GRADUATING IN AFRICA
Africa is on the verge of embracing an exciting new paradigm of higher education. It envisions a future of broad-based prosperity, and importantly, a century in which Africans define their own needs and ambitions. The new higher education paradigm strives for excellence across the disciplines—the humanities, mathematics, the sciences, technology—and gives strong emphasis to gender. We saw this paradigm emerge earlier this month at the continent-wide higher education summit in Dakar organized by TrustAfrica and our 12 partners. These stories capture some of the new thinking behind a future we will shape together.

_Tendai Murisa, Executive Director, TrustAfrica_

Africa has the world's most youthful continent with approximately 65% of the total population below 35 years, and 35% between the ages of 15 and 35 years. It's projected that by 2020, three out of four people on the continent are on average 20 years old, and there will be 10 million of them joining the labour market every year. Where the jobs shall come from, how these young people will be housed and fed sufficiently to prevent them from breaking out in frustrated violent protest are issues that are keeping many foresighted leaders and policy makers in Africa awake at night. Solutions will not come easy, but there is one sure thing that nations can do today to make the journey easier – invest more in higher education. If the saying that “give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime” has ever been true, it is here as the continent faces this giant challenge.

_- Charles Onyango-Obbo, Editor, Mail & Guardian Africa_
Science, Technology and Innovation in Africa—not always rosy, but it is about to be

Africa accounts for less than 1% of the world’s research output, despite having 12% of its population

By Lee Mwiti
IN June 2014, global technology giant Microsoft launched its 4Afrika IP Hub, a portal that would, for free, protect young African developers’ intellectual property (IP) rights in exchange for publishing their inventions.

In tech-savvy Nairobi, one of the launch capitals, the young crowd of geeky and cool developers excitedly welcomed the possibility of being able to finally make money from their work. For years they have tended to operate in the informal economy, largely invisible to investors.

A two-year trial, Microsoft will then hand over a successful project to the Kenyan government, before rolling it out to other African capitals, according to Kunle Awosika, Microsoft’s country manager. The multi-million dollar investment and its positive reception mirrors the concern that while the continent is home to many brilliant inventions, it has been difficult to invest them to scale, there being little information as to their value, and consequently, tap them for Africa’s growth.

Mutembo Chanda runs an avocado export start-up out of a warehouse along the Great North Road leading out of the Zambian main city of Lusaka. Until he invested in a cold room onsite, the biggest cost to him was storage losses. “But it often breaks down, and getting the right technician to fix it is a hit-and-miss affair,” he says, adding that this leads to delayed payments to his suppliers, who are largely small scale growers in the countryside. Musila could be speaking for any small trader on the continent, and by extension, the farmers who toil hard only to run into major challenges storing, selling and earning from their sweat.

Initiatives in Zambia to strengthen the agricultural value chain have largely seen foreign institutions fund small groups, the result being to clear the way for major chains to buy the produce directly. On the surface it is a desirable situation, but the catch is in the lack of indigenous solutions, especially on a continent that perenially battles hunger despite its rich potential.

This has meant a lot of food goes to waste, faced with obstacles from processing to preservation, hurting the continent’s overall competitiveness. The situation could get worse as climate change begins to bite, with Africa relegated to seeking external help to combat the challenge.

To turn things around and take advantage of major global opportunities, experts say Africa requires transformation-focused policies. “The focus must be on needs-based innovation; the value created is what matters,” says Dr Ndubuisi Ekekwe, the founder and president of the African Institution of Technology. This transition from an invention and production economy—including of mineral resources— into an innovation and competitive economy, requires knowledge, bringing into sharp focus the role of higher education institutions. These institutions play a crucial role in fine-tuning the continent’s human resource base. But despite massive demand and the concomitant expansion of institutions, according to the African Union less than 10% of Africans have enrolled for tertiary education.

Private Universities

In 1991, Africa had only 2.7 million university students, by the end of this year projections are of 18-20 million students, according to the World Bank. To service this unmet demand, there has been a proliferation of private universities, with Africa now closing in on 1,000 universities and over 1,500 other institutions of higher learning. The trend is such that by 2020, private institutions could outnumber publicly-funded ones—in Somalia for example, all 40 universities are privately owned, in South Africa they outnumber public institutions by a ratio of 4:1, and 7 to 1 in Ghana.

But it is not nearly enough, and it is compounded by the problem that few private institutions play in the science, technological and innovation (STI) space, preferring to instead concentrate on more “marketable” areas that offer more income earning capacity.

Underfunding by governments constrained by the opportunity cost of spending the money towards more urgent areas has not helped resolve the situation. A trend that begun in the 1980s as African governments battled with socio-economic challenges and structural reforms, regional governments have continued to allocate little of their funding to higher learning, and even less so to science and innovation.
It is a paradox—education in most African countries takes up the highest proportion of their national budgets, but almost nothing reaches tertiary institutions.

The unavoidable result has been of students seeking higher education by any means possible, raising the question of quality, and consequently, skills and job market mismatches, not to mention the attendant brain drain.

“The correlation of jobs to output is lacking in Africa, with little incentive for partnership between institutions and employers,” Dr Ndubuisi adds, urging for the attraction of more private money to education.

The Square Kilometre Array space project in South Africa has for example had to send out engineers for training abroad, and while there is growing African expertise, the continent’s brightest brains continue to be drawn away to what they see as better opportunities abroad.

But institutions like Ghana’s Ashesi University are changing this, with its noticeable focus on what the market needs, a trend increasingly mirrored by many other institutions. Ashesi has looked to build links with employers as it looks to match their requirements.

Africa we want 2063

The African Union’s development agenda, “The Africa We Want in 2063” calls for a more robust higher education and research space that is both relevant and responsive to the continent’s lived challenges, and to ensure future sustainable growth.
African governments’ investments in STI research also remains weak, severely harming the scope for innovation and locally-adept solutions. The region accounts for less than 1% of the world’s research output, despite having 12% of its population, even as research output more than doubled between 2003 and 2012.

Intra-African collaboration

Only 29% of all research in Africa is in science, technology, engineering and mathematics (STEM) while there is very little intra-African collaboration, the majority being with institutions in the West.

Citations of Africa-authored research is minuscule—just 0.28% of the global count, while a lot of scientific studies are skewed towards the health sciences and generally follow donors’ money.

There has also been a shortage of skills sharing—staff mobility across Africa remains constrained, giving rise to initiatives such as the Nyerere Programme, which has been key in promoting portability of degrees across Africa. Cognisant of this, the AU Commission has been committed in advocating for bridging the gap between disparate educational systems and fostering academic integration. Despite a minimum target of 1% of GDP in funding to Research and Development, African countries remain well short of meeting it.

But this has steadily been changing with more collaborations and other encouraging trends seen in Africa, Dr Aldo Stroebel, the executive director of the National Research Foundation, says.

Despite the enormous diversity among African countries, the one constant is that skills are necessary for development; and for growth that moves away from just resource extraction to value addition and adaptation of technology to local conditions. AU Commissioner for Human Resources, Science and Technology Dr. Martial De-Paul Ikounga summarises it succinctly: “In as much as the tool is efficient, it is only realisable in the right environment, and particularly, with the right implementation.”

Yet basic infrastructure such as broadband to drive ICT has also more often than not initially been funded by outside partners, such as the Partnership for Higher Education in Africa (PHEA) project.

To change the continent’s fortunes and trajectory, investment in science, technology and innovation must therefore be deliberately upscaled, experts say. Areas such as water and sanitation, health, energy, agriculture, climate change and natural resources will all benefit from an increased focus on STI, which is seen as the missing catalyst for wider economic growth and development.

The overarching position is that African policymakers need to reboot their approach towards promoting STI. There has already been a renewed focus in this area in national policy, and also at the highest levels on the continent.

The adoption of the anchor STISA-2024 strategy by African heads of state was a big step towards this, while the planned move for a trust fund dedicated towards STI announced recently by African ministers in Rabat only adds more impetus to the push.

STISA-2024’s four main pillars of developing research infrastructure, enhancing professional and technical competencies, promoting entrepreneurship and innovation; and providing an enabling environment for STI development in Africa address the main issues for the continent, with the message that member states, RECs and the AU all have synergetic roles to play.

Other key players such as the African Development Bank (AfDB) have come up with the Human Capital Strategy (2014-2018), UNESCO has the Priority Africa (2014-2021) while there have been more moves to set up STI centres of excellence in universities all around the continent.

It is hoped that the high-profile Higher Education Summit in Dakar has been another significant step in further exploring these initiatives and taking stock of the crucial journey towards Africa’s sustainable development.
Gender toolkits, virtual universities & clever funding, the stars that give a new shine to higher education in Africa

The groups leading the way in revitalising Africa’s tertiary sector

By Samantha Spooner
AFRICA is going through a higher education boom: in 1991, the continent had only 2.7 million students but, according to the World Bank, by the end of 2015 projections are between 18-20 million students.

To meet this demand Africa is now closing in on about 2,600 institutions of higher learning; some countries expanding more rapidly than others. Ethiopia for example, had two universities 23 years ago, today it has over 33 public universities, four private ones and 59 colleges, bringing the total of higher education institutions to 96.

But this boom is coming at a time when Africa needs a revitalisation in its higher education institutions. Most universities in Africa suffer from a lack of resources, promote elite selection, and perform poorly on knowledge production.

Disconnect with private sector

The institutions are also affected by a disconnect with private sector employers, which partly leads to high unemployment rates after graduation. From a low base of under 10%, the continent needs a shift to increased participation, which respects diversity and that will not compromise on quality.

These issues were addressed at an African Higher Education Summit in Senegal, organised by the African philanthropic organisation, TrustAfrica, earlier this March. The task is immense, but fortunately the conference also allowed glimpses into the way forward.

One of the biggest, if not the biggest, challenge that institutions face is that of funding. Funding affects everything. The ability to hire and retain the best lecturers, buy new equipment, develop infrastructure and provide scholarships. According to Tade Aina, a highly-regarded pan-African authority on higher education in Africa and the Executive Director of the Partnership for African Social and Governance Research, the Carnegie Foundation has “the biggest and longest engagement with investment in higher education in Africa.”

Their investments began with agricultural education in Kenya and public libraries in South Africa in the mid-1920s and continued through the anti-apartheid struggle in South Africa, marked by an emphasis on academic communities, libraries, and women in higher education.

Balancing supply and demand

Carnegie was also one of several international foundations with a vested interest in supporting the continent’s higher education movement that created a ten-year Partnership for Higher Education in Africa. As this partnership drew to a close, it had invested approximately $500 million, allowing higher education institutions to step into the digital world and improve their capacity for research.

But it’s not all about the money.

In an interview, Cheryl de la Rey, the vice-chancellor and principal of the University of Pretoria in South Africa, described how one of the greatest challenges facing higher education are “patterns in employment, specifically the mismatch between supply and demand.”

Students are graduating and unable to find work because they’ve been trained in the wrong sector, or not according to the requirements of a specific job profile. A survey released last year by the Inter-University Council for East Africa found that between 51% to 63% of the graduates were ‘half-baked’, ‘unfit for jobs’ and ‘lacking job market skills’. The worst records were in Uganda (63%) and Tanzania (61%).

De la Rey explained that one way of attempting to resolve this is to “bring universities and the private sector into dialogue”. The University of Pretoria is an institution that is doing just that through the creation of academic advisory boards for various subjects, such as economics and management, made up of private or public sector individuals, external to the university.

In doing this “you get direct input from the most important stakeholders, the likely employers of our graduates,” she said. An added advantage is that most of these groups also offer work placements during vacations, and internships...
while the students are studying and they could also provide bursaries or scholarships for specific programmes. Key funding that acts as a great incentive for students.

**Science and innovation**

The ability to control funding, in the form of bursaries, also provides the opportunity to address crucial academic areas that are lacking in numbers. One organisation that is tackling this is the Mastercard Foundation. Board member, Professor Phillip Clay, described how having discovered that the attention to numeracy was neglected by students and institutions, the Foundation has "given a great deal of attention to science, technology, engineering and mathematics (STEM) education to help boost their enrollment".

This focus on STEM is crucial to the role higher education plays in fostering growth within African countries. A focus on these areas creates critical thinkers, increases science literacy, and enables the next generation of innovators, whose innovations lead to new products and processes that sustain economies.

One of major critiques facing Africa’s higher education institutions today is that they do not provide equal access. This is particularly the case for women in sub-Saharan Africa, where it is estimated that there are only about 62 female students for every 100 male students.

There are historical, cultural, and economic factors that continue to hinder women’s chances in access to and benefits from formal education, especially at the tertiary level and this is compounded by the structures of many Africa Universities that remain deliberately masculine, in terms of their representational structure, decision making procedures and the culture of their members.

This exclusion of women from key sectors of education may have deleterious effects on national development. In all African countries for example, there is a concerted effort to move to modern agricultural systems and women must be involved in the policy and strategy development since it is recognised that women do 70-80% of agricultural production.
Progress on equity

Nevertheless some strides have been made for equity. The Working Group on Higher Education (WGHE) of the Association for the Development of Education in Africa (ADEA), in 2006, developed a Toolkit for Mainstreaming Gender in Higher Education in Africa in collaboration with the Association of African Universities (AAU). The Toolkit, which is now available in English, French and Portuguese, comprises ten modules and a literature review, provides practical guide on how to initiate a gender-mainstreaming program and establish helpful processes, with focus on reviewing the general institutional culture, staff recruitment, student welfare, curriculum development, research and faculty support.

Governments also stepped up for gender equity. For example, to increase female enrollment in tertiary institutions, countries such as Ghana, Kenya, Uganda, Tanzania and Zimbabwe, implemented affirmative action policies. These policies would allow female candidates who have attained the minimum required marks to enter public universities, these marks can be between 1 – 2 points lower than those for males. Women's universities have also been established, such as Zimbabwe's Women's University in Africa and Kenya's Kiriri Women's University of Science and Technology.

Equity is not just about gender though. There are also issues of equal access due to financial inequity. Public universities are in a situation where there is huge student enrolment, but some of them shouldn't be there. Due to this massification the quality declines and so parents will pay the high costs associated with sending their children to a private university. This presents an opportunity for governments to step in.

An example of this is Nigeria's Tertiary Education Trust Fund. Established in 1993 the Fund engages in projects aimed at improving the quality of education in Nigeria. The Federal Inland Reserve Services (FIRS) collects the taxes and pays them into a fund with the Central Bank of Nigeria. A board manages the resources which have already become a substantial source of financial assistance to the various institutions in the country. In fact, most of the recent capital developments in Nigeria's tertiary institutions have been sponsored or financed by the Fund. In 2014, for example, the Fund spent $95 million to facilitate academic programmes for selected lecturers from all the public tertiary institutions across the country.

This issue of teaching quality is a grave concern for Africa's higher education, particularly the loss of staff to universities abroad which offer better salaries and the low ratio of professional staff teaching in tertiary systems without PHDs. There are already 50% more students per lecturer in Sub-Saharan Africa than the global average, which puts a strain on teaching quality. In Kenya the situation is particularly dire in major public universities were there are now as many as 64 students for every member of academic staff.

Enter virtual universities

One of the ways in which this is being dealt with is through the establishment of virtual universities, such as the African virtual university. This Pan African Intergovernmental Organisation, involving 18 African countries, delivering programs through information and communication Technologies. This not only means students in remote or isolated areas can access higher education courses, but it also allows African students to engage in real-time discussions with professors both on the continent and abroad. Since it's inception in 1997, it has had 43,000 students.

For those not dealing with the virtual, over the past 10 years or so, a vast number of councils for higher education have been developed on the continent, their main role being to ensure quality assurance in all aspects, including teaching. According to Tade Aina, two of the best of these belong to South Africa, the Council on Higher Education (CHE), and Uganda, the National Council for Higher Education.

The movement for the revitalisation of Africa's Higher Education Sector is truly underway as these institutions have demonstrated. Through the support of civil society organisations like TrustAfrica, who foster increased conversation around the topic between the relevant institutional, governmental and private sector actors, the chances of achieving world-class education across the board is within the continent's grasp.
Students give it their best, but in the end employers find they are still not good enough

Between 51% to 63% of the graduates were found to be “half-baked”, “unfit for jobs” and “lacking job market skills”

By Christine Mungai
MORE than six in ten university graduates in East Africa are “half-baked”, said a shocking survey released by the Inter-University Council for East Africa (IUCEA) last year.

The findings elicited strong support and sharp condemnation in equal measure, with universities in particular arguing that the findings were exaggerated. The survey sought the views of employers in the five East African Community (EAC) countries; Kenya, Uganda, Tanzania, Rwanda and Burundi, on the employability of graduates from local universities.

Between 51% to 63% of the graduates were found to be “half-baked”, “unfit for jobs” and “lacking job market skills”. The worst records were in Uganda (63%) and Tanzania (61%).

Although the report was rubbished by many universities, in many parts of Africa the warning signs have been there, particularly from professional bodies. For example, in Nigeria in 2010, the accreditation of several academic departments in over 20 universities was withdrawn by the national regulatory body, the National Universities Council, on grounds of lack of infrastructure and suitably qualified academic staff, says an article by Goolam Mohamedbhai from the Centre for International Higher Education.

In 2011, the Engineering Registration Board of Kenya refused to recognise the engineering degree from three leading public universities in Kenya because of poor curricula, lack of qualified lecturers and shortage of appropriate facilities. In the same year, on similar grounds, the Council of Legal Education of Kenya rejected the applications to practice law from graduates of several public and private universities in Kenya.

In South Africa as well it has been reported, Mohamedbhai writes, that many law firms have found some LLB graduates are unable “to draw affidavits and pleadings as they lack both numeracy and literacy skills”.

The problem is largely a result of the rapid – and sometimes poorly regulated – expansion of higher education in recent years.

Between 2000 and 2010, enrolments in higher education in sub-Saharan Africa more than doubled, from 2.3 million to 5.2 million.

**Youth bulge**

The pressure is expected to continue to pile in the next few decades owing to the youth bulge facing many African countries – data from the UN’s World Population Prospects indicates that in 2010 the population in the 18–23 age group in sub-Saharan Africa was 100.8 million, and is projected to grow by more than 50% by 2030.

It means that even if high rates of expansion are maintained for the next two decades, rapid population growth is likely to keep gross enrolment rates relatively low – today, just 7% of the 18-23 age group in Africa is enrolled in university or college, compared to 29% globally.

But even at current levels of access, public universities report inadequate facilities and numbers of teaching staff, says a 2014 report by the British Council on graduate employability in sub-Saharan Africa.

There are already 50% more students per lecturer in sub-Saharan Africa than the global average, which puts a strain on teaching quality.

At the major public universities in Kenya, for example, there are now as many as 64 students for every member of academic staff, and facilities such as libraries, laboratories and workshops are overstretched and poorly equipped. It means that rote learning inevitably becomes commonplace.

For those who can afford them, many upcoming private universities, whether of a liberal arts model (e.g. Ashesi in Ghana) or a business model (e.g. Strathmore in Kenya), are providing a much richer experience of learning, enhancing both the so-called “hard” and “soft” skills.

It has been estimated that, on average, it takes a university graduate in Kenya and Tanzania at least five years to secure a job, and in Nigeria the unemployment rate is as high as 23.1% for those with undergraduate degrees. Much of
the reason for this inability to quickly transition into the job market could be no fault of the students or universities; it is the structural nature of most African economies, where only 16% of jobs are in the formal sector, the rest in family-owned firms and the informal sector.

Even so, there is widespread concern about the work readiness of graduates, the British Council report states. While employers in the four countries surveyed – Ghana, Nigeria, Kenya and South Africa – are generally satisfied with the academic knowledge of students, they perceive significant gaps in their IT skills, personal qualities (e.g. reliability) and transferable skills (e.g. team working and problem solving).

Research in Nigeria showed a significant “skills mismatch” between employer requirements and graduates’ performance in the workplace, particularly in relation to communication, IT, decision-making and critical thinking. However, most claims about graduate attributes are anecdotal, British Council says. Beyond completion of degree courses, there is a lack of solid data on the knowledge, skills and values that graduates actually possess.

They mostly come from surveys of employer perceptions, like the IUCEA one, but even these are lacking in some countries. There is consequently little opportunity to compare across contexts, and over time.

Still, universities are taking the problem seriously enough to do something about it.
Responses to the employability challenge in the four sub-Saharan Africa countries have centred around updating of curricula and orienting course content towards employer needs; expansion of work placement programmes; and introduction of entrepreneurship courses.

Nigeria, for example, has made entrepreneurship education compulsory in all federal institutions. There’s a strong focus to ensure their students are job-creators, not mere job seekers.

“Delivering academically astute students is just not good enough anymore. Exposing researchers and students to opportunities to follow alternative careers and develop as entrepreneurs broaden the minds of students. Entrepreneurial universities both attract and deliver broad-minded students,” Anita Nel, CEO of InnovUS, the technology transfer company of Stellenbosch University in South Africa is quoted to have said.

Experiential learning

Experiences outside the classroom can be pivotal in enhancing employability, the British Council report states. In a study conducted in the Western Cape, South Africa, for example, after field of study, the factor in university background most influential in securing successful employment outcomes was students’ prior engagement in extra-mural activities.

Experiential learning in the community – service learning, volunteering etc. – as well as on-campus, through student societies and other extra-curricular activities should thus be encouraged, as they help develop “soft” skills that are so crucial in the real world, yet nearly impossible to teach in class. It would also form more socially-conscious graduates, an increasingly important aspect of being a good global citizen.

“Clearly, graduate attributes should go beyond technical knowledge. It should include qualities that prepare students to be agents for social good,” said the late Prof Hayman Russel Botman, rector and vice-chancellor of Stellenbosch University in a speech at a Unesco – China – Africa higher education summit before he passed away last year.

“Too often entrepreneurship is equated solely to economic growth. We need to focus on the bigger picture. We need to consider entrepreneurship’s contribution to societal development. It is therefore also linked to social and economic justice.

“In the end, the world needs graduates and employers who are not just interested in self-enrichment, but in making the world a better place for all.”
As race to the higher education mountain top hots up, African universities need big funds boost

In 15 years, a 16% increase in enrolment was only accompanied by a 6% increase in public investment in education

By Molly Penn
SAMUEL, an undergraduate student at a leading public university in Kenya’s capital of Nairobi, studies part time on every weekday evening.

His office is only five kilometres away, and the drive should ordinarily take 20 minutes at most. However, with Nairobi’s Chock-a-block traffic, he’s almost always late to class.

Worse, he finds the lecture hall that accommodates hundreds of students crammed to capacity. This means he has to squeeze between other students or sometimes stand through the remainder of the lecture.

The professor is fairly understanding of such students. However, in a class of over 200 students, getting personalised attention from a lecturer is almost impossible. “It can get overwhelming but what do I do? I only have a year to go so I’ll just persevere till I get my [graduation] papers,” Samuel says, at the point of exasperation.

His case is, unfortunately, not unique in Africa. Many institutions of higher learning are struggling to cope with increased enrolment rates over the years without a corresponding increase in the number of teaching staff.

A study by the Centre for Higher Education Transformation (CHET) on eight select premier public universities in Africa found that total student enrolments had doubled between 2001 and 2011. It also found that while student enrolment rates in the eight universities had grown on average by 7% annually, permanent academic staff had grown by only 4% in the same period, unfavourably skewing the teaching staff-student ratio.

Kenya’s Nairobi University and the University of Ghana were found to have particularly unfavourable student to staff ratios. Nairobi’s ratio of full-time students to full-time academics rose from an acceptable 12:1 in 2001 to a high 36:1 in 2011. Ghana’s ratio rose from 12:1 to 29:1 in the same period.

**Proliferation versus investment**

Due to demand for higher education, higher learning institutions have increased tremendously in many African countries over the last decade. Governments have made an effort to increase the number of universities and institutions offering degree programmes in a bid to respond to this demand.

However, even as the tertiary education sector is rapidly expanding in sub-Saharan Africa (SSA), it is rarely accompanied by sufficient funding of the same. It is estimated that student enrolment in Africa rose from 2.7 million in 1991 to 9.3 million in 2006, an approximate 16% annual increase in that period.

The World Bank in a 2010 report on investment in higher education showed that there weren’t enough resources in institutions to adequately support the growing numbers. The report noted that this 16% increase in enrolment was only accompanied by a 6% increase in public investment in education over the same period.

With student enrolment growing a lot faster than most governments can comfortably finance, this has led to a steady decline in the quality of education.

**Disproportionate funding**

In light of these gaps in funding, African governments need to allocate larger portions of their annual budgets to education than before.

Some like the South African government have continued to grow their spending on education. In fact, the lion’s share of the annual budget (20%) goes to education, higher than any other sector, with at least a fifth of this amount going to higher education.

Yet, despite this, funding for higher education as a percentage of GDP has been decreasing steadily. Higher Education South Africa (HESA) in 2014 indicated that funding for higher education as a percentage of GDP fell from 0.76% in the year 2000 to 0.69% in 2009.

Further east in Kenya, 21% of the budget currently goes towards education. However, state funding for public higher education fell from an average 0.94% of GDP between 1996 and 2000 to 0.74% between 2001 and 2005.
However, the Kenyan and South African cases differ slightly. While budgetary support for South African universities may be increasing in real terms, it is falling in per capita terms because student enrolment is growing at a faster rate than public funding can increase. In the Kenyan case, budgetary support to the institutions remains largely unchanged over time despite the massive increase in enrolment rates.

Andreas Bloom, a Lead Education Economist for African Education at the World Bank, believes more needs to be done to invest in better quality of higher education if Africa is to achieve its development goals.

“The investment into higher education in Africa needs to increase. It is too low to provide quality education for those that currently attend, and it is too low to allow those that are currently excluded, but qualified, to pursue studies at the higher education level.”

Research

Another worrying trend is the focus on teaching at the undergraduate and post-graduate level at the expense of research. Research is key to improving the competitiveness of Africa's universities and contributes to the regional and global knowledge society.
However most undergraduate and graduate programmes in the region focus on professional capping degrees, rather than degrees that offer training in research.

Dr Ebrima Sall, the Executive Director at the Dakar-based think tank CODESRIA (Council for the Development of Social science Research in Africa) says part of the problem is that there are few research universities on the continent.

"Out of the 1,000 or so universities we now have on the continent, only a very small number can really be called research universities: the leading South African universities, Cheikh Anta Diop and Gaston Berger in Senegal, Legon in Ghana, Makerere in Uganda, Mohamed V Agdal and Mohamed V Souissi in Morocco, the National University of Rwanda, Eduardo Mondlane in Mozambique, the leading Nigerian Universities (Ibadan, Lagos, Obafemi Awolowo in Ife) and a few others."

Additionally, academic staff members who would be expected to be actively involved in research (senior level staff and those with doctorates) are generally not as productive as they should be.

According to the CHET study, low research outputs from public universities in Africa could be as a result of a lack of incentives such as research funding. Low research productivity could also be due to large teaching and administrative work loads placed on high level academic staff.

"The research budgets of the universities are also, with the exception of South African universities and a few others, very low. Research in most of the universities has therefore always been externally funded and more often than not, may not have been relevant to the development needs of African societies," Dr Sall adds, saying that for research to be effective, research agendas need to be set locally.

"Examples such as the role of University of Rwanda in the production of coffee in Rwanda are good indications of the strong potential that exists."

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**Humanities vs social sciences**

Most university students are in the humanities and social sciences, leading to higher unemployment rates in graduates and the importation of skilled labour into well-paying but unfilled technical and engineering occupations.

This is especially problematic with the current boom in the extractive industries where current studies show that 35.6% of the workforce is imported. “The extractive industries require very high level technician and engineering quality. Perhaps, even more importantly, the African economies miss an opportunity to build their own suppliers companies and its own ICT companies. What are the chances the next Google will be started in Africa, when there are so few entrepreneurial software engineers in Africa?” Bloom asks.

To get where it needs to be, Africa must scale up its investment in relevant higher education programmes that matches current development needs. The institutions in turn can focus less on student enrolments as a source of operating revenue. They should also target high level qualified academics to re-ignite a research culture in their universities.
The African declaration and action plan that could change the face of Higher Education

Exciting ambitions to revitalise the sector in less than 50 years

By Samantha Spooner
A ONE-of-a-kind African Higher Education Summit, organised by the African philanthropic organisation TrustAfrica, took place from March 10-12 in the Senegalese capital, Dakar.

Often when 500 government representatives, corporates and industry players are brought together in a conference like this, the result is that it becomes an expensive talking shop. All issues are raised and addressed, but there is no follow through. Not this time.

Africa’s higher education sector has witnessed tremendous growth over the last few decades. However, increasing enrolment rates have meant that educational quality has often suffered.

The urgency in revitalising Africa’s higher education systems was shared by the African stakeholders, including political leaders of the value of higher education who all have visions of prosperity and integration. International agencies, once skeptical about the value of university education in Africa’s social economic development, are now among the chief advocates of this movement.

Following the summit was a draft declaration and action plan that has been years in the making. The African Union chairperson, Nkosazana Dlamini-Zuma, was present at the meeting and was adamant that she didn’t just want a declaration – she wanted an action plan”, said Omotade “Tade” Akin Aina, an architect behind the African Higher Education Summit and TrustAfrica board member.

Aina explains, “Zuma has publicly declared herself as a champion for this process, as did other professors, politicians and technocrats, both continental and national.”

Having this weight behind the action plan will see it taken to the next level. “Zuma has initiated the formation of an informal working group, that will work with her and give her the materials she will need to present at a convening with African governments and heads of state”, an action which she “set into motion before we left the summit”, says Aina.

Omano Edigheji, TrustAfrica Summit director who led the initial engagement sessions, says that the next steps will be to “feed the declaration and action plan into the medium term framework that the African Union is developing to implement the African Agenda 2063.”

He went on to say that there was already commitment from various governments, Senegal’s “President Macky Sall committed to table the declaration and action plan at the next African Union summit. All the ministers at the summit [in fact also] committed themselves to table the declaration at the next meeting of African ministers of Education.”

These are exciting prospects since, once the declaration and action plan is completed, it will have the ability to imbue new life and vitality into Africa’s higher education systems.

The draft includes the goal to identify and develop 200 universities that would constitute a hub of excellence both in knowledge, citizenship and relevance to key needs of African development by 2063 – in line with the African Union’s “Agenda 2063” which aims for socioeconomic transformation on the continent within the next 50 years.

It also envisioned that by 2063 each African country would have a higher education hub that can create key elements of development with links to publishing, marketing, ICT and other various aspects of business.

In terms of funding the draft looks to all sectors of society, urging governments to develop creative taxation policies and funding schemes to finance higher education, and also urging institutions to look into the establishment of robust business arms from which they draw considerable resources.

**Improving mobility**

For students or professors looking to learn or lecture in other parts of the continent, the draft declaration states that African governments shall facilitate the mobility of students and scholars by minimizing visa requirements or making the issuing of visas much easier.
It also aims to reach gender parity in tertiary enrolments within a decade, through actions such as ensuring that 100% terminal degrees are attained for faculty within higher education institutions (HEIs), with at least 54% of them being women, and developing higher education systems that accommodate older learners.

To ensure there is less of a disconnect between the employment sector and emerging graduates, the declaration seeks key interventions such as curriculum reforms and partnerships with industry, provision for internships, apprenticeships to introduce students to the world of work and enable broader learning experience for students.

A strong emphasis was placed on the importance of research, with the draft stating that by 2063, Africa countries should aim to achieve above world averages in levels of gross domestic expenditure in research and development (GERD). Africa's share of world GERD was a mere 0.9% in 2009, constituting a paltry 0.4% of the continent's GDP, while the 10 continent's share of researchers, publications, and triadic patents were 2.1%, 2.0%, and 0.1%, respectively. To achieve this growth, the declaration states that countries need to increase their GERD levels to 1% within five years, and incrementally and consistently attain a minimum of 5% by 2063.

To maintain quality and excellence, a key driver is the action plan to establish robust national quality and accrediting agencies, including National Councils or Commissions of Higher Education, with powers to sanction institutions for non-compliance.

This will also be supported by the declarations actions to mobilise the diaspora which include the development of a 10/10 program that sponsors 1,000 scholars in the African diaspora across all disciplines every year, for 10 years, to African universities and colleges for collaboration in research, curriculum development, and graduate student teaching and mentoring.

The history

The announcement and production of the declaration draft was not a rushed process. Aina explains that “the declaration goes back to consultations and meetings across the continent dating to 2013”, along with four country conventions in Ghana, Nigeria, Uganda and Tanzania.

At each of the meetings the question of the future of African higher education was pushed to these interest groups, formed of people specialised in agriculture, science and technology, humanities as well those from post-graduate training.

As a result, Aina says they “had declarations, recommendations and memoranda for the final summit. These were then distilled to form the core of the declaration.”

Aina was then part of a working group, chaired by Paul Zeleza, where all the information “had to be written, revised…distilled into what we now call the summit declaration and action plan.”