**COVID-19 CORONAVIRUS RESPONSE**

Tertiary Education in Sub-Saharan Africa

With 48 countries[2] and a population of over 1 billion, Sub-Saharan Africa (SSA) is one of the largest regions in the world. The current gross tertiary education enrollment ratio is 9.4%, which is well below the global average of 38%.[3] Of course, the rate varies greatly within the region. For example, in Mauritius gross tertiary enrollment is 40%,[4] in Cabo Verde it is 23.6%, in Ghana and Togo it is 15%, in Lesotho it is 10%, and in Niger it is 4.4% (figure 1). Overall, the region spends 21% of government education expenditure on tertiary education compared to 27% on secondary education and 43% on primary education.

Figure 1. Tertiary education enrollment, by region (% gross)
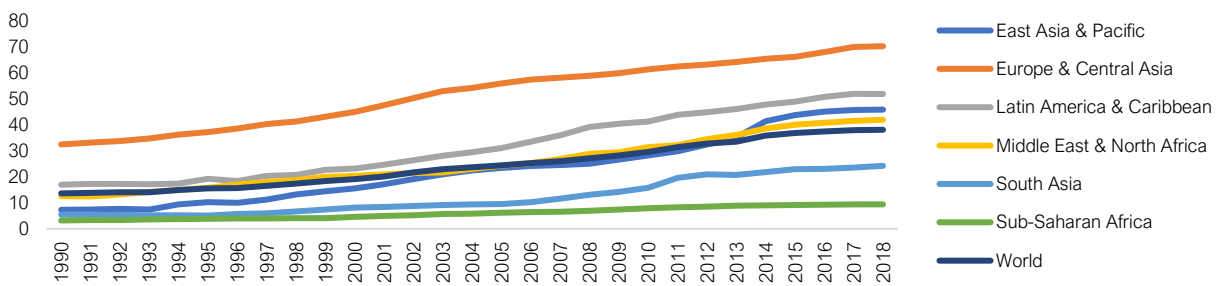
Source: UNESCO Institute of Statistics data.

Across the continent, approximately 9 million students are enrolled in the tertiary education sector, which is 3% of all student enrollments[5] in the region (figure 2) and 4% of total tertiary education students enrolled globally.[6]

Figure 2. Percent of tertiary education students out of total enrolled students
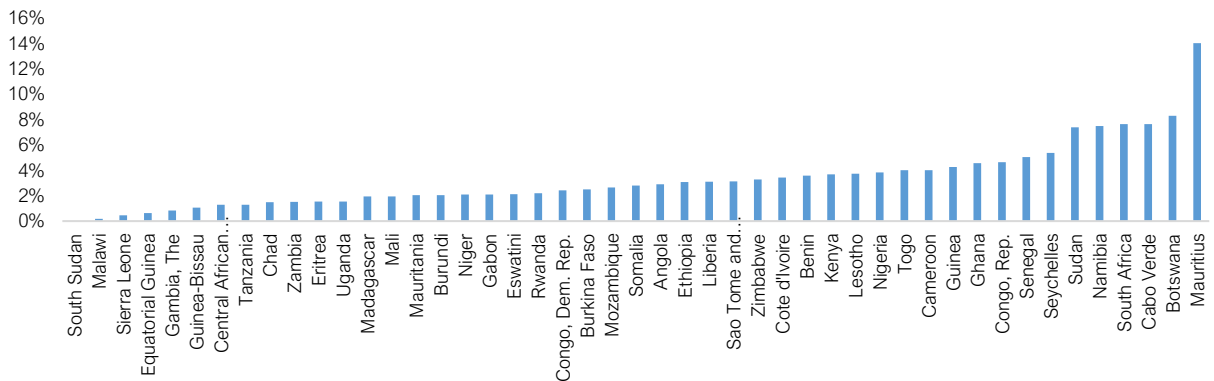
Source: UNESCO Institute of Statistics data.

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[1] This note, prepared by Maulshree Gangwar and Roberta Malee Bassett, focuses on the impacts, challenges, and opportunities of the COVID-19 pandemic on tertiary education in Sub-Saharan Africa and draws on the World Bank's Global Note on "Tertiary Education and COVID-19" (http://pubdocs.worldbank.org/en/621991586463915490/WB-Tertiary-Ed-and-Covid-19-Crisis-for-public-use-April-9.pdf).
[2] World Bank Country and Lending Groups.
[3] UNESCO Institute of Statistics (UIS) 2018 data.
[4] 2017 UIS data, since the 2018 value for Mauritius is not available.
[5] Over 260 million students are enrolled in Sub-Saharan Africa across the primary, secondary, and tertiary levels.
[6] World Bank Education and Covid-19.

Impact of COVID-19 on Tertiary Education in SSA

The countries of Sub-Saharan Africa took significant steps to respond to the COVID-19 pandemic soon after the first few cases appeared and started imposing countrywide lockdowns starting in mid-March. As of May 14, 2020, the total number of COVID-19 cases detected via testing in the region was 46,825, with 1,176 deaths recorded at that time.[7] Except Burundi,[8] all countries in the region have imposed lockdowns, thus closing all higher education institutions and disrupting the learning of almost 9 million tertiary education students. Some of these students, apart from learning, have also lost essential facilities such as dormitories, on-campus jobs, and internet access.

Government cuts to education budgets are further adding to the impact and likely to worsen. In Kenya, the Commission on University Education reallocated K Sh 272 million (US$2.5 million)[9] of its development cash to a COVID-19 emergency fund. There is also a proposed cut of K Sh 3.9 billion (US$36.4 million) from the Basic Education department.[10] In Nigeria, the federal government plans to cut ₦26.51 billion (US$68 million) from the basic health care sector and ₦50.76 billion (US$130 million) from the education sector[11] to support their pandemic response initiatives. (see box 1 for Tanzania)

> **Box 1. Tanzania's Ministry of Education, Science & Technology endorsed a T Sh 1.3 trillion** (US$560 million) budget for FY2020/21, almost 70% of which is allocated for development projects. For higher education, it plans to enable the Higher Education Student Loans Board (HESLB) to provide loans to 15,000 more students than the last fiscal year.
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> *The Citizen, Tanzania*

(i) Teaching and Learning. With campuses closed, colleges and universities have had no option but to deliver programs, where possible, via online/remote platforms. This transition has exposed the huge digital divide that exists among the universities, the majority of which do not have adequate infrastructure to deliver entire programs online. There are only a few fully online universities in SSA, including the African Virtual University (AVU),[12] the Kenyatta Digital School of Virtual Learning,[13] and the University of Rwanda's e-learning platform.[14] These institutions have the existing capacity and experience to offer online programs, but they are mostly targeted toward students who want to upgrade their skills while they are already employed, though their mandates continue to expand. Some universities that had adequate digital infrastructure have been swift in transitioning to online teaching and learning. For example, University of Ghana rolled out online program starting April using the Sakai Learning Management System platform[15].

All national students have moved out of campus-based housing, though many international students were unable to return to their home countries before borders were closed. These students have remained in their dormitories, adhering to extremely strict social distancing guidelines, with varying levels of support from their institutions. For example, Makerere University and Uganda Martyrs University in Uganda continue to provide limited access to lab facilities for students who are on-campus.

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[7] Refer to Annex 1 for number of cases per country.
[8] https://en.unesco.org/covid19/educationresponse.
[9] https://www.the-star.co.ke/news/2020-04-22-coronavirus-ruins-uhuru-legacy-plans/.
[10] https://www.the-star.co.ke/news/2020-04-15-state-eyes-sh74bn-in-budget-cuts-for-covid-19-response/.
[11] https://punchng.com/serap-threatens-lawsuit-over-proposed-health-education-budget-cuts/.
[12] https://avu.org/avuweb/en/.
[13] http://www.ku.ac.ke/dsvol/.
[14] https://elearning.ur.ac.rw/.
[15] http://ug.edu.gh/announcements/update-university-ghana-online-teaching-and-learning

Instructors have been providing online classes wherever feasible, but most of the universities have neither access to online learning platforms nor training in effective delivery of remote learning. Classes are being delivered via Skype or Zoom, for instance, which compromises the quality of learning and classroom participation, and limits the capacity for collaborative, innovative teaching practices. Classes that require access to laboratory experiments are continuing without any such intervention, using virtual laboratory programs where available but otherwise reverting to lectures and independent study efforts, without hands-on lab work.

Access to the internet or technology is a major problem across the SSA region. With almost half of the population[16] living on less than US$2 a day, internet access is limited to 25%[17] of the region's population, with only 0.44% having access to fixed broadband.[18] Among tertiary education students, 30% have access to the internet at home, and 42% own a personal computer. The majority of this access is restricted to the most privileged members of society, however. In contrast, 97% of tertiary education students report owning a mobile phone and 74% own a radio, which is proportionally distributed across different wealth quintiles.[19] Such resources are used to deliver remote education to basic and secondary level students and may be useful for tertiary education, as well.

(ii) Research. Sub-Saharan Africa is the region with the lowest research capacity and output in the world. According to Elsevier, currently, the region contributes less than 1% to global research, but the region has the potential for tremendous growth in scientific production. Between 2012 and 2016, the number of academic staff papers grew by almost 43%.[20] A significant portion of research funding is available through either European or American development agencies and other global research funding agencies, though there are very few research funding agencies in the region that are Africa-led, such as Pan-African University (PAU).[21]

To date, the COVID-19 pandemic has had a hard impact on the United States and some European countries, which are also major aid donors. National economies have already started slowing down, and they are imposing budget cuts to their own education and research institutions. For example, in the United States, the Department of Education is expected to see a 12% cut in overall funding for FY2020,[22] in addition to cuts in student loan programs and funding for research organizations like the National Science Foundation (NSF) and National Institutes of Health (NIH). Ultimately, these countries may limit their support through aid to global research alliances. Without much locally available funding, research growth in the SSA region may slow as the continent itself is experiencing a downward trend in economic growth and the economies in the region could lose between US$37 billion and US$79 billion in output in 2020 due to COVID-19.[23]

(iii) Exams, Graduation, and Admissions. Disruptions in classes midsemester, and with only a minority of universities prepared to provide online learning, have led to broad discussions of how to assess student learning to close out the term. The ability of academic staff and of institutions to conduct exams will also depend on how quickly they were able to pivot toward thoughtful remote learning modalities, including online educational platforms. Pass/fail assessments, open note exams, and change of final work from exams to research papers are all options being considered in lieu of traditional assessment methods. Even where universities have managed to develop online coursework and exams, with only 30% of students having internet access, not all would be able to access the course materials or take those online exams. Without thoughtful consideration and

[16] https://data.worldbank.org/indicator/SI.POV.DDAY?locations=ZG.
[17] https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=ZG.
[18] https://data.worldbank.org/indicator/IT.NET.BBND.P2?locations=ZG.
[19] PASEC data.
[20] Africa generates less than 1% of the world's research; data analytics can change that.
[21] https://ic-sd.org/wp-content/uploads/2019/11/Graham_Harrison.pdf.
[22] https://www.acenet.edu/News-Room/Pages/White-House-Proposes-Significant-Cuts-to-Education-Programs-for-FY-2020.aspx.
[23] See *Africa's Pulse*, Issue 21, April 2020, World Bank Group, Washington, DC.

creative problem solving, there may be delays in students receiving relevant assessments and graduating from their programs.

Universities are continuing to accept applications for the incoming cohort; however, they may have to adjust their deadlines or waive some of the requirements, since the end-of-school secondary examinations are also being affected by pandemic closures. This may also affect the ability to assess the comparative readiness of the incoming cohort or, at least, the reliability of traditional modes of assessing quality in determining who is offered competitive university placements.

(iv) Private Universities. Between 1990 and 2014, the number of private universities in the region increased at a much faster pace, from 30 to 1,000,[24] than public universities, which increased from 100 to 500. Private universities in SSA rely heavily on student fees to continue their operations and may not be eligible for funding from the government. In Ghana, some private institutions have not been able to pay staff salaries for March and April due to 50% unpaid student fees.[25] The current pandemic may force some of these private universities to start laying off employees. For example, the University of Technology and Arts of Byumba (UTAB) in Rwanda had suspended about 40 staff members.[26] Eventually, these private universities may close due to a shortage of revenue. This can have a long-term impact on the quality of tertiary education in the region, eventually having an impact on economic development.

Potential Solutions and Mitigation Measures

With a huge disparity in access to digital infrastructure, most students in the region are not currently able to continue their learning. While the COVID-19 crisis presents an opportunity for African universities to explore the potential of introducing technology-based platforms for learning, most of them are presently not equipped with any such platforms within their learning management systems. The lockdown situation further prevents their ability to investigate best options for e-learning to implement for their students. The following mitigation measures and solutions provide short-term and long-term actions that can be taken by tertiary education institutions in addressing this operational gap. Some of these interventions can be introduced through active World Bank lending operations in the region (see Annex 2). One of the World Bank's largest collective lending operations is the Africa Centers of

Box 2. The World Bank's Africa Higher Education Centers of Excellence

The World Bank's Africa Higher Education Centers of Excellence (ACE) projects aim to build the capacity of Africa's higher education institutions in areas that are important for the region's economic growth. The projects' regional approach to higher education—with a particular focus on postgraduate education and applied research—aligns with Sub-Saharan Africa's regional integration approach in the Africa Union's Agenda 2063 to achieve an "integrated continent with free movement of people, goods, capital and services and infrastructure to promote integration."

Through addressing critical gaps in human capital and innovation in science and technology, the ACEs aim to become regionally acclaimed research and academic institutions in their respective fields, providing solutions to tackle regional development challenges. The project embraces the importance of industry/sector partnerships in providing labor-market-relevant training, and regional and international academic partnerships in raising the quality through joint delivery of programs and sharing of resources.

The participating countries include Benin, Burkina Faso, Côte d'Ivoire, Djibouti, Ethiopia, Gambia, Ghana, Guinea, Kenya, Malawi, Mozambique, Niger, Nigeria, Rwanda, Senegal, Tanzania, Togo, Uganda, and Zambia.

Summarized by project teams based on Project Appraisal Documents

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[24] http://documents.worldbank.org/curated/en/862691509089826066/pdf/120693-PUB-PUBLIC-PUBDATE-10-25-17.pdf.
[25] https://www.universityworldnews.com/post.php?story=20200512090947247.
[26] https://www.universityworldnews.com/post.php?story=20200422115630505.

Excellence initiative, which spans four discrete projects across 19 countries and 51 tertiary education institutions in the region (see box 2).

(i) Needs assessment. In the short or medium term, it is important to assess the preexisting capacity of the universities to deliver continued teaching and learning via remote and online learning platforms, and the proportion of students and faculty that can access these while off-campus. In addition, it would be important to understand the readiness of the faculty members to deliver online content. This will ensure greater connectivity and flexibility for continued learning.

(ii) Online learning. In the short term, universities that do not have access to online platforms can promote the use of courses available for free through external platforms like Coursera, EdX, and FUN. These platforms have offered free enrollment periods in response to the pandemic closures, allowing for interim coverage to ensure continued student learning. With built-in assessment capabilities, these courses allow instructors to keep track of student progress through the course. As many of these options do not require continuous internet access, students even in remote areas with limited internet access can take courses. Since, as noted above, 97%[27] of tertiary education students in the region at least have access to

> **Box 3. Free data packages for African students and zero-rated access to educational websites**
>
> Several universities in Africa are collaborating with telecommunications companies to facilitate the provision of affordable or free (zero-rated) access to the internet for as long as the students are accessing education-related websites and information. Wits University in South Africa is collaborating with Vodacom, MTN, and Telkom to offer zero-rated access to specific educational websites.
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> In addition to the zero-rating agreements, the University of Cape Town purchased a data bundle for each student with a valid South African cell number. Each student to receive 30 to 40 gigabytes, depending on their network provider, valid for 30 days.
>
> *University of Cape Town, South Africa*
> *Mobile Telecommunications Network (MTN)*

mobile phones, institutions can also provide funding for purchase of data cards for their students to ensure they can access these courses. For example, the University of Ghana is already offering 10-gigabyte data bundles to its students to switch to online classes (see box 3). Some universities have partnered with telecom companies to provide subsidized data bundles for their students. For example, the University of Nairobi has partnered with Telkom Kenya to provide *Soma na Telkom* cheaper data bundles for its staff and students across 13 campuses nationwide.

(iii) Connectivity. In the short term, the universities can promote the use of zero-rated access to education websites among their students. Several universities have already started collaborating with telecommunications companies to provide free online content (see box 3). Strengthening the National Research and Education Networks (NRENs)[28] in Africa is a

> **Box 4. Telkom's *Soma na Telkom* data bundles in partnership with the University of Kenya**
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> Telkom Kenya has launched a customized and reliable mobile data solution for the students, faculty, and staff of the University of Nairobi (UoN), to enable continuity of learning, in light of the COVID-19 pandemic.
>
> The Soma na Telkom bundles are monthly post-paid data bundles that have been tailored to meet the needs of the university's 40,000-plus population, to continue working and studying wherever they are. The UoN has 13 campuses with 35 faculties, schools, institutes, and centers.
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> *Dean of Students Office, University of Nairobi*

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[27] PASEC data.
[28] https://www.africaconnect2.net/Partners/African_NRENs/Pages/Home.aspx.

long-term measure to address the issue of connectivity (figure 3). However, this would also require that the students have access to a laptop or a smart phone to be able to access online content on these networks. The African NRENs are relatively weak, especially in West and Central Africa. Improved connectivity could be achieved through liaising with regional telecommunications companies (MTN,[29] Orange, Airtel, Vodafone), WACREN,[30] UbuntuNet Alliance,[31] and GEANT-Africonnect.[32]

Figure 3. Connectivity in Sub-Saharan Africa using NRENs
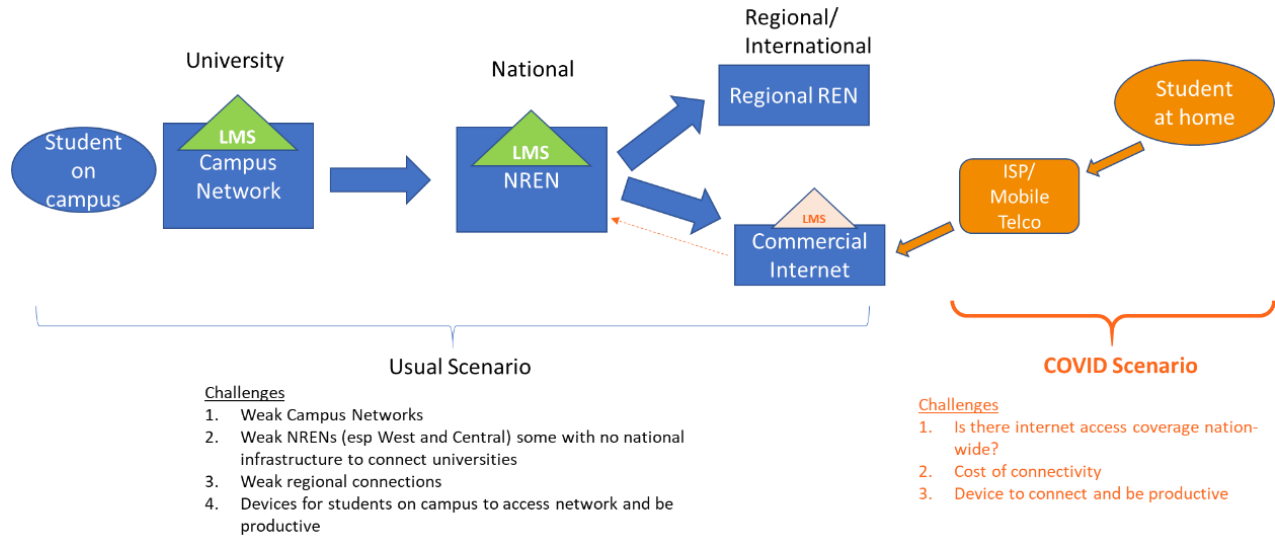
Source: This figure was created by Alex Twinomugisha, World Bank Senior Education Specialist.

(iv) Student financing. Since most countries in the region are low income, there is very limited scope for providing stimulus packages for educational needs, especially to students. With no classes, students who are expecting to graduate this year may do so with delays. The economic consequences of this pandemic will lead to shrunken job markets, closed businesses, and debt defaults. In the short term, national banks could consider extending the loan payment periods or canceling the debt depending on the socioeconomic status of the student or job availability. In the long term, public-private partnerships to provide affordable and quality tertiary education could contribute to a country's economic growth.

(v) Internationalization. There are many African students studying outside the continent, primarily in the US, Europe, or China. Their education may be self-financed or supported by scholarships or work on campus part-time. With significant travel restrictions imposed across borders, some of these students are stranded abroad. Some students, having lost their temporary jobs, have fewer financial means to sustain themselves. The incoming cohort of students (starting in September 2020) now face issues related to visa issuance. This looming uncertainty will lead to some students giving up their study abroad plans. For students who are already mid-way through their programs abroad, the universities should subsidize tuition and consider supporting students on a case-by-case basis. In the long-term, universities should develop sustainable resources for internationalization.

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[29] Mobile Telecommunications Network.
[30] West and Central African Research and Education Network.
[31] The regional Research and Education Network of Eastern and Southern Africa.
[32] GÉANT is the pan-European data network for the research and education community, and Africonnect is an Internet Service Provider in Africa.

(vi) Sustainable financing. As mentioned, heavy reliance on student fees may either take the private tertiary education institutions to the brink of closure or lead to drastic expenditure cuts for public institutions. To continue their operations, universities should come up with a sustainable financing strategy.[33] This can be achieved through mobilizing resources toward equitable enrollment, improving quality and relevance of programs, generating income through fundraising, or supplemental performance-based funding opportunities. Private institutions should also consider setting up university endowment funds or foundations. Examples of such university foundations in Africa are Ashesi University Foundation in Ghana,[34] Makerere University Endowment Fund in Uganda,[35] Fondation de l'Université d'Abomey-Calavi in Benin,[36] and the Fondation Université Cheikh Anta Diop in Senegal (see box 5).[37]

> **Box 5. Fondation Université Cheikh Anta Diop (UCAD) of Sénégal**
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> The objectives of the foundation are to (i) encourage excellence in research and the exploitation of its results; (ii) contribute to the increase in the success rate of students by reducing inequalities (social, gender, disability); (iii) support students toward success and socio-professional integration; (iv) strengthen and rehabilitate the heritage of UCAD; (v) contribute to improving the health, hygiene, and living environment of students; (vi) cultivate the feeling of belonging to UCAD; (vii) develop citizen awareness and eco-responsible behavior at the student level; (viii) contribute to the pacification and stability of the university space; and (ix) support scientific, cultural, and sporting activities at UCAD.
>
> *Fondation Université Cheikh Anta Diop*

(vii) Innovation and Research. Many African universities are continuing to innovate to produce resources that can help them navigate the crisis. For example, they are conducting research support for vaccine development and genomic sequencing of virus (see box 6), developing models to track the spread of the virus, providing voluntary medical support, raising awareness about the importance of hygiene, and producing protective equipment and hand sanitizers.[38] Such activities not only help generate funds but also support the local community by providing affordable protective gear. Governments and university leadership should provide

> **Box 6. Africa contributes SARS-CoV-2 sequencing to COVID-19 tracking**
>
> Three days after the confirmation of Nigeria's first COVID-19 case, the genome sequencing results of the SARS-CoV-2 specimen were announced on March 1. The sputum samples, taken from an Italian consultant who entered Nigeria through Lagos on February 27 before traveling to the neighboring Ogun State, were analyzed at the African Center of Excellence for Genomics of Infectious Diseases (ACEGID) at Redeemer University. They became the first analysis of SARS-CoV-2 in Africa, signaling the continent's contribution to the growing global body of evidence to understand the virus's behavior outside China.
>
> *The Scientist*

additional funding for such interventions and fast-track procurement of required equipment and materials.

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[33] https://www.universityworldnews.com/post.php?story=20200513094132899.
[34] https://www.ashesi.org/.
[35] https://www.endowment.mak.ac.ug/index.php/en/.
[36] http://fondationuac.org/index.php/fr/.
[37] https://fondation.ucad.sn/index.php/2014-03-11-12-53-25/contexte.
[38] https://www.universityworldnews.com/post.php?story=20200420091917110.

Conclusion

It is now evident that this initial phase of disruption may persist longer than anticipated in the earliest days of the pandemic. The move toward remote learning across tertiary education in Sub-Saharan Africa has exposed the digital divide as an additional element of socioeconomic inequity in the region, as well as an extension of the public-private divide and the developing-developed divide. Universities that were able to switch more quickly to e-learning, with pedagogical and technological support for academic staff, have already outpaced others in the learning race. For private universities, questions persist on how long they will be able to sustain themselves in this lingering academic and economic contraction, given their dependence on tuition, and public institutions may find their budgets affected by the national reallocation of funds from tertiary education to other funding areas such as health and social protection.

For the instructors and learners, significant challenges remain regarding their ability to adapt to the new learning environment. Digital devices have become as essential as a book and a pencil, and poor families that cannot afford to invest in these digital devices face stark decisions about their capacity to enroll their children in universities and support them throughout the progression toward a degree. Access to and equity in persistence and completion of tertiary education will become increasingly more challenging and require concerted focus from policy makers and international donors. With timely interventions from all stakeholders, the transition to the future of learning will learn from the mistakes made and build on the successes achieved during this pandemic era to provide tertiary education that is fit for purpose for the nations of Sub-Saharan Africa.

Annex 1. Number of Cases by Country, Sub-Saharan Africa (as of May 14, 2020)

Country	Cases	Deaths	Recovered	New Cases	New Deaths	New Recovered Cases	Cases P/M	Mortality (%)
Angola	45	2	14	0	0	1	1.46	4.44
Benin	327	2	83	0	0	7	28.47	0.61
Botswana	24	1	17	0	0	0	10.65	4.17
Burkina Faso	773	51	592	7	0	4	39.14	6.6
Burundi	15	1	7	0	0	0	1.34	6.67
Cabo Verde	289	2	61	22	0	3	531.48	0.69
Cameroon	2,800	136	1,543	111	11	19	111.04	4.86
Central African Republic	143	0	10	0	0	0	30.64	0
Chad	372	42	78	15	2	2	24.03	11.29
Comoros	11	1	0	0	0	0	13.22	9.09
Congo, Dem. Rep.	1,169	50	148	67	6	2	13.91	4.28
Congo, Rep.	333	11	53	0	0	0	63.5	3.3
Côte d'Ivoire	1,912	24	902	55	3	82	76.27	1.26
Equatorial Guinea	522	6	13	83	2	0	398.79	1.15
Eritrea	39	0	38	0	0	0	NA	0
Eswatini	187	2	48	3	0	20	164.59	1.07
Ethiopia	263	5	108	2	0	2	2.41	1.9
Gabon	1,004	9	152	141	0	15	473.75	0.9
Gambia, The	23	1	10	1	0	0	10.09	4.35
Ghana	5,408	24	514	281	2	20	181.68	0.44
Guinea	2,374	14	856	76	3	40	191.23	0.59
Guinea-Bissau	836	3	26	16	0	0	446.03	0.36
Kenya	737	40	281	22	4	22	14.34	5.43
Lesotho	1	0	0	1	0	0	0.47	0
Liberia	213	20	101	2	0	16	44.2	9.39
Madagascar	212	0	107	26	0	6	8.07	0
Malawi	63	3	24	6	0	0	3.47	4.76
Mali	758	44	412	28	4	14	39.73	5.8
Mauritania	15	2	6	6	1	0	3.41	13.33
Mauritius	332	10	322	0	0	0	262.39	3.01
Mozambique	104	0	34	0	0	0	3.53	0
Namibia	16	0	11	0	0	0	6.54	0
Niger	860	49	658	6	2	10	38.32	5.7
Nigeria	4,971	164	1,070	184	6	111	25.38	3.3
Rwanda	287	0	164	1	0	11	23.33	0
São Tome and Principe	220	6	4	12	1	0	1,042.52	2.73
Senegal	2,105	21	782	110	2	40	132.77	1
Seychelles	11	0	10	0	0	0	113.68	0
Sierra Leone	387	26	97	49	7	25	50.59	6.72
Somalia	1,219	52	130	49	0	4	81.22	4.27
South Africa	12,074	219	4,745	724	13	388	208.97	1.81
South Sudan	203	0	2	9	0	0	18.5	0
Sudan	1,818	90	198	157	10	25	43.49	4.95
Tanzania	509	21	183	0	0	0	9.04	4.13
Togo	219	11	96	20	0	4	27.76	5.02
Uganda	139	0	55	10	0	0	3.25	0
Zambia	446	7	124	5	0	7	25.7	1.57
Zimbabwe	37	4	12	1	0	3	2.56	10.81

Source: Johns Hopkins University.

Note: New Cases = cases in the last 24 hours; New Deaths = number of deaths in the last 24 hours; Cases P/M = number of cases per million people; Mortality Rate (%) = percentage of positive cases who die.

Annex 2. Currently Active World Bank Tertiary Education Lending Operations

Project ID	Project Name	Project Development Objective
P168551	Rwanda Quality Basic Education for Human Capital Development Project	To improve teacher competency and student retention and learning in basic education.
P165581	Africa Regional Scholarship and Innovation Fund for Applied Sciences, Engineering and Technology	To strengthen the institutional capacity for quality and sustainable doctoral training, research, and innovation in transformative technologies in Sub-Saharan Africa.
P151847	Eastern and Southern Africa Higher Education Centers of Excellence	To strengthen selected Eastern and Southern African higher education institutions to deliver quality postgraduate education and build collaborative research capacity in the regional priority areas.
P146602	Additional Financing for Mozambique Higher Education Science and Technology Project	To (a) increase the number and raise the quality of graduates at the undergraduate and graduate levels, (b) strengthen national research capacities to produce research outputs of relevance to the recipient's strategic economic sectors, and (c) strengthen the institutional framework for Technical and Vocational Education and Training.
P164293	Burkina Faso Higher Education Support Project	To strengthen higher education institutions to increase access and deliver quality education in priority subject areas.
P164546	Africa Higher Education Centers of Excellence for Development Impact	To improve quality, quantity, and development impact of postgraduate education in selected universities through regional specialization and collaboration.
P160642	Côte d'Ivoire Higher Education Development Support Project	To (a) improve higher education management, (b) increase enrollment in professional programs, and (c) improve the quality and labor market relevance of degree programs of participating public tertiary institutions.
P151318	MALI – Higher Education Support Project	To improve the relevance of selected higher education programs and the stewardship of the higher education system in Mali.
P153111	Africa Higher Education Centers of Excellence Project Additional Financing	To support the recipients in promoting regional specialization among participating universities in areas that address regional challenges by strengthening the capacities of these universities to deliver quality training and applied research.

Note: Includes projects tagged tertiary education as the top sector by project teams (data as of April 17, 2020).