Resources, relevance and impact – key challenges for African universities

How to strengthen research and higher education in Africa

NAI Policy Notes 2020:3
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How to strengthen research and higher education in Africa

Global and regional goals, such as Agenda 2030 and the African Union’s Continental Education Strategy for Africa, foreground higher education as an engine for development and job creation. Yet, many African universities perform weakly in international comparison. This policy note looks at the challenges in strengthening the freedom, relevance and impact of research and higher education in Africa.

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The university sector is growing on the African continent: there were 100 state institutions in 1990 and over 500 in 2014. Similarly, there were only 30 private establishments in 1990, but 1,000 in 2014 according to the World Bank. The top research universities on the continent have increased their outputs in terms of doctorate graduates and research publications significantly since 2010. Though higher education is expanding fast, it is struggling to meet the increased demands that come with Africa’s rapid population growth: 60 per cent of the continent’s population is under 25, and its youth population is expected to more than double by 2060. Africa may have been host to some of the world’s first learning institutions, like Al Qarawiyyin in ninth-century Fez (Morocco), but today most African youth can only dream of a university education.

Access to higher education
Current access to higher education varies greatly across the continent, from 51 per cent in Algeria to 4 per cent in

Top 3 countries
Algeria 51 %
Mauritius 41 %
Morocco 36 %

Gross enrolment ratio for tertiary education (%)
- > 50
- 40-49
- 30-39
- 20-29
- 10-19
- < 10
- No data*

The sub-Saharan African average gross enrolment ratio for tertiary education increased marginally between 2013 and 2018, from 8.9 to 9.4 per cent. Over the same period, world average increased from 33 to 38 per cent.

Of the Arab states in North Africa, many have relatively high gross tertiary enrolment rates for both sexes, in the case of Algeria (51 per cent) even well above world average.

* Source: Unesco, April 2020. Data for 2018 or nearest available year, but nor prior to 2015.
Niger. The sub-Saharan African average gross enrolment ratio for tertiary education increased only marginally between 2013 and 2018, from 8.9 to 9.4 per cent (Unesco). In addition, there are big variations within countries, and inequality of access between rich and poor is increasing. On average, the gross enrolment ratio of students in post-secondary education from high-income households (top quintile) grew by 7.9 per cent between 1998 and 2012, compared to 3.1 per cent in low-income households (bottom quintile) (World Bank, 2017).

Data for growing universities
Agenda 2030 and Sustainable Development Goal (SDG) 4 centre on quality education, while sub-goal 4.3 concentrates on access to higher education in particular: “By 2030 ensure equal access for all women and men to affordable quality technical, vocational and tertiary education, including university.” A major obstacle to this is the lack of data for planning. One example is the proposed indicator of goal 4.3 (“Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex”): this requires basic data that is not available for many African countries.

Next generation of lecturers and researchers
To grow universities, more university-educated lecturers are needed; but such growth has been slow since the structural adjustment programmes were advocated for developing countries by the IMF and the World Bank. Funding was diverted away from the universities to basic education, and professors moved abroad. Without senior staff, it has proved difficult to produce doctorate holders. However, recent programmes – such as the Higher Education Research and Advocacy Network in Africa and Next Generation Social Scientists in Africa – have heralded a positive change. Still, universities in Africa – with the exception of South Africa – lag far behind their own needs in terms of researchers and lecturers. The result is a downward spiral: vast lecture halls brimming with students; underqualified and overworked professors; and consequently a lack of locally produced research to drive the education.

There are several international initiatives to increase access to higher education in Africa – not least the African Union’s Continental Education Strategy for Africa (2016–25). It formulates a 10-year plan for how education on the continent will train citizens, and includes the objective: “Revitalise and expand tertiary education, research and innovation to address continental challenges and promote global competitiveness.”

Global competition
The push to compete globally means that universities in Africa are also seeking to appear in international ranking systems, such as the Times Higher Education World University Rankings or QS World University Rankings. But only two African institutions are to be found in the top 200 – both South African: University of Cape Town (ranked 136) and University of Witwatersrand (194) (THE, 2020). If African universities are unable to provide environments suitable for innovation and research, academics will move away. African students also choose to study abroad – something that drains both brains and fees from Africa.

While rankings focus on metrics favoring Western universities, the drive to compete globally has impelled universities in Africa to make their research more visible and to improve such key indicators as staff–student ratios and the share of lecturers with a PhD.

Public funding
African countries are trying to meet the demand for secondary education; several are struggling to offer even universal primary education. Education is costly, so there is little scope for spending more on higher education and research. Moreover, the tax base is low, and thus the cost of higher education is increasingly borne not by the taxpayers, but by students and their families, through increased fees.

Investment in research and development measured as a share of GDP is remarkably low in Africa: few countries meet their goal of 1 per cent of GDP. Nor is reliable data produced annually, which further hampers the already slow transformation of the sector. At many universities, academics struggle to find the time and resources for research. While some stay at their busy universities, overwhelmed and unable to do much research, others move abroad or find work as consultants for international organisations. The productivity of African professors is low.

Innovative schemes to fund higher education do exist: in Ethiopia, a graduate tax based on an Australian model (launched under the 2003 Higher Education Proclamation) obliges graduates to repay some of their education costs, depending on their income. In Zimbabwe, the Cadetship Scheme covers costs for students from poor backgrounds; in return, graduates are bound to serve the nation for as many years as they spent at university. Ghana has created an Education Trust Fund (GetFund) that is independently managed by a government-appointed board to support education at all levels, including tertiary. The African Academy...
only two African universities were on the last THE World University Ranking top-200 list:
• No 136. University of Cape Town
• No 194. Wits University

North America 33 %
Europe 48 %
Asia 12 %
Oceania 6 %
Africa 1 %

Top 200 universities by region.

91 in a million
The number of researchers per million people in African countries ranges from 1,772 (Tunisia) to 11 (Burundi). The median for Africa is 91. For the world it is 799.

Gross domestic expenditures on research and development in African countries range from 0.82% (South Africa) to 0.01% (Madagascar). The median for African countries is 0.30%. World average is 2.22%.

Global interest in African education
About a quarter of international aid to education goes to tertiary education. While this is key to keeping the sector viable, it also means that the research agenda is set by international interests, rather than local. Much of the aid is rerouted to donor countries, as it includes scholarship costs at donor universities. According to Damtew Tefera, director of the International Network for Higher Education in Africa, only about a quarter of the funds reach African universities and research centres.
Nordic governments have long been major contributors to higher education in Africa, and their support has traditionally been geared towards graduate research, research cooperation and research organisations such as the Association of African Universities (AAU) and the Council for the Development of Social Science Research in Africa (Codesria).

The Brics countries – Brazil, Russia, India, China and (since 2010) South Africa – have established themselves as innovators. The inclusion of South Africa in this band of growing economies highlights both their economic interest in the African continent and their keenness on development and (increasingly) research endeavours. For instance, since 2004 China has established 54 Confucius Institutes on African university campuses. And in August 2019, India held a high-level meeting with African ministers of higher education to build on India’s position as the fifth most popular destination for African students.

Pros and cons of privatisation

The view of higher education has shifted from public good to private concern, and African governments have found ways of harnessing private investment in the sector, mainly by allowing the establishment of private universities. These provide much-needed additional opportunities for youth to access higher education, and are sometimes used to test out new, cost-effective teaching tools. However, without the necessary expansion in the number of lecturers, they compete with state universities for the same staff – or share them when lecturers “moonlight” at the new private universities. Hence quality concerns have been raised. The rapid growth in private institutions is also putting a strain on regulatory systems. In this complex field, unaccredited institutions seize their chance to recruit unwary students.

Academic freedom

Academic freedom is important to ensure that science is independent and not used to repress people politically. After years of violations of academic freedom, in 1990 African scholars adopted the Dar es Salaam Declaration on Academic Freedom and Social Responsibility and the Kampala Declaration on Intellectual Freedom and Social Responsibility. Since then, many African countries have written academic freedom into their constitutions, and a review of academic freedom in African universities (Appiagyei-Atua et al., 2016) shows that most African countries can be described as academically free or partly free. However, for 20 per cent of African countries there is not enough data available even to determine their level of academic freedom, and there is no mechanism to report abuse of academic freedom, including unwelcome pressure from governments.

Searching for relevance

A major conversation on the continent today is how to make universities and their graduates more relevant to their local environments – or as the Cameroonian researcher Francis Nyamnjoh put it (2016), to avoid “excellence at irrelevance”. As the knowledge society foregrounds knowledge for economic growth, being a producer of knowledge rather than a consumer is important. Ugandan scholar Mahmood Mamdani summed up how research at African universities often follows geopolitical patterns:

The global market tends to relegate Africa to providing raw material (“data”) to outside academics who process it and then re-export their theories back to Africa.

Universities in the Global South thus become peripheral, while research universities in the US and Europe become central – both in research output and in setting the agenda. It is the creators of theory, not the collectors of data, who receive acclaim (as the university rankings discussed above show). Many scholars and policymakers see the push to decolonise higher education and reduce dependence on colonial languages, textbooks and approaches to research as a path towards more relevant output. Another way of making African university education more relevant is to broaden access. Since the “fees must fall” protests, which started in South Africa, a continent-wide debate has slowly begun on who can afford education. Decolonising academia is about “challenging the power/knowledge nexus of colonisation in curricula”, according to Nadira Omarjee, researcher at the Nordic Africa Institute. Omarjee argues that this can be done by granting marginalised people access and an active role in knowledge production.

Training citizenry

African governments have recognised the importance of universities for development. Moreover, higher education is crucial for democratic transformation. Since the third democratic wave reached Africa in the early 1990s, the higher educational system has changed dramatically. Universities have opened up to more students; academic freedom is the norm rather than the
exception; and while spending on research and development is perhaps not increasing fast enough, innovative schemes do allow new investment to flow into higher education, particularly from African students and their families.

The social sciences add to the role played by African universities in training not just the work force, but also the citizenry; in conducting relevant research on the governance structure itself and advising governments; and in developing ideas and concepts that serve the local community.

**Recommendations for policymakers**

**Minimise inequality.** Funders should examine innovative schemes for reducing unequal access to higher education, such as Ethiopia’s 2003 Higher Education Proclamation, the Ghanaian GetFund and the Zimbabwe Cadetship Programme; but they could also learn from student loan systems, such as those in the Nordic countries. As financial services become more available, mobile money and banking could be utilised to create education savings plans.

**Improve data collection.** The key to having relevant universities is knowing what universities do. Enrolment data should be collected to ensure SDG 4.3. But the timely production of certain datasets would be useful for planning and evaluation, and should be encouraged for all universities (and aggregated by country): staff-student ratios; fees; enrolment data, flow-through-rates and graduation data broken down by discipline; and employment after graduation. There should also be a knowledge production metric that is fair to African scholars, perhaps including their input into reports, international research projects, etc.

**Train more lecturers.** Initiatives like Arua, the African Research Universities Alliance, that bring together the region’s “flagship” universities, are laudable but small-scale. Taking the bigger picture, lecturers need to be trained up and incentivised. Those scholars who have sought education, research and career opportunities abroad could be enticed back by subventions and good working conditions.

**Benchmarking and networking.** Pan-African research organisations such as Codesria, Arua and the AAU should be supported in their important role of facilitating the communication and exchange of ideas, experiences, statistics and learning between universities, research institutes and other stakeholders.

**Build equitable relationships.** Foreign universities that wish to collaborate with their African counterparts (and vice versa) should present sustainable proposals that benefit all stakeholders; exchanges should happen in both directions.

**Safeguard academic freedom.** Academic freedom consists of five elements: freedom to teach; freedom to do and design research; personal freedom (tenure); institutional freedom (shared governance); and individual rights for students. The promotion of student movements and grass-roots initiatives (such as the recent clampdown on sex-for-grades) will improve individual student rights.

This policy note is based on conclusions and experiences drawn from the ongoing research project at the Nordic Africa Institute; “The Space and Role of Political Science in the Evolving Democratic Transformation in Africa”, led by Professor Liisa Laakso and supported by Postdoctoral Researcher Kajsa Hallberg Adu. The project compares African countries and their levels of democratisation with the situation and status of the political science discipline.

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**Recommended readings**


Mamdani, Mahmood. 2011. “Pambazuka - The Importance of Research in a University.”


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