

## Main Challenges of Tertiary Education Financing in Africa

Garainesu Shoko\*

Lecturer, Faculty of Commerce and Law, Zimbabwe Open University, Zimbabwe

**\*Corresponding author**

Garainesu Shoko

**Article History**

Received: 02.09.2018

Accepted: 11.09.2018

Published: 30.09.2018

**DOI:**

10.21276/sjbms.2018.3.9.7



**Abstract:** Higher education in Africa is 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%. Women are underrepresented in higher education, in particular in the science and technology fields. In regards to quality, not a single Western and Central African university features in the rankings of the world's best 500 academic institutions. These challenges can be attributed to a multiplicity of factors. According to this paper funding the funding is at the centre of all these challenges.

**Keywords:** Challenges, tertiary, financing, main, education.

### INTRODUCTION

Africa has maintained its public investment in higher education over the last fifteen years, allocating approximately 0.78 percent of its GDP and around 20 percent of its current public expenditure on education to this sector [1]. However, during this period, the total number of students pursuing higher education tripled, climbing from 2, 7 million in 1991 to 9.3 million in 2006 (annual average rate of 16 percent), while public resources allocated to current expenditure in that sector only doubled (annual average rate of 6 allocated to higher education), where during the 1991-2006 period the number of students quadrupled while available public resources have, in general, only increased at most by 75 percent [2].

The problem of higher education financing is more acute in Africa than in the rest of the world, where mobilisation of public financing has generally kept pace with the increase in the number of students pursuing higher education [2].

### The decline in public expenditure per student is having an adverse impact on quality.

Africa is the only region in the world that experienced a decrease in the volume of current public expenditure per student (30 percent over the last 15 years). Yet average annual current public expenditure per student remains relatively high (approximately US\$2,000 in 2006), which is more than twice the amount allocated in non-African developing countries [3]. This highlights the potential inefficiencies in the use of public resources. Annual public expenditure per student in Africa therefore represents close to three times per capita GDP, while it accounts for only one-third in OECD countries and 1.2 times per capita GDP at the global level. The impact of this decline in public resources on the functioning of higher education varies from country to country and is even stronger in countries with a low public expenditure rate per student (some 15 countries spend less than US\$1,000 per student), and which must cope with a very sharp increase in the number of students [4]. Admitting an ever increasing number of students results in a trade-off

that often occurs at the expense of quality, and particularly at the expense of teacher salary increases. Universities are therefore finding it increasingly difficult to maintain teaching staff, lecture halls are overcrowded, buildings are falling into disrepair, teaching equipment is not supplement their incomes by providing services to the private sector. At worst, the paucity of resources often leads to student protests and strikes that jeopardise the completion of the academic year [4].

### Research and quality investment are largely underfunded but some initiatives are emerging.

According to Kane and Orszag [5] only 0.6 percent of world researchers and 0.9 percent of the world share of scientific publications were provided by Sub-Saharan African countries in 2001 and about half of this output was accounted for by South Africa alone. For decades, research development in Africa has been underpinned by aid, the amounts varying greatly according to the country involved. Such programs take on diverse forms: fellowships for training, research grants to individuals and teams, institution building, strengthening and twinning, and North / South partnership research programs, among others. Current expenditure on R&D in most African countries is too small to support focused and effective research outputs to address national development needs. However, there

are signs of a turnaround in the interest placed on research and higher education, as consensus is growing on the importance of building knowledge networks, global information resources and technology transfer capacity. For instance, Rwanda, Mozambique, Ghana, Kenya and Nigeria are designing strategies to boost investments in research, science and technology [5].

**If the current trends continue apace the financing gaps are likely to grow.**

The total number of students for the entire African continent could double between 2006 and 2015 and reach between 18 and 20 million [6]. The situation, however, varies from one country to the next; for some ten countries, the capacity in higher education will have to triple by 2015. For around twenty other countries, the number of students is expected to increase by a factor between 2 and 3 [6]. And for the approximately twenty remaining countries, the increase is expected to be more moderate, with a factor less than 2, compared to the level in 2006. The challenge of increasing student numbers is often formidable for the countries that have experienced the sharpest declines in the financing of their higher education systems during the last decade. The crisis will therefore likely worsen in these countries, thus necessitating far-reaching reforms. In fact, the level of expenditure by 2015 is projected to be 75 percent higher than the volume of public resources that may be mobilised. It may prove difficult to increase the level of public resources allocated to higher education because (i) the tax base in these countries is generally low, (ii) a number of countries are still far from achieving universal primary education and the majority of them also have to address the high demand for access to secondary education, and (iii) economic growth is still insufficient and is threatened by the global crisis [7].

**Budget practices remain largely traditional.**

The most common approach to recurrent budgeting for universities is to use the previous years(s) as a baseline and make incremental changes based on general considerations such as the country's economic performance, government revenues, inflation rates, or institutional growth [8]. In most cases, initial allocation decisions are made by the Ministry of Finance in light of available government revenues, political priorities, and the amounts provided in the previous year. Having determined the general allocation, subsequent budget meetings with the Ministry of (Higher) Education and the universities tend to be formalities [1]. In spite of the magnitude of financial need confronting the institutions, the margin for considering a significant adjustment to the Ministry of Finance's allocated amount is minimal. Consequently, budget discussions often focus on the possibilities for fine tuning the internal distribution of these fixed allocations among staff salaries, student services, staff development, and operational expenses [2]. Overall, the methods of determining budget

allocations for higher education seem to have progressed little from those carried over from the colonial period. Too often, the entire process of budget development – a sequence of submission, review and approval steps that rises through the university hierarchy and continues up within ministry and government hierarchies – appears to be little more than an annual ritual [9].

**Inefficient application of funds by both governments and higher education institutions often dilutes the impact of funds provided.**

This is the consequence of numerous factors, including the absence of defined funding mechanisms (such as formulas), poor system planning, poor oversight (including of student loan schemes), poor monitoring of expenditures, excessive public expenditure on students studying overseas, and inefficient use of available funds by higher education institutions, as demonstrated by high student drop-out and repetition rates, high proportions of overhead and salary expenses for non-academic staff, and high levels of institutional debt ) for example Nigeria and Zambia) [3].

**Funding policies often exacerbate inequity**

Tertiary education in Africa is highly subsidised compared to other levels of education [3]. The contribution from households' accounts for approximately one-quarter of national expenditure (state and households) on higher education. It varies widely according to country, ranging from less than 10 percent in Mali, Chad and Congo, and over 50 percent in Uganda and Guinea-Bissau [3]. However, household financing of higher education is relatively low when compared to household investment in other levels of education (30 percent of national and contributes to inequality in the education and over 45 percent in lower secondary education) [3]. This situation is peculiar to Africa and contributes to inequality in the education system with the introduction of selection based on family resources well before entry into higher education. Social benefits to students do not always fulfil their mission of facilitating access for the most disadvantaged students. They can account from 10% to 50% of total spending in tertiary education but are insufficiently targeted and sometimes poorly managed. In addition, scholarships abroad which represent on average 18% of current expenditure in higher education in Africa are not often allocated in a transparent manner [3].

**In addition to financial constraints, expansion of the systems also limited by human and physical constraints**

If delivery modes remain unchanged and in view of the current student / teacher ratio in Africa (one instructor per 20 students, on average), the number of teachers will have to be increased from a total of

approximately 456,000 in 2006 to 908,000 by 2015 [7]. It will be even more difficult to retain a sufficient number of senior faculty members who are necessary for the conduct of research, improvement in the scientific and pedagogical quality of instruction, and the preparation of future generations of teachers and researchers. Indeed, the level of effort devoted to will also require significant investment with a view to building the physical capacity of current institutions (classrooms, territory and improving administrative and teaching materials. The scope of the investments is particularly broad because the capacity of existing institutions is already largely insufficient in many countries [8].

#### **International aid is limited and does not necessarily contribute to the development of higher education capacities in Africa**

One-quarter of international aid provided to the education sector in Sub-Saharan Africa bilateral and is also highly fragmented owing to the lack of donor coordination [10]. Unfortunately, the impact of this aid on national capacity building is limited because only 26 percent of this aid is direct and invested locally. The lion's share of Multilateral aid is geared toward sector investment at the local level, but is still inadequate. Indeed, priority is still accorded to basic education for all, although there are encouraging signs of diversification from the African Development Bank and the World Bank, as aid is increasingly being provided in the form of overall budgetary support and governments are submitting requests to international organisations pertaining to other priorities [11].

#### **Ensuring financially sustainable tertiary education policies will require tools**

Borgard [12] states that, depending on the conditions and constraints proper to each country, various measures, such as student flow reorientation, cost-sharing, rationalisation of social expenses, improvement of governance and management practices, and private sector development, may be used in combination to achieve an optimal balance between economic requirements and financial resources that may be mobilised.

#### **Very few countries in Africa have room to increase public funding to tertiary education**

Even though the African percentage of GDP per capita dedicated to higher education (0.7 percent) is below the world average (0.84 percent) it would be difficult to increase public resources considering the very narrow fiscal base in most countries and the needs from other sectors of the economy, in particular in a context of financial crisis [13]. About 20 countries are below the African average (20 percent) of the education budget dedicated to tertiary education. However, only a handful of them could consider increasing this percentage due to competing needs at the lower levels

of education, in particular for those countries that have not yet reached universal basic education [13].

#### **Some countries have adopted more innovative budgetary practices**

As governments move away from historical recurrent budgets, they are likely to adopt some type of input measure as the basis for budgeting. Formulas can be based on the cost per student, as in Kenya and Rwanda. Other countries, such as Nigeria and Ghana, used normative unit costs derived from prescribed student-teacher ratios by discipline and the recommended cost of goods and services for a teaching unit by discipline. For investment, some countries, such as South Africa, implement some funding contracts linked to teaching and research outputs specified in Government approved plans [10]. Various governments, such as Ethiopia, Ghana, Mozambique and South Africa, have chosen to supplement the core budgets of universities with competitive funds to stimulate qualitative improvements, research and partnerships [10].

#### **Available resources could be more efficiently used**

African governments should consider the adoption of performance-based budget allocations in place of historically determined allocations [3]. Doing so would create a mechanism for correcting major institutional imbalances that have developed through the years. It would also inject greater transparency into the process, which would respond in part to growing demands for accountability in the use of public and private financing. In addition, performance-based allocations would advance the cause of institutional autonomy as institutions must function under full management control if they are to be judged on the basis of their performance. In general, the improved use of public resources presupposes the existence of a reliable and efficient information, monitoring and evaluation system and of teams trained in the use of these budgetary instruments. Moreover, there are numerous possibilities for enhancing the effectiveness of available resources. Of these as the more systematic use of part-time and contract-based employment, could have a profound impact on expenditure control, especially as the payroll is the largest expenditure item. Other possibilities could include the restructuring of the educational program, in the context, for example, of the Bologna process (LMD- *licence-master-doctoral*) initiated in several Francophone African countries [14]. This could help to gradually eliminate disciplines of limited value to the development of the countries. It could also lead to economies of scale by simply regrouping overlapping educational programs, or those with very low student enrolment.

**Cost-sharing needs to be increasingly incorporated in funding strategies of the tertiary education sector.**

As of 2009, at least 26 countries in Africa charge either upfront tuition fees or other types of fees, such as examination fees, registration fees, identity card fees, library fees and management information system fees. Overall, higher education institutions in Africa generate about 30 percent of their income (from less than 5 percent in Madagascar and Zimbabwe to 56 percent in Uganda and 75 percent in Guinea-Bissau) [14]. When upfront tuition fees are particularly difficult to implement, some governments prefer dual track tuition policies, whereby a certain number of free (or very low cost) university places are awarded based on some criteria – such as academic excellence, income level or positive discrimination – and other places are available on a tuition fee paying basis, or deferred tuition policy. For instance, in Makerere University in Uganda only 20 percent of students are sponsored by the Government and private financing has grown from 30 percent in 1997 to 60 percent in 2006 [13]. Even in some francophone countries, where free higher education had long been considered a right, public universities have chosen to charge fees for professional programs or programs of excellence. This is the case of the University of Abomey-Calavi in Benin, where about 20 percent of enrolled students pay fees, generating about 40 percent of the university's total budget [14].

**To balance financial efficiency with equity goals, the introduction of tuition fees should be accompanied by the development of student loans**

Student loans have been implemented in Africa for more than fifty years, mainly in Anglophone countries [14]. As of 2008, there are operational loan programs in at least 13 African countries and Burundi, Mauritius, Mozambique and Uganda are considering establishing programs. Effective student loan programs are possible in Sub-Saharan Africa; they require both proper design and good execution. However, cost recovery remains the main challenge in most African countries for student loans to be effective and sustainable [10]. The main issues facing student loans stem from interest rates that are set far too low, grace periods and repayment periods that are unnecessarily long and that exacerbate the losses, and loans implemented in such a way that students are frequently unaware that they are incurring a real repayment obligation. In addition, legal systems often make debt collection expensive and record-keeping cannot adequately keep trace of students / graduates. Finally, insufficient numbers of jobs in African economics challenge the ability of universally graduates to repay their loans [12].

**Scholarships and other student financial aids need to be better targeted and rationalised.**

Direct financial assistance such as scholarships or grants need to fit within affected budgets and to

better meet equity and efficiency goals. In many countries, grant/scholarship allocation criteria are linked to academic performance rather than university places, socio-economic disadvantage, or priority disciplines for the country's development [15]. Most francophone countries have privileged nearly universal financial assistance through free or subsidised social services (food, transportation, and housing) and scholarships for living expenses. Without a revision of legislation, there is the risk of accumulating yearly cost over-runs and grants taking up even more of the higher education budget, not to mention inequity and inefficiency issues as a result of a lack of or a poor targeting of assistance aid [15]. This is particularly true for scholarships for studies abroad, which should be strictly limited to studies that are especially relevant to national development. These scholarships the unit amounts of which are much higher than those for national scholarships, account for a significant share of the higher education budget (on average, 18 percent in Africa). The beneficiaries of these scholarships are usually from the most privileged social groups and the criteria for the award of these scholarships quite often lack transparency. If the number of these scholarships is reduced, a portion of these resources could be set aside for the provision of quality local educational programs [15].

**Balancing educational quality against rising enrolments**

Educational systems could take two measures to address the problem of rising enrolment. First, it is critical that systems offer a variety of opportunities at all levels to match students' abilities and interests with labour market needs. Currently, vocational training programs are far less developed in Africa than in the rest of the world. This suggests the need to develop alternatives throughout the educational system and reorient student flow. Ability-based student selection can be considered upstream, at the secondary level, upon entry into higher education, or between the different tertiary cycles (especially between the licence and master degrees). Second, a reduction in the average duration of courses of study would reduce the number of students enrolled at any given time. Today, students stay for extended periods in the education system, due to a combination of lack of regulation of enrolment or re-enrolment, poor criteria for awarding scholarships or providing services to students which have no bearing on their academic performance, the frequent and unlimited repetition of classes, and the multiple changes of discipline. The measures designed to group students based on ability and reduce the average duration of courses of study may have a considerable impact on the trend in the number of higher education students. Simulations conducted in several countries reveal that controlling student flows can have a very significant impact on the trend in student numbers, which can triple in the space of 10 years.



**Public-private partnership can improve the efficiency of student support services**

Services provided to students – such as meals, housing and transportation – can account for up to 50 percent of public expenditure in Francophone African countries. In most cases, these services are not provided exclusively to the neediest students and are becoming financially unsustainable with the increase in student numbers. Establishing a public-private partnership through which the state would delegate the provision of these services to private entrepreneurs would help reduce the cost of these services without penalising students. The State would therefore play the role of facilitator and regulator (definition of approved housing standards and costs, incentives, monitoring and control), particularly by requiring that costs be affordable for students. In return, the State would offer tax or non-tax incentives (and, provision of services, development of common areas, various types of assistance, low interest loans, assumption of a portion of rental costs with a view to providing a “subsidised” rental rate etc), thus attracting developers and securing the return on investments. Such a partnership would ensure that public expenditure is allocated, as a priority, to academic activities and research, and not for the provision of services to students.

**The diversification of financing requires that higher education institutions be able to generate their own resources.**

These resources could be derived from services pertaining to specific vocational training, continuing training programs (degree and non-degree), or from expert or research services. Numerous examples exist in Africa. To develop income-generating activities, higher education institutions must enjoy sufficient autonomy in order to be able to manage their budget in accordance with their development objectives. They must also ensure genuine transparency in the redistribution of generated resources. Thus, the University of N’Djamena in Chad established the Univalor enterprise, which shares and distributes income. Similarly, the University of Parakou in Benin has an allocation base that allows for the distribution of earnings related to training activities among research, the library, administration, and the income-generating unit.

Private higher education has experienced spectacular growth in Africa, and can help diversify the educational program and absorb a percentage of the increase in the number of students if it is appropriately staffed to provide quality

In 2006, the private sector accounted for 22 percent of higher education students, which is close to levels observed in Europe (28 percent on average), but still well below levels in Latin America (approximately 50 percent). This expansion sought to address excess

social demand and, in a number of cases, limited enrolment capacity and the issue of quality in the public sector. Moreover, private higher education institutions also seek to provide educational programs that differ from those available in the public sector, through short vocational programs in disciplines requiring limited technological investment in a bid to keep prices affordable. Their appeal largely depends on their ability to adapt and respond to labour market needs, thereby enhancing student employability. Governments should focus public financing on educational programs with shortcomings or on those that are of national strategic importance, and promote access by disadvantaged students. In order to ensure that the private sector provides quality educational programs, it is necessary to develop a regulatory framework that stipulates, in particular, the requirements for the establishment of institutions and programs, accreditation of degrees and teachers, and evaluation criteria. In a number of cases, it may prove useful to encourage private developers to invest in higher education through tax (a more attractive tax system for institutions recognised as serving the public interest, reduced customs duties etc) or non-tax (provision of land or buildings, access to loans etc) measures, and in the national accreditation of degrees. If transparent, this contractual approach between the state and private higher education institutions of combining incentives and requirements could have a number of positive outcomes. In fact, charges by private institutions would tend to decline as a result of these incentives, thereby allowing for lower registration fees and attracting more students.

Intervention may subvert the research process to serve partisan or ideological ends. First is Congress’s growing readiness to “earmark” research monies for universities in the home districts or states of powerful legislators. In 2003, these non-competitive earmarks, which bypass the academic peer review system intended to ensure that funding is based on merit, totalled over \$2 billion – more than six times the amount earmarked in 1996 and equal to about 10 percent of federal research dollars to universities. Although there have been calls to reduce such earmarks, pressures on legislators to benefit their constituencies may ensure that they continue. Second is an ideological cast in some cases regarding what and who are studied. In line with views of some religious groups, for instance, President Bush in 2001 banned federal funding of research using human embryonic stem cells except in limited cases, and Bush Administration staff reportedly warned researchers that grant proposals on AIDS research that contained such terms as “men who have sex with men” and “needle exchange” would receive extra scrutiny.

In sum, these changes in how scientific research is funded, conducted and used provide

opportunities for universities to develop new revenue streams and to serve economic and other public needs more effectively and for government to help meet important policy goals. However, they also pose threats to university missions and priorities, academic integrity, and faculty control. The challenge for research universities and for government and private funders of university research will be to address more fully the public's legitimate needs, while implementing policies and decisions to maintain university support for core academic areas; to enforce policies and accountability mechanisms designed to prevent conflicts of interests or acquiescence to external pressures; and to take a more active role in informing and shaping public discussion about national priorities.

The ongoing backlash against affirmative action is occurring in this context of changed perceptions and scarce resources. Although the 2003 US Supreme Court decision on the University of Michigan's admissions practices reaffirmed the legality of including race or ethnicity as one of multiple admissions criteria, many institutions are still prevented from considering race, ethnicity or gender in admissions or financial aid. In California and Washington, for instance, the electorate has outlawed such considerations; elsewhere, governors or governing boards have disallowed or discouraged their use. As a result, increasing the numbers of underrepresented students will remain more difficult. Moreover, the continuing opposition to affirmative action or to admissions criteria that go beyond standardised tests and grades has radically changed the debate over equity and access. While supporters see these practices as a means to "level the playing field" for underserved students, recognise a broader range of qualities for admission, and enhance valued diversity, critics portray it as creating new inequalities that give access to unqualified individuals and that harm those so admitted who must compete with academically better prepared students.

## CONCLUSION

Sustainable growth in Africa is contingent on the capacity of states to diversify their economies and thus train human capital that will help to carry out and support this transformation. In this process and when investment capacity is limited, higher education plays a key role in training qualified individuals who will be capable of implementing new technologies and using innovative methods to establish more efficient enterprises and institutions and thus allocate resources more effectively. Through research and increased knowledge, higher education can also help to address

the challenges arising from population growth, limited arable land, endemic diseases, urbanization, energy costs, and climate change. However, in order for Sub-Saharan Africa to reap the benefits of this investment in human capital, higher education institutions must have financing to provide quality training and sound professional prospects to their students.

## REFERENCES

1. Woodhall, M. (2012). *Financing higher education: Old challenges and new messages*. London: University of London.
2. Williams, J. J. (2012). Deconstructing academe: The birth of critical university studies. *Chronicle of Higher Education*, 19.
3. Boak, M. (2013). *The future of higher education and what it means for students*. New York: Longman
4. Dale, S. (2016). *A call for practical curriculum in higher education*. San Antonio: University of Texas.
5. Kame, J. and Orszag, P. (2013). *State support for higher education*. Urban Institute Publications, 11(6): 15-34.
6. Morrow, R. (2003). *Funding universities in Ireland*. Belfast: Queen's University.
7. Psacharopoulos, G. (2007). *The returns to investment in higher education*. Singapore: Nanyang Technological University
8. Richards, L. (2006). *Free higher education is a human right*. Tennessee: Richards Education Service.
9. Usher, A. (2013). *Enterprise security solutions for higher education*. Ottawa: HESA.
10. Allbach, P. G. (2012). *African higher education challenges: Economics and research*. New York: Centre for International Higher Education.
11. Myklebust, P. J. (2015). *Universities face drastic cuts*. The Global Window On higher Education, 370(5): 15-34.
12. Paricaud, P., Tazi, L., & Borgard, J. M. (2010). Modeling the phase equilibria of the H<sub>2</sub> mixture using the SAFT-VRE equation of state: Binary systems. *international journal of hydrogen energy*, 35(3), 978-991.
13. Green, J. C. (2007). *Mixed methods in social inquiry*. San Fransco: Jossy Bass.
14. World Bank (2009). *Financing higher education in Africa: Directions in development*. Washington, D.C: World Bank.
15. Kadye, W. T., Chakona, A., Marufu, L. T., & Samukange, T. (2013). The impact of non-native rainbow trout within Afro-montane streams in eastern Zimbabwe. *Hydrobiologia*, 720(1), 75-88.