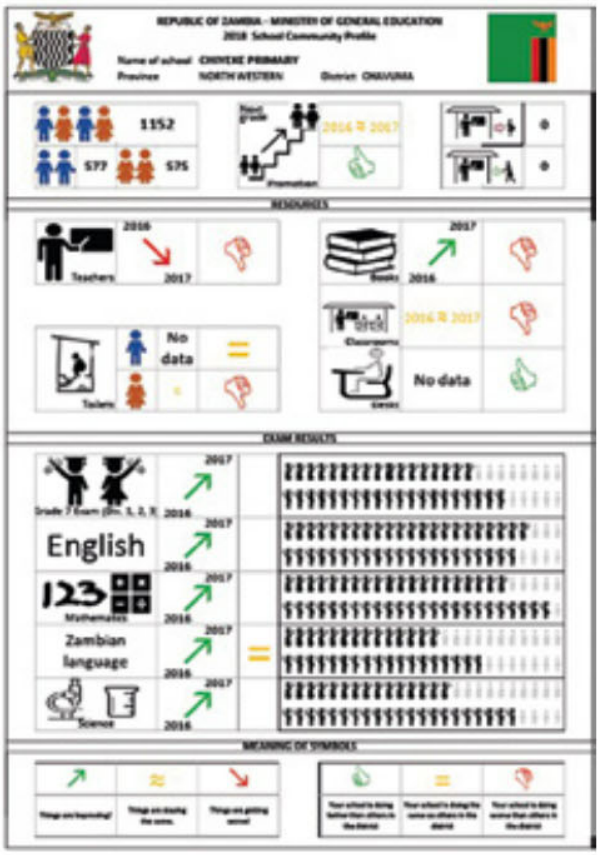
Data Must Speak school profiles have tried to make education data accessible to communities

Examples of report cards, Zambia, 2019

a. School profile



b. School profile for communities



Source: UNICEF (2021).

School report cards are not the only intervention aimed at community engagement that is yet to see significant results. UWEZO, a large-scale citizen-led assessment conducted in Kenya, Uganda and the United Republic of Tanzania, has sought to involve communities in the education debate by sharing information on learning over the past 10 years. UWEZO has managed to raise awareness among communities on low levels of learning. In Kenya, UWEZO materials were found at home, even some time after the assessment was carried out (Lieberman et al., 2014). In Uganda and the United Republic of Tanzania, media campaigns helped disseminate results to communities that were previously excluded from the education quality debate (Elks, 2016; UNESCO, 2017). However, access to more information does not translate on its own into improved practices. Community engagement strategies need to be further developed to lead to actual change in levels of literacy and numeracy (Elks, 2016; Lieberman et al., 2014; Monk, 2020).

Community participation should be understood as a two-way relationship in which communities are asked how they can support schools and schools are asked how to fulfil community demands; the latter part of the relationship is often neglected (Essuman, 2019). Parents and communities need both a structure through which they can take action and the opportunity to do so.

In several countries, functioning parent associations and school management committees have been associated with better school infrastructure and education outcomes. In Burkina Faso, community participation is associated with lower dropout rates. In Niger, schools with an active parent association, about 40% of all public schools, have an examination pass rate 3.4 percentage points higher than schools without one. In Togo, both dropout and examination pass rates are positively associated with community participation. Research by DMS exploring community engagement impact on the learning process found that community engagement was often the missing piece of the puzzle. In Burkina Faso, communities attempt to mobilize through parent and mother associations, present in 95% of schools, but have fewer opportunities to actually engage with school management, as only 60% of schools have school management committees. Even when they exist, committee rules and regulations usually focus on group composition and functioning rather than responsibilities and mandate. And school management committees often lack legal agency to intervene in the pedagogical process, as in Niger and, to a lesser extent, Togo (UNICEF, 2018a, 2018b, 2018c).

Conclusion

Families and communities play major roles through multiple channels in the achievement of improved learning outcomes. This chapter addressed three such potential mechanisms: early childhood education support, school feeding and social accountability. It also examined evidence of their effectiveness and the policies needed to strengthen them. Parents need to make efforts to ensure that children are ready for school. In practice, many families are challenged in doing so, primarily due to poverty, ill health and the stress of earning a livelihood. As a result, some home environments may not offer sufficient opportunities for children's cognitive development. Early childhood care and education can compensate for some of that disadvantage, but such services remain out of reach for the families who need them most. Some countries understand the importance of providing services for young children, but the challenge of expanding provision with a limited number of trained professionals is daunting.

Not only are many children constrained by the absence of a literate environment, but their health and nutrition status also undermines their cognitive development. Some of the world's highest stunting rates are found in Africa, notably in central, eastern and western Africa. School feeding programmes have been expanding, in most cases drawing on community contributions, but their coverage remains limited and the extent of reliance on external funding too high, despite the potential for improved completion and learning.

The third mechanism reviewed is based on the idea that, once children are in primary school, parents and communities can raise their voices when they have access to appropriately presented and up-to-date information. This assumption has not been confirmed, as communities receive information through multiple informal channels and may not be as responsive to formal system data. But the fact remains that communities that can articulate their demands are behind observed progress in some countries. Ensuring meaningful community participation in school management should therefore remain a top policy priority in Africa.

9 Finance

A socially distanced first-grade class at Bat Valley Primary School in Kampala, Uganda, during the reading lesson on day five of school reopening. (CREDIT: UNICEF/Wamala)

- Even though African governments prioritize education, their education budgets are small and absorbed by teacher salaries, leaving little to finance reforms that could be aimed at foundational learning.
- There is an inverse relationship between government and household spending. In countries where governments spend too little, households spend too much.
- External financing may be declining in relative terms but is likely to remain an important source of financing for many African countries' education systems.
- While donor-funded project evaluation activities have expanded considerably, there is insufficient systematic programmatic and strategic evaluation focused on foundational learning. Key questions on achievable progress rates, necessary national institutions, acceptable cost parameters, coordination and accountability remain not just unanswered but unasked.

KEY INSIGHTS

- About 40% of African countries spend below 4% of their GDP and below 15% of their total public expenditure on education, the two key international benchmarks; the same holds for other low- and middle-income countries
- Households account for 38% of total education spending, ranging from less than 5% in Ethiopia, Lesotho and Sao Tome and Principe to more than 67% in Ghana, Liberia and Nigeria
- In sub-Saharan Africa, net official development assistance received as a share of gross national income fell by half from 6.2% in 1994 to 3.1% in 2019; in Ghana, it fell from 10.3% to 1.4%. However, the share has been rising in low-income countries, from a low of 4.1% in 2002 to 11.6% in 2020
- There is disparity in education aid per capita, from US$4 in the Democratic Republic of the Congo to US$18 in Rwanda
- The cost per beneficiary of a successful foundational learning intervention in Senegal was US$88, while the estimated cost to the government of delivering primary education was US$70 per student per year

Improving learning represents a huge challenge. It necessitates well-aligned policies on curricula, textbooks, teacher education, school support and assessment. It also requires countries to fix infrastructure gaps, upgrade learning environments and attract the best candidates to the teaching profession. Resources are very limited. Many countries struggled to shore up their public finances during the pandemic and debt levels have been rising. Weak public financial management hampers efforts to improve efficiency.

Households take on a large share of the total financing burden. The overall financial environment is becoming increasingly precarious, with food prices a growing concern in Africa. Official development assistance (ODA) can fill gaps in poorer countries but increasingly has operated outside government systems, which further adds to inefficiency. Stakeholders, in discussions, often identified a lack of resources as a central concern. In Ghana, for instance, this was considered the top priority to address to improve foundational learning levels.

This chapter highlights two issues around financing policies aimed at improving foundational learning. First, African countries, on average, are as likely as other low- and middle-income countries to spend too little relative to international benchmarks, even as they spend a higher percentage of total public expenditure on education than their peers. But as these budgets are too small, they are absorbed by costs such as salaries, leaving little to finance reforms that could be aimed at foundational learning. Second, this means that, despite its declining share in African countries' budgets, ODA is still important in catalysing efforts focused on foundational learning. Yet its role needs to be scrutinized to support the needed institution building in this area.

African governments prioritize education but budgets are small

In 2015, all African countries committed to spend 4% to 6% of gross domestic product (GDP) on education or allocate 15% to 20% of their budget to it. Out of 50 countries with data, 30 meet one of these international benchmarks: 26 meet the 15% of budget benchmark, 21 meet the 4% of GDP benchmark and 17 meet both benchmarks (**Figure 9.1**). The share of countries failing to meet either benchmark (40%) is the same for Africa as for low- and middle-income countries overall, and slightly lower on the 15% of budget benchmark. The median African country spends one percentage point more on education as a share of total public expenditure than other low- and middle-income countries.

Trends since 2010 show that many countries' spending remains stable. Looking at the 12 countries covered in this report, some are stuck on low spending, including the Central African Republic (**Figure 9.2a**) and South Sudan (**Figure 9.2b**). Others spend well below both benchmarks, including

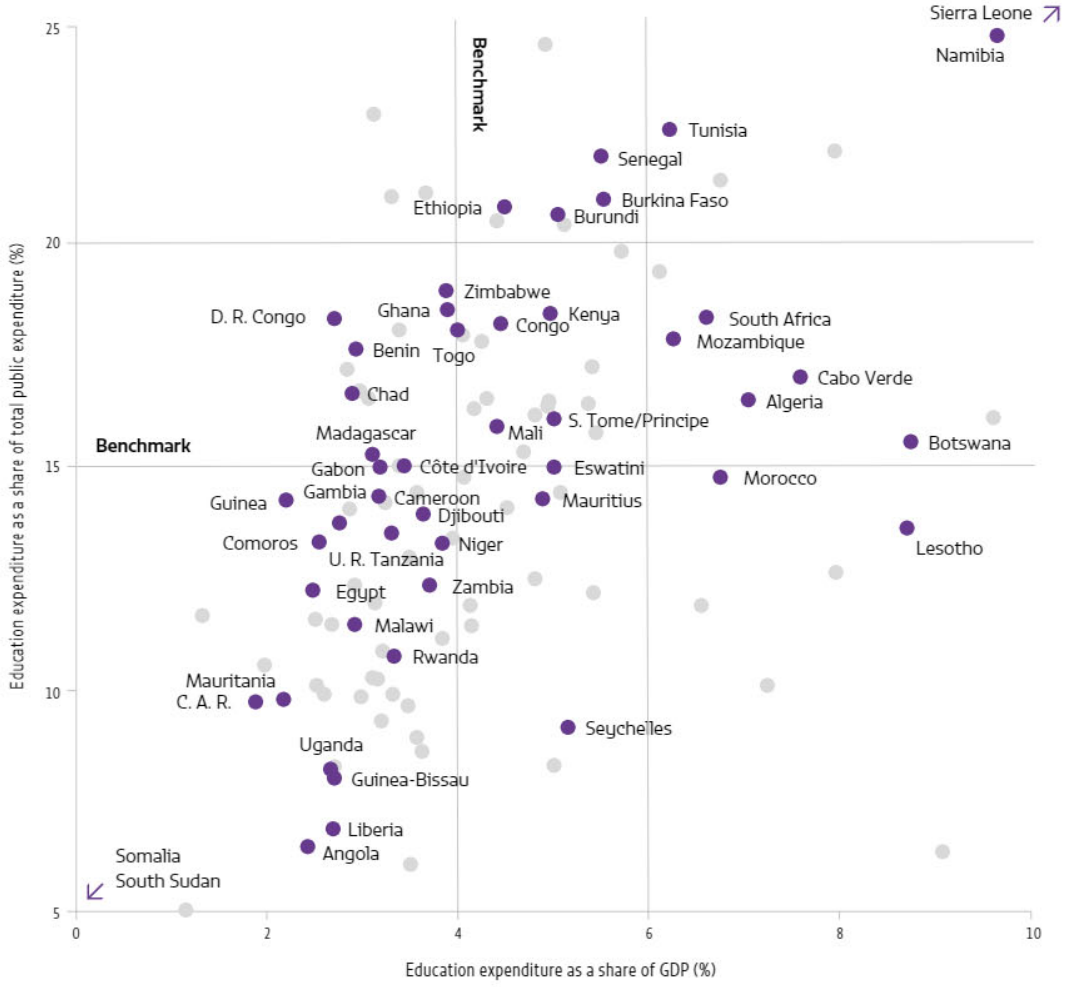
Angola, Guinea-Bissau, Liberia, Mauritania, Somalia and Uganda. Nigeria also spends a low share of its federal budget on education; less information is available on the expenditure of its 36 states that also fund basic education. Some countries consistently spend far above the benchmarks, including Kenya, Mozambique and Senegal. Senegal has spent between 4.6% and 5.7% of GDP on education since 2010, which is above the average for middle- and high-income countries. On average, it has also spent 22% of total public expenditure on education during this period, exceeding the higher recommended spending benchmark value of 20%.

Among countries whose spending levels declined, Ghana and Sao Tome and Principe remain near or above the minimum benchmark values while Malawi and Rwanda have fallen below them. Some countries spend above the minimum recommended as a share of total public expenditure but because their budget is small, the GDP share is low; examples include the Democratic Republic of the Congo (around 2% of GDP) and Madagascar (nearing 3% of GDP). Finally, since 2018, Sierra Leone has spent the world's highest percentage of budget on education, in excess of 30%.

FIGURE 9.1

About 40% of African countries spend below both benchmarks on education

Public education expenditure as a percentage of (i) GDP and (ii) total public expenditure, 2021 or latest available year

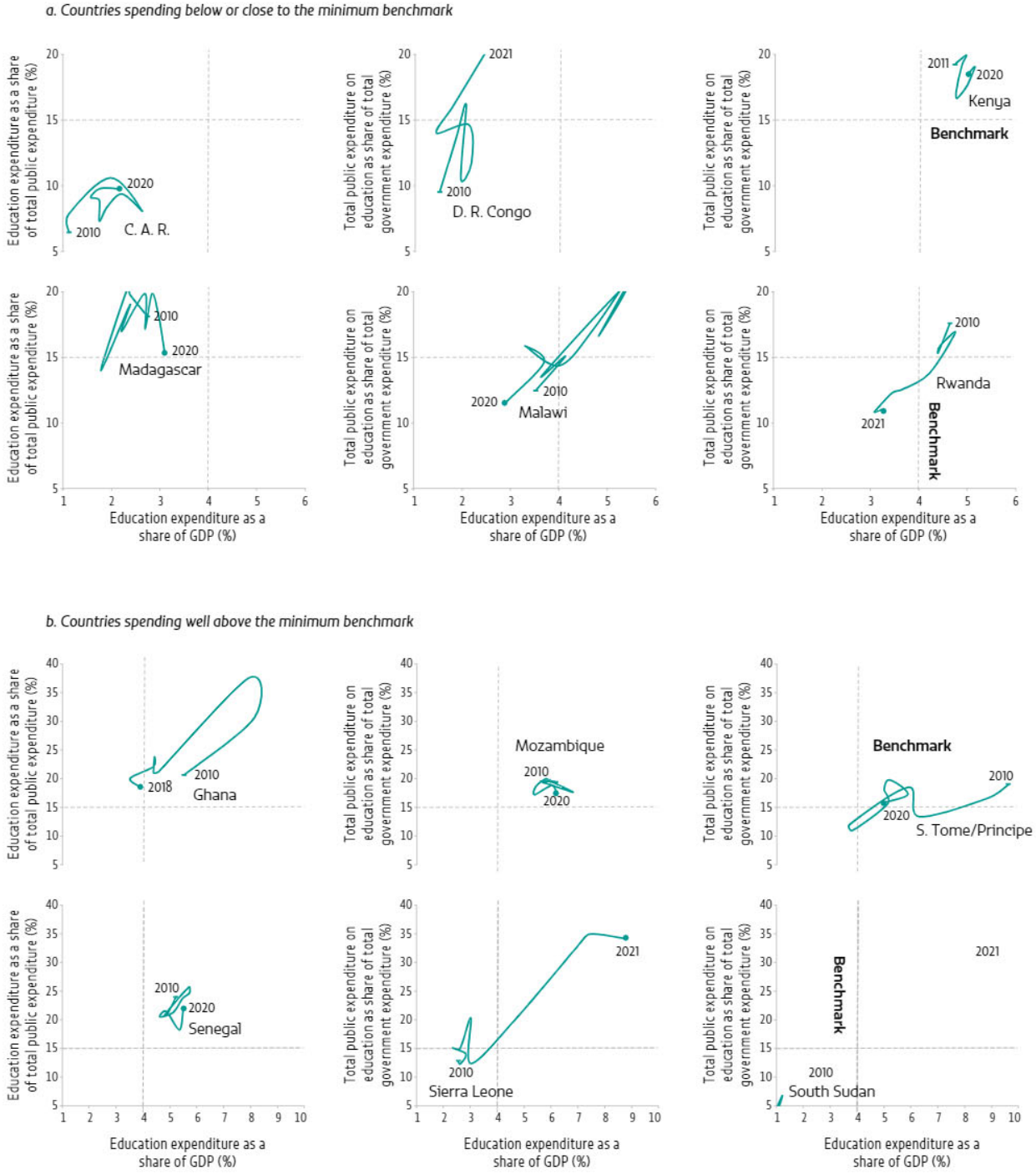


Note: Data are for 2019–21 except Comoros and Tunisia (2015), South Sudan (2016) and Benin, Djibouti and Zimbabwe (2018).
Source: UIS database.

FIGURE 9.2

Some countries are stuck in a low education spending cycle

Public education expenditure as a percentage of (i) GDP and (ii) total public expenditure, 2010–21



Note: South Sudan is spending well below both benchmarks.
Source: UIS database.

From one point of view, countries in sub-Saharan African (US$280) and Central and Southern Asia (US$350) spend a fraction of what those in Latin America and the Caribbean (US$2,240) and Eastern and South-eastern Asia (US$5,600) spend per primary school student in purchasing power parity terms (UNESCO, 2022). From another point of view, African countries are not too different from their income-level peers. For example, Ethiopia, Gambia and Malawi spend 8% of per-capita GDP per primary school student, which is the low-income country average; Senegal spends 14%, a little above the lower-middle-income country average; and Mauritius spends 16%, which is equal to the upper-middle-income country average. Some countries, including Cabo Verde, Djibouti, Lesotho and Sierra Leone, spend well above their peers, but many spend well below. For instance, Rwanda spends 4% of per-capita GDP, about half the average of low-income countries, and Mauritania spends about half the average for lower-middle-income countries (**Figure 9.3**).

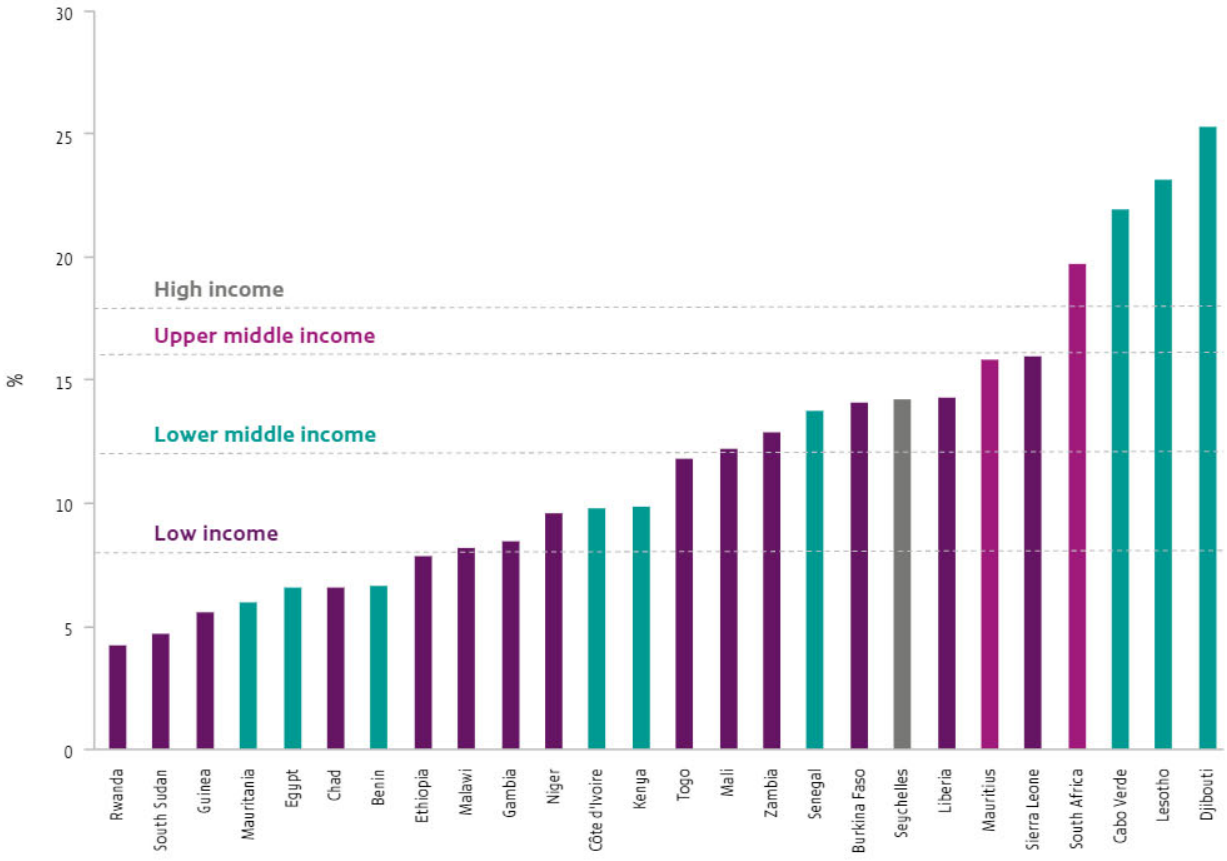
Globally, the median country spends 1.7 times more per student in tertiary education than in primary education, but the ratio is much higher in many African countries (UNESCO, 2022). In Rwanda in 2019, public spending per student in tertiary education (US$1,904) was more than 20 times higher than in primary (US$83) in purchasing power parity terms.

When governments spend too little on education and demand for it is high, households may step in to compensate. In the median African country,

FIGURE 9.3

Some countries' spending per primary student is well below that of their peers

Government funding per primary education student as a share of GDP per capita, African countries and country income group, 2020 or latest available year



Source: UIS database.

households account for 38% of total education spending, almost three times the household share in high-income countries (15%). The approximate share is 45% in western Africa and 25% in central Africa. Variation by country is even wider, with the household contribution to education ranging from less than 5% in Ethiopia, Lesotho and Sao Tome and Principe to more than 67% in Ghana, Liberia and Nigeria (**Figure 9.4**).

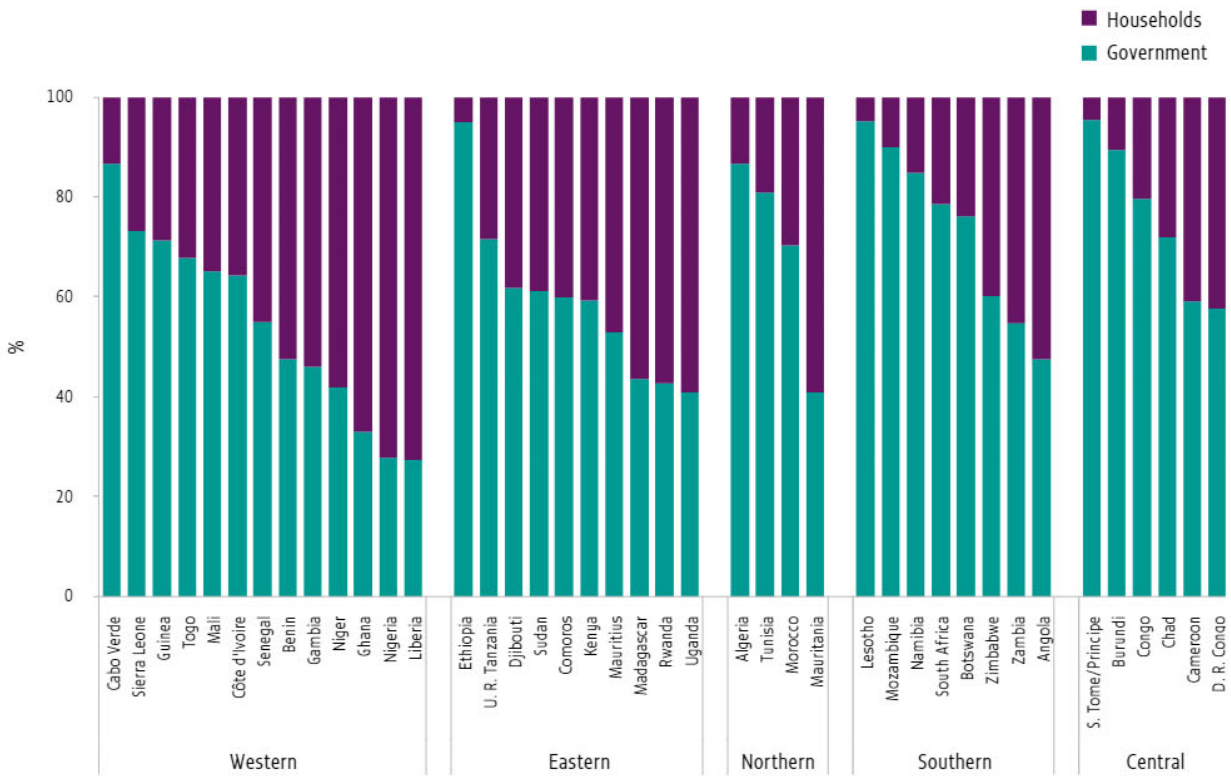
There is an inverse relationship between government and household spending. In countries where governments spend too little (3% of GDP or less), households spend on average 2.6% of GDP on education; by contrast, in countries where governments spend a lot on education (6% of GDP or more), households' spending averages 1.2% of GDP (**Figure 9.5**). While globally households allocated 3.2% of their total expenditure to education, Ghana has the world's highest: three successive rounds of the Ghana Living Standard Survey found that the share of education spending increased from 8.9% in 2005/06 to 10.6% in 2012/13 and 13.1% in 2016/17 (Ghana Statistical Service, 2008, 2016, 2019). High levels of household expenditure on education undermine efforts to promote equity, as the richest households spend much more, extending their advantage.

Teacher salaries make up a large majority of public education budgets. In Senegal, a country that spends above the average on education, the share of salaries in the budget increased from 54% in 2010 to 79% in 2020. In 2019, Mozambique dedicated 80% of

FIGURE 9.4

Households account for almost US$4 of every US$10 spent on education in Africa

Share of education expenditure, by source and region, 2010s

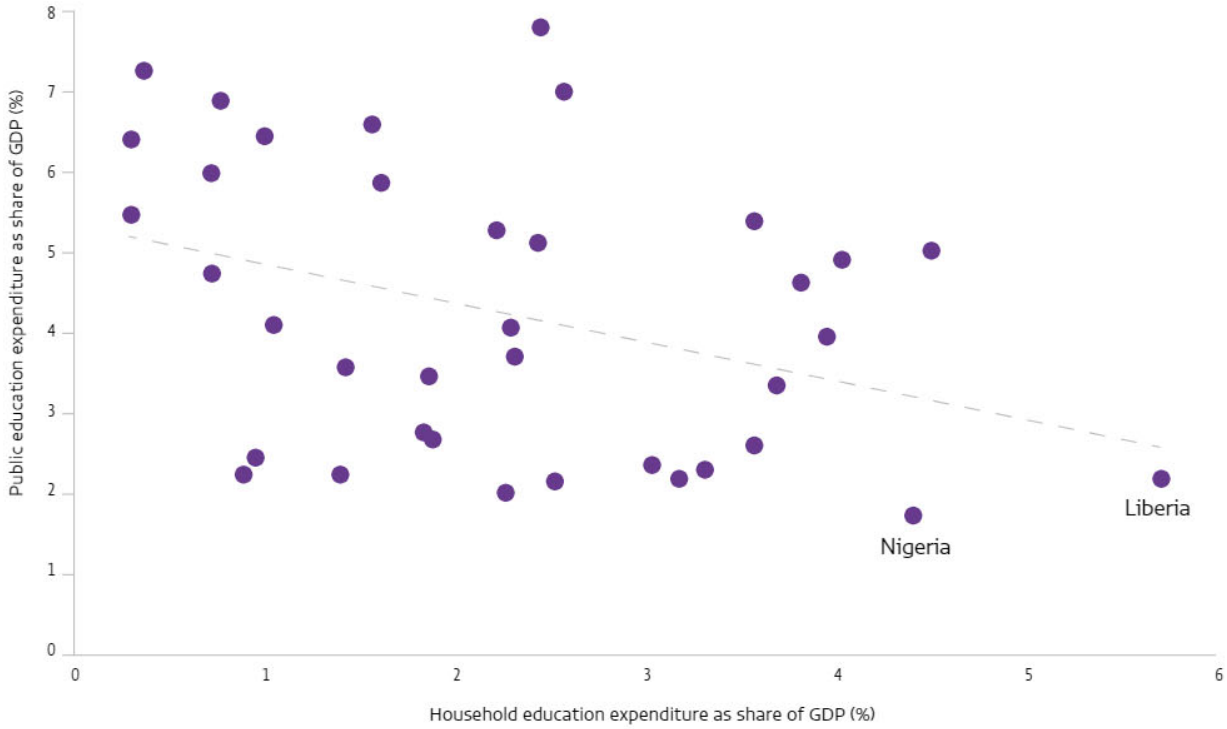


Source: GEM Report team analysis based on national household budget survey reports and UIS data.

FIGURE 9.5

There is an inverse relationship between government and household education spending

Public and household education expenditure as a share of GDP, 2010s



Source: GEM Report team analysis and UIS database.

its education budget to teacher salaries. Despite teacher shortages, only 62% of 8,400 newly trained teachers who graduated in 2017 found a teaching position in 2018. The country has introduced a new teacher training model whose first graduates are expected to enter the labour market in 2023. The reform is expected to have a major financial impact, as these graduates are to be contracted at a higher salary level, putting pressure on funding for other important reforms, such as the introduction of pedagogical support teams. In Ghana, the level and frequency of supervision became inadequate after a UNICEF-supported programme ended. This is despite the fact that Ghana appears to spend a lower share of its budget on general administration and compensation of employees (72% in 2021) and has rapidly reduced its dependence on external assistance, as the next section shows.

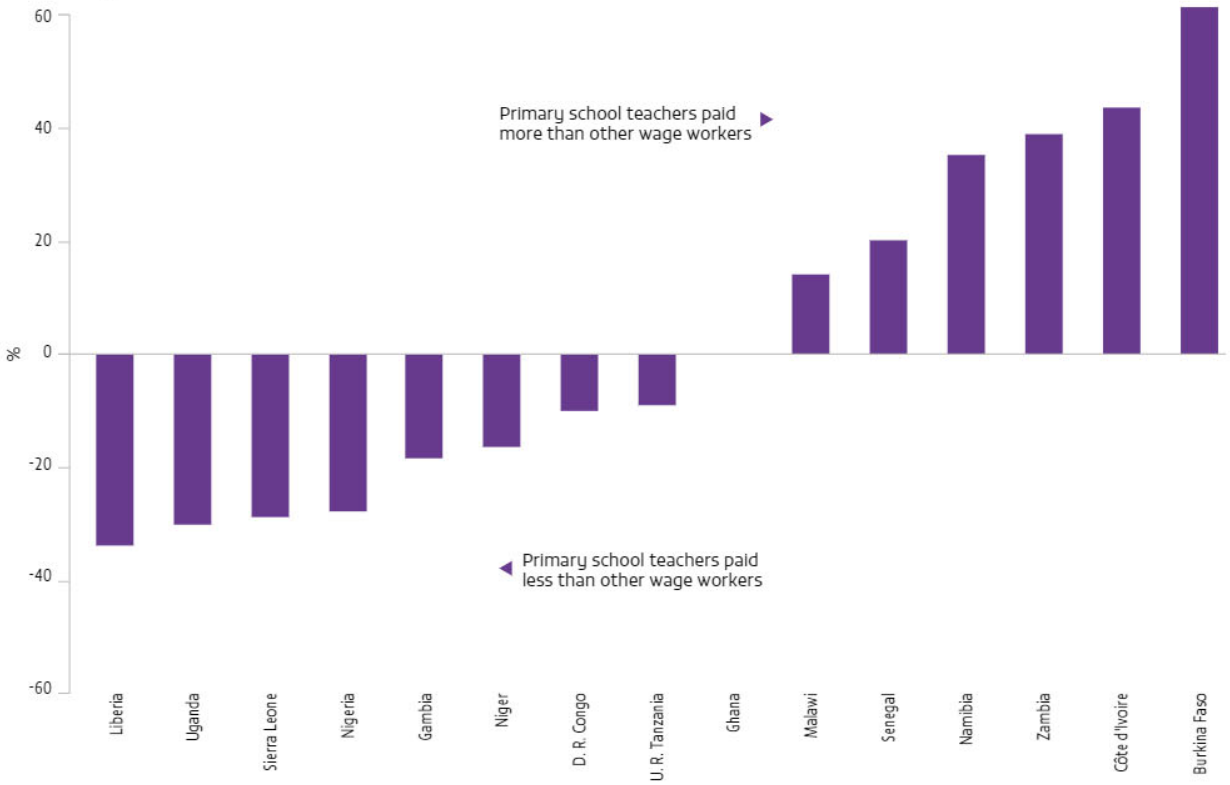
In the Democratic Republic of the Congo, the share of teacher salaries in total spending is expected to increase. Historically, the government underfunded education, with parents funding essential education items, including teacher salaries. In recent years, with support from programmes funded by external assistance, the government has committed to putting all teachers back on its payroll (Brandt et al., 2021). Opération rapide d'identification de nouvelles unités (Rapid operation of new unit identification), introduced in 2019, had transferred to the public payroll more than 62,000 pre-primary and primary school teachers, previously paid by communities, by the end of 2020. In 2019, the share of salaries was 75% of the total education budget and 87% of the recurrent budget. In 2020 alone, the cost of teacher salaries was budgeted to increase by 70% (CONEPT/RDC, 2021).

The Democratic Republic of the Congo stands out among African countries for the adverse conditions primary school teachers face on multiple fronts. A review of labour force surveys made in 15 countries during the first half of the 2010s showed that 40% of Congolese teachers were on temporary contracts, similar to Côte d'Ivoire and Uganda, and nearly twice as much as the average (22%). About half of Congolese and Ugandan teachers (47%) had a second job, well over twice the average for all 15 countries (19%). Congolese teachers' monthly salary in 2012 was US$100 in purchasing power parity terms, or about 1.6 times GDP per capita, while teacher salaries in other countries at its income level averaged 3.5 times GDP per capita. The Democratic Republic of the Congo is among countries where primary school teachers were being paid significantly less than other wage workers with secondary education, after controlling for sex, age and location. However, relative monthly earnings in Africa vary widely, with primary school teachers in many countries receiving a higher salary than comparable professionals, as in Burkina Faso (**Figure 9.6**). After teachers' lower working hours are taken into account, only primary school teachers in Nigeria have significantly lower hourly earnings than comparable professionals (by 21%) (Evans et al., 2022).

FIGURE 9.6

Primary school teacher pay relative to other wage workers varies considerably among African countries

Monthly earnings differentials between primary school teachers and other wage workers with secondary education, 2010–15



Source: Evans et al. (2022).

While absolute salary levels are very low, the quality of available data does not allow a clear conclusion on whether primary school teachers are paid enough in relative terms. However, it is clear that education ministries have limited room to manoeuvre. Teacher salaries take up most of their budget. Teachers' share in the labour force has been increasing rapidly: from 0.8% in 2000 to 1.5% in 2018 in Senegal, from 0.8% in 2001 to 2% in 2018 in Sierra Leone and from 0.8% in 2000 to 1.2% in 2017 in Zambia (Evans et al., 2022).

As governments need to continue expanding their teaching forces, given growing populations and high pupil/teacher ratios, they will struggle to cover the fixed cost of investments focused on improving foundational learning. India, which is undergoing a demographic transition with declining birth cohorts, is finding the necessary fiscal space to embark on a modest domestically funded programme on foundational learning (**Box 9.1**).

BOX 9.1

India's new national education policy and federal programme on foundational learning

India's National Education Policy 2020 identified foundational literacy and numeracy among its top priorities. As part of the prime minister's vision of a self-reliant India, a national 'mission', or federal support programme, was announced in December 2020. The National Initiative for Proficiency in Reading with Understanding and Numeracy, or NIPUN Bharat mission, was launched in July 2021. The mission, which covers children from ages 3 to 9, aims to ensure that, by 2026/7, children achieve foundational numeracy and literacy skills by the end of grade 3 regardless of whether they attend a government school.

The annual budget is some US$330 million, or US$1.5 billion in total over the five years of the mission. As about 25 million children reach grade 3 every year, assuming a six-year cohort, every year 150 million children need to be served, which means the annual cost per child is low at just over US$2. The mission is part of the Samagra Shiksha umbrella programme, which aims to improve completion rates.

With this budget, the National Council of Educational Research and Training, which is responsible for the curriculum, will oversee an implementation plan at the national, state, district and school levels (NCERT, 2022a). The plan requires all states to set up state- and district-level project management units, invest in district-level cadres dedicated to foundational learning, develop teaching and learning materials, train all pre-primary and primary school teachers, and offer strong teacher support through continuous mentoring at school. The aim is to improve children's classroom participation, develop oral language skills and offer systematic decoding instruction.

At the school level, a coalition of non-governmental organizations will initially provide intensive support to 500 institutions that will be used to demonstrate teacher training, materials, on-site support, effective assessment and remediation. At the district level, selected trainees will receive low-touch support focusing on efficient and effective implementation of all statewide activities. At the state level, curriculum, instructional design, workbooks and print-rich materials, teacher guides, continuous professional development programmes for teachers and a capacity-building programme for teacher mentors will be organized.

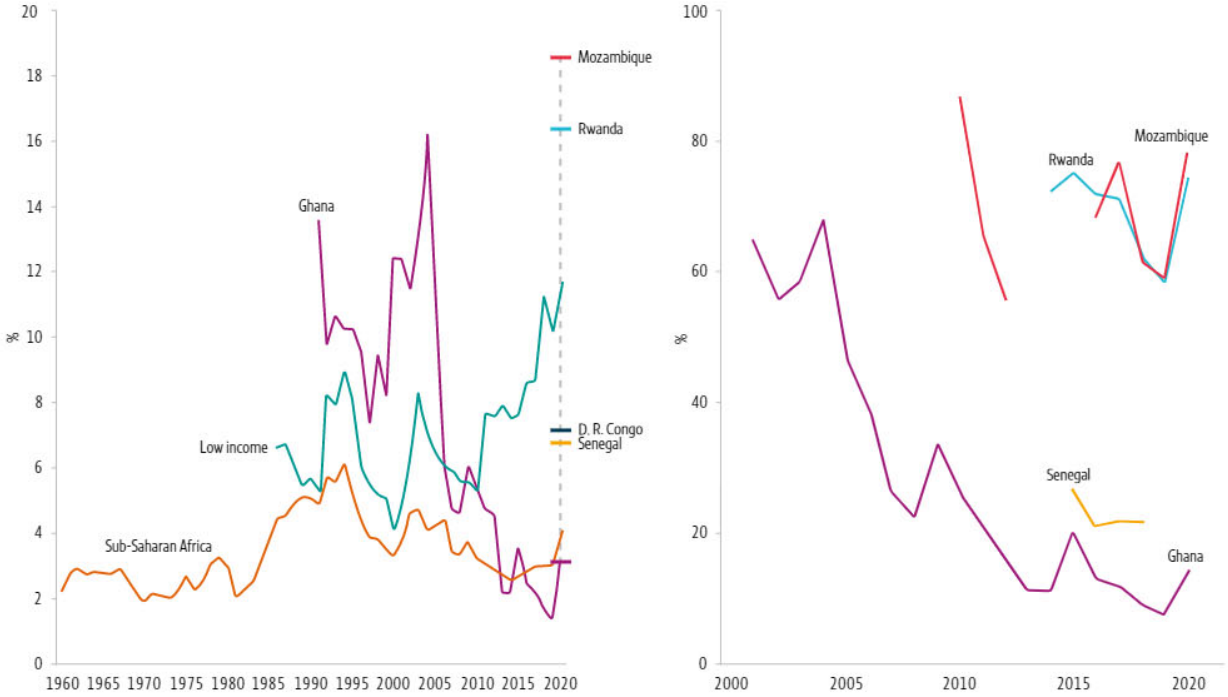
Baselines and targets were set through a study of 86,000 grade 3 students from 10,000 schools, which established proficiency benchmarks for reading in 20 languages (oral reading fluency and comprehension) and for numeracy (NCERT, 2022b), as well as state and district report cards (NCERT, 2022c). The objective is to commit states to set up a strong evaluation and accountability system.

FIGURE 9.7

Despite a decline, aid remains an important source of funding in many African countries

a. Net official development assistance received as a share of gross national income, selected country groups, 1960–2020, and selected countries, 2020

b. Net official development assistance received as a share of central government revenue, 2000–20



Source: UIS database.

But external financing is likely to remain a significant source of financing for many African countries keen to focus on foundational learning interventions, especially as such financing tends to be directed at underfunded development activities rather than teacher salaries.

Aid, while declining, can still play a critical role if delivered effectively

Official development assistance remains relevant in Africa even though its relative volume has been declining and several countries are trying to reduce dependence on it. Since 1990, ODA has remained roughly constant at around 0.3% of OECD donor countries' gross national income. But while donor country GDP has increased by 77%, sub-Saharan Africa's GDP has increased by 171%.

In sub-Saharan Africa, net ODA received as a share of gross national income fell by half, from 6.2% in 1994 to 3.1% in 2019, then increased to 4% in 2020 as a result of pandemic-related support. In Ghana, the percentage fell from 10.3% to 1.4% before increasing to 3.1% in 2020. However, the share has been rising in low-income countries, most of which are in Africa, where, after reaching a low of 4.1% in 2002, it tripled to 11.6% in 2020. In countries including Mozambique and Rwanda, it is at least five percentage points higher (**Figure 9.7a**). It exceeds 50% in countries including the Central African Republic, Ethiopia, Guinea-Bissau, Madagascar, Malawi and Mali.

The weight of ODA appears much greater if expressed as a share of central government revenue, reaching about 70% in Mozambique and Rwanda (**Figure 9.7b**). However, its relative significance can be exaggerated in those terms, as most aid is not channelled through budgets and often does not even reach countries. For example, ODA in Ghana was about 10% of central government revenue in 2018–20 but the share of ODA in the Ministry of Education budget was only 2%. Mozambique estimates that it reduced donor contributions to its education budget from 30% in 2008 to 10% in 2018.

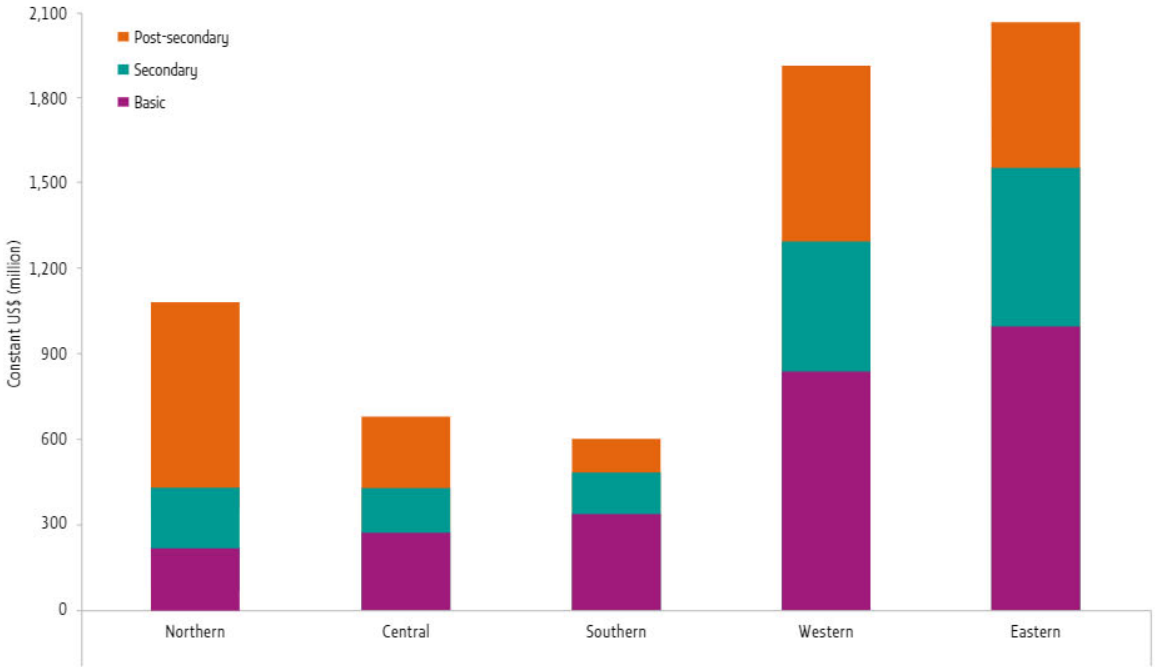
In 2020, aid to education in Africa totalled US$6.5 billion, of which US$2.7 billion (42%) targeted basic education. The share of basic education ranged from 20% in northern Africa to 56% in southern Africa (**Figure 9.8**). Note that this estimate does not include aid unallocated by country. Much of the support countries receive from the Global Partnership for Education (GPE) belongs to the unallocated category, as the GPE's mostly bilateral donors do not determine the ultimate beneficiary countries when they commit funds to the partnership. The unallocated amount remains relatively small, having averaged about US$300 million per year, or little over 10% of total aid to basic education.

Among Spotlight focus countries, four received about US$50 million each per year for basic education, on average, between 2017 and 2019, while Mozambique received US$120 million. As these countries vary in size, the amount of education aid per capita ranges from US$4 in the Democratic Republic of the Congo to US$6 in Ghana, US$15 in Senegal, US$18 in Rwanda and US$21 in Mozambique. The share of basic education in total aid to education was about a third in Ghana and Senegal, 40% in

FIGURE 9.8

About 42% of total aid to education in Africa is allocated to basic education

Total aid to education in Africa, by region and level, 2020



Source: GEM Report calculations based on OECD-DAC data.

Rwanda, close to 50% in the Democratic Republic of the Congo and more than 60% in Mozambique (**Figure 9.9**). Aid received via the GPE between 2008 and 2021 averaged about US$8 million per year in Ghana, US$11 million in Senegal, a little over US$15 million in the Democratic Republic of the Congo and Rwanda, and US$19 million in Mozambique.

In 2020, as a result of emergency packages to help countries address the consequences of the COVID-19 pandemic, aid volumes increased, mainly through direct budget support, part of which is assumed to be channelled to education. Ghana and Rwanda were the largest recipients of this surge of support.

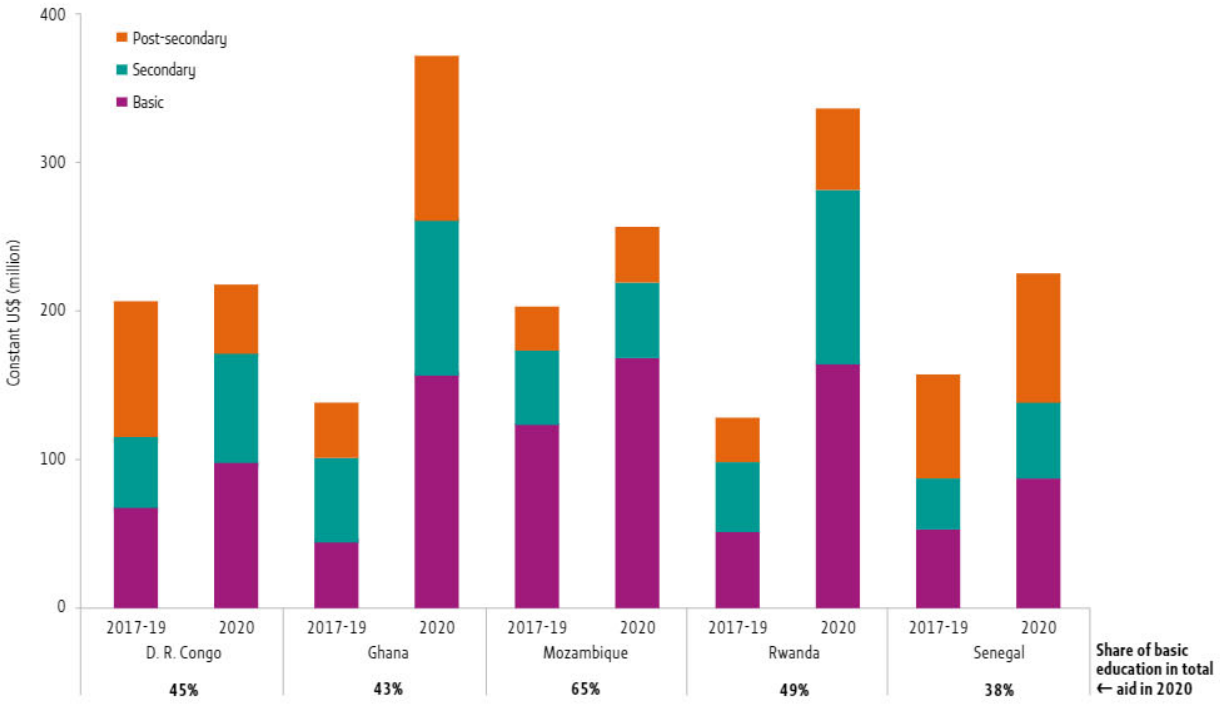
A review of the top 10 donors and top 10 recipient countries in Africa shows that basic education accounts for more than half of all aid that is explicitly allocated to development sectors. The World Bank is the largest donor, averaging US$400 million per year over 2017–19, followed by the United States, the United Kingdom, Germany and France. The countries receiving the largest amounts are Ethiopia, Nigeria, Mozambique, the United Republic of Tanzania and Senegal. Of those, only Nigeria and Senegal do not spend over half of that aid on basic education. The European Union appears as only the 10th largest donor, as much of its aid is channelled through direct budget support and the GPE, which is not captured here (**Figure 9.10**).

Foundational learning has been highlighted as a strategic objective by several of the largest donors to education, although with notable differences. Since 2011, the World Bank's education strategy has focused on learning, further emphasized through its recent focus on 'learning poverty', including through

FIGURE 9.9

Mozambique received US$120 million of aid to basic education, on average, between 2017 and 2019

Total aid to education, by level, Spotlight focus countries, 2017–19 and 2020

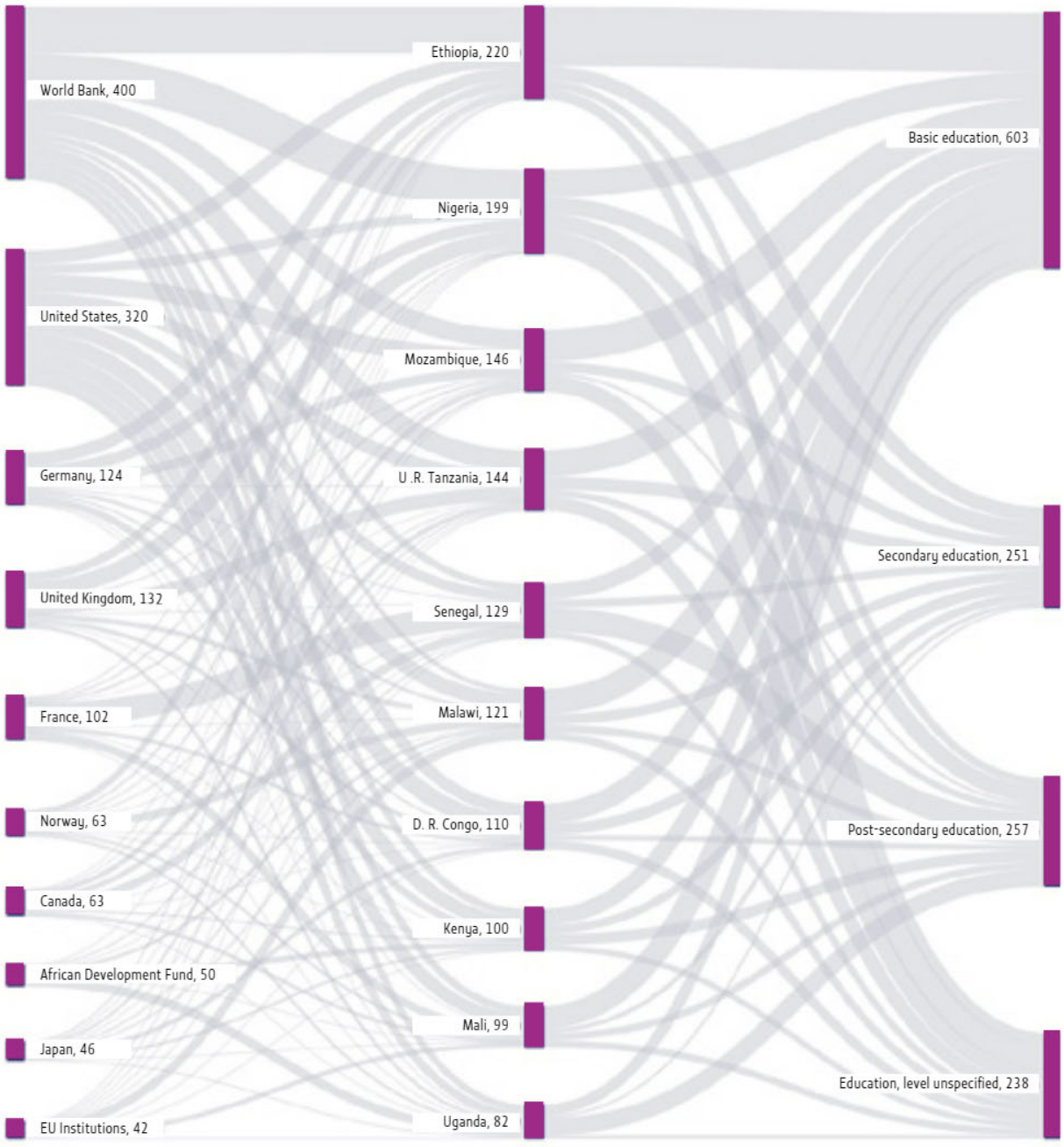


Source: GEM Report calculations based on OECD-DAC data.

FIGURE 9.10

Most education aid to Ethiopia, Mozambique and the United Republic of Tanzania goes to basic education

Aid to education flows between the 10 largest donors and 10 largest recipients, by level, average annual volume, 2017–19



Source: GEM Report calculations based on OECD-DAC data.

its strategic framework for western and central Africa, in particular (World Bank, 2021). It has recently tried to catalyse more support through its Accelerator programme (**Box 9.2**). For years, the United States Agency for International Development (USAID) has championed basic education with a strong focus on foundational skills, further stressed in the first objective of its 2019–23 strategy (U.S. Department of State and USAID, 2022). The UK Foreign, Commonwealth and Development Office (FCDO) aims to contribute to two targets by 2026 in low- and lower-middle-income countries, namely that 40 million fewer girls will be out of school and 20 million more girls will have foundational literacy skills (FCDO, 2021). The Japan International Cooperation Agency (JICA) aims to ensure that African children acquire foundational skills (JICA, 2019). Germany's Federal Ministry for Economic Cooperation and Development (BMZ) promotes foundational learning with a focus on numeracy in specific African countries (BMZ, 2020). The European Union places somewhat less emphasis on foundational learning, although it aims to support the primary education enrolment of 20 million children and considers foundational skills as critical for future learning. Moreover, it recently made education its priority, aiming to ensure that at least 10% of its aid portfolio is directed to education (European Commission, 2020).

There is a distance between stating priorities and delivering successful and sustainable interventions. It is difficult to summarize the key features of the largest projects that have focused on foundational learning in the five Spotlight focus countries in recent years (**Table 9.1**). But there are certainly gaps in evaluating not only their results but also their adherence to the aid effectiveness principles of ownership, alignment, harmonization, managing for results, and mutual accountability (OECD, 2005).

As more African countries prepare to invest in foundational learning, it is clear that the case for *ownership* has been bolstered. However, no education subsector can be treated in isolation. Success should not be judged on the basis of projects whose implementation is controlled by external service providers. The key criterion is whether education systems deliver improved services. In that sense, much more emphasis is needed on donor investment to strengthen institutions.

The project-based approach taken by some donors, including the United States but increasingly also by others, violates the principle of alignment, in particular the non-use of local systems. Cost-effectiveness is one of the most relevant concerns, especially as the ultimate objective is governments integrating project lessons into systems and budgets. However, a recent review of eight programmes (including five in Africa) considered successful in improving learning outcomes at scale struggled to make a comprehensive cost analysis (RTI, 2021). Partly, this is because it is difficult to obtain accurate per-child cost information from donors. The endline study of EQUIP-Tanzania, one such programme, concluded that while its expenditure tracking had been weak, it was extremely unlikely that the government could replicate the intervention without additional resources (Ruddle and Elte, 2020). USAID recently issued guidance on the cost information its service providers should provide (USAID, 2020; 2021). Publicly sharing the lessons of this work with African governments and other development partners is essential for sustainable design of future donor-funded interventions.

Based on available information, one rough comparative measure is the amount spent per beneficiary student, despite the fact that calculations are vulnerable to assumptions. For instance, the USAID-funded Lecture pour tous programme in Senegal cost some US$76 million and reached 864,000 students over its five-year duration, equivalent to US$88 per beneficiary (USAID, 2021). For comparison, Senegal spends around US$70 per primary school student per year for all services. A USAID-funded programme in Ghana, Partnership for Education: Learning, cost around US$77 million and reached 708,000 students, the equivalent of US$108 per beneficiary (RTI, 2021). It should be noted

BOX 9.2

The Accelerator programme aims to strengthen World Bank projects' focus on foundational learning

The World Bank and UNICEF, in partnership with the Bill & Melinda Gates Foundation, FCDO and USAID, launched the Accelerator programme in 2020, aiming to demonstrate that countries could improve foundational learning outcomes at scale within three to five years through evidence-based actions and government commitment. The programme supports an initial group of 10 countries whose governments have shown strong political and financial commitment. Seven are in Africa: Kenya, Morocco, Mozambique, Niger, Nigeria (Edo state), Rwanda and Sierra Leone, all of which have large-scale programmes to improve foundational learning.

The Accelerator programme aims to provide complementary technical and financial support to help guide, inform and maximize the impact of World Bank projects in three areas: (a) setting foundational learning targets and monitoring progress on them; (b) developing a costed plan ('investment case') to achieve the targets, based on scientific evidence with respect to curriculum, teaching, teaching and learning materials, language of instruction, parental and community engagement, and instructional coherence underlying curriculum, pedagogy and assessment (World Bank, 2020a); and (c) strengthening government implementation capacity. UNICEF offers communication and advocacy strategies on foundational learning, analytical and advisory services, and support for alignment among donors, civil society and the private sector to strengthen accountability.

In Mozambique, the Accelerator programme supports Improving Learning and Empowering Girls in Mozambique, a project focusing on low learning outcomes in grades 1 to 3 and on low retention and transition rates to upper grades for girls (World Bank, 2021). The project is co-funded by a US$160 million grant by the International Development Association (IDA) and a US$139 million GPE trust fund grant.

In Niger, the government is implementing the Learning Improvement for Results in Education project, which focuses on fragile regions (World Bank, 2020b). Its US$140 million budget, funded by IDA, has three objectives: improving teaching practices; enhancing foundational learning for all children, with a focus on closing gender gaps; and strengthening system management through improved monitoring of education outcomes.

The US$200 million IDA-funded Rwanda Quality Basic Education for Human Capital Development project also aims to improve foundational learning (World Bank, 2019). It focuses on teacher competency, student retention and learning through to secondary school. It aims to address overcrowding; strengthen early learning environments, especially in pre-primary education; and support gender-responsive learning. It is developing institutional capacity at the Ministry of Education to strengthen teacher recruitment and deployment, school inspection, and learning assessment. The Accelerator programme has prepared a remedial learning plan under a planned additional financing component (World Bank, 2022a).

In Sierra Leone, the FREE Education Project is financed by a US$66 million grant, of which US$50 million is from the World Bank and US$16 million from other partners, including US$7 million from the GPE (World Bank, 2020c). The project aims to strengthen service delivery, accelerate learning, increase girls' retention and improve learning environments for children with disabilities. Guided by the investment case framework, the Accelerator programme is supporting the design of how additional financing may be used to improve foundational learning.

that India's NIPUN Bharat mission, probably the largest national foundational learning programme, is estimated to cost just over US$2 per student (Box 9.1).

The principle of *harmonization* refers to donor coordination. Development partners have collaborated on foundational learning projects in some countries, while local education groups have been more active in others, including Mozambique. But there is relatively limited evidence of successful convergence on joint actions to solve specific challenges. For example, a recent effort to coordinate through the Global Learning Data Compact started from the straightforward premise of helping ensure that every low- and lower-middle income country could report on SDG global indicator 4.1.1 twice by 2030 for at least two education levels in two subjects, reading and mathematics (World Bank, 2022b). Yet no way forward has been achieved. Partner agencies dedicate more energy to ensuring that their approach to monitoring learning is eligible for support under the compact than to finding the most efficient solution for countries that also helps develop their capacity.

Managing for results has been growing in popularity, although it is often based on partial understanding of what development results should look like. Donor agencies, for instance, must often demonstrate short-term 'results' that may be at the expense of building strong institutions in the long term. In the case of Sierra Leone (Chapter 4), donors invested substantial amounts in data collection without considering, until recently, that the data's main purpose was not external results reporting but rather use in decision making on policy design and implementation. Yet the officials using the data may not understand the assessment process and objectives and played no active part in the assessment's preparation.

Finally, the record on ensuring *mutual accountability* is patchy. Project evaluation activities have expanded considerably, perhaps even excessively. But there is little systematic evaluation of externally funded programmes and strategies. For example, the last independent evaluation of World Bank programmes in primary education is more than 15 years old (IEG, 2006). Some key questions – on realistic and achievable learning progress rates, key tools for making such progress, types of national institutions that need to be in place, acceptable cost parameters, global public good production and ways to limit fragmentation and strengthen accountability in a context in which the role of aid is declining – remain not just unanswered but unasked.

Conclusion

Availability of aggregate data on public expenditure has improved, allowing some general conclusions to be drawn in terms of the extent of effort African countries are putting into funding education. Apart from a group of countries that appear to systematically underfund education, African countries on the whole assign education a high priority. But they are constrained by low revenue-raising capacity and ever-expanding demand for more and better services. In many countries, and more than anywhere else in the world, African households have taken on the responsibility for funding education, especially in countries whose governments spend too little.

African economies are growing faster than donor country economies, yet the latter continue spending the same share of their income on external assistance. As a result, the share of aid to African economies is slowly declining, except to the poorest countries. Nevertheless, aid remains important in too many countries, not only quantitatively but also qualitatively as a potential catalyser for important policy discussions. Crucial lessons could be drawn from the experience of investing in foundational learning initiatives over the past 10 years. But short-term considerations seem to take priority over long-term questions on institution building and sustainable development of education systems.

TABLE 9.1

Main donor-funded projects on foundational learning, by Spotlight focus country, recently concluded and ongoing

Democratic Republic of the Congo

Project	Time Scope	Goal ■ Selected components and results	Budget Funders
Projet d'Appui à la Réforme du Secteur de l'Education/Education Sector Support Project (**PARSE**)	2008–14 National	*Halt deterioration of essential primary education services and ensure sustainable financing of education to facilitate donor coordination and transition to comprehensive sector programme* ■ Education sector strategy, three subsector strategies and medium-term financing plan developed ■ 1,500 classrooms built or rehabilitated; norms adopted for cost-effective construction strategy ■ Salaries of 20,000 teachers in registered schools added to payroll ■ Reformed guidelines for pre-service teacher training developed ■ 18 million textbooks and guides purchased and distributed ■ In-service training provided to 53,000 inspectors and advisers ■ Learning assessment mechanism for grade 5 established ■ Two rounds of PASEC conducted	*US$150 million* World Bank
Projet de Soutien à l'Education de Base/Basic Education Support Project (**PROSEB**)	2013–17 National with targeted activities in two provinces (Equateur, Kasai West)	*Increase access and equity in primary education, improve learning conditions, strengthen sector management and promote accountability* ■ Classrooms, latrines and water points constructed or rehabilitated ■ 33,000 teachers, directors and inspectors trained in 7 revised teaching modules on effective teaching and school management ■ 360,000 teacher guides produced to promote effective textbook use ■ 9.4 million students provided with 22 million textbooks for grade 3–4 French and mathematics and grade 5–6 French, mathematics, science and civics ■ Norms and standards set for Provincial Education Offices ■ Partnership agreements reached with Provincial Education Offices, with norms and key result indicators	*US$100 million* GPE World Bank
ACCELERE! **ACCELERE!1**	2014–22 Nine provinces 2015–21	*Support delivery of universal primary education through equitable access (**A!1**), governance and accountability (**A!2**), monitoring and evaluation (**A!3**) and emergencies (**A!4**)* ■ Textbooks in national languages for grades 1–3 distributed ■ Textbook chain improved ■ Accelerated learning centres opened ■ Early childhood education quality standards and teacher training developed ■ Post-secondary teacher training institutions established ■ New teacher support model and teacher recruitment mechanism introduced ■ Support provided to sector monitoring to strengthen coordination capacity ■ Independent agency (CIEAS) for national learning assessment established	*GBP 142 million* United Kingdom United States
Projet d'Amélioration de la Qualité de l'Education/ Education Quality Improvement Project (**PAQUE**)	2017–22 National (textbooks) 9 provinces (targeted activities)	*Improve quality of learning in primary education and strengthen sector management* ■ Over 10 million reading/writing textbooks and 250,000 teacher guides distributed for grades 1–3 in 4 national languages (Lingala, Swahili, Tshiluba and Kikongo) ■ Teacher training improved	*US$100 million* GPE World Bank
Projet d'Equité et de Renforcement du Système Educatif/Equity and Strengthening of Education Project (**PERSE**)	2020–24 10 provinces	*Support free primary education programme, improve access and strengthen sector governance* ■ 147,000 primary teachers received US$70/month salary increase ■ 54,000 primary school teachers added to payroll ■ School operating budgets allocated more equitably	*US$800 million* World Bank

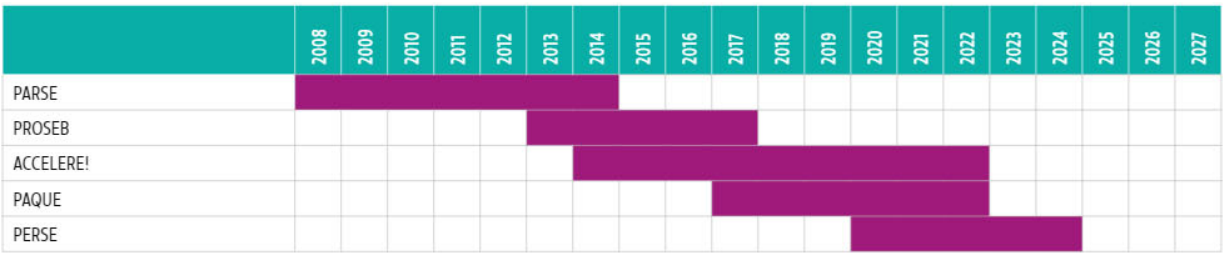


TABLE 9.1
Continued

Ghana

Project	Time Scope	Goal ■ Selected components and results	Budget Funders
Complementary Basic Education Programme	*2012–18* Five regions	*Ensure out-of-school children have access to basic education* ■ Flexible approach to support disadvantaged children's literacy/numeracy skills	*GBP 28 million* United States United Kingdom
Transforming Teacher Education and Learning (**T-TEL**)	*2014–20* National	*Transform pre-service teacher education delivery in relevant national bodies, institutions and all 40 Colleges of Education* ■ Curriculum reform in teacher education institutions ■ College leadership, national policy reforms, quality assurance	United Kingdom
Partnership for Education: Learning	*2014–22* National	*Improve reading performance of public primary school students using a phonics-based approach* ■ Teacher and school management capacity development ■ Instructional material development ■ Teacher training ■ Improvement of evaluation and monitoring systems ■ Capacity to measure learning outcomes and use data	*US$77 million* United States
Partnership for Education: Innovating	*2016–18* Five regions	*Increase public awareness of the importance of reading* ■ National service volunteers for community support to reading ■ 108 reading clubs; community-based reading time activities reaching 7,500 children ■ Broadcast announcements for literacy in 13 local languages	*US$10.5 million* United States
Education Beyond Aid	*2018–22* National	*Increase ministry capacity to manage education sector and deliver quality education services* ■ Delivery unit (Reform Secretariat) at ministry to oversee implementation of ambitious reform agenda ■ Effective management of Complementary Basic Education programme	*GBP 5 million* United Kingdom
Ghana Accountability for Learning Outcomes Project (**GALOP**)	*2020–25* National 10,000 basic schools	*Improve quality of education in low-performing basic schools, strengthen education sector equity and accountability* ■ Teaching and learning materials ■ Grants to support learning activities ■ Teacher capacity building and innovative in-service training ■ Accountability for learning framework ■ School management committees for enhanced engagement	*US$219 million* World Bank United Kingdom GPE

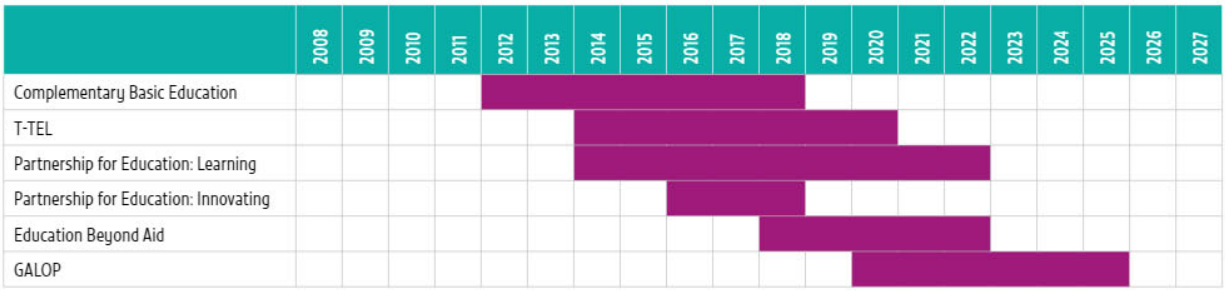


TABLE 9.1
Continued

Mozambique

Project	Time Scope	Goal ■ Selected components and results	Budget Funders
Aprender a Ler	2012–16 Two provinces (Nampula, Zambézia), selected schools	*Improve student reading outcomes in grades 2–3* ■ 300 systematically organized lessons ■ Teacher training, coaching, support to improved reading instruction methods ■ School management training, coaching, support to head teachers ■ Continuous assessment, including fluency	United States
Eu Leio	2014–19 Two provinces (Nampula, Zambézia), 116 schools	*Improve reading instruction by (a) improving local capacity for writing stories and accessing reading materials, and (b) increasing community participation to hold education personnel accountable* ■ School libraries with reading materials ■ In-service teacher training booklet production and reading materials production support ■ School manager training in pedagogical supervision ■ School councils, community scorecard, dialogue promotion, reading committee, women mentors	*US$4.3 million* United States
Vamos Ler	2016–21 Two provinces (Nampula, Zambézia), 2,800 schools	*Improve early-grade reading outcomes* ■ Teaching and learning material provision ■ Teacher and head teacher training and coaching ■ District supervision ■ Community mobilization in support of bilingual education, school council support ■ Improved assessment	*US$76 million* United States
Better Education through Teacher Training and Empowerment for Results (**BETTER**)	2015–22 Four teacher training colleges	*Improve quality of education at 4 teacher training institutes attended by 1,200 student teachers* ■ Manuals using student-centred approach for five subjects (Portuguese, Mozambican languages, pedagogy, and Mozambican and Portuguese language didactics) ■ Offline manuals containing 16 videos on participatory teaching ■ Training on gender equality and gender-based violence prevention	*CAD 17 million* Canada
COACH/Aprender+	2020–24 Two provinces	*Improve learning outcomes* ■ Support to teacher professional development	*EUR 5.5 million* Finland
Project for Expansion of New Primary Curriculum in Mozambique (**PRICEP**)	2021–27 National	*Improve primary school students' academic performance in mathematics and science* ■ Revised mathematics and science curricula and textbooks ■ Pre- and in-service teacher training ■ Strengthened assessment	Japan
Improving Learning and Empowering Girls in Mozambique	2021–25 National	*Increase learning readiness and girls' retention in upper grades of basic education prioritizing underserved areas* ■ Development and distribution of learning materials ■ Teacher training ■ Training of pedagogical directors on feedback to teachers ■ Parenting engagement model ■ Learning assessment	*US$299 million* GPE World Bank

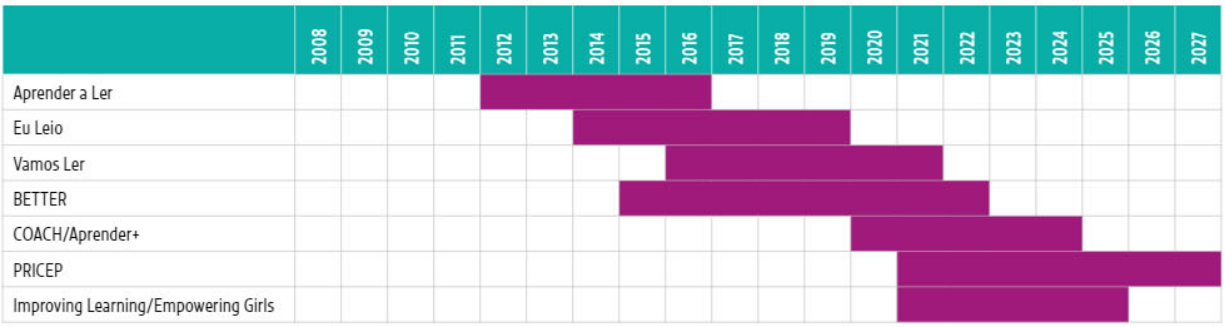


TABLE 9.1
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Rwanda

Project	Time Scope	Goal ■ Selected components and results	Budget Funders
Literacy, Language and Learning Initiative (**L3**)	*2011–17* National	*Strengthen teaching and learning so that children leave primary school with solid literacy and numeracy skills* ■ More than 25,000 teachers through pre-service, in-service and intensive coaching programmes ■ Over 9 million textbooks to all public/government-aided primary schools for Kinyarwanda, English and mathematics. ■ Training of over 1,100 parent–teacher committees to support literacy learning; 85 community mobile libraries ■ Annual literacy and mathematics assessments (2014–16)	*US$27 million* United States
Mureke Dusome	*2016–21* National, phased	*Foster partnerships between schools and communities to improve children's literacy outcomes* ■ Development of national literacy policy, implementation plan ■ Distribution of 700,000 Kinyarwanda storybooks to reading clubs ■ Improved parental awareness of importance of literacy learning ■ Modules for head teachers	*US$11 million* United States
Soma Umenye	*2016–21* National, grades 1–3 in public and government-aided schools	*Increase number of grade 1–3 students able to read and understand grade-level text* ■ 6.4 million core grade 1–3 teaching and learning materials ■ Training of 18,000 grade 1–3 teachers in early-grade reading ■ Training of 3,700 school leaders to better lead and manage early-grade reading achievement ■ Training of 4,200 education leaders in formative assessment ■ Development of 237 radio lessons	*US$72 million* United States
Learning for All Building Learning Foundations (**BLF**)	*2017–23* National	*Improve learning outcomes and equitable access to primary and secondary education* *Improve grade 1–5 learning outcomes in English and mathematics* ■ Teacher professional development ■ Support to school leadership ■ Experts in monitoring and evaluation, internal audit, public financial management, course materials and management	*GBP 98 million* United Kingdom
Induction System for Newly Qualified Teachers	*2017–21* Six districts in two provinces	*Improve mentoring, monitoring and supervision of newly qualified teachers during their first year of teaching* ■ Teacher mentoring, monitoring and supervision ■ Mentorship programme for primary school teachers and teacher training college tutors	*EUR 2 million* Belgium
Quality Basic Education for Human Capital Development Project	*2019–24*	*Improve teacher competency, student retention and learning* ■ Recruitment or training of 59,000 teachers ■ Enhanced teacher effectiveness for improved student learning	*US$210 million* World Bank GPE

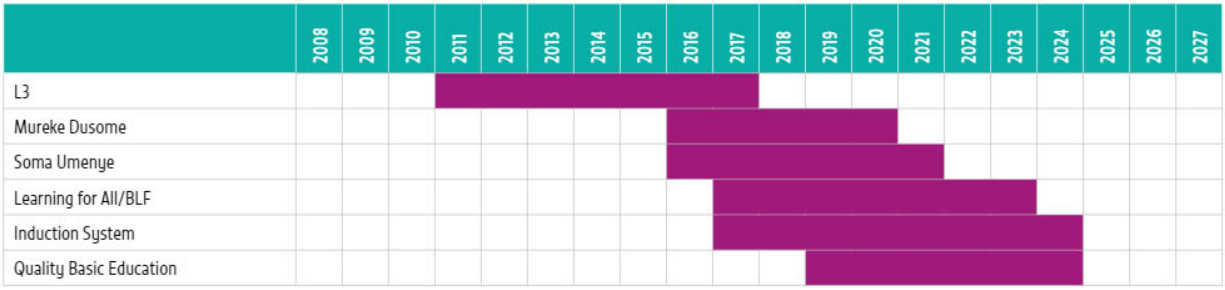
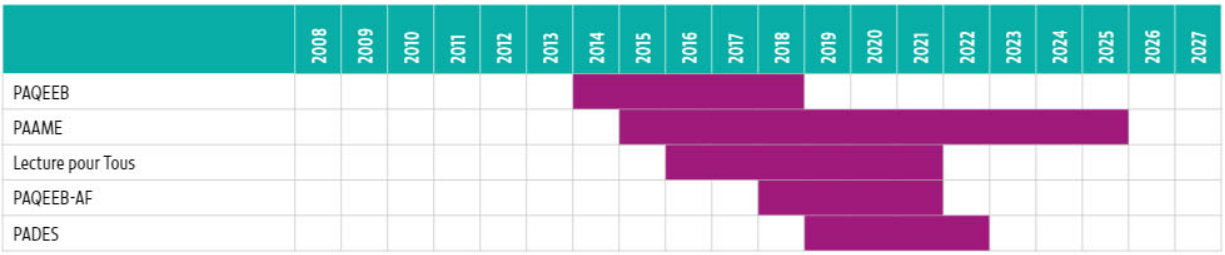


TABLE 9.1
Continued

Senegal

Project	Time Scope	Goal ■ Selected components and results	Budget Funders
Projet d'amélioration de la qualité et de l'équité dans l'éducation de base/ Basic Education Quality and Equity Improvement Project (**PAQEEB**)	*2014–18* National	*Improve learning outcomes in early grades, increase access to science and mathematics secondary school tracks, and improve equity in access to basic education (part of the Programme for Improvement of Quality, Equity and Transparency in Education and Training Sector [PAQUET-EF])* ■ Performance contracts ■ School management committee training ■ Direct funding to primary schools ■ Construction of training centres	World Bank Canada GPE
PAQEEB-AF	*2018–21*	■ Pre-service curriculum reform ■ Teacher guides ■ Results reporting	*US$60 million* World Bank
Projet d'amélioration des apprentissages en mathématiques à l'élémentaire/Primary Mathematics Improvement Project (**PAAME**)	*2015–19* Two regions Years 1–3: 20 schools Year 4: 1,200 schools	*Improve student learning in mathematics through good practices in pilot regions that promote collaboration between school and community and a model at the national level* ■ Mathematics teaching materials, teacher guides and video teaching materials ■ Implementation of additional courses and improved school management in cooperation with community ■ Establishment of learning assessment cycle through periodic testing and response measures	Japan
PAAME Phase 2	2020–25 12 more regions		
Lecture pour tous /Reading for All	*2016–21* Six regions	*Improve reading skills of public primary school students in grades 1–3 and in daaras based on a national reading programme in Wolof, Pulaar and Seereer through explicit and structured phonics instruction* ■ 3.1 million early-grade reading materials in three languages ■ 170 inspectors to train 5,500 school directors and 14,900 teachers ■ New pre-service course on early-grade reading in seven institutes ■ Coaching based on observation and constructive feedback with structured guides ■ At least one hour of reading instruction in national languages ■ Policies for determining language of instruction for each school and for French as a second language ■ Local Education Monitoring Approach in 21 district offices ■ Early Grade Reading Assessments (2017–2019, 2021) for grade 1–2 students ■ Performance monitoring aligned with national early-grade reading framework and new standards linked to the global proficiency framework to report on SDG global indicator 4.1.1 ■ Support to 4,800 school management committees ■ 171 radio programmes reinforcing key messages on reading broadcast by 27 community radio stations	*US$76 million* United States
Programme d'appui au développement de l'éducation au Sénégal/ Senegal Education Development Support Programme (**PADES**)	*2019–22* National	*Provide budget support to the Ministry of National Education* Implementation of revised policy document PAQUET-EF 2018–30	*EUR 72 million* GPE France



10 Conclusion and recommendations

Christian, 9, shows a drawing he made in a workshop organized in the play area set up by UNICEF at the Kingonze camp for displaced persons near the town of Bunia, Ituri province, north-eastern Democratic Republic of the Congo. (CREDIT: UNICEF/Dubourthoumieu)

Africa's education systems face challenges in ensuring universal access to and completion of basic education and in translating school attendance into effective and relevant learning outcomes. Evidence from many countries suggests that these problems grew during the period of rapid education expansion after African nations gained their independence. However, while worsening education service quality may have resulted in deteriorating outcomes, a plausible alternative hypothesis is that education systems have increasingly been accommodating children from more disadvantaged communities and illiterate households who are less prepared for school. Available data do not allow the relative influence of these rival hypotheses to be tested.

At the same time, there is overwhelming evidence that poor learning outcomes are not new. For instance, since the 1970s in Nigeria, the most populous African country, just one in eight children leaving education with five or six years of schooling has been able to read a simple sentence. While reference is often made to a 'learning crisis', there is no conclusive evidence that learning levels in Africa have worsened, other than from the impact of the COVID-19 pandemic.

Instead, what has changed is the realization of how low learning levels are, which has grown thanks to two factors. First, cross-country comparable data on learning outcomes have become increasingly available in the past 20 years. Second, a global minimum proficiency level has been defined, in response to SDG target 4.1, and a process introduced since 2015 to link various data sources to that level. While such data and analyses are not sufficient to provide robust trends over time, they have helped show that learning outcome levels are lower in Africa than in the rest of the world.

The most recent data are not representative of the continent. The estimate that only one in five children reaches minimum proficiency in reading and mathematics by the end of primary needs to be reviewed closely. Still, it is now more difficult for countries and their leaders to deny the education problem that is undermining Africa's development. It is recognized in the fourth strategic objective of the African Union's Continental Education Strategy for Africa 2016–25. More and better data will help countries and their leaders embrace the need for change, take up the challenge and deploy evidence-based policies.

Addressing the need for foundational learning should be seen as a challenge and a stepping stone for the more advanced skills that are required to support economic and social development and are integral in fulfilling national and continental aspirations. Foundational skills are also a precondition for achieving equitable and inclusive societies.

Various factors, both external and internal to education, explain the historical legacy of low learning outcomes. In terms of external factors, colonial history means modern African states are linguistically fragmented. Combined with a lack of resources and political considerations, this results in most children being deprived of the right to be educated in their home language, a situation more acute than anywhere else in the world. Persistent poverty and malnutrition mean that the dividends of healthy childhood development, which is so critical for learning, cannot be reaped. Intractable conflicts mean that millions of children live in insecurity and are scarred by the consequences of violence, unable to concentrate on and benefit from their education.

Yet socioeconomic, political and historical reasons are not the only ones explaining low learning levels. Education policy and practice matter. The growing, even if imperfect, availability of data has motivated some political leaders to make universal primary completion and foundational learning clear political priorities. However, mechanisms to monitor these priorities, at the national and continental levels, remain nascent at best. This is where international monitoring comes in: It can support national and continental efforts. The national SDG 4 benchmarking process offers the opportunity for countries to set out-of-school, completion and learning targets for 2025 and 2030 that can support better

educational planning. These national targets are also at the heart of the Commitment to Action: Ensure Foundational Learning as a Key Element to Transform Education, issued in September 2022 to mobilize the international community to the cause. And progress towards them can allow countries to learn from one another's experiences.

However, the extent of ambition and realism in these targets varies among countries, especially with respect to learning. Without robust trend evidence, many planners still lack a clear sense of where their countries are starting from and what is feasible. Understanding of national assessments is limited to end-of-cycle examinations in most countries. Assessing learning at a system level with reference to curriculum standards of proficiency has not been mainstreamed. As a result, there are limited links internally with classroom assessment and externally with the global minimum level of proficiency. Where such data have been collected, thanks mainly to the efforts of cross-national assessment programmes, national capacity to use them for textbook revision, improved teacher education and policy reform remains limited. Regional assessments have played a crucial role, pooling limited resources to serve countries, but have faced significant constraints. Donor support to countries has been disjointed and myopic, focusing on data collection of doubtful value to countries, resulting in considerable waste and in failure to offer long-term institutional support.

More and better data will not improve learning outcomes alone but will help put the scale of the required effort into perspective so as to manage expectations. Ultimately, change needs to happen in classrooms through better teaching methods based on students' active engagement and tailored to their skill levels. Efforts are under way to simplify and improve reading and mathematics textbook design and content in line with scientific evidence on how children acquire foundational skills. Governments are more confident about the critical importance of home languages for instruction, even though reforms face major implementation challenges. Yet teacher education programmes do not dedicate sufficient attention to developing early-grade teaching skills, and teacher guides provide inadequate structure to lesson plans. As a result, teachers lack the capacity to embrace new pedagogical methods and fall back on traditional approaches, such as repetition and chanting.

Other mechanisms of teacher support are lacking. Although excellent individual school leaders are available in all education systems, there is no clear mechanism on selecting the best head teachers and further developing their potential as instructional leaders. Lack of motivation and accountability plague the middle management level. Under-resourced local education offices are not given clear orientation and tools to focus on improved learning. Nor are they sufficiently prepared to supervise schools and prioritize improvement over discipline and compliance with administrative rules. Education leaders have received little training to respond to community needs and communicate with parents who may be illiterate and disempowered.

The 2030 Agenda for Sustainable Development and the Continental Education Strategy for Africa 2016–25 form a call to recast the right to education in terms of learning instead of just access. They have mainstreamed the concern that primary education does not equip most children with the minimum skills they need to fulfil their potential. Yet children are born to learn.

With these considerations in mind, the following recommendations focus on improving foundational learning and, through progress in this area, removing a major constraint preventing achievement of universal basic education completion. The recommendations are based on the analytical framework of the Spotlight series, which takes a system perspective: recognizing the need for multiple policies to be aligned, sustained and scaled up and for a range of actors to be involved. External actors can help trigger reforms, especially in resource-poor environments, but no country has achieved sustainable progress by relying exclusively on external solutions. Countries need to develop

and finance domestic policies. They need to see the achievement of universal basic education completion and foundational learning as the ultimate challenge. Otherwise, Nelson Mandela's famous inspirational statement about the power of education to change the world will remain unfulfilled in Africa.

These recommendations echo to a large extent the recommendations that emerged during the country-led process of the five national reports on which this report is based (**Table 10.1**). These national recommendations are related to factors in the Spotlight series' analytical framework, although some also cover broader finance and governance issues.

At the student level

RECOMMENDATION 1. GIVE ALL CHILDREN TEXTBOOKS

Ensure that all children have teaching materials that are research-based and locally developed

One of the most underappreciated challenges children face in Africa – and a strong sign that public policy has not accorded foundational learning sufficient priority – is the low availability of textbooks. No child can learn to read and do basic mathematics without a textbook, especially when most homes own few books. A panel of international experts recently classified textbooks as a 'bad buy', an 'additional input' that will not be effective alone if other issues are not addressed. But this misguided conclusion may hint at the inability of external assistance to help countries develop sustainable national textbook production and distribution policies. The fact is that bringing textbooks and supplementary reading materials into the hands of every child for free is the best buy education systems can make and must be done as a matter of urgency.

It is true that early-grade textbooks in circulation in Africa are often not fit for the purpose of helping children acquire foundational learning skills. Burdened with unnecessary information, insufficiently researched and poorly illustrated, current textbooks tend to be poorly linked with pedagogical approaches associated with improved literacy and numeracy. They are not based on evidence. Given how little students are learning in most African countries, it is essential for early-grade textbooks to be reviewed and revised so as to align with efforts to improve, simplify and refocus the curriculum and teacher training. They need not only to be based on cognitive science, but also to be developed locally, with substantive teacher participation. Their use should be evaluated regularly to enable continuing improvement.

Although textbook development is strictly a national prerogative, there are potential benefits from closer collaboration among countries in early-grade textbook research and development, especially in terms of pooling resources and expertise.

RECOMMENDATION 2. TEACH ALL CHILDREN IN THEIR HOME LANGUAGE

Give all children the opportunity to first learn to read in a language they understand

Language issues are complex in every country, as they are intertwined with equity, inclusion, confidence, dignity and identity. In Africa, history has left an indelible mark on education development, as the vast majority of children are taught in a language they do not speak at home, which slows early acquisition of reading and writing proficiency or can even prevent it outright. The use of a child's first or home language for up to six or eight years, alongside the introduction of a second one initially as a subject and later as a parallel medium of instruction, is widely considered the most effective policy, improving outcomes not only in the home language but also in the second language and other subjects.

In practice, there are considerable challenges in implementing such policies. Internal migration

means urban populations are increasingly mixed, with linguistically homogeneous populations more likely to be limited to rural areas. Rural populations are often suspicious of home language policies, concerned that they deliberately try to exclude their group from economic opportunities, even if the policies are intended to strengthen children's inclusion and sense of belonging. When home language policies are pursued, often uptake is limited, or schools partially or imperfectly implement them. Teachers may not be from the local community and thus not speak the local language. Even those who do may not have been trained appropriately, lack access to teaching and learning materials in the language or be sceptical about the value of the approach. Problems in implementation also make policymakers lose confidence and mistakenly blame the policy for a lack of results.

None of these obstacles should dampen governments' resolve to apply bilingual instruction for as long as possible. The policies need to be deployed flexibly and respond to context. Governments need to strongly support and actively communicate bilingual education policies to demonstrate their commitment to this foundation of education quality and equity.

RECOMMENDATION 3. PROVIDE ALL CHILDREN WITH SCHOOL MEALS

Give all children the minimum conditions to learn at school

Minimum conditions that help children focus and make the most of their time in school are yet to be reached in many African countries. From derelict, hot and overcrowded classrooms to lack of safety, water and sanitation, the list of obstacles to learning across the continent is endless. But above all, children cannot learn if they are hungry.

One in three children in Africa is too short for their age, a sign of malnutrition, disease and inadequate stimulation at home. Although the early years are crucial, the potential of school feeding to make up for some early disadvantage is considerable. Yet only one in three primary school students in Africa receives a school meal. Governments have relied extensively on external assistance for meal programmes over the years, with only a few turning them into nationally funded and owned programmes. Both governments and their development partners must continue to expand and institutionalize school canteens, preferably emphasizing home-grown and locally purchased meals, which are sustainable and nutritious and engage communities. As climate change is likely to increasingly affect agriculture, governments need to design their school meal programmes to be ready to help regions vulnerable to natural disasters.

At the system level

RECOMMENDATION 4. MAKE A CLEAR PLAN TO IMPROVE LEARNING

Define learning standards, set targets and monitor outcomes to inform the national vision

Curriculum expectations of early-grade reading are not well defined in many African education systems. Standards need to be developed for the skills children should master by each grade, and these standards should be the basis for teacher preparation, teaching practices and textbook design. Standards should be monitored through an integrated national assessment programme, from the classroom to the national level. The system needs to inform communities, teachers, and local and central administrators whether standards are met and, if not, what areas require attention. Monitoring of standards must enable progress to be measured over time.

The resulting data should be used to set national policy targets for the percentage of students who are to achieve proficiency levels, and to understand the characteristics of those who do

not achieve them. Defining ambitious but realistic targets and communicating them at all levels, including to teachers and parents, is a crucial part of mobilizing actors to improve learning outcomes. Countries which have succeeded in improving learning outcomes have done so through strong political leadership guided by evidence-based targets. The national SDG 4 benchmarks are the starting point; many countries will need to revisit them as better information is collected.

In that respect, national assessment systems, which are fragile in countries with low capacity, could benefit from participating in one of the two regional assessment programmes, PASEC and SACMEQ. Given the challenges both programmes have faced, the possibility of much closer collaboration and pooling of resources between the two needs to be explored.

RECOMMENDATION 5. DEVELOP TEACHER CAPACITY

Ensure all teachers use classroom time effectively through training and teacher guides

The heart of the challenge of improving learning outcomes in Africa is teacher capacity to impart foundational skills, now too often inadequate. Such capacity is often underestimated: Teaching at lower grades is as complex as teaching at higher grades, if not more so. Yet preparation to teach in early grades is largely absent from initial teacher education programmes. Unsuitable pedagogical methodologies include excessive reliance on repetition and information recall. Inefficient use of classroom time compounds the perennial problem of limited contact hours, which the pandemic exacerbated.

Governments embarking on policies that improve curricula and textbooks need to invest heavily in teacher guides to make up for the fact that even the best initial teacher education reforms will take a long time to reach students. Teacher guides in most countries provide an inadequate basis of support for teachers whose initial training has been weak and who have limited professional development opportunities. The guides need to be upgraded to be aligned with new textbooks, provide a solid basis for lesson planning, steer teachers to assess learning in classrooms, encourage them to develop their own teaching and learning materials and help them not just follow instructions mechanically but adapt flexibly to diverse classroom circumstances.

RECOMMENDATION 6. PREPARE INSTRUCTIONAL LEADERS

Restructure support mechanisms offered to teachers and schools

Arguably the most neglected education policy area is the selection and development of education leaders at the school and district levels. Governments that develop a vision focused on improving foundational learning need to communicate it to middle managers in the education system so that they become the instructional leaders who will implement the necessary pedagogical reforms.

School leaders need to be selected on the basis of merit, associated with commitment to develop all children's potential and ability to inspire others to do so. They need to be able to coach struggling teachers, create an atmosphere in which teachers can learn from one another, be efficient at managing resource constraints and effectively communicate with the community. They also need to understand changes in curricula, textbooks and assessment methods.

The same expectations should hold for district education officers. This is often a bigger challenge, as they are more distant from the teaching and learning realities of schools. Yet they need to fulfil the sensitive role of being schools' channel of information on new developments. District education officers need to be assigned clear responsibilities, including a focus on learning outcomes. While some

daring governance reforms are under way in Africa to increase district education officers' accountability for delivering better results, the policies needed most are those that would instil in these professionals a sense of purpose linked to the national vision.

At the continental level

RECOMMENDATION 7. LEARN FROM PEERS

Reinvigorate mechanisms allowing countries to share experiences on foundational literacy and numeracy

Progress towards improved learning outcomes for young children in Africa requires continued civil society pressure to place the issue at the top of the political agenda. Until recently, governments have been reluctant to make this challenge a political priority. Data on learning tend to merely present a bleak picture without showing what governments can do and how fast their actions can lead to improved learning. Ultimately, there is a need for a positive narrative on what countries have done to prepare children for the future, which can create an incentive for governments to learn from one another's experiences.

A peer learning mechanism using a cluster-based approach has been developed in recent years to promote achievement of the African Union's Continental Education Strategy for Africa 2016–25. However, this mechanism has been under-resourced. Few clusters focus on primary education and, in the absence of monitoring, no agenda items related to foundational learning have been brought to the attention of African heads of state. By contrast, other policy areas, such as health and gender equality, have featured regularly on summit programmes. As the African Union prepares to dedicate 2023 to education, it needs to seize the opportunity to orient the education peer learning mechanism to foundational learning. Underpinned by evidence and supported by a dashboard of policies applied throughout the continent, this mechanism would strengthen countries' resolve for change.

At the international level

RECOMMENDATION 8. FOCUS AID ON INSTITUTION BUILDING

Shift from projects to provision of public goods that support foundational learning

While development assistance is declining as a source of financing for African countries in quantitative terms, it still exerts considerable influence as a source of ideas that can trigger change in education. However, this potential is often squandered. Increasing emphasis on short-term results and ill-conceived notions of value for money has moved funding towards discrete earmarked projects, resulting in increased set-up costs and reduced coherence.

This report has referred to examples of good practice in donor-supported reform programmes that are wide-ranging in scope, embedded in national policy and based on extensive consultation. At the same time, it has pointed out proponents of foundational learning who work outside government systems, reducing the scope for national solutions and undermining sustainability. Few donors have evaluated the overall success of their operations, rather than individual projects' impact, in relation to improving learning outcomes.

A review of donor-funded support to learning assessments shows continuing malaise in delivering results. Information on what assessments have been supported is lacking. Coordination of planning support to assessments has likewise been absent:

Resources have not been directed to develop national institutions, encourage the use of results in policy or enable countries to report internationally comparable statistics. Instead, there has been a focus on short-term collection of data which often are not even shared with governments and the international community but remain with service providers. The precarious funding situation of the two major regional cross-national assessment programmes is a major cause for concern.

With the signing of the Commitment to Action: Ensure Foundational Learning as a Key Element to Transform Education, donors should review their programming, improve coherence and dedicate more of their efforts to institution building to deliver key building blocks for improved foundational learning outcomes: textbooks, teacher guides, teacher and education leader capacity development, and assessment – all geared towards pedagogical reform.

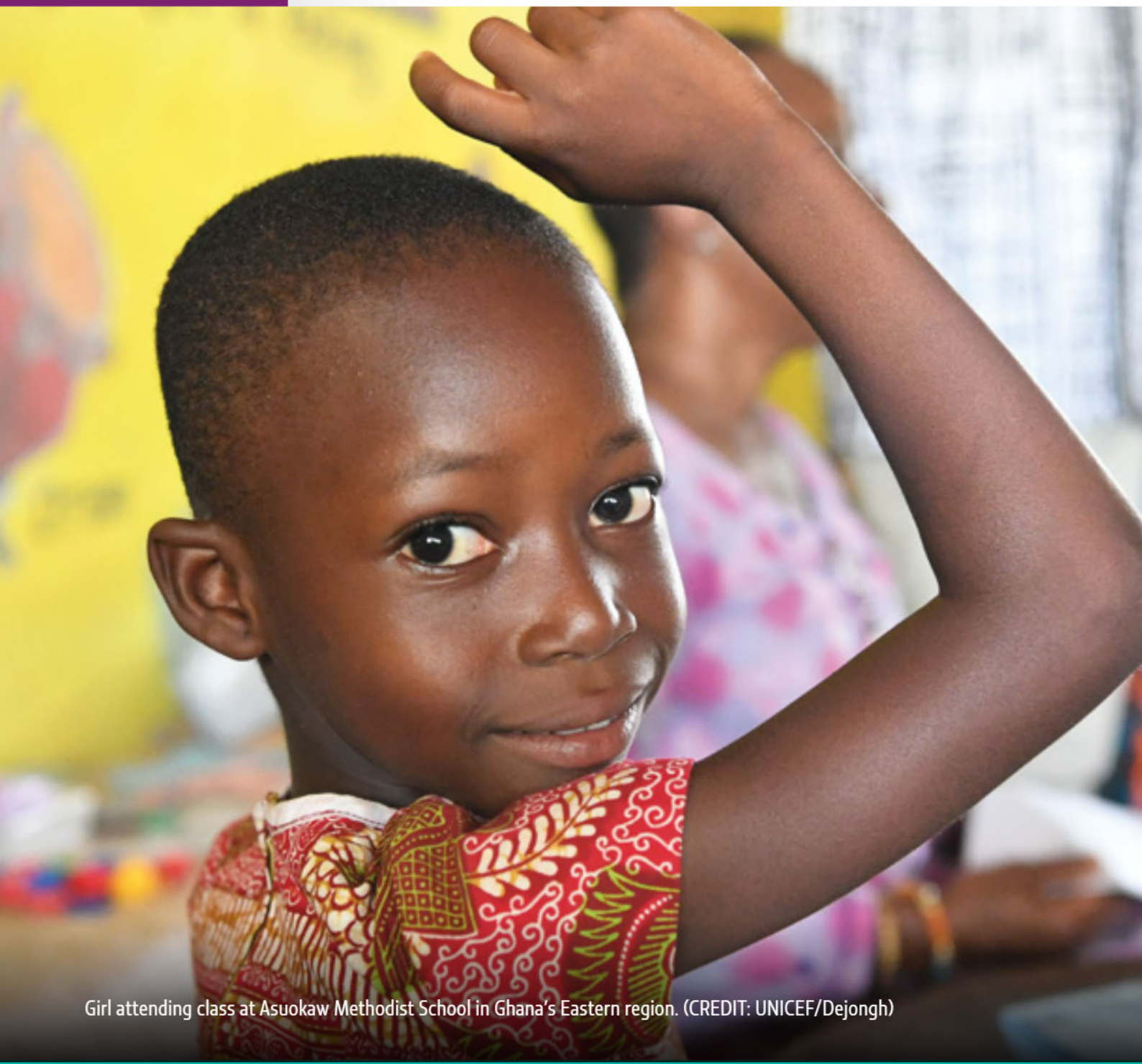
TABLE 10.1

Recommendations from Spotlight country reports

Analytical framework factor	D. R. Congo	Ghana	Mozambique	Rwanda	Senegal
1. Vision and focus on performance	(3) Disseminate education vision more widely				
2. Teaching and learning	(4) Provide textbooks and other teaching and learning materials aligned with the curriculum and adapted to reflect local languages	(1a) Provide structured materials and session guides (2) Ensure textbooks and other teaching and learning materials reach classrooms	(2a) Improve teacher quality (3) Expand bilingual instruction	(1) Improve quality, quantity and frequency of teacher training, particularly in competence-based curriculum and related pedagogical strategies	(5) Generalize the use of national languages in early primary grades
3. Teachers	(2a) Provide more effective in-service teacher training	(1b) Support professional learning community sessions focusing on phonics and teaching at the right level			(1) Reinforce teacher competences
4. School management		(3) Provide structured, on-the-job education leadership training for all basic schools	(2b) Improve school management		
5. Supervision and monitoring	(2b) Carry out more regular school-level inspections	(5) Assist local officers to prioritize objectives and oversee these with supportive supervision	(4) Improve pedagogical supervision, monitoring and inspection at district level	(3) Focus supervision and monitoring on supporting teachers in mastering pedagogical practices aligned with competence-based curricula	
6. Community and parental engagement		(6b) Enhance local accountability	(6) Engage parents and communities in functioning school boards	(4b) Encourage parents and caregivers to demand better quality education	
7. Learning assessment				(4a) Strengthen classroom-based, formative assessment by creating tools, offering guidance, building capacity and providing incentives	(4) Design national policy to evaluate learning in basic education and establish a national system for regular standardized evaluation
Other: finance, governance, etc.	(1) Provide more financial resources, with emphasis on bringing more teachers to the payroll	(4) Explore new resourcing mechanisms for basic education, including results-based financing (6a) Decentralize decision making	(1) Construct more schools and hire more teachers (5) Create an enabling environment to reintegrate and retain out-of-school children, with a focus on girls	(2) Expand efforts to offer teachers financial incentives explicitly tied to foundational learning outcomes	(2) Increase the share of basic education in total education spending (3) Build classrooms and eliminate temporary structures

Note: The numbers in parentheses correspond to the recommendation numbers in the respective country reports.

Statistical tables



Girl attending class at Asuokaw Methodist School in Ghana's Eastern region. (CREDIT: UNICEF/Dejongh)

INDICATOR DEFINITIONS

Notes on indicators in the statistical tables

Table 1	
A	**Compulsory education by level** Number of years during which children are legally obliged to attend school.
B	**Free education by level** Number of years during which children are legally guaranteed to attend school free of charge.
C	**Official primary school starting age** Official age at which students are expected to enter primary school. This is expressed in whole years, not accounting for cut-off dates other than the beginning of the school year. The official entrance age to a given programme or level is typically, but not always, the most common entrance age.
D	**Duration of each education level** Number of grades or years in a given level of education.
E	**Official school-age population by level** Population of the age group officially corresponding to a given level of education, whether enrolled in school or not.
F	**Total absolute enrolment by level** Individuals officially registered in a given educational programme, or stage or module thereof, regardless of age.
G	**Proportion of population below international poverty line (%)** Percentage of the population living on less than US$1.90 a day at 2011 international prices.
H	**Prevalence of undernourishment (%)** Estimated percentage of the population whose habitual food consumption is insufficient to provide the dietary energy levels that are required to maintain a normal active and healthy life.
I	**Proportion of children moderately or severely stunted (%)** Percentage of children in a given age group whose height for their age is below minus two standard deviations from median height for age established by the US National Center for Health Statistics and the World Health Organization.
J	**World Risk Index** An index of the risk of disasters from extreme natural events and the negative consequences of climate change, calculated as the geometric mean of exposure and vulnerability. Exposure represents the population's vulnerability to earthquakes, tsunamis, coastal and river floods, hurricanes, droughts and sea level rise. Vulnerability reflects the social area and consists of three dimensions: ■ *Vulnerability* describes the structural properties and framework conditions of a society that increase the general probability that populations will suffer damage from extreme natural events and end up in a disaster situation. ■ *Coping* includes various capabilities and measures by societies to counter negative effects of natural hazards and climate change through direct actions and available resources, in the form of formal or informal activities, and to minimize damage in the immediate aftermath of an event. ■ *Adaptation* refers to long-term processes and strategies intended to achieve anticipatory changes in social structures and systems in order to counter future negative effects, mitigate them or avoid them in a targeted manner.
Table 2	
A	**Adjusted net enrolment rate one year before the official primary school entry age** Enrolment of children one year before official primary school entry age in pre-primary education, expressed as a percentage of the population in that age group.
B	**Out-of-school children, total number and as percentage of corresponding age group** Children in the official school age range who are not enrolled in primary school.
C	**Primary education completion rate** Percentage of children three to five years older than the official age of entry into the last grade of primary education who have reached the last grade of that level. For example, the primary completion rate in a country with a six-year cycle where the official age of entry into the last grade is 11 is the percentage of 14- to 16-year-olds who have reached grade 6.
D	**Adjusted gender parity index** The gender parity index (GPI) is the ratio of female to male values of a given indicator. If the female value is less than or equal to the male value, the adjusted gender parity index (GPIA) = GPI. If the female value is greater than the male value, GPIA = 2 - 1/GPI. This ensures the GPIA is symmetrical around 1 and limited to a range between 0 and 2. A GPIA equal to 1 indicates parity between females and males.
E	**Location and wealth disparity** The location parity index is the ratio of rural to urban values of a given indicator. The wealth parity index is the ratio of the poorest 20% to the richest 20% of values of a given indicator.
F	**Completion rate, primary education, poorest quintile, by sex (%)**

Table 3	
A	**Percentage of students achieving at least a minimum proficiency level in reading and mathematics** The minimum proficiency level in reading and mathematics is defined by each assessment. Data need to be interpreted with caution since the different assessments are not comparable. In the absence of assessments conducted in the proposed grade, surveys of student learning achievement in the grade below or above the proposed indicator grade are used as placeholders.
B	**Number of classroom teachers** Persons employed full or part time in an official capacity to guide and direct the learning experience of pupils and students, irrespective of their qualifications or the delivery mechanism, i.e. face-to-face and/or at a distance. This definition excludes education personnel who have no active teaching duties (e.g. headmasters, headmistresses or principals who do not teach) or who work occasionally or in a voluntary capacity in educational institutions.
C	**Percentage of female classroom teachers (%)**
D	**Pupil/teacher ratio** Average number of pupils per teacher at primary level, based on headcounts of pupils and teachers.
E	**Pupil/trained teacher ratio** Average number of pupils per qualified teacher at primary level in a given academic year. A qualified teacher is one who has at least the minimum academic qualifications required for teaching their subjects at the relevant level in a given country in a given academic year.
F	**Proportion of teachers with the minimum required qualifications in primary education, both sexes (%)** Percentage of primary teachers who have received at least the minimum organized pre-service and in-service pedagogical training required for teaching at primary level in a given country and a given academic year.
Table 4	
A	**Initial government expenditure on education as percentage of GDP** Total general (local, regional and central, current and capital) initial government funding of education. It includes transfers paid (such as scholarships to students), but excludes transfers received, in this case international transfers to government for education (when foreign donors provide education sector budget support or other support integrated in the government budget).
B	**Initial household expenditure on education as percentage of GDP** Total payments by households (pupils, students and their families) for educational institutions (including tuition fees, exam and registration fees, contribution to parent–teacher associations or other school funds, and fees for canteen, boarding and transport) and purchases outside of educational institutions (e.g. for uniforms, textbooks, teaching materials and private classes). 'Initial funding' means that government transfers to households, such as scholarships and other financial aid for education, are subtracted from what households spend.
C	**Expenditure on education as percentage of total government expenditure** Total general (local, regional and central) government expenditure on education (current, capital and transfers), expressed as a percentage of total general government expenditure on all sectors (health, education, social services, etc.). It includes expenditure funded by transfers from international sources to government.
D	**Initial government expenditure per pupil by level, in constant 2019 purchasing power parity US$ and as percentage of GDP per capita** Total general (local, regional and central, current and capital) initial government funding of education per student, including transfers paid (such as scholarships to students) but excluding transfers received, in this case international transfers to government for education (when foreign donors provide education sector budget support or other support integrated in the government budget).
E	**Total official development assistance (ODA) to education in constant 2020 US$ millions and to basic education in constant 2020 US$ millions and as % of total ODA** Total aid to education adds to direct aid a component of general budget support (i.e. aid provided to governments without being earmarked for specific projects or sectors). It is reported as follows: ■ Total aid to education is direct aid to education plus 20% of general budget support. ■ Total aid to basic education is direct aid to basic education plus 50% of 'level unspecified' and 10% of general budget support. 'Level unspecified' refers to any activity that cannot be attributed solely to the development of a particular level of education, such as education research and teacher training. General education programme support is often reported in this subcategory.
F	**Direct ODA to education and to basic education in constant 2020 US$ millions** Direct aid to education is aid reported in the OECD Creditor Reporting System database as direct allocations to the education sector. Direct ODA to basic education covers primary education, basic life skills for youth and adults, and early childhood education.

STATISTICAL TABLE 1

Education system characteristics and context

Country	A		B		C	D	
	Compulsory		Free		Official primary school starting age	Duration (years)	
	Years of pre-primary	Years of primary-secondary	Years of pre-primary	Years of primary-secondary		Pre-primary	Primary
SDG/CESA Indicator	**SDG 4.2.5**	**SDG 4.1.7**	**SDG 4.2.5**	**SDG 4.1.7**			
Reference year				**2020**			
Northern Africa							
Algeria	0	10	1	12	6	1	5
Egypt	0	12	0	12	6	2	6
Libya	0	9	2	12	6	2	6
Mauritania	0	9	3	13	6	3	6
Morocco	0	9	0	9	6	2	6
Tunisia	0	9	0	11	6	3	6
Eastern Africa							
Comoros	0	6	0	6	6	3	6
Djibouti	0	10	1	12	6	2	5
Eritrea	0	8	0	8	6	2	5
Ethiopia	0	8	0	8	7	3	6
Kenya	0	12	0	12	6	3	6
Madagascar	0	5	3	12	6	3	5
Mauritius	0	11	0	13	5	2	6
Rwanda	0	6	0	9	7	3	6
Seychelles	0	10	0	11	6	2	6
Somalia	0	0	...	...	6	3	6
South Sudan	0	8	0	8	6	3	6
Sudan	0	8	2	11	6	2	6
U. R. Tanzania	0	7	2	7	7	1	7
Uganda	0	7	...	...	6	3	7
Western Africa							
Benin	0	6	0	6	6	2	6
Burkina Faso	0	10	0	10	6	3	6
Cabo Verde	0	10	0	8	6	3	6
Côte d'Ivoire	0	10	0	10	6	3	6
Gambia	0	9	0	9	7	4	6
Ghana	2	9	2	9	6	2	6
Guinea	0	6	0	6	7	3	6
Guinea-Bissau	0	9	...	...	6	3	6
Liberia	0	6	0	6	6	3	6
Mali	0	9	4	12	7	3	6
Niger	0	0	...	...	7	3	6
Nigeria	0	9	0	9	6	1	6
Senegal	0	11	0	11	6	3	6
Sierra Leone	0	9	0	9	6	3	6
Togo	0	10	0	5	6	3	6

E		F		G	H	I	J	
School-age population (000)		Enrolment (000)		Context				
Pre-primary	Primary	Pre-primary	Primary	Poverty rate (%)	Undernourished (%)	Under-5 stunting (%)	World Risk Index	Country code
				SDG 1.1.1	SDG 2.1.1	SDG 2.2.1		
			2020				2021	
956	4,360	..	4,852	..	<2.5	9.8 -1	9.6	DZA
5,241	13,143	1,480 -1	13,265 -1	3.8 -3	5.1	..	20.7	EGY
265	778	..	..	..	..	..	14.3	LBY
391	694	36 -5	677 -1	..	10.1	22.8 -2	9.3	MRT
1,402	3,939	847	4,536	..	5.6	15.1 -3	10.3	MAR
632	1,119	251 -4	1,269	0.2 -5	3.1	8.4 -2	9.9	TUN
72	130	15 -2	124 -2	..	..	..	2.6	COM
41	94	4	69	17 -3	13.5	..	10.7	DJI
187	495	47 -2	350 -2	..	..	..	7.7	ERI
9,373	17,101	3,117	20,419	30.8 -5	24.9	36.8 -1	4.8	ETH
4,207	8,318	3,200 -4	8,290 -4	37.1 -5	26.9	..	13.9	KEN
2,291	3,524	902 -1	4,649 -1	..	48.5	41.6 -2	23.5	MDG
26	84	26 -1	83 -1	0.2 -3	7.8	..	3.5	MUS
1,042	1,940	282 -1	2,512 -1	56.5 -4	35.8	33.1	2.7	RWA
3	9	3	10	0.5 -2	..	..	2.5	SYC
1,529	2,715	..	..	68.6 -3	53.1	..	25.1	SOM
981	1,790	111 -5	1,274 -5	76.5 -4	..	..	4.2	SSD
2,384	6,683	1,100 -2	5,118 -2	..	12.8	..	10.1	SDN
1,763	11,274	1,377	10,926	49.4 -2	22.6	31.8 -2	16.4	TZA
4,516	9,409	609 -3	8,841 -3	41 -1	..	28.9 -4	2.8	UGA
705	1,912	157	2,183	19.2 -2	7.4	32.2 -2	1.6	BEN
1,946	3,498	124	3,240	33.7 -2	18	23.8 -1	2.1	BFA
32	63	24 -1	63 -1	3.4 -5	17.7	..	1.3	CPV
2,301	4,083	244	4,101	9.2 -2	4.4	21.6 -4	2.1	CIV
298	380	130	393	10.3 -5	21.6	17.5	4.5	GMB
1,608	4,432	1,868	4,584	12.7 -4	4.1	17.5 -3	3.1	GHA
1,148	2,091	202	2,108	23.2 -2	..	30.3 -2	6.8	GIN
175	314	..	..	24.7 -2	..	28.1 -1	4.1	GNB
422	784	510 -3	635 -3	44.4 -4	38.3	29.8 -1	4.1	LBR
1,953	3,474	131 -2	2,477 -2	16.3 -2	9.8	26.4 -1	2.3	MLI
2,488	4,174	178 -1	2,667 -1	41.4 -2	..	47.1 -1	2.2	NER
6,203	33,598	1,391 -2	27,889 -2	39.1 -2	12.7	31.5	9.1	NGA
1,516	2,723	256	2,260	7.6 -2	7.5	17.9 -1	5.4	SEN
663	1,245	138	1,760	43 -2	27.4	29.5 -1	5.0	SLE
697	1,294	208	1,634	24.1 -2	18.8	23.8 -3	1.3	TGO

Country	A		B		C	D	
	Compulsory		Free		Official primary school starting age	Duration (years)	
	Years of pre-primary	Years of primary-secondary	Years of pre-primary	Years of primary-secondary		Pre-primary	Primary
SDG/CESA Indicator	SDG 4.2.5	SDG 4.1.7	SDG 4.2.5	SDG 4.1.7			
Reference year	2020						
Central Africa							
Burundi	0	0	...	...	7	2	6
C. A. R.	0	10	0	13	6	3	6
Cameroon	0	6	0	6	6	2	6
Chad	0	10	0	10	6	3	6
Congo	0	10	3	13	6	3	6
D. R. Congo	0	6	0	6	6	3	6
Equat. Guinea	0	6	0	6	7	3	6
Gabon	0	10	0	10	6	3	5
S. Tome/Principe	0	6	0	6	6	3	6
Southern Africa							
Angola	0	6	0	6	6	2	6
Botswana	0	0	...	...	6	3	7
Eswatini	0	7	0	7	6	3	7
Lesotho	0	7	0	7	6	3	7
Malawi	0	8	0	8	6	3	6
Mozambique	0	0	...	...	6	3	7
Namibia	0	7	0	7	7	2	7
South Africa	0	9	0	12	7	4	7
Zambia	0	7	0	7	7	4	7
Zimbabwe	0	7	...	...	6	2	7

Source: UIS unless noted otherwise.
(...) Data not available or category not applicable.
(± n) Reference year differs (e.g. -2: reference year 2018 instead of 2020).
(i) Estimate and/or partial coverage.

A Years of compulsory education, by level.
B Years of free education, by level.
C Official primary school starting age.
D Official duration of education levels in years.
E Official school-age population by level.
F Total absolute enrolment by level.
G Proportion of population below international poverty line (%) [unstats.un.org/World Bank].
H Prevalence of undernourishment (%) [FAO, Statistics Division].
I Proportion of children moderately or severely stunted (%) [unstats.un.org].
J World Risk Index 2021 [https://weltrisikobericht.de/#weltrisikoindex].

E		F		G	H	I	J	
School-age population (000)		Enrolment (000)		Context				
Pre-primary	Primary	Pre-primary	Primary	Poverty rate (%)	Undernourished (%)	Under-5 stunting (%)	World Risk Index	Country code
				SDG 1.1.1	SDG 2.1.1	SDG 2.2.1		
			2020				2021	
743	1,931	126$_{+1}$	2,302$_{+1}$	...	...	54$_{-1}$	3.0	BDI
428	824	12$_{-3}$	814$_{-4}$	...	52.2	40.2$_{-1}$	3.3	CAF
1,547	4,251	543$_{-1}$	4,400$_{-1}$	...	6.7	28.9$_{-2}$	11.2	CMR
1,618	2,836	17$_{-1}$	2,469$_{-1}$	33.2$_{-2}$	32.7	37.8$_{-1}$	2.9	TCD
479	879	67$_{-2}$	783$_{-2}$	...	31.6	...	4.9	COG
8,779	15,166	474$_{-2}$	16,807$_{-2}$	...	39.8	41.8$_{-3}$	9.7	COD
107	184	40$_{-5}$	93$_{-5}$	...	...	...	3.4	GNQ
180	260	...	...	3.4$_{-3}$	17.2	...	4.7	GAB
19	36	9$_{-4}$	37^{-3}	25.6$_{-3}$	13.5	11.7$_{-1}$	0.5	STP
2,184	5,862	784$_{-4}$	5,621$_{-5}$	49.9$_{-2}$	20.8	37.6$_{-5}$	11.0	AGO
164	363	33$_{-5}$	365$_{+1}$	14.5$_{-5}$	21.9	...	1.4	BWA
84	205	...	236$_{-1}$	29.2$_{-4}$	11	...	1.8	SWZ
144	305	54$_{-4}$	368$_{-3}$	27.2$_{-3}$	34.7	34.6$_{-2}$	1.3	LSO
1,699	3,236	1,361$_{-5}$	4,593$_{-1}$	73.5$_{-1}$	17.8	40.9$_{-1}$	3.3	MWI
2,939	6,097	...	7,220	...	32.7	42.3$_{-5}$	34.4	MOZ
131	416	43$_{-2}$	491$_{-2}$	13.8$_{-5}$	18	...	5.9	NAM
4,684	7,921	836$_{-1}$	7,688$_{-1}$	...	6.9	21.4$_{-3}$	9.4	ZAF
2,274	3,565	160$_{-4}$	3,285$_{-3}$	58.7^{-5}	...	34.6$_{-2}$	2.9	ZMB
901	2,949	653	2,870	39.5$_{-1}$	...	23.5$_{-1}$	2.4	ZWE

STATISTICAL TABLE 2

Participation, completion and equity

Country	A			B			
	Participation/completion						
	Early childhood			Primary			
	NERA one year before primary entry (%)			Out-of-school children (000)	Out-of-school rate (%)		
SDG/CESA Indicator	**4.2.2**			**4.1.4**			
		SDG benchmark				SDG benchmark	
Reference year	**2020**	**2025**	**2030**	**2020**	**2020**	**2025**	**2030**
Northern Africa							
Algeria	...	85	93	8	0.2	0.6	0.3
Egypt	37 $_{-1}$	66	80	91 $_{-1}$	0.7 $_{-1}$	...	...
Libya	...	...	...	...	...	...	...
Mauritania	...	...	...	156 $_{-1}$	23 $_{-1}$	20	15
Morocco	73	82	99	18	0.4	0.2	0.1
Tunisia	...	...	...	5,064*	0.4*	...	...
Eastern Africa							
Comoros	30 $_{-2}$	...	...	23 $_{-2}$	18 $_{-2}$	...	...
Djibouti	13	59	87	31	33	...	...
Eritrea	27 $_{-2}$	33	41	242 $_{-2}$	47 $_{-2}$	...	...
Ethiopia	43	...	...	2,188	13	...	...
Kenya	...	83	87	...	...	...	...
Madagascar	59 $_{-1}$	48	55	81 $_{-1}$	2 $_{-1}$	14	9
Mauritius	91	95	97	0 $_{+1}$	0.3 $_{+1}$	1	1
Rwanda	53 $_{-1}$	69	83	121 $_{-1}$	6 $_{-1}$	0.4	0.2
Seychelles	97	100	100	0	1	0.0	0.0
Somalia	...	...	...	...	...	...	...
South Sudan	21 $_{-5i}$	...	...	1,088 $_{-5i}$	62 $_{-5i}$	...	...
Sudan	40 $_{-2}$	55	63	2,131 $_{-2}$	33 $_{-2}$	15	5
U. R. Tanzania	56	...	...	1,813	16	...	...
Uganda	...	...	...	1,130*	12*	4	...
Western Africa							
Benin	85 $_{-2}$	29	33	129	7	...	...
Burkina Faso	21	19	25	857	25	...	...
Cabo Verde	81 $_{-1}$	100	100	5 $_{-1}$	8 $_{-1}$	...	...
Côte d'Ivoire	25	16	25	148	4	4	1
Gambia	60	...	...	49	13	...	...
Ghana	93	94	100	265	6	...	5
Guinea	47	48	53	302	14	25	10
Guinea-Bissau	...	20	23	113*	35.2*	...	...
Liberia	79 $_{-3}$	...	...	159 $_{-3}$	21 $_{-3}$	25	11
Mali	45 $_{-2}$	23	25	1,343 $_{-2}$	41 $_{-2}$	...	...
Niger	24 $_{-1}$	16	21	1,647 $_{-1}$	41 $_{-1}$	...	...
Nigeria	...	...	...	9,653*	28*	...	...
Senegal	16	45	62	671	25	9	1
Sierra Leone	42 $_{-2}$	15	30	6 $_{-4}$	0.5 $_{-4}$	19	10
Togo	99	45	50	16	1	3	17

C			D	E		F		Country code
			Equity					
Primary			Disparities in primary completion					
Completion rate (%)			Adjusted parity index			% of poorest completing		
			Gender	Location	Wealth	Male	Female	
4.1.2 / SO 4.1			4.5.1					
	SDG benchmark							
2020	2025	2030	2020					
95	99	100	..	..	..	..	..	DZA
94 -1	98	100	..	..	..	..	..	EGY
..	..	..	..	..	..	..	..	LBY
46	91	100	0.86 -5	0.58 -5	0.32 -5	34 -5	21 -5	MRT
..	97	98	..	..	..	..	..	MAR
96	..	..	1.03 -2	0.93 -2	0.89 -2	85 -2	92 -2	TUN
74 -3	..	..	..	..	..	..	..	COM
..	82	84	..	..	..	..	..	DJI
..	..	..	..	..	..	..	..	ERI
57	..	..	1.01 -4	0.52 -4	0.35 -4	28 -4	28 -4	ETH
74 -1	100	100	..	..	..	..	..	KEN
53	55	58	1.14 -2	0.68 -2	0.20 -2	14 -2	21 -2	MDG
100 -4	98	99	..	..	..	..	..	MUS
58	42	46	1.15	0.74	0.43	31	41	RWA
..	100	100	..	..	..	..	..	SYC
..	..	..	..	..	..	..	..	SOM
7 -5	..	..	..	..	..	..	..	SSD
73 -1	74	88	..	..	..	..	..	SDN
74	..	..	1.10 -5	0.83 -5	0.64 -5	54 -5	67 -5	TZA
40	67	..	1.07 -4	0.59 -4	0.26 -4	20 -4	17 -4	UGA
62	86	100	0.87 -2	0.70 -2	0.28 -2	24 -2	18 -2	BEN
35 -5	84	99	..	..	..	..	..	BFA
..	96	98	..	..	..	..	..	CPV
58	100	100	0.88 -4	0.56 -4	0.32 -4	30 -4	16 -4	CIV
69	100	100	1.09	0.68	0.55	40	46	GMB
77	97	100	1.06 -2	0.82 -2	0.61 -2	51 -2	54 -2	GHA
53	84	100	0.75 -2	0.40 -2	0.20 -2	23 -2	0	GIN
25	100	100	..	..	..	25 -1	19 -1	GNB
29	..	..	1.12 -1	0.38 -1	0.15 -1	6 -1	11 -1	LBR
53	56	76	0.81 -2	0.50 -2	0.32 -2	29 -2	21 -2	MLI
40 -3	94	100	..	..	..	..	..	NER
80	..	..	1.00 -2	0.65 -2	0.28 -2	26 -2	27 -2	NGA
51	82	97	1.13 -1	0.54 -1	0.35 -1	26 -1	27 -1	SEN
66	87	90	1.03 -1	0.66 -1	0.53 -1	45 -1	47 -1	SLE
81	100	100	0.92 -3	0.88 -3	0.71 -3	67 -3	55 -3	TGO

Country	A			B			
	Participation/completion						
	Early childhood			Primary			
	NERA one year before primary entry (%)			Out-of-school children (000)	Out-of-school rate (%)		
SDG/CESA Indicator	4.2.2			4.1.4			
		SDG benchmark				SDG benchmark	
Reference year	2020	2025	2030	2020	2020	2025	2030
Central Africa							
Burundi	49 $_{+1}$	15	17	202 $_{+1}$	10 $_{+1}$	...	...
C. A. R.	...	...	...	414*	50*	...	...
Cameroon	44 $_{-1}$	...	...	347 $_{-1}$	8 $_{-1}$	...	...
Chad	14 $_{-1}$	...	...	724 $_{-1}$	26 $_{-1}$	...	...
Congo	29 $_{-2}$	...	...	131 $_{-2}$	16 $_{-2}$	...	...
D. R. Congo	...	20	...	3,191*	20*	...	...
Equat. Guinea	44 $_{-5}$	...	...	84 $_{-5}$	55 $_{-5}$	...	...
Gabon	...	...	...	8*	3.1*	...	...
S. Tome/Principe	52 $_{-5}$	100	100	2 $_{-3}$	6 $_{-3}$	...	...
Southern Africa							
Angola	65 $_{-4i}$	...	...	1,389*	23.7*	...	...
Botswana	21 $_{-5i}$	60	75	57*	15.7*	15	10
Eswatini	...	30	70	31 $_{-1}$	15 $_{-1}$	5	2
Lesotho	40 $_{-2}$	...	...	11*	3.7*	...	...
Malawi	...	70	100	280*	9*	6	3
Mozambique	...	...	...	53	0.9	...	...
Namibia	72 $_{-1}$	...	...	5*	1.3*	...	...
South Africa	72 $_{-1}$	...	...	843 $_{-1}$	11 $_{-1}$	...	...
Zambia	...	...	...	496 $_{-3}$	15 $_{-3}$	...	...
Zimbabwe	57	...	...	402	14	...	...

Source: UIS unless noted otherwise. The source for SDG benchmarks is the same as the corresponding indicator.
(...) Data not available or category not applicable.
(± n) Reference year differs (e.g. -2: reference year 2018 instead of 2020).
(i) Estimate and/or partial coverage.
(*) GEM Report and UIS model estimates

A Adjusted net enrolment rate (NERA) one year before the official primary school entry age.
B Out-of-school children, total number (million) and out-of-school rate as percentage of the corresponding age group.
C Primary completion rate [GEM Report estimates].
D Adjusted gender parity index (GPIA) in primary school completion rate.
E Adjusted parity index for location (rural/urban) and wealth (poorest/richest quintile) in primary school completion.
F Primary education completion rate for the poorest quintile, by sex (%).

C			D	E		F		Country code
			Equity					
Primary			Disparities in primary completion					
Completion rate (%)			Adjusted parity index			% of poorest completing		
			Gender	Location	Wealth	Male	Female	
4.1.2 / SO 4.1			4.5.1					
	SDG benchmark							
2020	2025	2030	2020					
52	96	100	1.13 -3	0.70 -3	0.41 -3	24 -3	32 -3	BDI
31	...	...	0.79 -1	0.21 -1	0.16 -1	11 -1	7 -1	CAF
76	...	...	0.98 -2	0.66 -2	0.35 -2	36 -2	30 -2	CMR
31	...	...	0.76 -1	0.35 -1	0.16 -1	11 -1	8 -1	TCD
87	96	99	1.04 -5	0.61 -5	0.43 -5	42 -5	40 -5	COG
58	99	100	0.99 -2	0.66 -2	0.45 -2	44 -2	39 -2	COD
...	...	...	...	...	...	...	...	GNQ
57 -3	...	...	...	...	...	...	...	GAB
88	100	100	1.11 -1	1.01 -1	0.76 -1	62 -1	87 -1	STP
59	...	...	0.89 -5	0.37 -5	0.21 -5	21 -5	17 -5	AGO
97 -4	100	100	...	...	...	...	...	BWA
66 -1	93	96	...	...	...	...	...	SWZ
78	95	98	1.25 -2	0.80 -2	0.60 -2	40 -2	79 -2	LSO
48	60	70	1.17	0.59	0.33	21	30	MWI
39 -4	55	60	...	...	...	6 -5	6 -5	MOZ
82 -2	...	...	...	...	...	76 -5	84 -5	NAM
98	...	...	1.03 -4	0.96 -4	0.92 -4	88 -4	94 -4	ZAF
69	100	100	1.03 -2	0.69 -2	0.42 -2	38 -2	40 -2	ZMB
87	...	...	1.06 -1	0.88 -1	0.79 -1	75 -1	81 -1	ZWE

STATISTICAL TABLE 3

Learning and teachers

Country	A											
	Learning											
	Achieving minimum proficiency, reading (%)						Achieving minimum proficiency, mathematics (%)					
	Early grades			End of primary			Early grades			End of primary		
SDG/CESA Indicator	SDG 4.1.1/SO 4.5											
		SDG benchmark			SDG benchmark			SDG benchmark			SDG benchmark	
Reference year	2020	2025	2030	2020	2025	2030	2020	2025	2030	2020	2025	2030
Northern Africa												
Algeria	...	81	86	...	85	89	...	83	87	...	85	87
Egypt	...	...	...	31$_{-4}$	...	...	...	...	...	...	...	...
Libya	...	...	...	...	...	...	...	...	...	...	...	...
Mauritania	...	...	...	...	...	...	...	...	...	...	...	...
Morocco	...	...	...	33$_{-4}$	54	67	...	...	...	18$_{-1}$	65	80
Tunisia	47$_{-2}$	...	...	...	...	...	15$_{-2}$	...	...	...	...	...
Eastern Africa												
Comoros	...	...	...	...	...	...	...	...	...	...	...	...
Djibouti	...	...	...	...	...	...	...	...	...	...	...	...
Eritrea	...	...	...	...	...	...	...	...	...	...	...	...
Ethiopia	...	...	...	...	...	...	...	...	...	...	...	...
Kenya	53$_{-2}$	77	86	47$_{+1}$	59	69	42$_{-2}$	76	80	74$_{+1}$	41	50
Madagascar	13$_{-2}$	41	55	6$_{-1}$	11	14	4$_{-2}$	21	33	6$_{-1}$	14	21
Mauritius	...	...	...	75$_{-7}$	90	95	...	...	...	59$_{-7}$	80	85
Rwanda	...	70	99	...	76	99	...	66	99	...	82	99
Seychelles	...	92	92	80$_{-7}$	60	60	...	96	96	52$_{-7}$	50	50
Somalia	...	...	...	...	...	...	...	...	...	...	...	...
South Sudan	...	...	...	...	...	...	...	...	...	...	...	...
Sudan	...	43	58	...	...	...	...	62	77	...	...	...
U. R. Tanzania	56$_{-4}$	...	...	61$_{-7}$	...	...	35$_{-4}$	...	...	8$_{-7}$	...	...
Uganda	33$_{-5}$	59	...	51$_{-5}$	72	...	21$_{-5}$	74	...	21$_{-5}$	68	...
Western Africa												
Benin	38$_{-1}$	...	...	46$_{-1}$	...	...	62$_{-1}$	...	...	19$_{-1}$	...	...
Burkina Faso	34$_{-1}$	...	...	9$_{+1}$	...	...	61$_{-1}$	...	...	24$_{+1}$	...	...
Cabo Verde	...	...	...	...	...	...	...	...	...	...	...	...
Côte d'Ivoire	33$_{-1}$	51	60	11$_{+1}$	71	75	68$_{-1}$	65	70	9$_{+1}$	58	65
Gambia	5$_{-2}$	37	50	...	...	54	4$_{-2}$	28	45	...	...	54
Ghana	6$_{-3}$	...	...	...	...	...	8$_{-3}$	...	...	...	...	...
Guinea	23$_{-1}$	29	36	22$_{-1}$	50	57	60$_{-1}$	65	72	7$_{-1}$	43	50
Guinea-Bissau	6$_{-2}$	...	...	...	...	...	5$_{-2}$	...	...	...	...	...
Liberia	...	...	...	...	...	...	...	...	...	...	...	...
Mali	...	29	34	...	...	...	...	38	47	...	...	...
Niger	44$_{-1}$	...	...	14$_{-1}$	53	74	67$_{-1}$	...	...	8$_{-1}$	65	96
Nigeria	17$_{-3}$	...	...	...	...	...	11$_{-3}$	...	...	...	...	...
Senegal	48$_{-1}$	70	76	13$_{+1}$	49	56	79$_{-1}$	69	72	34$_{+1}$	36	44
Sierra Leone	6$_{-3}$	...	...	...	72	75	6$_{-3}$	...	...	...	70	85
Togo	25$_{-1}$	70	90	19$_{-1}$	77	90	47$_{-1}$	70	90	16$_{-1}$	79	90

B	C	D	E	F			Country code
Primary school teachers							
Classroom teachers		Pupil/teacher ratio	Pupil/trained teacher ratio	% of trained classroom teachers			
Total (000)	% female						
	SO 5.2		4.c.2	4.c.1/SO 1.1			
2020				2020	SDG benchmark 2025	SDG benchmark 2030	
201	82	24	24 -5	100 -5	100	100	DZA
531 -1	62 -1	25 -1	30 -1	85 -1	...	...	EGY
...	...	...	...	...	...	...	LBY
17 -1	35 -1	41 -1	42 -1	97 -1	100	100	MRT
167	59	27	27	100	100	100	MAR
76	67	17	17	100	...	...	TUN
4 -2	29 -2	28 -2	38 -3	72 -3	...	...	COM
2	31	30	29 -2	100 -2	...	...	DJI
9 -2	39 -2	39 -2	46 -2	84 -2	...	...	ERI
538	41	38	...	...	...	...	ETH
267 -Si	50 -Si	...	...	...	100	100	KEN
127 -1	53 -1	37 -1	240 -1	15 -1	19	23	MDG
6 +1	81	14 +1	14 +1	100 +1	100	100	MUS
44 -1	55 -1	57 -1	60 -1	95 -1	100	100	RWA
1	85	15	19	83	90	90	SYC
...	...	...	...	...	40	...	SOM
27 -Si	15 -Si	47 -Si	...	...	...	...	SSD
...	...	...	...	...	75	90	SDN
195	49	56	42 -4	99 -4	...	...	TZA
207 -3	43 -3	43 -3	54 -3	80 -3	87	...	UGA
57	29	38	50	77	...	...	BEN
87	48	37	41	89	...	...	BFA
3 -1	71 -1	20 -1	20 -1	99 -1	100	100	CPV
101	32	41	41	100	96	100	CIV
11	40	36	42	88	...	...	GMB
186	45	25	37	67	88	100	GHA
44	41	48	63	77	57	100	GIN
...	...	...	...	...	...	...	GNB
28 -3	18 -3	22 -3	32 -3	70 -3	62	68	LBR
65 -2	32 -2	38 -2	...	...	...	...	MLI
67 -1	56	40 -1	65 -4	62 -2	...	...	NER
914 -2	54 -2	31 -2	49 -2	62 -2	...	...	NGA
66	32	34	45	75	100	100	SEN
47	31	38	60	63	70	80	SLE
42	17	39	52	76	79	79	TGO

Country	A											
	Learning											
	Achieving minimum proficiency, reading (%)						Achieving minimum proficiency, mathematics (%)					
	Early grades			End of primary			Early grades			End of primary		
SDG/CESA Indicator	SDG 4.1.1/SO 4.5											
		SDG benchmark			SDG benchmark			SDG benchmark			SDG benchmark	
Reference year	2020	2025	2030	2020	2025	2030	2020	2025	2030	2020	2025	2030
Central Africa												
Burundi	79 $_{-1}$	...	...	0.1 $_{+1}$	...	...	99 $_{-1}$	...	...	13 $_{+1}$	...	...
C. A. R.	2 $_{-2}$	...	...	...	...	...	0.4 $_{-2}$	...	...	...	...	...
Cameroon	39 $_{-1}$	...	...	30 $_{-1}$	...	...	58 $_{-1}$	...	...	11 $_{-1}$	...	...
Chad	34 $_{-1}$	...	...	8 $_{-1}$	...	...	65 $_{-1}$	...	...	2 $_{-1}$	...	...
Congo	63 $_{-1}$	...	...	34 $_{-1}$	...	...	86 $_{-1}$	...	...	8 $_{-1}$	...	...
D. R. Congo	42 $_{-1}$	95	100	9 $_{-1}$	90	100	77 $_{-1}$	80	83	3 $_{-1}$	90	100
Equat. Guinea	...	...	...	...	...	...	...	...	...	...	...	...
Gabon	66 $_{-1}$	...	...	76 $_{-1}$	...	...	89 $_{-1}$	...	...	23 $_{-1}$	...	...
S. Tome/Principe	12 $_{-1}$	...	...	...	...	...	12 $_{-1}$	...	...	...	...	...
Southern Africa												
Angola	...	...	...	...	...	...	...	...	...	...	...	...
Botswana	...	90	95	69 $_{-1}$	100	100	...	80	90	37 $_{-1}$	...	95
Eswatini	...	25	60	84 $_{-1}$	95	100	...	20	50	37 $_{-1}$	50	60
Lesotho	13 $_{-2}$	...	...	49 $_{-1}$	...	...	1 $_{-2}$	...	...	10 $_{-1}$	...	...
Malawi	...	50	70	15 $_{-1}$	50	70	...	60	65	4 $_{-1}$	80	90
Mozambique	...	...	...	36 $_{-1}$	36	51	...	...	...	15 $_{-1}$	...	...
Namibia	...	...	...	61 $_{-1}$	...	...	...	...	...	17 $_{-1}$	...	...
South Africa	22 $_{-4}$	93	98	22 $_{-1}$	93	98	16 $_{-1}$	97	100	16 $_{-1}$	94	99
Zambia	...	...	...	2 $_{+1}$	...	...	...	...	...	2 $_{+1}$	...	...
Zimbabwe	20 $_{-1}$	...	...	46 $_{-1}$	...	...	5 $_{-1}$	...	...	23 $_{-1}$	...	...

Source: UIS unless noted otherwise. The source for SDG benchmarks is the same as the corresponding indicator.
(...) Data not available or category not applicable.
(± n) Reference year differs (e.g. -2: reference year 2018 instead of 2020).
(i) Estimate and/or partial coverage.

A Percentage of students achieving at least a minimum proficiency level in reading and mathematics, by level [Complemented with data from the MILO, PIRLS and TIMSS surveys].
B Number of classroom teachers.
C Percentage of female teachers.
D Pupil/teacher ratio, headcount basis.
E Pupil/trained teacher ratio.
F Percentage of primary teachers with the minimum required qualifications (received at least the minimum organized and recognized pre-service and in-service pedagogical training) to teach at primary level.

B	C	D	E	F			Country code
Primary school teachers							
Classroom teachers		Pupil/teacher ratio	Pupil/trained teacher ratio	% of trained classroom teachers			
Total (000)	% female						
	SO 5.2		4.c.2	4.c.1/SO 1.1			
					SDG benchmark		
2020				2020	2025	2030	
52 +1	51 +1	44 +1	43 -1	100 -1	...	...	BDI
10 -4	19 -3	83 -4	...	...	...	...	CAF
97 -1	56 -1	46 -1	55 -3	81 -3	...	...	CMR
45 -1	19 -1	55 -1	...	...	...	...	TCD
28 -2	38 -2	28 -2	...	...	...	...	COG
544 -2	29 -2	31 -2	34 -2	92 -2	...	...	COD
4 -5	44 -5	23 -5	62 -5	37 -5	...	...	GNQ
...	57 -1	...	52 -1	52 -1	...	...	GAB
1 -3	55 -3	31 -3	114 -3	27 -3	100	100	STP
96 -4	47 -4	...	...	...	...	...	AGO
14 +1	74 +1	26 +1	26 -3	100 -3	100	100	BWA
9 -1	70 -1	26 -1	30 -3	88 -3	95	100	SWZ
11 -3	75 -2	33 -3	39 -4	87 -4	...	...	LSO
83 -1	45 -1	55 -1	...	...	100	100	MWI
125	47	58	59	98	50	100	MOZ
20 -2	68 -2	25 -2	30 -1	92 -1	...	...	NAM
249 -5	79 -5	...	...	...	...	...	ZAF
78 -3	50 -3	42 -3	43 -3	99 -3	...	...	ZMB
76	61	38	39	98	...	...	ZWE

STATISTICAL TABLE 4

Finance

Country	A	B	C	D			
	Domestic financing						
				Government education expenditure per pupil			
				Pre-primary	Primary	Pre-primary	Primary
	Government education expenditure (as % of GDP)	Household education expenditure (% of GDP)	Education as share of total government expenditure (%)	2019 PPP US$		% of GDP per capita	
SDG/CESA Indicator			1.a.2/CESA F.1	4.5.4			
Reference year	2020						
Northern Africa							
Algeria	6.1 -1	1	16.5	...	...	...	...
Egypt	2.5	4	12.3	735 -1	762 -1	6 -1	7 -1
Libya	...	...	...	...	...	...	...
Mauritania	1.9	3.3	9.7	...	332 -1	...	6 -1
Morocco	6.8	2.2	14.8	...	...	...	...
Tunisia	...	1.6	...	...	...	...	...
Eastern Africa							
Comoros	...	2	...	...	...	...	...
Djibouti	3.6 -2i	2	14 -2i	...	1,241 -4	...	25 -4
Eritrea	...	...	...	...	...	...	...
Ethiopia	5.1 -2	0.3	24 -2	60 -5	134 -5	4 -5	8 -5
Kenya	5.1	4	19 -2i	51 -5	402 -5	1 -5	10 -5
Madagascar	3.1	3	15.3	...	...	...	...
Mauritius	4.6	5	16.1	678 -1	3,596 -1	3 -1	16 -1
Rwanda	3.3	6	10.8	42 -2	85 -2	2 -2	4 -2
Seychelles	5.2	...	9.2	3,333 -4	3,909 -4	12 -4	14 -4
Somalia	...	...	...	...	...	...	...
South Sudan	...	...	...	...	...	0.4 -4	5 -4
Sudan	...	1	...	...	...	...	...
U. R. Tanzania	3.2	1	20.5 -2i	...	...	...	...
Uganda	2.6	3.2	11.3	...	...	...	...
Western Africa							
Benin	3.0	3.7	17.7 -2i	266 -5	205 -5	9 -5	7 -5
Burkina Faso	5.5	...	22.7 -2i	167 -4	282 -5	8 -4	14 -5
Cabo Verde	7.6	0.7	17.1	43 -1	1,638 -1	1 -1	22 -1
Côte d'Ivoire	3.4	2.3	15.1	817 -2	515 -2	16 -2	10 -2
Gambia	2.8	2.5	11.4 -2i	0 -5	181 -5	0 -5	8 -5
Ghana	3.9 -2i	9	18.6 -2i	...	...	...	...
Guinea	2.2	1	14.3	...	156	...	6
Guinea-Bissau	2.7	...	15 -3	...	...	...	...
Liberia	2.3	6	8.1 -2i	161 -4	238 -4	10 -4	14 -4
Mali	3.8	2	14.5	42 -3	286 -3	2 -3	12 -3
Niger	3.8	3.6	13.3	144 -2	116 -3	12 -2	10 -3
Nigeria	...	4	...	...	...	...	...
Senegal	5.5	4	22.1	468 -5	425 -5	15 -5	14 -5
Sierra Leone	8.8	3	34.2	0	273	0	16
Togo	4.0	2.4	20.8 +1	103 -5	244 -4	5 -5	12 -4

E						F				
Official development assistance to education received										
Total ODA						Direct ODA				
Education		Basic education				Education		Basic education		Country code
Constant 2020 US$ millions		Constant 2020 US$ millions	As % of total ODA to education	Constant 2020 US$ millions	As % of total ODA to education	Constant 2020 US$ millions				
2019	2020	2019	2019	2020	2020	2019	2020	2019	2020	
139	138	3	2	3	2	139	138	1	1	DZA
318	244	92	29	61	25	265	244	25	19	EGY
11	15	0	1	1	7	11	15	0	1	LBY
36	63	10	28	29	45	36	26	7	9	MRT
326	456	62	19	91	20	314	425	45	41	MAR
209	172	38	18	29	17	200	153	7	13	TUN
17	20	3	15	3	14	17	17	2	1	COM
30	37	13	45	18	49	18	22	7	9	DJI
27	4	9	33	0	9	10	4	0	0	ERI
292	335	174	60	183	55	270	298	149	120	ETH
114	273	40	35	118	43	114	122	32	23	KEN
60	153	27	46	70	46	51	76	19	13	MDG
15	12	3	17	1	10	15	12	1	1	MUS
135	336	49	36	165	49	128	286	40	100	RWA
...	...	...	...	...	...	...	...	...	...	SYC
38	124	16	41	72	58	32	61	7	31	SOM
56	82	41	73	56	69	56	71	34	37	SSD
113	228	44	39	105	46	37	39	1	5	SDN
189	247	91	48	126	51	189	247	59	84	TZA
136	225	46	34	84	37	136	124	27	18	UGA
61	108	23	38	48	44	58	60	17	20	BEN
103	169	49	47	76	45	86	112	29	33	BFA
27	27	5	20	9	33	23	16	0	1	CPV
98	168	25	26	64	38	85	86	9	15	CIV
21	38	9	42	18	47	15	24	3	7	GMB
111	373	37	33	159	43	100	148	21	30	GHA
58	99	28	48	36	36	53	52	24	11	GIN
17	22	2	14	7	33	17	22	1	5	GNB
46	60	35	76	43	72	45	37	33	31	LBR
200	145	111	56	71	49	130	91	62	36	MLI
140	127	69	49	68	53	131	82	36	37	NER
246	186	111	45	78	42	246	186	83	59	NGA
174	226	64	37	86	38	170	166	51	46	SEN
62	109	32	51	56	51	57	70	20	19	SLE
35	68	8	23	24	36	32	38	5	7	TGO

Country	A	B	C	D			
	Domestic financing						
				Government education expenditure per pupil			
				Pre-primary	Primary	Pre-primary	Primary
	Government education expenditure (as % of GDP)	Household education expenditure (% of GDP)	Education as share of total government expenditure (%)	2019 PPP US$		% of GDP per capita	
SDG/CESA Indicator			1.a.2/CESA F.1	4.5.4			
Reference year	2020						
Central Africa							
Burundi	5.0	0.7	20.7	...	...	...	...
C. A. R.	2.2	...	9.8	...	...	...	...
Cameroon	3.2	1.9	14.4	...	...	...	...
Chad	2.9	0.9	11.7	...	108 -2	...	7 -2
Congo	4.4	1	18.3	...	...	...	...
D. R. Congo	2.5	2	14 -3i	0 -5	...	0 -5	...
Equat. Guinea	...	...	...	...	...	...	...
Gabon	3.2	...	15	...	...	...	...
S. Tome/Principe	5.0	0.3	16.1	...	...	...	...
Southern Africa							
Angola	2.4	2	6.5	...	...	...	...
Botswana	8.7	2	15.4 -1	...	...	...	...
Eswatini	5.3	...	15.9	...	...	...	...
Lesotho	7.7	...	13.8	...	633 -2	...	23 -2
Malawi	2.9	...	11.5	0 -4	122 -4	0 -4	8 -4
Mozambique	6.3	1	17.9	...	...	...	...
Namibia	9.4	2	24.9	...	...	...	...
South Africa	6.2	2	19.5	985	2,766	7	20
Zambia	3.7	4	12.4	68 -4	468 -3	2 -4	13 -3
Zimbabwe	3.9 -2i	4	19 -2i	...	...	...	...

Source: UIS unless noted otherwise.
(...) Data not available or category not applicable.
(± n) Reference year differs (e.g. -2: reference year 2018 instead of 2020).
(i) Estimate and/or partial coverage.

A Initial government expenditure on education as % of GDP.
B Initial household expenditure on education as % of GDP [GEM Report estimates, 2010s].
C Initial government expenditure on education as % of total government expenditure.
D Initial government expenditure per pupil by level, in constant 2019 PPP US$ and as % of GDP per capita.
E Total ODA to education in constant 2020 US$ millions and to basic education, in constant 2020 US$ millions and as % of total ODA [OECD-DAC, CRS database, 2022].
F Direct ODA to education and to basic education, in constant 2020 US$ millions [OECD-DAC, CRS database, 2022].

E						F				Country code
Official development assistance to education received										
Total ODA						Direct ODA				
Education		Basic education				Education		Basic education		
Constant 2020 US$ millions		Constant 2020 US$ millions	As % of total ODA to education	Constant 2020 US$ millions	As % of total ODA to education	Constant 2020 US$ millions				
2019	2020	2019	2019	2020	2020	2019	2020	2019	2020	
25	22	12	46	10	48	25	22	8	8	BDI
35	47	20	56	25	54	26	29	10	11	CAF
167	209	44	26	63	30	129	117	12	14	CMR
82	100	40	49	49	50	57	48	17	17	TCD
40	38	10	25	12	31	29	38	3	10	COG
147	217	67	45	97	45	147	143	46	39	COD
16	2	8	50	1	46	2	2	1	1	GNQ
41	39	11	26	8	21	24	39	0	0	GAB
7	10	3	43	5	49	7	6	1	2	STP
28	26	18	65	6	23	28	26	17	5	AGO
9	5	3	35	1	26	9	5	2	1	BWA
9	4	5	55	2	55	9	4	2	1	SWZ
6	7	4	63	4	57	6	4	3	2	LSO
108	142	59	54	92	65	108	103	45	61	MWI
199	257	116	58	167	65	183	193	81	109	MOZ
24	22	12	50	15	66	24	22	10	14	NAM
76	58	33	43	19	33	76	58	19	10	ZAF
45	56	21	46	23	40	45	56	13	16	ZMB
19	28	5	27	10	37	19	28	3	9	ZWE

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Chapter 9

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SPOTLIGHT ON BASIC EDUCATION COMPLETION AND FOUNDATIONAL LEARNING IN AFRICA

Born to learn

2022

This publication is the first in a three-part Spotlight series. It is produced by a partnership between the *Global Education Monitoring Report*, the Association for the Development of Education in Africa and the African Union.

It synthesizes evidence on completion rates and minimum learning proficiency levels on the continent, informing the debate on national benchmarks for Sustainable Development Goal 4 (SDG 4) and the Continental Education Strategy for Africa (CESA). It aims to inspire national dialogue and a peer learning mechanism in continental institutions on foundational learning.

The *2022 Spotlight Report* draws on five country reports, covering the Democratic Republic of the Congo, Ghana, Mozambique, Rwanda and Senegal, and case studies on the Central African Republic (language of instruction), Kenya (district education officers), Madagascar (school feeding), Malawi (textbooks), Sao Tome and Principe (early childhood education), Sierra Leone (learning assessment) and South Sudan (teachers).

The report focuses on why learning levels in the region are low. All children are born to learn yet only one in five children in Africa who reaches the end of primary school achieves the minimum proficiency level required to continue their education and fulfil their potential. Combining completion and learning statistics, the report shows that children in Africa are at least five times less likely than children in the rest of the world to be prepared for the future.

Given the historically low levels of learning on the continent, fresh thinking is needed to translate the CESA and SDG 4 commitments into focused, coordinated, well-informed and appropriately funded actions. The report contains eight policy-oriented recommendations for driving change.

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