



REOPENING WITH RESILIENCE:

Lessons from remote learning during COVID-19
in Latin America and the Caribbean

Introduction

The COVID-19 crisis and resulting school closures began while countries in Latin America and the Caribbean (LAC) were already experiencing a learning crisis. The most recent international learning assessments, such as Third Regional Comparative and Explicative Study (TERCE) (UNESCO–LLECE, 2015) and Programme for International Student Assessment (PISA) (PISA, 2021), show low learning levels in the region, with wide disparities based on gender and wealth, and between urban and rural areas (Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación (LLECE), 2020; Álvarez-Marinelli et al., 2020; García-Jaramillo, 2020).¹ These international assessments do not consider the 12 million children who were already out-of-school before the COVID-19 crisis (UNESCO UIS, 2019). Considering both in- and out-of-school children, the learning poverty rate measures the share of children who are unable to read a simple text by the age of 10. Learning poverty stood at 51 per cent in the region prior to COVID-19 school closures (World Bank, 2021a). At the start of the crisis in March 2020, all countries except for Nicaragua fully closed schools (Economic Commission for Latin America and the Caribbean (ECLAC) and UNESCO, 2020).



As of August 2021, countries in the region had experienced an average of 347 days of full or partial education system closures (*see Figure 1*).

The prolonged nature of the school closures, in a region already experiencing low learning levels, risks deepening the learning crisis and widening existing learning inequalities. Recent studies estimate that 3 million children will not return to school, with this number increasing the longer schools are closed

(Seusan and Maradiegue, 2020). The learning poverty rate is expected to increase from 51 per cent to 62.5 per cent due to school closures (World Bank, 2021a). The recent evidence is clear that there is no replacement for in-person learning and that schools should reopen as soon as possible (UNICEF, 2021a). However, the widespread school closures during the COVID-19 crisis have also shown the great need for reliable remote learning systems if schools are forced to close.

¹ Programme for International Student Assessment (PISA, 2021) measures 15-year-olds' ability to use their reading, mathematics and science knowledge and skills to meet real-life challenges.

FIGURE 1. Harmonized Learning Outcomes by number of fully or partially closed school days from February 2020 to August 2021



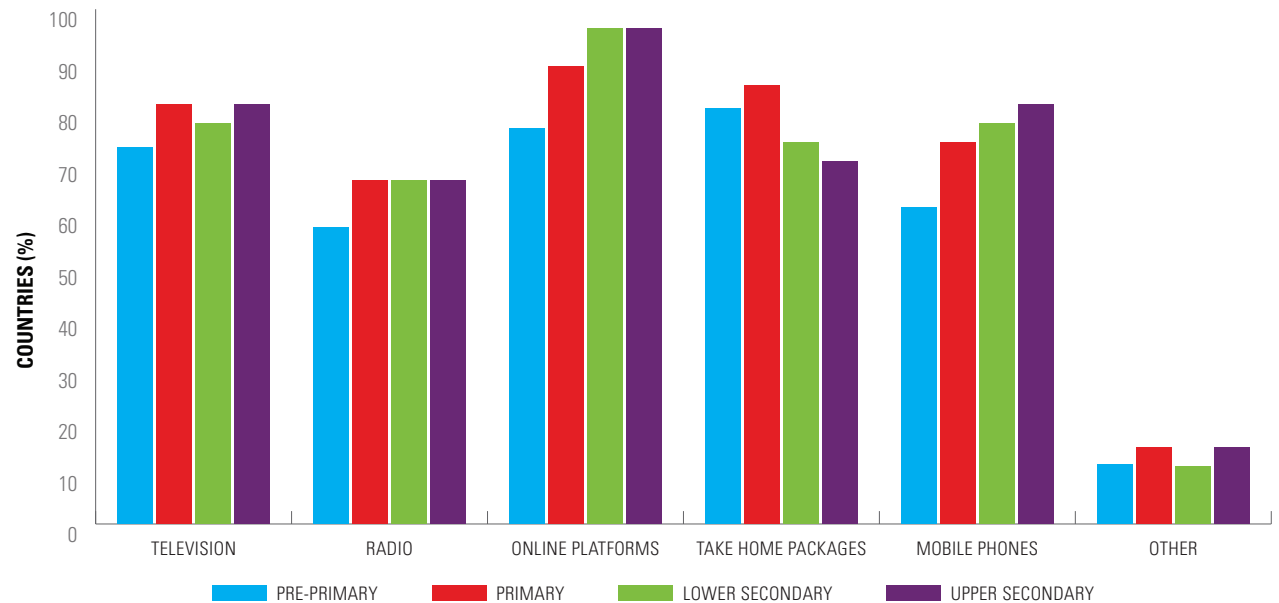
Note: Data on learning outcomes pre-COVID come from the HLO database of 164 countries and learning outcomes from 2000 to 2017 (Angrist et al., 2021). Data on the duration of education systems being fully and partially closed come from UNESCO Global monitoring of school closures due to COVID-19. The size of the circle represents the school-age population of a country with data from UNESCO Institute for Statistics.

Remote learning policies and implementation

While schools were closed, countries across LAC implemented remote learning strategies using a combination of paper-based take-home packages, broadcast media (TV and radio) and online digital solutions. Throughout this crisis, more than 75 per cent of LAC countries have implemented online platforms from pre-primary through upper-secondary education (UNESCO, UNICEF, World Bank and OECD, 2021).

Yet, countries faced challenges to properly respond to school closures. For any type of technology-enabled remote learning, electricity for students and teachers is a necessity. However, some countries in the region – including Haiti, Nicaragua, Honduras, Guatemala, Panama, Bolivia (Plurinational State of) and Peru – have not achieved full access to electricity and there are large inequities in access between urban and rural areas (see Figure 3). In Haiti, the situation is dire with less than half of the population (45.4 per cent) having access to electricity, ranging from just 1 per cent of the rural population to 80 per cent of the population in urban areas. In the regions and areas with electricity, a wide digital divide already existed before COVID-19 and has been an obstacle for accessing remote

FIGURE 2. Remote learning modalities promoted by countries in Latin America and the Caribbean



Source: UNESCO, UNICEF, World Bank and OECD, Joint Survey Wave 3, 2021. The reporting countries are 27 out of 33 in the LAC region.

learning. Figures from TERCE and PISA showed wide disparities across wealth quintiles in household access to a computer and an internet connection (García-Jaramillo, 2020) (see Figure 4). Data collected during the pandemic highlighted the challenges of implementing digital remote learning modalities: 37

per cent of households in Ecuador (UNICEF, 2020a), 30 per cent of households in Argentina (UNICEF, 2021a) and close to 75 per cent of households with children enrolled in public education in Bolivia (UNDP Bolivia Office, 2020) did not have access to the internet at home. Low levels of connectivity in Bolivia

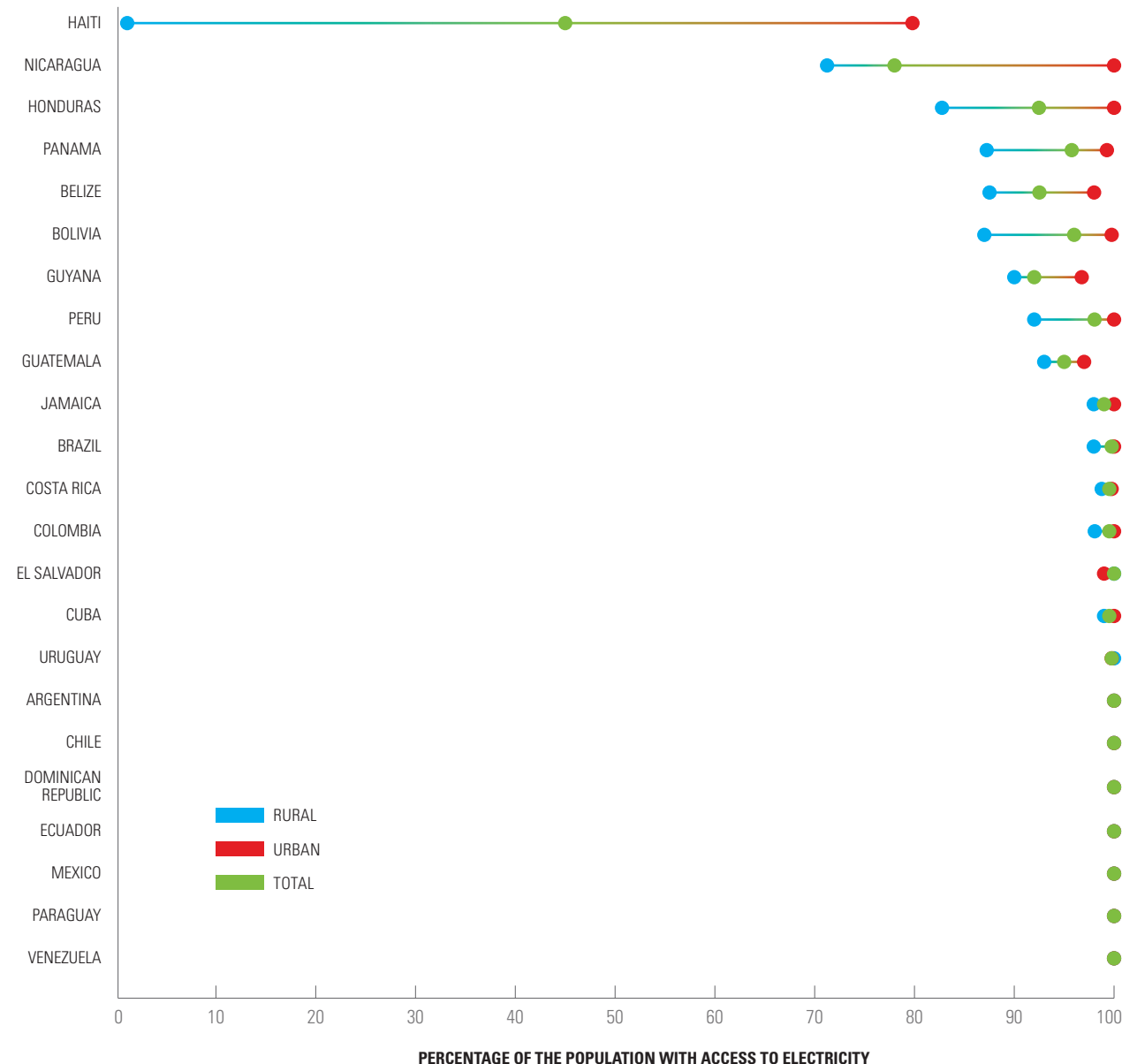
led the government to set regulations and establish programmes to incorporate remote learning into the education system (see Box 1).

The quality of internet connectivity was also a constraint for students and teachers. In a recent survey of adolescents using the internet in Bolivia (Plurinational State of), 30 per cent of students reported they could only access internet on their phones and a majority of them had challenges recharging their data packages (UNICEF, 2021c). As for teachers, 54 per cent of surveyed teachers

BOX 1. BOLIVIA (PLURINATIONAL STATE OF): LESSONS TO BUILD BACK BETTER

In Bolivia (Plurinational State of), responding to the need to ensure access to remote learning for all children, the government and its development partners have come together to improve the institutional framework of remote learning in the country. The government issued a set of regulations, standards and guidelines for the different types of education (in person, remote and hybrid). A platform of online learning (*Educa Bolivia*) made education content available for students and teachers. An agreement was signed with internet service providers to offer access to the online educational platforms at zero cost (Inter-American Development Bank, 2020a). Additionally, more than 30 community-based radio stations and government TV channels were mobilized to broadcast education lessons. In partnership with a telecommunications company, the Ministry of Education and UNICEF launched *Maestros Conectados*, an online platform improving the digital skills of around 8,000 teachers that provide remote learning to half a million children across the country (UNICEF, 2020b).

FIGURE 3. The percentage of the population having access to electricity in Latin America and the Caribbean (2019), rural vs. urban share



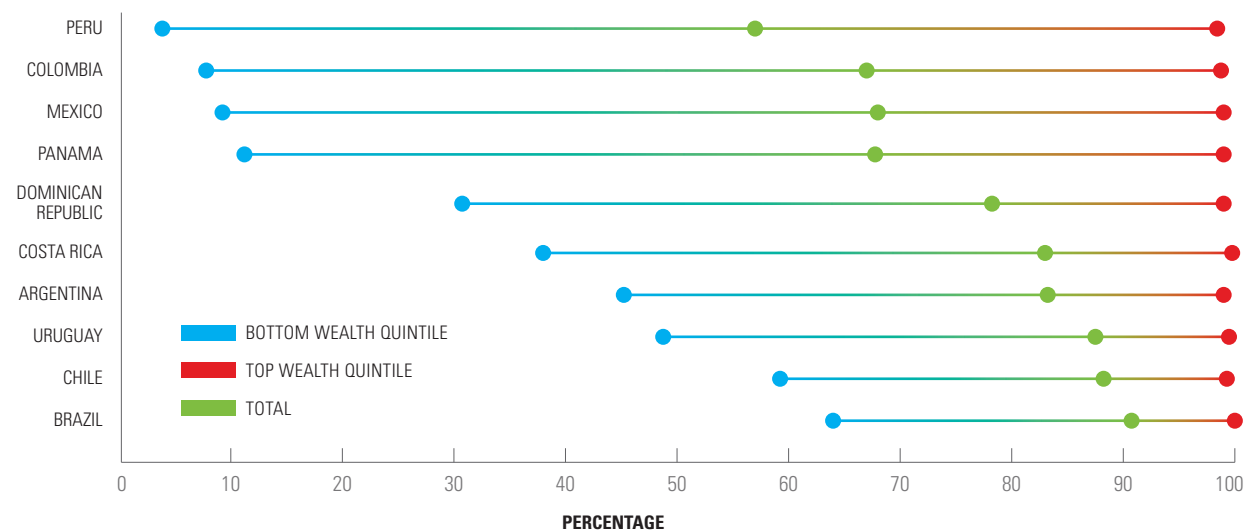
Source: World Bank Development Indicators, World Bank, 2021b.

in Costa Rica reported challenges with their connectivity at home and that they used their personal cellphone data package to connect with students (COLYPRO, 2020).

Regardless of the modality of remote learning, how it is delivered and used by teachers, students, and families is critically important. A survey in Chile found that just 18 per cent of teachers taught remote classes live, 22 per cent preferred to record the classes and 56 per cent sent materials to students by email or WhatsApp, with teachers reporting that connectivity issues were the main barrier to a more active engagement with students (ECLAC and UNESCO, 2020). Connectivity issues across the region resulted in teachers adopting low-data-consuming platforms for teacher-student interactions. For instance, the use of WhatsApp for teacher-student interactions exceeded 90 per cent of surveyed students in Panama (UNICEF, 2020c) and the Dominican Republic (United Nations, 2020).

If access to a stable internet connection varies across the region, having a device for digital learning has proved to be an extra hurdle for children. In Argentina (UNICEF, 2021b), 40 per cent of households do not have a computer or tablet. In Chile, 66 per cent of the children in private schools can access a computer for schoolwork, in stark contrast to 12 per cent of the children in public schools (Ponce et al., 2020).

FIGURE 4. The percentage of 15-year-old students having access to internet at home in selected countries in Latin America and the Caribbean, by wealth quintile



Source: PISA, 2018.

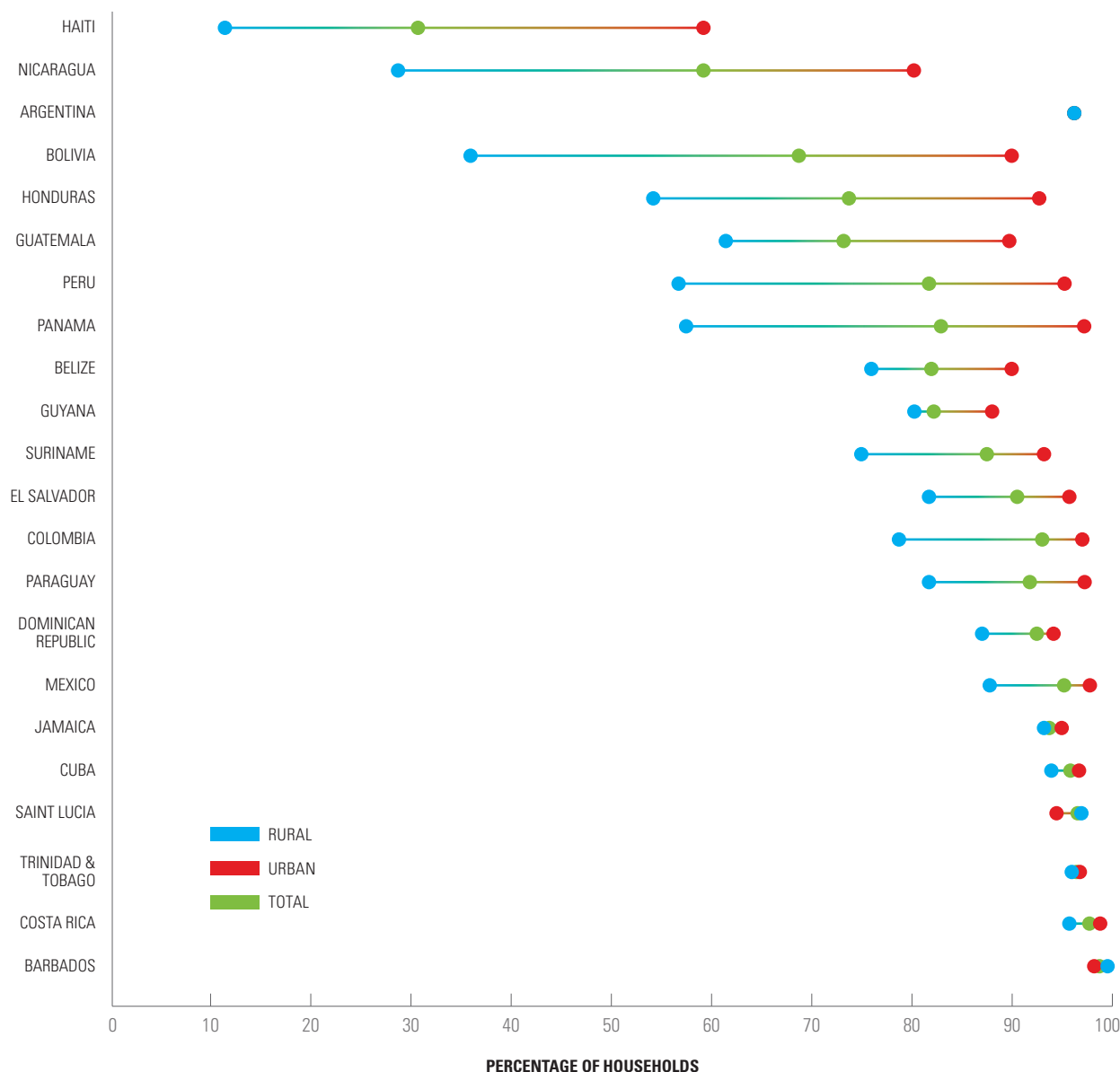


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Given the digital divide, broadcast media, including television and radio, play a critical role in delivering remote learning in LAC. Out of 33 countries with information in the region, 23 countries have used radio and television to broadcast educational content during school closures (ECLAC and UNESCO, 2020). Close to 9 in 10 households in LAC own a television and around 72 per cent own a radio (UNICEF, 2021a). In Ecuador, the 'A-prender la tele' programme broadcasted education content on language, mathematics, social sciences and natural sciences (UNICEF, 2020a). Widespread access to radio and television in Guatemala has allowed UNICEF and the ministry of education to produce 570 hours of radio and TV educational content (UNICEF, 2020d). In Panama, the programme 'Leemos un cuento' broadcasted messages about education for the caregivers of young children up to the age of eight (UNICEF, 2020g). Finally, the remote learning programme, 'Aprende en casa', implemented in Mexico, reached 8.2 million students through both TV and radio broadcasts, and a digital platform (UNICEF, 2020f).

Another important element to consider for remote learning is the access to a place to study at home, particularly for the most marginalized. In the region, 5 million households rely on another family for shelter, 3 million live in houses that are beyond repair and 34 million more live in houses suffering from at least one form of deprivation, including shortages of water, sewage, adequate flooring and sufficient space (McTarnaghan et al., 2016). Eighty-seven per cent of students in the highest wealth quintile have a place to study at home, compared with only 74 per cent of students in the lowest

FIGURE 5. The percentage of households with access to TV in Latin American and the Caribbean countries, rural vs. urban share

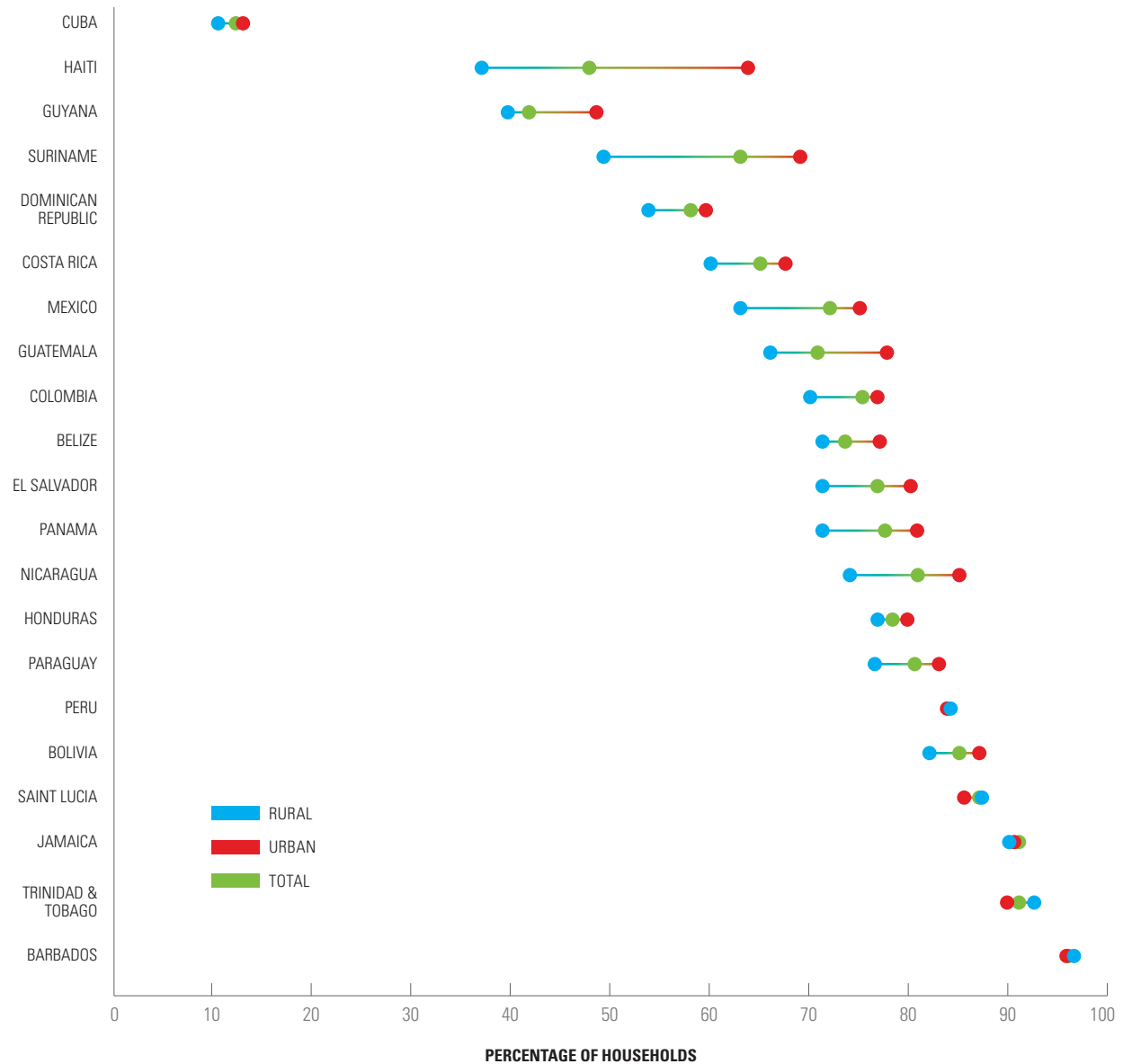


Source: Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS), 2010–2020. Data for Argentina is available only for urban areas.

wealth quintile (Garcia-Jaramillo, 2020; PISA, 2018). Recent data from Chile indicates that the size of the house matters. In larger houses (with an area above 100 square metres) 80 per cent of children have their own space to study, while only 30 per cent of children living in smaller houses (up to 30 square metres) have their own space to study (Ponce et al, 2020).



FIGURE 6. The percentage of households with access to radio in Latin American and the Caribbean countries, rural vs. urban share



Source: DHS and MICS, 2010-2020.

Moving beyond access, to engagement and learning

Apart from Uruguay, which has been implementing a programme of technology and remote learning in education since 2007 (see Box 2), LAC countries lacked a coherent digital education strategy and the act of deploying remote learning prompted governments to implement some additional policies (Álvarez-Marinelli, 2020). In Colombia, for instance, the remote learning strategy was based on multiple modalities to cater for different needs (see Box 3). According to a survey of ministries of education undertaken in early 2021 (UNESCO, UNICEF, World Bank and OECD, 2021), four in five LAC countries offered information and communication technologies (ICT) training to their teachers. In tackling the challenges of providing remote learning to students in vulnerable groups – such as low income and rural students – 55 per cent of the countries surveyed reported making efforts to subsidize access to smart devices. However, just one quarter (25 per cent) of countries had programmes to improve their access to internet and ICT connectivity.

Challenges to access remote learning translated into different levels of students' engagement. In Ecuador, students with access to internet only spent

4.4 hours a day on remote learning compared with 3.6 hours a day spent by students without access to internet (Asanov et al., 2021). A study in Chile found large variations in the time spent studying: a quarter of the students spent one hour per day in remote learning and only a third of the students spent three hours or more (UNDP y Ministerio de Desarrollo Social y Familia, 2020).

Recent surveys indicate that private schools in LAC were more prepared to make the transition to

remote learning than the public system, potentially widening already existing inequalities in terms of access to, and the quality of, education. For instance, 80 per cent of Chilean children in private schools had daily online classes compared with just 30 per cent of children in public schools (Ponce et al., 2020). In Panama, more children in private education (68 per cent) had access to remote learning than children in public education (59 per cent) (UNICEF, 2020e).

BOX 2. URUGUAY: A TECHNOLOGY INTEGRATED APPROACH LED BY *PLAN CEIBAL*

In Uruguay, classes were suspended on 16 March 2020. On 30 April 2020, reopening of schools began in a staged approach prioritizing rural schools with lower connectivity levels while other more resource-rich schools remained closed as students continued learning remotely. The government provided free internet packages for education purposes and local internet service providers removed data charges for educational platforms (Inter-American Development Bank, 2020b).

The cornerstone of the Uruguayan response is *Plan Ceibal* (UNICEF, 2020g). The programme, which started in 2007, provides a laptop per child and free internet connection. During the COVID-19 crisis, the programme reached 85 per cent of primary

students and 95 per cent of secondary education students, as well as 95 per cent of the teachers (Ripani, 2020). Engagement with online resources from the programme in mathematics, reading, foreign languages and virtual labs saw an increase of 2,452 per cent in March 2020 (Ripani, 2020). Teachers in public schools reported using the online platform to send assignments to students (98 per cent), to provide feedback (87 per cent) and hold videoconferences with other teachers (around 60 per cent). Less frequently, around 30 per cent of teachers reported holding live videoconference lessons with students. Overall, 92 per cent of teachers were very satisfied with the training activities and the support the programme provided (Ripani, 2020).

BOX 3. COLOMBIA: USING MULTIPLE MODALITIES TO RESPOND TO A CRISIS WITHIN A CRISIS

In Colombia, the Ministry of Education and the Ministry of Information Technologies deployed several modalities of remote learning. A series of TV programmes called *Mi señal* broadcasted education content for three groups of children (0–9 years, 8–12 years and 13–17 years). A digital platform called *Aprender digital* offered students, teachers and caregivers education resources from early childhood education through high school. Another digital platform, *Contacto Maestro*, allowed teachers to exchange information and participate in training sessions, webinars, and continuous education programmes. The government and internet providers supported students and teachers by not charging data fees for digital platforms and providing 79,345 students and 4,000 teachers with computers (Inter-American Development Bank, 2020c).

The COVID–19 crisis was not the only crisis the country had to face. Colombia has experienced a large-scale arrival of refugees and migrants from Venezuela (Bolivarian Republic of). It is estimated that 1.7 million Venezuelans are living in Colombia, of which 460,000 are children (reliefweb, 2020). A recent study (International Rescue Committee, 2020) found that around 75 per cent of Venezuelan children in Colombia are out-of-school and that those at school are struggling to develop basic literacy and numeracy skills. The non-governmental organization El Origen Foundation in northern Colombia has provided tablets to Venezuelan children, including children of the Wayuu tribe, so they can use an application called O-Lab for offline learning of languages. This is helping with both their education in times of COVID-19 and their integration into Colombian society (Global Citizen, 2020).

It is important to remember that schools are more than places for just learning; they are also where children socialize, play and receive nutrition and other critical services (Borkowski et al., 2021). The COVID-19 crisis and the resulting school closures took a toll on the wellbeing and mental health of children. 51 per cent of caregivers in Brazil reported their children lacked the motivation to participate in remote learning activities and 43 per cent of the caregivers feared their children would abandon school altogether (Lemann Foundation, 2020). A phone survey in Ecuador found that 16 per cent of children had scores in a mental wellbeing index equivalent to suffering a major depression and that children declared the lack of in-person

schooling and social isolation as the main issues they were facing (Asanov et al., 2020).

The school closures in the wake of COVID-19 have also shown the great need for remote learning systems that can be relied upon when schools are forced to close due to emergencies, whether caused by health, conflict or environmental crises. As climate change continues to increase the frequency and severity of extreme weather events, the resilience of education systems will become even more critical. In LAC, according to the Children’s Climate Risk Index (CCRI), children in Guatemala, Haiti, Honduras, Mexico and Venezuela (Bolivarian Republic of) face high risk of climate and



environmental shocks (UNICEF, 2021d) (see Figure 7). Recent figures for the region suggest that 55 million children are exposed to water scarcity, 60 million to cyclones and 45 million to heatwaves (UNICEF, 2021e).

FIGURE 7. Harmonized Learning Outcomes by the Children’s Climate Risk Index (0–10)



Note: The CCRI is composed of many indicators across climate and environmental hazards, shocks, and stresses, as well as child vulnerability (UNICEF, 2021f).

Conclusions and recommendations

School closures due to COVID-19 took place at a time when the region was already experiencing low levels of learning and high numbers of out-of-school children.

The closures and the need to transition rapidly to remote learning revealed the inequities in children's access to technology and connectivity as well as the low levels of training and digital skills of teachers and students. This research explored how countries around LAC responded to these great challenges. Below are recommendations for policymakers and education practitioners in the region to build resilience into education systems:

- **Invest in access to electricity and connectivity for those rural and low-income areas that remain unconnected and without power.** Governments and partners urgently need to invest in reliable, affordable and environmentally resilient electricity and connectivity infrastructure and services to enable equitable remote learning. The places with lower access levels to the technology needed for remote learning are those where students are already falling behind in learning and most vulnerable to shocks. Not investing

in this critical infrastructure while education systems increasingly use technology risks widening existing gaps in learning between rich and poor areas.

- **Plan remote learning systems that include different no- and low-tech options to guarantee that all teachers and students can engage in the learning process.**

Providing multiple modalities of a remote learning portfolio including digital, broadcast media (TV and radio) and mobile phone-based support in combination with printed materials is critical. As long as a divide in access to technology exists in the region, TV and radio are extremely useful to deliver educational content widely. These different modalities should consider the needs of the teachers and, above all, empower them to find the best solutions to engage meaningfully with students when schools are forced to close.

- **Train teachers to improve the effectiveness of remote learning.** Teachers trained with the skills to incorporate technology in their pedagogy can better adapt lesson plans to

remote learning, according to the needs of their students. Teachers with training on formative learning assessments can better monitor their students' progress and tailor appropriate support or remedial responses. The training of teachers needs to be met with an education management that supports teachers' continuous improvement in their practice.

- **Develop a national equity-based digital learning agenda and invest in implementation research to learn what works.** The education community in each country should take stock of the lessons learned during the COVID-19 crisis to identify the areas where new policies are needed and where successful experiences can be mainstreamed into the system. In particular, learning the best ways to integrate the use of technologies to support teachers and students from marginalized areas is critical. Embedding research within programmes to learn what works, and improving information systems to monitor learning and identify children in need, are two key steps in developing equitable remote learning programmes that work.

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References

Álvarez-Marínelli, Horacio, et al., 'Education in times of coronavirus: Latin America and the Caribbean's education systems in the face of COVID-19', Discussion Paper No. 00768, Inter-American Development Bank, Washington, D.C., 2020, <<https://publications.iadb.org/publications/english/document/Education-in-Times-of-Coronavirus-Latin-America-and-the-Caribbeans-Education-Systems-in-the-Face-of-COVID-19.pdf>>, accessed 1 November 2021.

Angrist, Noam, et al., 'Measuring Human Capital Using Global Learning Data', *Nature*, vol. 592, no. 7854, 10 March 2021, pp. 403–408, <<https://doi.org/10.1038/s41586-021-03323-7>>, accessed 1 November 2021.

Asanov, Igor, et al., 'Remote-learning, Time-use, and Mental Health of Ecuadorian High-school Students during the COVID-19 Quarantine', Policy Research Working Paper No. 9252, World Bank, Washington D.C., 2021, pp. 105–225.

Borkowski, Artur, et al., 'COVID-19: Missing More Than a Classroom. The impact of school closures on children's nutrition', Innocenti Working Paper No. 2021–01, UNICEF Office of Research – Innocenti, Florence, January 2021.

COLYPRO, 'Diagnóstico de los efectos en las condiciones sociolaborales de la profesión, el desempeño y las brechas en competencias docentes por medio de la percepción de las personas colegiadas profesionales en educación, tras las medidas ejecutadas por el Ministerio de Educación Pública para la continuidad de los

servicios educativos en el contexto de la pandemia COVID-19', 2020, <www.colypro.com/ee_uploads/general/Informe_Condiciones_Docentes_Covid_Colypro.pdf>, accessed 1 November 2021.

Economic Commission for Latin America and the Caribbean (ECLAC) and UNESCO, 'Education in the Time of COVID-19', ECLAC and UNESCO, August 2020, <www.cepal.org/en/publications/45905-education-time-covid-19>, accessed 1 November 2021.

García-Jaramillo, Sandra, 'COVID-19 y educación primaria y secundaria: repercusiones de la crisis e implicaciones de política pública para América Latina y el Caribe', COVID-19 Policy Document Series, no. 20, 2020, United Nations Development Programme, Latin America and the Caribbean, 2021, <www.latinamerica.undp.org/content/rblac/es/home/library/crisis_prevention_and_recovery/covid-19-y-educacion-primaria-y-secundaria--repercusiones-de-la-.html>, accessed 1 November 2021.

Global Citizen, 'Colombia's Indigenous Children Switch to Remote Learning as COVID-19 Keeps Schools Shut', 2020 <<https://www.globalcitizen.org/en/content/colombia-indigenous-children-education-covid-19>>, accessed 1 November 2021.

Inter-American Development Bank, 'COVID-19: Bolivia', Inter-American Development Bank, Washington, D.C., 2020a, <<https://socialdigital.iadb.org/en/edu/covid-19/regional-response/6078>>, accessed 1 November 2021.

Inter-American Development Bank, 'COVID-19: Uruguay', Inter-American Development Bank, Washington, D.C., 2020b, <<https://socialdigital.iadb.org/en/edu/covid-19/regional-response/6179>>, accessed 1 November 2021.

Inter-American Development Bank, 'COVID-19: Colombia', Inter-American Development Bank, Washington, D.C., 2020c, <<https://socialdigital.iadb.org/en/edu/covid-19/regional-response/6080>>, accessed 1 November 2021.

International Rescue Committee, 'Colombia's Education Crisis: Results from a Learning Assessment of Colombian and Venezuelan Children', reliefweb, 11 November 2020, <<https://reliefweb.int/report/colombia/colombia-s-education-crisis-results-learning-assessment-host-community-and>>, accessed 1 November 2021.

Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación (LLECE), 'Aportes para una respuesta educativa frente a la COVID-19 en América Latina', Documento de Programa, Junio de 2020, UNESCO Office Santiago and Regional Bureau for Education in Latin America and the Caribbean, 2020, <<https://unesdoc.unesco.org/ark:/48223/pf0000373761?posInSet=1&queryId=98535caa-b102-43af-9e8b-241f90d6a1cd>>, accessed 1 November 2021.

Lemann Foundation, 'Itaú Social e Imaginable Futures (Educação não presencial na perspectiva dos alunos e famílias)', Lemann Foundation, 20 August 2020, <<https://fundacaolemann.org.br/materiais/educacao-nao-presencial-na-perspectiva-dos-alunos-e-familias-453>>, accessed 1 November 2021.

McTarnaghan, Sara, et al., 'Literature Review of Housing in Latin America and the Caribbean: Phase I: Global housing research initiative', Research report, Urban Institute - Metropolitan Housing and Communities Policy Center, October 2016, <www.urban.org/sites/default/files/publication/84806/2000957-Literature-Review-of-Housing-in-Latin-America-and-the-Caribbean.pdf>, accessed 1 November 2021.

Ponce, Tania, Cristián Bellei and Constanza Vielma, 'Encuesta experiencias educativas en casa de niñas y niños durante la andemia COVID-19: Primer informe de resultados, Centro de Investigación Avanzada en Educación, Chile, 2020, <www.educaencasacovid19.cl/?langSite=es&page=view_cuestionario_covid>, accessed 1 November 2021.

Programme for International Student Assessment (PISA), 'PISA 2018 Database', Organisation for Economic Co-operation and Development, 2021, <www.oecd.org/pisa/data/2018database>, accessed 1 November 2021.

Reliefweb, 'Colombia's Education Crisis: Results from a learning assessment of Colombian and Venezuelan children', reliefweb, 18 November 2020, <<https://reliefweb.int/report/colombia/colombia-s-education-crisis-results-learning-assessment-colombian-and-venezuelan>>, accessed 1 November 2021.

Ripani, Maria Florencia, 'Uruguay: Ceibal en casa (Ceibal at home)', Education Continuity Stories, Organisation for Economic Co-operation and Development, 2020, <<https://oecdeditoday.com/wp-content/uploads/2020/07/Uruguay-Ceibal-en-casa.pdf>>, accessed 1 November 2021.

Seusan, Laura Andreea and Rocio Maradiegue, 'Educación en pausa: Una generación de niños y niñas en América Latina y el Caribe está perdiendo la escolarización debido al COVID-19', UNICEF, 2020, <www.unicef.org/lac/media/18251/file/Educacion-en-pausa-web-1107.pdf>, accessed 1 November 2021.

United Nations, 'RED ACTÚA: Segunda encuesta sobre el impacto socioeconómico de la COVID-19', United Nations, Dominican Republic, 2020, <www.unicef.org/dominicanrepublic/media/3761/file/SEIA%>, accessed 1 November 2021.

United Nations Development Programme (UNDP), 'Impactos socioeconómicos de la pandemia en los hogares de Chile. Resultados de la encuesta social Covid-19, primera fase: Julio 2020', Ministerio de Desarrollo Social y Familia, Chile, 2020, <www1.undp.org/content/dam/chile/202001113_pnud_covid.pdf>, accessed 1 November 2021.

United Nations Development Programme (UNDP), Bolivia Office, 'COVID-19 in Bolivia: On the path to recovering development', COVID-19 Policy Document Series, no. 22, United Nations Development Programme, Latin America and the Caribbean, 29 October 2020, <www.latinamerica.undp.org/content/rblac/en/home/library/crisis_prevention_and_recovery/covid-19-en-bolivia--en-la-senda-de-la-recuperacion-del-desarrol.html>, accessed 1 November 2021.

UNESCO, 'Global monitoring of school closures', 2021, distributed by Global Education Coalition, <<https://en.unesco.org/covid19/educationresponse#duationschoolclosures>>, accessed 1 November 2021.

UNESCO Institute for Statistics (UIS), 'New Methodology Shows that 258 Million Children, Adolescents and Youth Are Out of School', Fact Sheet no. 56, September 2019, <<http://uis.unesco.org/sites/default/files/documents/new-methodology-shows-258-million-children-adolescents-and-youth-are-out-school.pdf>>, accessed 1 November 2021.

UNESCO–Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación (LLECE), 'Informe de Resultados TERCE – Tercer Estudio Regional Comparativo y Explicativo: Logros de Aprendizaje', UNESCO–LLECE, 2015, <<https://unesdoc.unesco.org/ark:/48223/pf0000243532>>, accessed 9 November 2021.

UNESCO, UNICEF, World Bank and OECD, '3rd Iteration of the Survey on National Education Responses to COVID-19 School Closures', UNESCO, UNICEF, World Bank and OECD, 2021, <<http://covid19.uis.unesco.org/joint-covid-r3/>>, accessed 9 November 2021.

UNICEF, 'Latin America and the Caribbean COVID-19 Response Progress Report No. 1', UNICEF Latin America and the Caribbean Regional Office, 2020a, <www.unicef.org/media/79726/file/LACRO-COVID19-SitRep-14-May-2020.pdf>, accessed 1 November 2021.

UNICEF, 'COVID-19 Situation Report 2', UNICEF Bolivia', UNICEF Bolivia Country Office, 2020b, <www.unicef.org/media/85446/file/Bolivia-COVID-19-SitRep-No.2-Oct-2020.pdf>, accessed 1 November 2021.

UNICEF, 'Situación de familias em niños, niñas y adolescentes durante el COVID-19 en Panamá: Encuesta telefónica de hogares', UNICEF Panama Country Office, 2020c, <www.unicef.org/panama/media/2601/file/Encuesta%20de%20Hogares.pdf>, accessed 1 November 2021.

UNICEF, 'Latin America and the Caribbean COVID-19 Response Progress Report No. 2', UNICEF Latin America and the Caribbean Regional Office, 2020d, <www.unicef.org/media/79721/file/LACRO-COVID19-SitRep-10-June-2020.pdf>, accessed 1 November 2021.

UNICEF, 'COVID-19 Situation Report No.2', UNICEF Panama Country Office, 2020e, <www.unicef.org/media/82021/file/Panama-COVID19-SitRep-30-June-2020.pdf>, accessed 1 November 2021.

UNICEF, 'UNICEF Mexico Country Office Annual Report 2020', United Nations Mexico Country Office, 2020f, <<https://www.unicef.org/media/100406/file/Mexico-2020-COAR.pdf>>, accessed 1 November 2021.

UNICEF, 'Uruguay – Long-term investments in digital learning helps schools open up better', Education COVID-19 Case Study, UNICEF Uruguay Country Office, 1 October 2020g, <https://aa9276f9-f487-45a2-a3e7-8f4a61a0745d.usrfiles.com/ugd/aa9276_b5706a0f895443158645f1aba083c4af.pdf>, accessed 1 November 2021.

UNICEF, 'Reopening With Resilience: Lessons from remote learning during COVID-19', UNICEF Office of Research – Innocenti, Florence, 2021a, <www.unicef-irc.org/publications/pdf/Reopening-with-Resilience.pdf>, accessed 1 November 2021.

UNICEF, 'Encuesta de percepción y actitudes de la población. Impacto de la pandemia en la educación de niñas, niños y adolescentes durante 2020', UNICEF Argentina Country Office, Buenos Aires, February 2021b, <www.unicef.org/argentina/media/10081/file/Impacto%20COVID%20-%203%20Encuestas%20Educacion.pdf>, accessed 1 November 2021.

UNICEF, 'UReport: La continuidad educativa durante la cuarentena', UNICEF Bolivia Country Office, 2021c, <www.unicef.org/bolivia/media/2581/file>, accessed 1 November 2021.

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

UNICEF, '9 out of 10 children in Latin America and the Caribbean are exposed to at least two climate and environmental shocks', Press Release, United Nations Children's Fund, New York, 20 August 2021e, <www.unicef.org/lac/en/press-releases/children-latin-america-and-caribbean-are-exposed-climate-climate-environmental-shocks>, accessed 1 November 2021.

UNICEF, 'The Climate Crisis is a Child Rights Crisis: Introducing the children's climate risk index', United Nations Children's Fund, New York, August 2021f, <<https://data.unicef.org/resources/childrens-climate-risk-index-report>>, accessed 1 November 2021.

World Bank, 'Actuemos ya para proteger el capital humano de nuestros niños: Los costos y la respuesta ante el impacto de la pandemia de COVID-19 en el sector educativo de América Latina y el Caribe', World Bank, Washington D.C., 2021a, <<https://openknowledge.worldbank.org/handle/10986/35276?locale-attribute=es>>, accessed 1 November 2021.

World Bank, 'World Development Indicators: Electricity', World Bank, Washington D.C., 2021b, <<https://databank.worldbank.org/source/world-development-indicators>>, accessed 1 November 2021.

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