



ASSOCIATION OF AFRICAN UNIVERSITIES
ASSOCIATION DES UNIVERSITES AFRICAINES
اتحاد الجامعات الإفريقية

ASSOCIATION OF AFRICAN UNIVERSITIES (AAU)

2021 GENERAL CONFERENCE

Theme: The Future of African Higher Education

CONCEPT NOTE

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1.0 Background and Context

Higher education is globally recognised as the bedrock for comprehensive development of any nation, region or the world. In view of this, various African countries and governments have initiated several policies and models in an attempt to build quality higher education for developing Africa's human capital to positively respond to the global challenges of the twenty-first century.

The 21st Century, which has, since its arrival, been dominated by the drive towards sustainable development through the use of knowledge capital catalysed by technology and other factors, continues to direct attention towards the attainment of human capital development. The main aim of this human capital development is to produce highly educated, mobile and adaptable workforce, engendering a multi-skilled and multi-tasked generation of human beings, having a pre-eminence of a knowledge society and a learning society that leads to life-long learning for all, and the use of ecological and geographical conditions to a regional or national advantages. In all these, the instrument or platform identified repeatedly as conduit for achieving them is education. As a result, several initiatives have been embarked upon to ensure that Africa does not lag behind in her bid to use higher education to develop its human capital for socio-economic and other developmental objectives. Such initiatives include (i) Sustainable Development Goals (SDGs) Education 2030, (ii) Framework For Action Agenda 2063, (iii) Incheon 2030, (iv) CAP 2015 and COP 21, (v) the Science, Technology and Innovation Strategy for Africa 2024 (STISA 2024), (vi) the Declaration and Action Plan of the Dakar Summit on Higher Education (Dakar 2015), (vii) the UNESCO Priority Africa (Operational Strategy 2014-2021), (viii) The Africa We Want Agenda 2063, and (ix) the Continental Education Strategy for Africa (CESA 16-25).

In numerical terms, there are currently 1,225 officially recognized *higher-education* institutions (HEIs) in *Africa* according to the uniRank database in 2020. A total of 586 of these are public (i.e. officially affiliated to or run by national, state or local governments) and 601 are private. Also, 661 of the HEIs in Africa are non-profit. From the statistics available, 164 out of the top 200 Universities in Africa (82%) published by uniRank are public higher education institutions.

Africa is home to the world's oldest universities, the University of Al Qarawiyyin in Fez in Morocco (founded in 859 AD) and Al-Azhar University in Egypt (founded in 970 AD), the continent is therefore not oblivious of the benefits of higher education. But ironically, higher education in Africa is grossly under-developed and has been a low priority for the past two decades. Access to higher education for the relevant age group remains at 5%, the lowest regional average in the world, just one-fifth of the global average of about 25%. On the other hand, the demand for higher education in Africa has been increasing at very high rates and is rapidly overtaking the capacity of current infrastructure and staffing capability.



Yet the continent is bedeviled with a myriad of challenges in higher education, including substantial and significantly important social, economic, and stability dimensions, which must be addressed if the vision of transforming Africa through higher education is to be realised.

The real challenge for Africa in the 21st century is the capacity to develop a higher education sector for continental relevance within a globally competitive world. The road map for Africa's sustainable development appears well mapped out in the global and regional agendas that have pointed towards higher education as the currently known panacea.

Other serious issues in Africa higher education system are inadequate funding, low research output and innovation (despite very few exceptions) and lack of harmonisation of the higher education systems in the African continent as a whole. Higher education sector further faces serious challenges manifested in poor quality, inadequate infrastructures, outdated pedagogies, low levels of funding, scholarly productivity, and global competitiveness. As a result, many African tertiary institutions produce half-baked graduates that aren't fit for the world of work mainly because of the way they are taught and the absence of curricular reviews that should respond to the calls of industry's contemporary needs.

In order to arrest the terrible decline in higher education and shore up the potentials for its relevance for contemporary development, several steps have been taken or are being taken. These include a continental multi-stakeholders platform held the African Higher Education Summit on Revitalizing Higher Education for Africa's Future, in Dakar, Senegal on March 10 -12, 2015, to identify strategies for transforming the African higher education sector. The Summit unanimously affirmed "that it is critical to: (i) develop a high quality, massive, vibrant, diverse, differentiated, innovative, autonomous and socially responsible higher education sector that will be a driving force to achieving the vision outlined in Agenda 2063 by the African Union with commitment to "A shared strategic framework for inclusive growth and sustainable development and a global strategy to optimize the use of Africa's resources for the benefit of all Africans"; and (ii) produce the human capital required for the continent's inclusive and sustainable development, democratic citizenship, and repositioning as a major global actor.

The Summit agreed to undertake a number of reforms, amongst which are (i) the expansion of higher education to accommodate the growing population and also the needs for Africa's inclusive development; (ii) increasing investment in higher education to facilitate development, promote stability, enhance access and equity; develop, recruit and retain excellent academic staff and pursue cutting-edge research and provision of high quality teaching, (iii) pursuing excellence in teaching and learning, research and scholarship, public service and provision of solutions to the development challenges and opportunities facing African peoples across the continent, (iv) pursuing national



development through business, higher education and graduate employability, and (v) mobilise the Diaspora to be engaged in transforming Africa's higher education sector.

Higher education in Africa is growing and expanding rapidly to meet the unmet demand and to provide more opportunities for advanced education to graduates of the secondary school systems and it has sought new ways to achieve university collaboration across national and regional boundaries with International Development Partners and several agencies collaborating with the AAU and African academics in diaspora. A case in point is the World Bank funded Africa Higher Education Centres of Excellence (ACE) initiative, facilitated by the Association of Africa Universities (AAU). To date, over 50 centres of excellence have been and are being established in universities across the length and breadth of Africa. These universities serve as 'centres of excellence' that also have major positive impacts on other universities in their respective regions, and are currently making substantial progress in regaining their national and international prominence.

2.0 Effect of Contemporary Developments (Emerging Information and Communications Technologies and COVID-19 Pandemic)

A critical review of the current developments in global higher education indicates that two mega factors have propelled the emergence of communication technologies in modern day teaching and learning. The two mega factors are (i) the transformative power of technologies and (ii) the global pandemic of COVID-19.

2.1 The Transformative Power of Technologies

The use of emerging communication technologies; network of libraries; virtual institutes; virtual laboratories; educational portals; social media in instruction, research and communication with students; colleagues and peers were central in the provision of open and distance learning which has made its way to the centre piece of instruction and learning in higher education.

Modern technologies have become a disruptive force in higher education with a view to producing graduates with broad-based knowledge for the emerging learning society. The disruption has led to what is labelled as the inevitability of instability which leads to continuous transformation of the learning landscape world-wide. The use of disruptive technologies in higher education has two characteristics: teaching and learning will continue to be redefined, and learners will take increasing control of their learning.

The use of technology in higher education has progressed through several generations. It has currently reached the six (6th) generation which now includes the use of Open Education Resources (OER), Social media, e.g Facebook, Twitter, YouTube, Flickr, Tumblr, Pinterest, Google+, Instagram,



Linkedin etc. All these have migrated towards what is now emerging as the seven (7th) generation of models of E-Technology (Jegade, 2020).

The world is currently witnessing the extensive disruption in the old established tradition of higher education by emerging by technologies. What has been predicted and now happening is that the transformation will be felt at all levels in the higher education sector and across all knowledge disciplines. The world of education, especially higher education, which continues to undergo significant changes as affected and effected by developments, be it global or local, has recently been impacted upon by the global pandemic of COVID-19.

2.2 The COVID-19 Pandemic and its Effects on Education

Just as the COVID-19 pandemic has disrupted all facets of human endeavour, it has affected businesses, travel, households and families. The education sector has not been spared; affecting all levels of education and training with a projection that “the changes in store for higher education are going to look a lot like the painful changes we’ve seen in retail, travel, news, and entertainment” (Smith, 2020).

According to the statistics put out by The International Association of Universities (IAU, 2020), ‘before the pandemic, 258 million children and youth of primary and secondary-school age were out of school, and low schooling quality meant many who were in school learned too little’. With the pandemic, more than 1.5 billion students and youth across the planet are affected by school and university closures due to the COVID-19 outbreak.

The COVID-19 pandemic is revolutionising digital and online education globally but many Africans are being left behind as they are not equipped to adapt or transition to the new methods of learning. The advent of COVID-19 in Africa raises certain salient questions and issues such as: what is the impact of COVID-19 on the educational system in Africa now and in the future? What contributions are the higher education institutions in Africa making to address the challenges of COVID-19? How would African higher education mainstream e-learning on the continent? The UN Secretary-General Policy Brief ‘*Education in the time of COVID-19 and beyond*’ warns that ‘the pandemic has created severe disruption in the world’s education systems in history and is threatening a loss of learning that may stretch beyond one generation of students’ (UN, 2020).

It is in this context that the Association of African Universities (AAU) is organising its 2021 General Conference under the theme: “**The Future of African Higher Education**”. The answers to the above questions and the conversations around the Theme and sub-themes of the 2021 General Conference of the AAU can be situated in the Continental Education Strategy for Africa 2016-2025 (CESA 16-25) and the AAU Strategic Plan (2020 – 2025).



3.0 AAU Strategic Plan (2020 – 2025)

The AAU General Conference 2021 is firmly rooted in the AAU Strategic Plan for 2020 – 2025 in which CESA 16-25 had been discussed and implanted in its implementation. The *raison d'être* for CESA 16-25 is that education has long been recognised as a critical sector whose performance directly affects and even determines the quality and magnitude of Africa's development. The beauty of CESA 16-25 is that it relates comprehensively to the future of higher education in Africa.

The Strategic Plan touches on various initiatives with direct consequences on the future of higher education in Africa. These initiatives include: *Incheon 2030, CAP 2015 and COP 21; the science, technology and innovation as spelt out in STISA 2024; the Declaration and Action Plan of the Dakar Summit on Higher Education (Dakar 2015), the UNESCO Priority Africa (Operational Strategy 2014-2021), The Africa We Want Agenda 2063*. The relationships amongst the various global and continental agendas and initiatives are such that they flow into one another in a cross-cutting and overlapping manner to indicate the synergy, interconnectivity and responsiveness to the common tangible outcomes of sustainable development for all nations, regions and the whole world.

The AAU 2020–2025 Strategic Plan has as its foci, the implementation of programmes in the area of *SDGs as spelt out in Incheon 2030, CAP 2015 and COP 21; the science, technology and innovation as spelt out in STISA 2024; the Declaration and Action Plan of the Dakar Summit on Higher Education (Dakar 2015), the UNESCO Priority Africa (Operational Strategy 2014-2021), and The Africa We Want Agenda 2063*. The Strategic Plan is concerned about the monitoring of performance of HEIs and draws attention to the contributions of African Higher Education Institutions in achieving the sustainable goals and the funding of African higher Education institutions in the face of unpredictable economy.

4.0 Conference Aim, Theme and Sub-Themes

The aim of AAU 2021 General Conference is to draw attention of all, with particular reference to higher education institutions in Africa, to what the future portends for higher education in Africa within and post COVID-19 era especially in these trying times of COVID-19, inadequate funding of higher education and the emergence of and the exceptional move to mainstream online/virtual/e-learning as a result of global reactions to the pandemic.



The 2021 General Conference, with the Theme: **The Future of African Education** will discuss, identify and strategise on the role of higher education institutions in ensuring an effective, relevant and efficient answers to the future of higher education on the continent.

The following sub-themes of 2021 General Conference, which are in some sense cross-cutting and overlapping, reflect the strategic objectives of CESA 16-25 and the general direction of the current AAU 2020-2025 Strategic Plan.

Sub-Theme 1: The Future of African Higher Education Post-COVID-19.

Where do we go from here with regards to the interesting 'new normal' of doing things including educating the people which has resulted from contemporary global changes and the COVID-19 pandemic?

What therefore *is* the core mission of higher education? COVID-19 pandemic seems to have provided us with a simple straight forward answer for the future: That as educators, we must strive to create opportunities for ALL learners to discover and develop their potentials without any hindrance or obstacle whatsoever and to use them to make a difference in the world. Higher education in the contemporary world must harness all resources to pursue education for life-long learning. If we do it right, we might usher in a new golden age of education in Africa that will be an envy of the world.

Sub-Theme 2: Contributions of African Higher Education Institutions to Addressing the Challenges linked to the COVID-19 pandemic.

The world has experienced a number of epidemics and pandemics, although none had defied full understanding and quick solution like COVID-19. As has been said in many quarters by experts, COVID-19 is the worst health crisis of our times. Several challenges have been brought to bear on the educational system due to COVID-19 pandemic. What considerations are HEIs giving to the value of campus life and in-classroom education? How do we balance the triangle of cost, quality and access and in particular how would HEIs balance the issue of quality of online services with the convenience of learning and instruction? The pandemic has forced a massive shift away from learning and teaching in traditional settings with physical interactions. How will Africa's higher education institutions ensure that the loss of learning in our educational system is not too damaging to the individual and the community? How would higher education respond to the global pandemic using the transformative effect of technology? How can higher education enhance the expansion of TVET opportunities? How can we make TVET directly relevant to the world of work and training systems? History of higher education is now being written with great speed and choices that will define the future of higher education. The responses to the pandemic will differ from place to another, from context to another.



Sub-Theme 3: Contributions of African Higher Education Institutions (HEIs) in Achieving Sustainable Development Goals.

As dictated by developments in the 21st century world, nations and societies in Africa must latch on to the transformational imperatives, as fast as they emerge; otherwise they risk being abandoned in the dump hill of ineffectual condition. African higher education institutions must take serious cognisance of the dictates of the 21st century dominated by knowledge economy and technology, the increasing demand for constant communication and use of telecommunication and the digital provisions, the needs of the 21st century learners and the demand for adequately prepared 21st century teachers to impart the needed skills through the provision of quality and innovative higher education whose demand is unparalleled in the history of the human race. On 25 September, 2015, the United Nations General Assembly formally adopted the universal, integrated and transformative 2030 Agenda for Sustainable Development along with 17 Sustainable Development Goals and 169 associated targets. While it needs to be emphasised that SDG Goal 4 addresses education in all its ramifications through the Education 2030 Framework for Action (FFA), all the other 16 global goals for sustainable development have significant links with education. African higher education institutions must discuss their strategic input in realising the SDGs and ensuring that they impact their immediate community in line with the African Union's Agenda 2063 (*The Africa We Want*). What steps have HEIs taken to support the realisation of SDGs through enhanced capacity for data collection and management, research and scholarship?

Sub-Theme 4: Funding of African Higher Education Institutions in the face of unpredictable Economy.

The financial burden of African countries to address the pandemic will necessarily lead to fiscal austerity imposed by governments and proprietors of HEIs. How will African HEIs react, readjust or restructure their institutional budget and expenditure to cater for the challenges brought to bear on the funding of higher education as occasioned by the pandemic? How would HEIs react to austerity measures to be put in place by government and how would poor students, especially from the rural areas, fair in financing their higher education in the face of global and continental shrinkage in funds available for education? Are African HEIs considering ways and means of generating revenues both internally and external to give their institutions a clean and healthy bill of funding? (UN, 2020).

Sub-Theme 5: Mainstreaming e-learning and the digital divide.

Undoubtedly, as has happened in other sectors of human development, technology will change how we work, how we disseminate knowledge and how we view the practice and philosophy of training educated citizenry. The use of emerging communication technologies will become central in the provision of learning. E-learning will assume a dominant role in HEIs for empowerment and transformation. The use of disruptive technologies in higher education will result in the continual



redefinition of teaching and learning and learners will take increasing control of their learning. In order to surmount the logistical problems of time, space and other physical resources, the world will witness a purely 100% digital teaching and learning environment accessible 24x7 with the primary access in Africa being through the mobile telephony. This will bring along its own problem of digital divide in Africa. The disruption brought about by the pandemic right now is widening the gaps of inequalities in Africa both within and across countries. How will African HEIs contribute to the structural changes so that short term digital divide do not become wide and permanent? How does the Management Information System (MIS) sections in the various HEIs relate with the ICT division in contributing to the mission and vision on the institutions? What success stories do we have in Africa in the deployment of ICT to enhance access, quality and reduce the cost of education? What obstacles do HEIs encounter in the adoption, adaptation and use of ICT in instruction and training? How does the availability of ICT or lack of it affect the objectives of setting up ODL in the various HEIs in Africa? An open discussion of these and other related issues will throw light on the place and role of e-learning in a COVID-19 and post COVID-19 Africa.

Sub-Theme 6: Contributions of the Diaspora to African Higher Education.

It is an open secret that during the late 1970s and early 1980s, African countries were ill advised by the International Monetary Fund and the World Bank to cut public spending on higher education and focus primarily on basic and primary education. This was during the time the military, who are normally anti-intellectualists, governed so many countries of Africa. This resulted in the migration of thousands of African academics to greener pastures in North America, Europe and, Asia. This mass migration for professional satisfaction and commensurate monetary reward led to the loss of well-trained and experienced academics in the higher education sector. The shortage of academics created other challenges for HEIs especially with regard to research quality, innovation, endowment and global visibility. Along with the migration of diasporans came with many other issues including curricula stagnation, African academics in the diaspora can help revitalise higher education in Africa in many areas including writing grant applications and scientific papers, collaborative research the supervision of graduate students and early career academics. African HEIs should consider the need for country policies and funding to harness diaspora academics. They should adopt institutional and long-term approaches and perhaps come up with a practical blueprint on how all willing diasporans can and should each adopt one African HEI to mentor and call as second academic home.

5.0 Who To Attend the 2021 General Conference

The following major stakeholders, who are pivotal to and have crucial roles to play in the promotion and implementation of **The Future of African Higher Education**, are expected to attend and fully engage in the Theme and all the foregoing six Sub-Themes discussion at the Conference:



- 5.1 African Union Commission (principally the Human Resource, Science & Technology Division);
- 5.2 Committee of 10 Heads of State Championing Education & Science Technology Innovation (STI) in Africa;
- 5.3 Ministers of Education/Trade and Industry/Science and Technology/Health/Information & Communication;
- 5.4 Development Partners and International Agencies and Organisations related to or and interested in Education;
- 5.5 Diplomatic Missions;
- 5.6 Organised Private Sector and Captains of Industry;
- 5.7 Regional Economic Commissions (RECs);
- 5.8 African Development Bank (AfDB) and ADEA;
- 5.9 Regional Educational Bodies (IUCEA, CAMES, SARUA, AWAU, AArU);
- 5.10 Research Bodies and Organisations;
- 5.11 Africa Diasporans and their institutions who have interest in African higher education;
- 5.12 Association of African Universities (AAU) staff and its partners and funders; and
- 5.13 Other Stakeholders in HE (Students, Civil Society, Professional Associations, Publishers).

6.0 References

- Association of African Universities (2020): AAU Strategic Plan 2021-2025
- African Union Commission (2015): Definitions and properties of African Union Indicators for Monitoring and Evaluating the Continental Education Strategy for Africa 2016-2025.
- Briggs, N. (2018). Creating World Class Universities for a Vibrant Nigerian Economy and Sustainable Democracy. 24th Convocation Lecture of the University of Uyo, 2nd November, 2018. European Association for International Education (EAIE) shares set of recommendations on how higher education institutions can respond to COVID-19 and a document on how institutions can support students affected by Coronavirus.
- Daniel, D., Osei-Bonsu R., and Amponsah S. (2019). A Philosophical Outlook on Africa's Higher Education in the Twenty-First Century: Challenges and Prospects, Pedagogy in Basic and Higher Education - Current Developments and Challenges.
<https://www.intechopen.com/books/pedagogy-in-basic-and-higher-education-current-developments-and-challenges/a-philosophical-outlook-on-africa-s-higher-education-in-the-twenty-first-century-challenges-and-pros>
- European Commission (2020). "Educational inequalities in Europe and physical school closures during COVID-19", available at https://ec.europa.eu/jrc/sites/jrcsh/files/fairness_pb2020_wave04_covid_education_jrc_i1_19jun2020.pdf.
- European Students' Union, COVID-19 Position Paper- A multidimensional crisis that affects us all.



- Haeck, C and Lefebvre, P (2020). Program for International Student Assessment (PISA), “Pandemic school closures may increase inequality in test scores”, Working Paper No. 20-03, June 2020, available at https://grch.esg.uqam.ca/wp-content/uploads/sites/82/Haeck_Lefebvre_GRCH_WP20-03-5.pdf.
- Jegade, O. J. (2018). The SDG4 Via ODL for Life Long Learning for All. An Invited Keynote Address at the International Conference on Open Distance and E-learning at the University of Ghana Distance Learning Centre, 22-24th October, 2018.
- Jegade, O. J (2020). COVID-19: ODeL will change world’s landscape of teaching and learning. <https://www.thisdaylive.com/index.php/2020/04/08>
- Jegade, O.J (2020). Nigerian Varsities lack enabling environment for academic excellence. Pioneer Vice Chancellor, National Open University of Nigeria. Electronic version <https://guardian.ng/features/nigerian-varsities-lack-enabling-environment-for-academic>
- Jegade, O. J (2020). Public Education in Nigeria. Rev Fr George Ehusani in Reflections with Prof Olugbemiro Jegede (Founding Vice Chancellor, National Open University of Nigeria <https://youtu.be/cYDvoo7a24s>
- Jegade. O. J. (2020). Education needs A Team of Crack Experts To Develop Strategies – Former VC of NOUN. <https://bit.ly/2Hb8hjk> <https://youtu.be/0tZ4nbRqMxE>.
- Marinoni, G. (2020). IAU, and Hans de Wit, Boston College Center for International Higher Education, wrote an article published in University World News ‘A severe risk of growing inequality between universities’ based on the results of IAU’s Global Survey on the impact of COVID-19 on Higher Education (8 June).
- Ncube L. African universities churn out ‘useless graduates.’ Chronicle [Internet]. 2017. Available from: <https://www.chronicle.co.zw/african-universities-churn-out-useless-graduates/> [Accessed: April 15, 2019]
- O.P. Jindal Global University and the Association of Indian Universities (2020). COVID-19 response Toolkit for Indian Higher Education Institutions: Institutional Resilience for academic planning and continuity.
- Quartz Africa (2020). COVID -19 Exposes Universities’ Unpreparedness For Virtual Classrooms. Quartz Africa (@qzafrika) · Twitter <https://twitter.com/qzafrika>
- SDG-Education (2030) Steering Committee calls on all governments and partners to respect the policy recommendations in their response to COVID-19 UNESCO (2020) Education in a post-COVID world: Nine ideas for public action. International Commission on the Futures of Education. Paris 22/06/2020
- Smith, M. D. (2020) Are Universities Going the Way of CDs and Cable TV? From The Atlantic: https://www.theatlantic.com/ideas/archive/2020/06/university-like-cd-streaming-age/613291/?mc_cid=4a4f2c4354&mc_eid=5779cd37c3
- Toritseju A. A (2020). COVID-19 has exposed the education divide in Nigeria. This is how we can close it. The World Economic Forum COVID Action Platform .02 Jun 2020 <https://www.weforum.org/agenda/2020/06/education-nigeria-covid19-digital-divide/nm>
- UNESCO, Global Education Monitoring (GEM) Report, 2020: Inclusion and education: all means all, 2020, available at <https://unesdoc.unesco.org/ark:/48223/pf0000373718>. 16IIEP-



- UNESCO (2020). “COVID-19 school closures: Why girls are more at risk”, available at <http://www.iiep.unesco.org/en/COVID-19-school-closures-why-girls-are-more-risk-13406.17>
- UNESCO (2020). Education in a post-COVID-19 Education in a post-COVID world: Nine Ideas for Public action. International Commission on the Futures of Education. 7, place de Fontenoy, 75352 Paris 07 SP, France.
- UNICEF (2020) “Children, HIV and AIDS”, available at <https://data.unicef.org/resources/children-hiv-and-aids-how-will-progress-be-impacted-by-COVID-19>
- United Nations (2020). Policy Brief: Education during COVID-19 and beyond AUGUST 2020. Include Côte d’Ivoire, the Gambia, Guinea-Bissau, Kiribati, Lesotho, Mauritania, and Sudan.
- uniRank University Ranking (2020). African Universities ranking. Ste 2C, 5 Tambua Street, Sydney New South Wales 2009 Australia
- United Nations Refugee Agency (UNHCR), (2019). “Stepping Up – Refugee education in crisis”, available at <https://www.unhcr.org/steppingup>.
- UNICEF, “Childcare in a global crisis: the impact of COVID-19 on work and family life”, available at <https://www.unicef-irc.org/article/2027-40-million-children-miss-out-on-early-education-in-critical-pre-school-year-due-to.html>.
- United Nations, (2020). “Policy Brief: The impact of COVID-19 on children”, available at https://unsdg.un.org/sites/default/files/2020-04/160420_Covid_Children_Policy_Brief.pdf.
- United Nations (2020). The UN Secretary-General Policy Brief ‘Education in the time of COVID-19 and beyond’ Paris.
- Universities UK portal on Coronavirus (COVID-19) - Information for universities
- UNICEF, “How involved are parents in their children’s learning? MICS6 data reveal critical insights”, available at <https://blogs.unicef.org/evidence-for-action/parental-involvement-childrens-learning>.
- Wambugu F, Kamanga D (2014). Biotechnology in Africa. Emergence, Initiatives and Future. Nairobi, Kenya: Springer International Publisher Switzerland.
- Zhang, S (2020). The Coronavirus in Never Going Away. The Atlantic. <https://www.theatlantic.com/health/archive/2020/08/coronavirus-will-never-go-away/614860/>