



unicef 
Office of Research – Innocenti

unicef  | for every child

REOPENING WITH RESILIENCE:

Lessons from remote learning during COVID-19 in Eastern and Southern Africa

Introduction

Despite major gains in access to education in recent decades, learning levels in Sub-Saharan Africa (SSA) remain tragically far behind other regions of the world. Even before the pandemic, 87 per cent of children in low- and middle-income countries in SSA were learning poor – meaning that they were unable to read and understand a simple text by the age of 10¹ (Azevedo, 2020). SSA also has the highest rate of out-of-school children in the world: 19 per cent or 32 million children of primary school age were not in school prior to COVID-19 school closures. When secondary school-age children are included, 31 per cent or 97.5 million children are out of school (UNESCO UIS, 2019).

The COVID-19 pandemic has exacerbated the learning crisis for children living in Eastern and Southern Africa² (ESA). Countries in the region fully closed their school systems for an average of 155 school days between February 2020 and December 2021. Uganda had the highest number of fully closed school days (451), followed by Eswatini (237), South Sudan (231) and Zimbabwe (237). When including days when part of the school system was closed,

Uganda's total increases to 613 days out of a total of 685 school days during this period. Several of these countries with the longest school closures, such as Angola and South Sudan, are also among those that already had the lowest learning outcomes pre-COVID (see *Figure 1*).

School reopenings have varied widely across the ESA region. After the initial round of school closures in March 2020, additional restrictions were implemented to further reduce the spread of COVID-19 (for example, national curfews and limitations on social gatherings). By the end of 2020, all ESA countries had at least partially reopened schools. When a new variant of COVID-19 hit the region in June and July 2021,³ countries again reacted differently: Namibia, Uganda and Zambia closed all schools, Zimbabwe and South Africa extended academic vacations, Rwanda and Mozambique closed schools in only a few regions.

The long and extended school closures are of grave concern in ESA where the pre-COVID-19 learning crisis was severe. A joint study by the World Bank,

UNESCO and UNICEF (2021) outlines the effect of school closures on students. School closures can increase existing learning inequities along numerous lines such as gender, geography and age. School closures have also led to an increase in dropout rates. In Kenya, for example, one study finds that around 32 per cent of children between 15 and 19 years of age did not return to school after schools reopened (World Bank, UNESCO and UNICEF, 2021). Shutting schools did not only lead to reductions in learning, but also affected children's overall well-being as schools provide a host of cross-sectoral services for children such as nutrition and psychosocial support.

It is critical that schools reopen and remain open. At the same time, COVID-19 school closures have shown the great need to develop resilient education systems that can provide learning when schools are not able to be open. The following sections provide a summary of lessons learned in the ESA region from remote learning during COVID-19 and provide concrete recommendations on how to build resilience of education systems.

1 This indicator is adjusted by the proportion of children who are out of school (and are assumed to be unable to read proficiently).

2 Angola, Botswana, Burundi, Comoros, Eritrea, Eswatini, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Rwanda, Somalia, South Africa, South Sudan, United Republic of Tanzania, Uganda, Zambia, Zimbabwe.

3 In the ESA region, the first wave is marked as having taken place from March 2020 to November 2020, the second wave from December 2020 to April 2021 and the third wave from May 2021 to present.

FIGURE 1. Harmonized Learning Outcomes by the number of days that schools were closed (either fully or partially) (from February 2020 to December 2021)

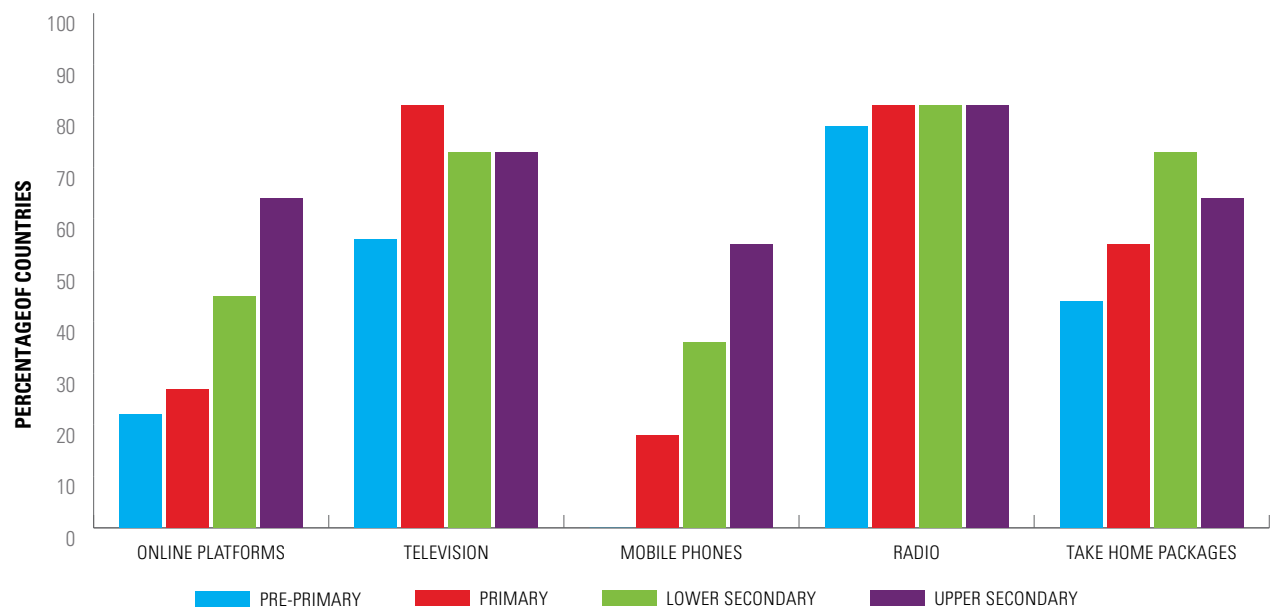


Note: Pre-COVID learning outcomes are taken from the Harmonized Learning Outcomes (HLO) database of 164 countries, which is based on learning outcomes from 2000 to 2017 (Angrist et al., 2021). Data on the duration of school closures are taken from the UNESCO global monitoring of school closures due to COVID-19 (UNESCO UIS, 2021). The size of the circles represents the school-age population of each country, based on data from UNESCO Institute for Statistics (UNESCO UIS, 2021). As there is no HLO data for Somalia and Eritrea these countries are not included in the figure.

Remote learning policies and implementation

In the ESA region, remote learning during school closures was implemented mainly via radio and television modalities (UNESCO et al., 2021).⁴ According to a survey administered to ministries of education (MoE) (UNESCO et al., 2021), more than 75 per cent of responding countries used radio for remote learning across school levels, from pre-primary to secondary school (see Figure 2). Over 70 per cent of countries reported using television at all education levels except for pre-primary (56 per cent). Take-home packages were the third most used method across the levels; they were employed by 55 per cent of countries at the primary school level and by more than 60 per cent at the secondary school level. A smaller percentage of countries offered remote learning through online platforms, mainly targeting secondary school students. There is a similar pattern for mobile phones: 55 per cent of countries offered this method for upper secondary school students but only 18 per cent for primary school students. Remote learning was least prevalent for pre-primary education, although more than 78 per cent of countries reported using radio for this age range compared with 56 per cent using television and less than 45 per cent using take-

FIGURE 2. Share of respondent countries in ESA that reported offering remote learning, by method and education level



Source: Data on remote learning modalities come from the joint UNESCO, UNICEF, World Bank and OECD surveys of ministries of education (UNESCO et al., 2021). The reporting countries are 13 out of the 21 in the ESA region.

home packages. This is concerning as evidence has shown that investments in education during the early years are the most effective and important for long-lasting impacts on children (Nugroho et al., 2021; Silberstein, 2021).

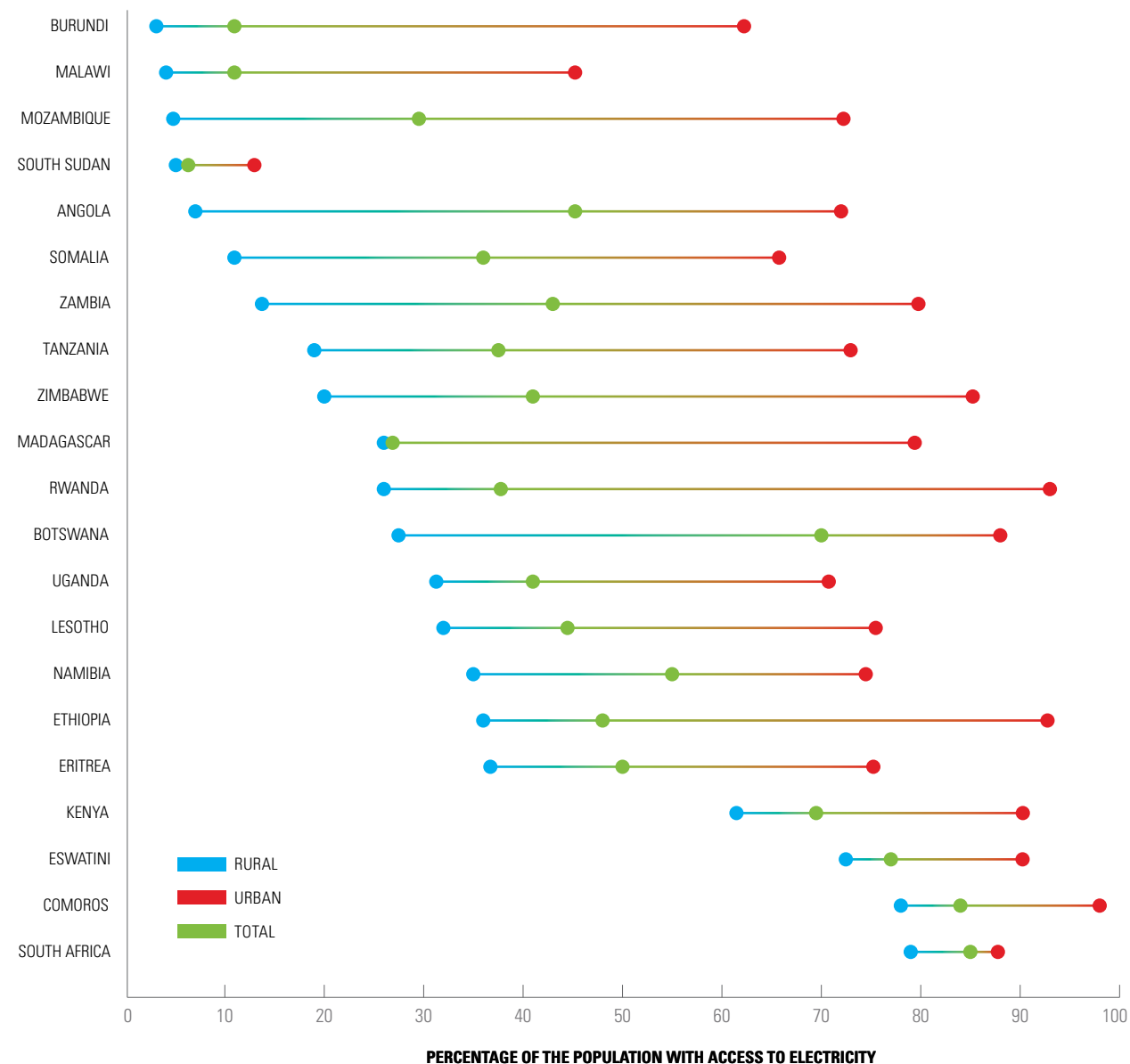
Although the majority of responding countries in the ESA region relied on television for remote learning, access to electricity is still low for most households. In 14 out of 21 countries, fewer than 50 per cent of households have access to

⁴ The third round of the Survey on National Education Responses to COVID-19 School Closures (UNESCO et al., 2021) asked MoEs about the methods implemented for remote learning during school closures.

electricity. Access is largely related to poverty and within-country inequities, with electrification rates larger in urban areas than in rural ones (see Figure 3). In some countries, access to electricity in rural areas is extremely low. For example, electrification rates are 3 per cent in Burundi, 4 per cent in Malawi, 5 per cent in Mozambique and South Sudan, and 7 per cent in Angola where, for comparison, 72 per cent of the urban population has electricity (see Figure 3).

Given that many households don't have access to electricity, it is not surprising that the ownership of devices needed to access digital content and broadcast media is also limited. Ownership rates of devices show large disparities between urban and rural areas. Radios and, to a larger extent, mobile phones are the most accessible tools, even in rural areas (see Figure 4). These ownership rates also vary widely between countries. For instance, access to radio in rural areas ranges from 29.5 per cent of households in Ethiopia to 66.5 per cent in Namibia. Mobile phone access rates in rural areas vary from 29.6 per cent of households in Mozambique to 96.8 per cent in Eswatini. Despite these variations, the average proportion of rural households in the ESA region with a mobile phone (63 per cent) exceeds the share of households owning radios, TVs and computers. However, only 2 of 13 responding countries used mobile phones as a remote learning strategy for primary school students, 5 for lower secondary school students and 7 for upper secondary school students (see Figure 2). The high mobile phone ownership rate in the region presents an opportunity to expand remote learning, as discussed below.

FIGURE 3. Percentage of population with access to electricity in ESA countries, rural vs. urban



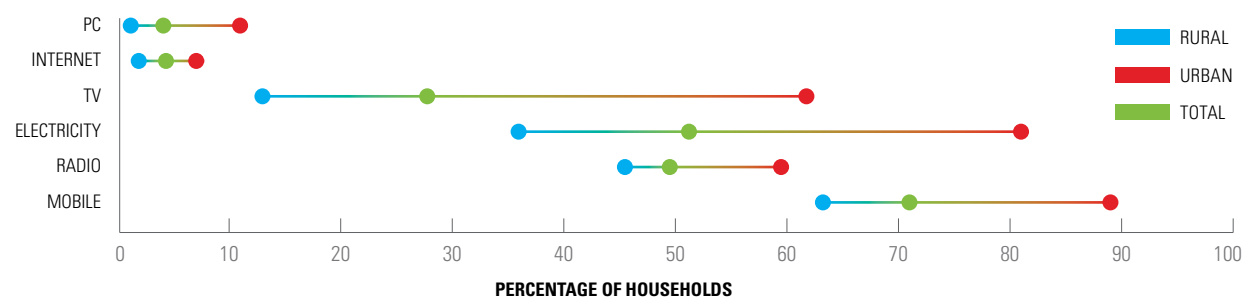
Source: World Development Indicators, World Bank, 2022.

These inequities in access to electricity, connectivity and devices lead to disparities in access to remote learning. For instance, according to the results of a high-frequency telephone survey of households in Ethiopia, only 24 per cent of primary school students and 32 per cent of secondary school students participated in remote learning in July 2020. In the study, twice as many children in urban areas took part in remote learning activities compared with children in rural areas (Wieser et al., 2020). In Malawi, in the richest quintile of households, 25 per cent of households reported participating in some form of remote learning compared with just 7 per cent in the poorest quintile (Moylan & Fuje, 2020).

Multiple modalities of remote learning

During the school closures, countries deployed numerous remote learning tools, using a combination of paper-based take-home packages, broadcast media (TV and radio) and online digital platforms. Zambia, for instance, launched an e-learning portal, provided radio and television classes, and distributed printed take-home packages for secondary school students. Zambian households reported that 30 per cent of primary school children and 40 per cent of secondary school children spent more than two hours per day on education at home since the closure of schools (IPA, 2020b). In South Africa, remote learning resources, including online platforms, broadcast media (radio and TV) and social media, also reached nearly 50 per cent or 6.5 million children out of 13.3 million children (UNICEF South

FIGURE 4. Percentage of households with electricity and technologies enabling remote learning, by rural and urban areas, and for selected countries with available data in ESA

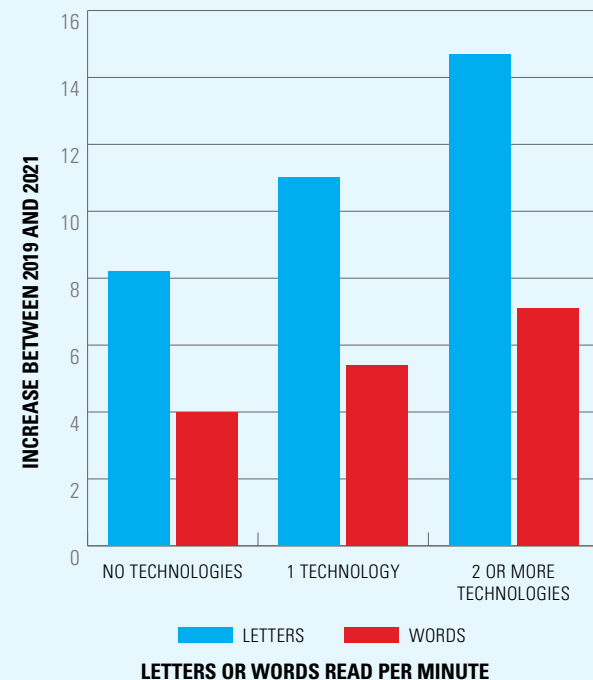


Source: Elaborated based on available DHS and MICS data, 2010–2020, and World Development Indicators, World Bank (2022) (electricity, for which the data capture the percentage of the population). Weighted cross-country averages based on student population.

BOX 1. THE IMPLEMENTATION OF REMOTE LEARNING METHODS IN MOZAMBIQUE

Since 2018, the Longitudinal Assessment of School Dropout (ALDE, in Portuguese) has tracked a sample of 5,400 primary school children in Mozambique. In 2019 and 2021, a subsample of about half of the child respondents of the ALDE also participated in the Early Grade Reading Assessment (EGRA), which also included a demographic survey of learning methods during the COVID-19 pandemic. Results from the EGRA confirmed that children's access to technology for remote learning was very low in Mozambique. While 33.7 per cent had access to a TV, only 3.7 per cent had access to internet at home. Most children (64.4 per cent) did not have any of these technologies at home, while 22 per cent had access to one of the technologies, 12.5 per cent had access to two and only 1.1 per cent had access to all three. There were large regional disparities in access to technology and EGRA scores. Comparing 2021 and 2019 EGRA results, children who had no access to technology at home had the lowest gains in reading (correctly identifying letters and words in 2021) (UNICEF, forthcoming).

FIGURE 5. Increase from 2019 to 2021 in the number of letters and words correctly identified in the EGRA



Source: UNICEF, forthcoming.

Africa, 2020a). In Mozambique, the use of multiple modalities for remote learning, including paper-based take-home packages, was essential, given the country's low rates of access to radio, television and the internet. Box 1 provides details of a longitudinal study carried out in the country revealing the association between learning outcomes and access to various forms of remote learning technologies.

Digital learning (online platforms)

Apart from mobile phone-based remote learning the least reported used modality in ESA was online digital learning. While digital learning can provide engaging and interactive learning opportunities, significant barriers remain such as the low levels of electrification, connectivity and devices needed to use it. In some cases, the availability of digital infrastructure does not translate to uptake. In South Africa, where access to electricity and connectivity is high for the region, providing online learning to all children is still a significant challenge due to high data costs (UNICEF South Africa, 2020b).

Adding to the complexity of expanding digital learning, the development of educational content adapted for different devices, languages and populations, such as migrants and refugees, is also key to improving access to remote learning. Some countries in the ESA region have implemented initiatives to expand access to content and ensure sustainability. In South Africa, the digital content of early childhood programmes was translated into 11 local languages (UNICEF South Africa, 2020b). In Zimbabwe, UNICEF and the Ministry of Primary and Secondary Education

(MoPSE) launched the Zimbabwe Learning Passport, a digital platform that serves as a repository of educational materials (UNICEF Zimbabwe, 2021). The Kenya Education Cloud makes all MoE curriculum content available online so that teachers and students have access to digital content. UNICEF has also worked with the government of Kenya to reduce the cost of gaining access to education websites and apps. UNICEF Kenya also supported the development of accessible digital textbooks targeting children with disabilities (UNICEF Kenya, 2020).

Broadcast media (television and radio)

The use of radio and television is essential for broadening the reach of remote learning. In Rwanda, broadcast media was the most used method among primary (50 per cent) and secondary (40 per cent) students. While poorer children were more likely to use radio programmes, wealthier children were more likely to use television, WhatsApp and the internet (IPA, 2020a). Creative solutions have also been



developed to include various marginalized groups. In Zambia, for example, in addition to television and radio lessons targeted at early childhood to secondary school students, a new educational television channel was launched to reach children with special needs through sign language interpretation (IPA, 2020b). In Zimbabwe, UNICEF and the MoPSE distributed solar radio sets to learners in disadvantaged schools and communities to reach children with electricity shortages, in addition to developing broadcast radio and television lessons (UNICEF Zimbabwe, 2021).

Mobile phones

Despite the limited access to electricity, television, radio and the internet at home, especially in rural areas, ownership rates of mobile phones are relatively high across the region. As such, some countries have launched innovative low-cost strategies such as tutoring teachers over the phone and sending exercises via text messages. Using text messages as part of remote learning is promising for its ability to reach wider audiences of children. Two experimental impact evaluations, however, have found mixed results for phone-based remote learning programmes. The first study, in Botswana, investigated the impact on learning of educational text messages with and without phone call-based tutoring. The study found positive effects in learning for both modalities of interventions and saw improvements in parents' involvement in their children's education, as well as more accurate perceptions about their learning (Angrist et al., 2020). In Kenya, an impact evaluation of a similar programme found no immediate effect on maths



© UNICEF/UN0598239/WAMALA

performance four months after the intervention, although the programme increased students' perceptions that the teachers cared more about their learning. The authors attribute part of the lack of initial results to sample selection bias because students who were the furthest behind and most likely to benefit did not return to school for the final assessment (Schueler and Rodriguez-Segura, 2021).

Paper-based take-home packages

Paper-based materials also play an important role in remote learning, especially for children who don't have access to digital devices and connectivity.

In Madagascar, the MoE distributed self-directed learning booklets to all lower-secondary school students in the country. The materials were rapidly developed using existing materials from remedial catch-up classes (Valenza et al., 2021). In Mozambique, results from a national phone survey with primary students' caregivers conducted during the 2020 school closures showed that, on average, 63 per cent of children were learning at home. However, 52 per cent of the learning was in the form of reading alone or with an adult, indicating this was a predominantly family-focused activity without much guidance from the school. Only 16 per cent of children reported using exercise sheets provided by their teacher (UNICEF, forthcoming).

COVID-19 school closures and beyond – building resilience into education systems

Making education systems more resilient is urgently needed in the region, especially as climate change increases the intensity and frequency of extreme weather events, such as droughts

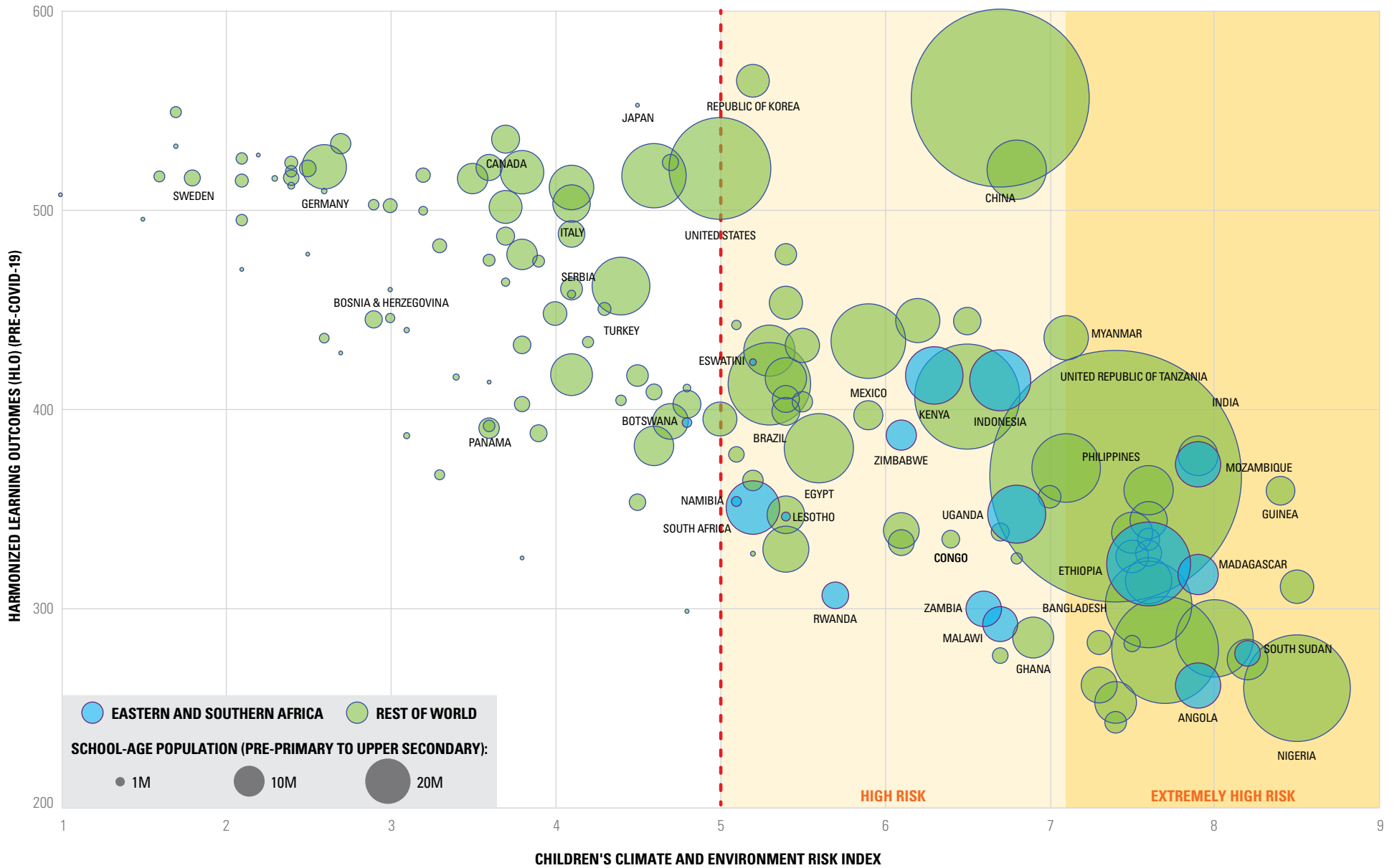
and severe floods, that can close schools. In the ESA region, according to the Children's Climate Risk Index (CCRI), children in Angola, Ethiopia, Madagascar, Mozambique and South Sudan face an extremely high risk of climate and environmental

shocks (UNICEF, 2021a; *see Figure 6*). These countries that are most at risk also have some of the lowest levels of learning in the world (*see Figure 6*) and are the most in need of resilient education systems that can provide learning during any crisis.



© UNICEF/JUNG598239/WAMALA

FIGURE 6. Harmonized Learning Outcomes by the Children’s Climate Risk Index (0–10)



Note: The figure above shows the pre-COVID-19 learning level of countries using HLO by countries’ CCEI score. Countries that appear lower on the graph had lower pre-COVID-19 learning levels. The size of the circle represents the school-age population of a country.

Conclusions and recommendations

Countries in the ESA region face multiple challenges in implementing remote learning such as a lack of infrastructure, resources and capacity. Documenting lessons learned and recording best practices are key to building more resilient education systems that have the ability to respond quickly and efficiently in future crises. Providing feedback on strengths and weaknesses based on past experiences can support the sustainability of remote learning curricula and learning programmes. Recommendations for policymakers and education professionals to design and implement sustainable and resilient remote education systems based on the experience of the ESA region include:

- 1 Invest in electricity infrastructure and ensure links with sectoral ministries to coordinate responses.** Based on current trends, electricity for all in SSA won't be achieved until 2081, thus there is an urgent need to accelerate progress through partnerships and large-scale investment (Brossard et al., 2021). In the meantime, in places where electrical grids are not yet accessible, alternative energy sources such as solar power should be utilized. Establishment



© UNICEF/UN0536373/ABDUL

of partnerships with service providers to expand network coverage in educational institutions should be focused on reaching those in marginalized and remote areas.

2 Combine different remote learning methods to provide all children with engaging and equitable learning, with a specific focus on the early years.

It is essential to use technologies that households have access to, extending low-tech solutions such as printed materials. Keeping remote learning content up to date, even after the pandemic, is important for future preparedness and can reduce costs in the long run. Pre-primary education needs to be prioritized in responses given the relative lack of them targeted to that age during the COVID-19 school closures and the great importance of early learning on later life outcomes (Nugroho et al., 2021).

3 Proactively engage families, communities, teachers, principals and local education authorities for continued learning at home.

Structure a communication plan detailing the content, material and dissemination approaches to increase awareness and sensitize people on remote learning. It may be necessary to provide resources such as mobile phone airtime for populations with limited access to internet to allow a higher frequency of teacher–student interactions. Establishing call centres to receive feedback from caregivers, students and teachers can be helpful in identifying issues and to quickly resolve bottlenecks that might hinder gaining access to and engaging remote learning channels.

4 Collect data on the access and uptake rates of remote learning technologies to inform response strategies.

Identifying which regions and populations do not have access to the requisite infrastructure is essential for designing adequate forms of remote learning, whether through broadcast media, internet, mobile phones or structuring a proper supply chain for the distribution of paper materials. Feedback should be collected from families, teachers and communities across different geographies and populations. Doing this regularly can inform targeted interventions and improvements in service and it can encourage the involvement of actors relevant for a child’s well-being.

5 Strengthen skills development to ensure continuity of programmes in case of future disruptions.

This includes continuous teacher training and empowering MoE officials to provide teachers with training and quality assurance. Teachers must receive full training in remote teaching to acquire digital literacy skills and become familiar with new modes of education, whether using broadcast media, digital tools, mobile phones or supporting children remotely with paper-based materials. This effective incorporation of technology into lesson plans could enrich teachers’ practices both in the classroom and when they need to deliver learning remotely.



Acknowledgements and contact details

This report was authored by Rafael Pontuschka, Sophia Kan and Thomas Dreesen (UNICEF Office of Research – Innocenti). The authors prepared this report under the supervision and guidance of Linda Jones and Aisling Falconer from UNICEF’s Education Section and Matt Brossard from the UNICEF Office of Research – Innocenti. Valuable inputs were provided throughout the research process by colleagues from

UNICEF’s Eastern and Southern Africa Regional Office, including Annika Rigole, Mekiya Feki and Beifith Kouak Tiyab. Amparo Barrera and Lara Stefanizzi provided invaluable administrative support to the team. Thanks also goes to Céline Little, Kathleen Sullivan, Sarah Marchant, Silke Rechenbach and Dali Mwagore for their support with the editing and communications of this research.

A special thanks for the valuable input and comments provided by Awol Endris Adem (UNESCO) and Andre Loureiro (World Bank) who served as external reviewers.

UNICEF Office Of Research – Innocenti

The Office of Research – Innocenti is UNICEF’s dedicated research centre. It undertakes research on emerging or current issues in order to inform the strategic direction, policies and programmes of UNICEF and its partners; shape global debates on child rights and development; and inform the global research and policy agenda for all children, particularly for the most vulnerable.

Innocenti publications are contributions to a global debate on children and may not necessarily reflect UNICEF policies or approaches. The findings, interpretations and conclusions expressed in this paper are those of the authors and do not necessarily reflect the views of UNICEF.

This paper has been peer reviewed both externally and within UNICEF. The text has not been edited to official publications standards and UNICEF accepts no responsibility for errors.

For any queries about this research report, please reach out to Rafael Pontuschka, Education Research Associate, UNICEF Office of Research – Innocenti, at rpontuschka@unicef.org.

Any part of this publication may be freely reproduced if accompanied by the following citation: Pontuschka, Rafael; Kan, Sophia, and Dreesen, Thomas, *Reopening with Resilience: Lessons from remote learning during COVID-19 – Eastern and Southern Africa*, UNICEF Office of Research – Innocenti, Florence, Italy, 2022.

Requests to utilize larger portions or the full publication should be addressed to the Communications Unit at: Florence@unicef.org

UNICEF Office of Research – Innocenti
Via degli Alfani, 58
50121 Florence, Italy
Tel: (+39) 055 20 330
Fax: (+39) 055 2033 220
florence@unicef.org
www.unicef-irc.org
twitter: @UNICEFInnocenti
Facebook.com/UnicefInnocenti

© 2022 United Nations Children’s Fund (UNICEF)
Cover photo: © UNICEF/UN0578990/Wamala
Graphic design: Big Yellow Taxi, Inc.

References

Angrist, Noam, Peter Bergman and Moitshepi Matsheng, 'School's Out: Experimental evidence on limiting learning loss using "low-tech" in a pandemic', Working Paper No. w28205, National Bureau of Economic Research, Cambridge, December 2020.

Angrist, Noam, et al., 'Measuring Human Capital Using Global Learning Data', *Nature*, vol. 592, no. 7854, 10 March 2021, pp. 403–408.

Azevedo, João P., 'Learning Poverty, Measures and Simulations', World Bank, Washington, D.C., 2020.

Azevedo, João P., et al., 'Learning Poverty: Children's education in crisis', in *Atlas of Sustainable Development Goals 2020*, World Bank, Washington, D.C., 2020.

Azevedo, João P., et al., 'Simulating the Potential Impacts of COVID-19 School Closures on Schooling and Learning Outcomes: A set of global estimates', *The World Bank Research Observer*, vol. 36, no. 1, Washington, D.C., 2021, pp. 1–40.

Brossard, Matt, et al., 'Digital Learning for Every Child: Closing the gaps for an inclusive and prosperous future', T20 Task Force 4 Digital Transformation, Rome, 2021.

ICF, 'STATcompiler: The DHS program', 2012, <www.statcompiler.com/en/>, accessed 21 February 2022.

Innovations for Poverty Action (IPA), *Rwanda Research for Effective COVID-19 Responses (RECOVR) Survey Analysis*, IPA, 2020a.

Innovations for Poverty Action (IPA), *Zambia RECOVR Survey Results and Policy Priorities: Identifying evidence-based social protection strategies for an inclusive and equitable recovery*, IPA, 2020b.

Moylan, Heather, and Habtamu Fuje, *High-Frequency Monitoring of COVID-19 Impacts: First results from Malawi*, 2020.

Nugroho, Dita, et al., 'It's Not Too Late to Act on Early Learning: Understanding and recovering from the impact of pre-primary education closures during COVID-19', Innocenti Research Brief No. 2021-03, UNICEF Office of Research – Innocenti, Florence, 2021, <www.unicef-irc.org/publications/1213-its-not-too-late-to-act-on-early-learning.html>, accessed 12 January 2022.

Schueler, Beth E., and Daniel Rodriguez-Segura, 'Can Camp Get You into a Better Secondary School? A field experiment of targeted instruction in Kenya', *Education Finance and Policy*, vol. 16, no. 4, 1 October 2021, pp. 609–633.

Silberstein, Jason, 'Measuring, Visualising, and Simulating Solutions to the Learning Crisis: New evidence from learning profiles in 18 countries', RISE Insight Note, 22 June 2021, <<https://riseprogramme.org/publications/measuring-visualising-and-simulating-solutions-learning-crisis-new-evidence-learning>>, accessed 21 February 2022.

UNESCO, 'Building Back Resilient: How can education systems prevent, prepare for and respond to health emergencies and pandemics? COVID-19 Education Response Education Sector', UNESCO Issue Note No. 1.3, Paris, 2021.

UNESCO UIS, 'New Methodology Shows That 258 Million Children, Adolescents and Youth Are Out of School', Fact Sheet No. 56, UNESCO Institute for Statistics, 2019, <<http://uis.unesco.org/sites/default/files/documents/new-methodology-shows-258-million-children-adolescents-and-youth-are-out-school.pdf>>, accessed 3 December 2021.

UNESCO UIS, 'Regional Dashboard: Global monitoring of school closures caused by COVID-19', UNESCO Institute for Statistics, 2021, <<http://covid19.uis.unesco.org/global-monitoring-school-closurescovid19/regional-dashboard>>, accessed 21 February 2021.

UNESCO, UNICEF, the World Bank and OECD, 'What's Next? Lessons on Education Recovery: Findings from a survey of ministries of education amid the COVID-19 pandemic', UNESCO/UNICEF/World Bank/OECD, Paris/New York/Washington, D.C., June 2021, <http://uis.unesco.org/sites/default/files/documents/lessons_on_education_recovery.pdf>, accessed 21 February 2021.

UNICEF, 'Every Child Learns: UNICEF Education Strategy 2019–2030, Data and Analytics', UNICEF, New York, 2019, <www.unicef.org/media/59921/file/UNICEF-education-strategy-2019-2030-data-analytics.pdf>, accessed 21 February 2022.

UNICEF, 'Airtel Africa and UNICEF Announce Multi-Million Dollar Partnership to Scale-Up Digital Learning for Children Across Africa', UNICEF, New York/Nairobi, 2021b, <www.unicef.org/press-releases/airtel-africa-and-unicef-announce-multi-million-dollar-partnership-scale-digital>, accessed 9 February 2022.

UNICEF, The Children's Climate Risk Index (CCRI) Interactive Atlas, UNICEF, New York, 2021a, <https://experience.arcgis.com/experience/0d9d2209bf104584a65e012b03b6d3f8/?data_id=dataSource_2-17b3a7be4c5-layer-1_427%3A77>, accessed 15 November 2021.

UNICEF, 'Exploring Learning during COVID-19 in Mozambique', UNICEF, Maputo, Mozambique, forthcoming.

UNICEF ESARO, 'Report on the Eastern & Southern Africa Regional Office (ESARO) Self-Assessment of Its Response to COVID-19 and Lessons Learned', UNICEF Eastern and Southern Africa Regional Office, Nairobi, Kenya, 2020, <www.unicef.org/evaluation/documents/report-eastern-southern-africa-regional-office-esaro-self-assessment-its-response-covid>, accessed 10 February 2022.

UNICEF Kenya, 'Every Child Learns: UNICEF Education Strategy 2019–2030', UNICEF Kenya, Nairobi, Kenya, 2020, <www.unicef.org/media/65066/file/EdStrategy-2019-2030-CountrySolutions-Kenya.pdf>, accessed 8 March 2022.

UNICEF MICS, 'Multiple Indicator Cluster Surveys', <<https://mics.unicef.org>>, accessed 21 February 2022.

UNICEF, 'Attendance and Educational Attainment of Primary School Children in Mozambique: The results of the 2018 round of the Longitudinal Assessment of School Dropout', UNICEF Mozambique, Maputo, Mozambique, 2020.

UNICEF Mozambique, 'Rapid Assessment of Students' Learning during Covid-19', UNICEF Mozambique, Maputo, Mozambique, 2022, <www.unicef.org/mozambique/media/4086/file/Rapid%20assessment%20of%20students%E2%80%99%20learning%20during%20COVID-19.pdf>, accessed 21 February 2022.

UNICEF South Africa, 'COVID-19 Situation Report No. 10', UNICEF South Africa, Pretoria, South Africa, 2020a, <www.unicef.org/media/88606/file/SouthAfricaCOVID-19SitRepNo.10-1-30Nov2020.pdf>, accessed 21 February 2022.

UNICEF South Africa, 'Education COVID-19 Case Study: South Africa – Opening schools up better by expanding access to digital learning', UNICEF South Africa, Pretoria, South Africa, 2020b, <www.corecommitments.unicef.org/kp/case-study---south-africa-%281-october-2020%29.pdf>, accessed 21 February 2022.

UNICEF Zimbabwe, 'Zimbabwe Humanitarian Situation Report: Mid-year situation reporting – 1 January – 30 June 2021', UNICEF Zimbabwe, Harare, Zimbabwe, 2021, <www.unicef.org/media/104021/file/Zimbabwe%20Humanitarian%20Situation%20Report,%20Mid-Year%202021.pdf>, accessed 21 February 2022.

Valenza, Marco, et al., 'Let Us Continue Learning: Lessons from Madagascar for improving access and retention of vulnerable children in secondary school', Innocenti Research Brief No. 2021-04, UNICEF Office of Research – Innocenti, Florence, 2021, <www.unicef-irc.org/publications/1216-let-us-continue-learning-lessons-from-madagascar-access-and-retention-of-vulnerable-children.html>, accessed 21 February 2022.

Wieser, Christina, et al., 'Monitoring COVID-19 Impacts on Households in Ethiopia: Results from a high-frequency phone survey of households', World Bank, Washington, D.C., 2020, <<https://openknowledge.worldbank.org/handle/10986/33824>>, accessed 21 February 2022.

World Bank, 'World Development Indicators', 2022, <<https://databank.worldbank.org/reports.aspx?source=world-development-indicators>>, accessed 21 February 2022.

World Bank, UNESCO and UNICEF, 'The State of the Global Education Crisis: A path to recovery', World Bank/UNESCO/UNICEF, Washington, D.C./Paris/New York, December 2021, <www.unicef.org/reports/state-global-education-crisis>, accessed 21 February 2022.

REOPENING WITH RESILIENCE:

Lessons from remote learning during COVID-19
in Eastern and Southern Africa

UNICEF Education
3 United Nations Plaza
New York, NY 10017, USA
www.unicef.org

UNICEF Office of Research – Innocenti
Via degli Alfani, 58
50121 Florence, Italy

© United Nations Children’s Fund (UNICEF)

March 2022

for every child, answers