

**ASSOCIATION OF AFRICAN UNIVERSITIES CONFERENCE ON:  
SUSTAINABLE DEVELOPMENT IN AFRICA: THE ROLE OF HIGHER EDUCATION**

**A PAPER ON “THE CHALLENGES OF FINANCING RESEARCH IN INSTITUTIONS  
OF HIGHER EDUCATION IN AFRICA”**

**SUB- THEME: RESEARCH AND DEVELOPMENT**

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# PROBLEMS OF FINANCING RESEARCH IN AFRICAN UNIVERSITIES

## I. INTRODUCTION

Financing higher education in Africa is one of the most compelling and challenging issues in the domain of higher education. The costs of running institutions of higher education are exceptionally high. In spite of this, the management and funding of Higher Education remain predominantly the role of Governments even with their dwindling budgets.

Many African countries are responding to the challenge of providing higher education by promoting the creation of private universities, but without clear policy environment for such institutions. In some cases private universities are organized and managed as purely business enterprises without focusing on the strategic importance of higher education in the context of sustainable development.

According to a research association (WARIMA)<sup>1</sup>, “research in the 21<sup>st</sup> century is less about the pursuit of knowledge and advancement of learning for its own sake, but more about delivering economic benefits and an improved quality of life for all sections of the society.” Needless to say the universities in Africa are reservoirs of knowledge, whether indigenous or modern, of intellectual property.

It is therefore imperative that the universities, should not only lead in research but it must be relevant research answering questions that contribute to Africa’s development, especially employment creation and poverty alleviation.

From the above, university research is central to the development of the continent. This requires more resources (equipments, technology, finances etc). As such, funding from the consolidated fund is based on the economic benefit the research will generate and how it will improve the quality of life of the citizens. Funding by private sector is based on economic benefits it generates for the financiers.

Studies on higher education management in Africa have concluded that effective use and management of limited resources is compromised through poor accountability. In other parts of the world, better management systems help universities access increased funding for research, ensures that research funds are used in ways that meet the needs of the sponsors and that results are effectively disseminated both for the public and commercial use.

### **Methodology used in research**

The methodology used is the use of secondary data. Materials and resources were analyzed from available data from the internet, annual reports, and publications which were duly acknowledged.

This paper embarks on a general survey of the landscape of Higher Education in Africa. We scan the myriad of problems faced and possible solutions. We then look at the general funding problems, before looking at the role and the financing of research in African universities. We conclude by explaining possible areas of intervention by private sector. We also look at areas of possible collaboration between African universities, other universities and external bodies. We use Cameroon and some East African countries as case studies typical of other African countries.

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<sup>1</sup> West African Research and Innovation Management Association

## **II. THE ROLE OF THE MINISTRIES OF HIGHER EDUCATION**

The Ministries of Higher Education are responsible for tertiary education in Africa as exemplified by this statement from the Ministry of Higher Education in Cameroon.

“The Ministry of higher Education has primary responsibility for overseeing the implementation of educational laws, decrees, and policy in Cameroon's higher institutions and for developing administrative regulations pertaining to higher education. This Ministry is responsible for developing and monitoring training and educational programs” (Annual Report 2007).

## **III. GENERAL PROBLEMS OF HIGER EDUCATION IN AFRICA**

### **• Investment in Higher Education for Africa’s Development**

A World Bank report has this to say about investing in education. “Investment in education is central to Africa’s development. The main challenge facing African governments is how to successfully build human capital through continued and sustained investment in education. To survive and compete in the electronic age, Africa will not only require literate, numerate and techno-literate citizens, but also highly qualified and trained people” (Zezeza et al 2004:127).

Despite this need, the investment in higher education remains elusive. Most of the universities are still funded and controlled by Governments as they lack autocracy in financing. In this dependent relationship, the government directs what universities must do.

The university in Africa occupies top critical position of importance and deserves to be left alone to determine its own priorities. However, the university is generally set up on the initiative and at the expense of government to meet certain objectives. Hence, the concept of academic freedom and financing relationship becomes questionable.

### **• The African University and the Structural Adjustment Program**

The African University was affected by the SAPs of the 1980s. Across the Sub-Saharan African continent, the story was the same as Experienced in East Africa.

The Structural Adjustment Policies imposed on countries by the World Bank and International monetary Fund (IMF) as a condition for receiving financial assistance apparently affected the education sector.

In overall terms, the Structural Adjustment Policies are believed to have undermined access to education in the following ways:

- Cuts in per-capita public spending on education;
- They have deepened household poverty through adverse impacts on employment and income;
- They have sequenced reforms badly, resulting in the marginalisation of vulnerable communities;
- Through cost-sharing, some parents could not educate all children and gender imbalance resulted. Hence, the girl child suffered (Zezeza et al 2004:97).

- **East Africa**

### **Private Sector Involvement in Higher Education**

The private sector has a role to play in the provision of university education in East Africa. Arguments have been made that if policy makers cut out the private sector from university education provisions, global providers will fill the ensuing vacuum. These providers will not be easy to convince that they must include local content in the packages they deliver.

The entry of the private providers into higher education has increasingly supplemented the government's heavy responsibility of providing education. The private sector's role has consequently increased, and higher education itself has become increasingly commodified – students are regarded as consumers and institutions as suppliers, and thousands of new providers have come into the business of selling the commodity (Zezeza et al 2004:100)

- **Cameroon**

Education is the fastest growing social sector, at least in quantitative terms in most African countries, Cameroon not left out. Just after independence, Cameroon had only one University and this was State sponsored. The government sponsored those students who passed in List A in the Common Entrance Examination. They were awarded, automatically, a federal government scholarship which covered not only room and boarding, but also tuition, books, transport, and allowances. Entrance into post-secondary institution followed the same trend.

The government was forced to re-examine its revenue and expenditure items by the World Bank when it imposed SAPs. Ministries and government agencies witnessed drastic cuts in their allocation from the government .To emphasis the seriousness of worsening treasury, the government made drastic reductions on salaries of public employees.

In a study conducted in Cameroon (Ngwana 2001: 2) on higher education reforms in Cameroon, a number of problems were identified.

a) During the period from independence in 1960 to the 1990s, the Cameroonian higher education system like those of many other developing countries was heavily burdened by its inability to adequately adapt to changing needs. The situation was further compounded by growth of student numbers.

b) As there was only one university (the University of Yaoundé), the problem of overcrowding was yet not solved. By 1984 enrolment stood at about 18000. In 1990 it rose to 32,000 and to 45,000 in 1991. The corresponding growth in human and material resources did not correspond to student numbers.

c) As the infrastructure was overstressed, this naturally resulted in overcrowding lecture halls and other facilities. Under such conditions, the teaching and learning process was bound to be very ineffective.

d) Furthermore, the programs offered were limited in scope and could not attract a majority of students.

e) Staff recruitment was far less than the growth in student enrolment so staff-student ratio was high.

f) Success rate in annual examinations stood at 30%. This rate of failure of 70% further justified high drop-out rates.

g) The absence of a clearly defined career profile for academic staff; the prevalence of teaching overloads, poor teaching conditions; the lack of research facilities and study leave opportunities created a demoralised academic community.

In order to deal with these problems, the President in 1993 created five new universities. These were: the Universities of Yaoundé Two, Douala, Dschang, Ngaoundere, and Buea. This made up six state universities.

The aim of the reform among other things was said to be to broaden the participation of different stakeholders in the financing and management of higher education institutions through the institution of tuition fees and the eventual constriction of state funding.

According to a study carried out by the Working Group on Higher Education (WGHE), the outcome of this reform was that the student-staff overall ratio improved from 1/54 in 1992/93 to 1/34 in 1995/96. In the various institutions ratios registered in the same academic year were as follows: University of Buea 1/34, University of Douala 1/45, University of Dschang 1/19, University of Ngaoundere 1/15, and University of Yaounde Two 1/29.

Financial and managerial autonomy was one of the main challenges of the reforms. In order to increase the capacity of the various universities in these domains, a number of measures were taken. Firstly, administrative structures of universities were revised with the aim of providing viable self-sustaining management teams to steer the universities through their new status. Secondly, student bursaries were abolished and registration fees of 50,000FCFA (about \$830) introduced. In this way, expenditure on student welfare was drastically reduced and registration fees covered about 30% of the budgets of the universities (WGHE).

### **The weaknesses of the Reforms among others were:**

A superficial look at the quantitative effects of the reforms could lead to an oversimplification of the situation of the higher education system in the country. The University of Buea, for example, is forced by lack of facilities to adopt a strict cut-off policy in its admission requirements. Such a policy still eliminates a substantial number of qualified English-Speaking Cameroonians from the university.

Creating six universities and diversifying programmes required more human and material resources and a mechanism for their sustenance. The WGHE study revealed that gross mismanagement; irregular funding etc was noticed in most of the universities.

Academic capacity building is probably one of the aspects of attention in the reforms. There was a need to recruit academics to fill the positions opened in the new courses and universities. The study revealed that a majority of teachers recruited as assistant lecturers lacked research training and did not in most cases have terminal degrees (e.g. Ph.D). At the University of Yaoundé One, they constituted 24% of the teaching staff, 47% in the University of Yaoundé Two, 69% in the University of Buea, 64% in the University of Ngaoundere and 72% in the University of Dschang. There are not enough senior academics to provide support to these assistant lecturers for research training or postgraduate programmes.

From this background, one could see how research would suffer in these universities.

#### **IV. GENERAL PROBLEMS OF FUNDING HIGHER EDUCATION IN AFRICA**

African universities are financed from the government budget,

- As such one of the problems of funding is that the university competes with other demanding needs in the economy. The governments are concentrating their spending in the development of other areas of the society.
- The funds disbursed to higher education are relatively constant but the contribution per capita is declining due to the increasing enrolment of students in this section of education.
- The universities are too budget-dependent without other areas of fundraising. As the budget cuts are demanded, the universities reduce research budget.

##### **Public Funding in East African Universities**

In East Africa for many years, university education was mainly public in ownership as well as in operational control. Thus, expenses for higher education, including student's living costs, were financed entirely by the public budget (Zezeza et al, Pg 95).

The impact of under-funding in universities is currently reflected in inadequate infrastructure, insufficient educational facilities, high student-lecture ratios, inadequately trained academic and managerial staff, use of outdated technology in teaching and learning, and the delivery of low quality education. Thousands now use educational facilities that were meant to serve a few hundred students. For example, the main library at Makerere University in Uganda, for example, can seat about 800 people, but in the university has over 35,000 enrolled students.

Due to the harsh economic situations experienced by the region over the recent past, government support of these institutions has seen a steady decline, and the universities have been forced to operate under very tight budgets. The universities have therefore been forced to rethink their strategy, and possibly look for extra sources of financing including establishing income-generating activities (Zezeza et al, Pg 105).

The issue of decreased financial allocations to state universities in East Africa, like in many other African countries, has raised serious concerns regarding the quality and management of programs offered. As a result, universities have only little funds available for staff salaries (Zezeza et al 2004:131).

#### **V. PROBLEMS OF FUNDING RESEARCH IN AFRICAN UNIVERSITIES**

With the above analysis of both the general and funding problems affecting public universities in Africa, it is obvious that research funding is not on the priority list. The research problem is also coupled with poor teaching conditions making the most of the scholars operate businesses or part-time jobs to "make ends meet". When there are budget cuts, mostly the research component affected.

If universities cannot excel in research, they cannot therefore, provide or create new knowledge. Lack of sufficient research undermines the very core business of the Africa Universities and undermines sustainable development.

Another problem facing the funding of research in Africa is corruption and embezzlement on the part of higher institutions authorities, which reduces the amount of resources set aside for research activities. Besides, the method of allocation of the meager resources is not transparent and does not always get deserving proposals.

Accounting for research funds is not adhered to and in a number of cases, the funds allocated to researchers are used to “make ends meet”, and hence, no results to show for the funds outlaid.

Most universities are not self-financing and even if there is cost-sharing in the financing of higher institutions, the part of the higher institutions do not meet a significant amount to support research activities.

### **Other problems of funding research in higher institutions**

Most of the research applications or proposals do not meet the necessary criteria of the funders or the end results of the research will not meet the expectation of the funders. Hence, many proposals get rejected. This at times, is due to inexperience.

Most of the time, adequate or detailed reports on the research carried out are not produced and adequate follow up of research activities are not done by the authorities of higher education. This hinders further research grants from the same funders.

When writing research proposals, different experts are not called to write different parts of their expertise. This lack of collaboration is a major challenge to researchers.

Inadequate record keeping by higher institutions, of research activities and details of research to actually follow up the reasons why some research proposals are funded and others rejected. Hence, the problems or causes of research not being funded continue.

## **CASE STUDY: CAMEROON**

### **Rise and fall of State Research: A Historical Perspective**

Research in Cameroon received considerable support until the middle 1980s. The government established a funding system for scientific research and technology when ONAREST<sup>2</sup> was created. At the time, Cameroon among the other African countries having invested in research, the early 1980s were prospering in research.

Within a ten year period, the total budget for the Institute of Agricultural Research and Development -IRAD and the Institut de Recherche Zootechniques et Veterinaires (IRZV).rose from slightly more than one billion FCFA in 1976/1977 to 9.2 billion in 1985/1986.

The growth observed in the universities and research institutes during the 1980s was abruptly ended by an economic crisis. This led to a halt in financial support of research institutes, catastrophic decrease in subsidies to the academic world, delays in the payment of salaries and the end of funding of research programmes among others.

### **University Growth, Financing Problems and Research Stagnation**

A study on scientific research in Cameroon by IFS found out that the development of public research infrastructure in Cameroon was primarily funded by the government in the 60s and 70s. With the creation of new universities, there was increased demand for research funds.

In 1986/1987 the government was forced big budget cuts by IMF and disbursements of the approved budget for research were irregular and often insufficient making research conditions difficult.

During the most difficult years, namely 1986 to 1996, the research programmes which depended on national funds were stopped because of cuts in salary payment. Only the projects with external funding could be pursued more or less without disturbance.

In short, the financial crisis resulted in continual shrinkage of the State subsidies research institutes. Financial constraints of the institutes also meant that many researchers resigned from their positions. For example, the researchers within the IRAD numbered 284 in 1992, but only 198 in 2003.

### **The Shrinking of a Highly Qualified Research Community**

The study found out that the scientists in Cameroon (particularly at the universities) are trained. Nearly all researchers (96%) at the Faculty of Sciences of the University of Yaoundé. have a Ph.D or equivalent. Meanwhile, about one-third of the scientists at IRAD have a Ph.D or equivalent (Gaillard et al 2003: 23).

Because of financial constraints, recruitment has been slow (particularly at IRAD) during the last 10 years.

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<sup>2</sup> Office National de la Recherche Scientifique et Technique

Prior to 1987, the state financed between 85% and 95% of research activities. However, during the period 1987-1993, the percentage of foreign funding rose to as much as 39%. The largest funding contributions came from the World Bank (mainly in the form of loans), the *Fonds d'Aide a la Cooperation* (FAC), the *Caisse Centrale de Cooperation Economique* (British Overseas Development Administration (ODA, today DFID), the European Union German GTZ (Gaillard et al 2003: 27).

Before 1993, researchers and University lecturers in Cameroon were paid competitive salaries as compared to those in other African countries, enabling them to enjoy a relatively high standard of living. However, in 1993 the economic crisis caught-up with researchers' salaries resulting in a 66% reduction. This drop in salaries was followed a few months later by a devaluation of 50% of the CFAF compared to the French currency.

Within a year, the purchasing power of Cameroonian researchers had fallen catastrophically. A research officer earning 250,000CFAf, about 380 Euros per month, in the beginning of the 1990s saw his purchasing power drop to about 125 Euros per month. Many earned extra money by doing extra work.

The absence of national funds to support research for the public good is further complicated by the rise of consultancy work at the bequest of foreign institutions and organisations. Local researchers are therefore, at the mercy of donors.

The developed countries have a tendency to use Africa as a place where you do some research which you later bring home, like a laboratory where you do experiments. Africa is selling herself short. She does not see where the results go, and she does not profit from them

The above Cameroonian examples serve to explain the plight of research in most African Universities.

## **THE WAY FORWARD**

Given the serious problems of funding research as explained, what is the way forward for African universities? With such a bleak background, universities are left with no choice but to seek alternative sources of funding to ensure their survival. The alternative to funding is collaboration with external Donors.

- **CAMEROON**

- a) External Financing**

Cameroon universities have collaborated with donors. In a report on Impact studies it is stated that scientific research in Cameroon has eroded since the 90s, but show signs of recovery in recent years. However, they are all dependent on funding from international sources.

Researchers in Cameroon have submitted applications to IFS and been awarded research grants since 1976. During the period 1993-2002, IFS received 120 applications for a first grant from scientists in Cameroon. Of these, 44 research proposals were approved, giving a high success rate of 36.6%. In comparison, the success rate of researchers in Cameroon during the 1990s was more than two time higher than that for Africa (15%) and Asia (17) and higher than that for Latin America 30% (Gaillard et al 2003: 39).

During the academic year 1998/99, for the first time in the history of the University in Cameroon, a competitive national research fund was launched at the University of Yaoundé I (Gaillard et al 2003: 20).

**See Appendix 1 and 2.**

- b) Collaborative efforts between private sector and universities**

Our effort has been weighed on showing how public and private sectors could be used in collaborative research funding. In examining various sources of research funding in Africa, it is important to address the following issues:

1. Are the research institutions autonomous from the administration?
2. Are there adequate funds to finance staff, equipment, laboratory space, vehicles, etc
3. Is there adequate finance for in-service training for all grades of staff?
4. Is there a possibility of agreement with foreign universities for short-term exchange programs?
5. Are the research programmes and topics integrated with development projects in order to ensure that they are oriented toward development needs?
6. Is there African regional cooperation among research institutions or a continental research fund established under the African Union?
7. In what areas and at what level will developing countries concentrate research efforts and finance?

- c) How the private sector may contribute**

One of the major problems facing Cameroonian universities like other African universities is the problem of under-funding for many years now. Because of many universities, the competition for

research funds from the state budget cannot be met. With the current global depression that makes things even worse, there is no option than that of collaborative sponsorship of research in universities by the state and the private sector.

The private-public sector collaboration in the area of research has been dormant. In the Cameroon University system there is no culture of collaboration. The contribution from benevolent donors in the private sector does not exist.

It is important to consider the possibility of reallocating expenditures. Universities may have to redirect expenditures from other less important expense items. Some of the problems of research funding may be solved by assigning funds to expense items with high values like research.

Some of the companies in the petroleum, banking and the transport sectors in Cameroon with high potential for collaboration with universities and research institutions, have made occasional grants for specific purposes. To enhance this private sector contribution, the state may institute into law the compulsory payment of say 2% of profits of all limited liability companies registered in Cameroon into a University Research Fund.

- **EAST AFRICA**

### **Entrepreneurial Strategies of Funding Kenyan State Universities**

With the diminishing government funding, Kenya's state universities have devised innovative income generating strategies and raised funds to sustain academic programmes. Apart from raising funds from students' tuition fees payments, state universities have taken the initiative of identifying and developing entrepreneurial sources of raising additional revenue.

In response to the challenge of self-funding, Kenya's largest and oldest university, the University of Nairobi set up the University of Nairobi Enterprise and Service (UNES) in 1996.

### **The Genesis of the Parallel Degree Programmes**

In the recent past, many universities in East Africa have vigorously entered into new programmes, popularly known as parallel degree programmes (PDP) or privately sponsored student programmes – which are geared towards fund-raising for universities, but with a shift towards fulfilling job market needs. These programmes were introduced to cater for reduced funding for the respective institutions due to budgetary constraints and pressure from the IMF and World Bank (Zezeza et al 2004:131)

## **CONCLUSION**

As explored in this survey, research in African universities is like an endangered species and methods of funding it have to be found as an urgent measure.

## REFERENCES

- Gaillard, J., Zink, E., (2003) *Mesia Impact Studies, "Scientific Research Capacity in Cameroon: An Assessment of IFS Support"*, Stockholm: International Foundation for Science. Available at [http://www.ifs.se/Publications/Mesia/MESIA\\_5\\_Cameroon\\_english.pdf](http://www.ifs.se/Publications/Mesia/MESIA_5_Cameroon_english.pdf)
- Ngwana, T. A., (2001) *The Implementation of the 1993 Higher Education Reforms in Cameroon: Issues and Promises*. Available at <http://www.international.ac.uk/resources/>
- Sawyers, A., (2004) *African Universities and the Challenge of Research Capacity Development* Available at [http://www.codesria.org/Links/Publications/jhea1\\_04/sawyers.pdf](http://www.codesria.org/Links/Publications/jhea1_04/sawyers.pdf)
- University of Buea Annual Report 2006 – 2008
- Willinsky, J., Randall, J., Shafack, R., Kiven, C., (2005) *Access to Research in Cameroonian Universities*. Available at <http://www.ejisdc.org/ojs2/index.php/ejisdc/article/view/137>
- Zezeza, P.T., Olukoshi, A., (2004) *African Universities in the Twenty First Century, Vol.1 Liberalisation and Internationalisation*, South Africa: UNISA Press.

### Appendix 1: Details of Research Funding from External Sources

S/N	Funding agency	Grant Value FCFA	Approved
1	Microsoft Corporation	105,524,708	2005/2006
2	MIM/TDR	21,728,671	2006/2007
3	European Union Varbo project	7,354,906	B/F
4	Medicine for Malaria Ventures	15,237,812	B/F
5	International Foundation for Science	2,413,055	2006/2007
6	Welcome Trust-Oxford University Grant	28,838,645	
7	British Council, UK-England	13,322,958	2007
8	VLIR[Vlaamse inter-universitaire Raad]-	204,000,000	2005
9	IAEA Peaceful application of Nuclear techniques	3,935,756	2007
10	European and developing countries clinical trials partnership	26,238,280	2007
11	World Health Organization	85,000,000	2007

**Source:** *University of Buea Annual Report 2006/2007*

## Appendix 2: Health Research Budget – Sources of External Funding in Cameroon

Donors	Amount
<b>Bilateral Cooperation</b>	
Canada	100,000 US\$
France	500,000 Euros (715,000 US\$)
Italy	2,000,000 Euros (2.8 million US\$)
United States (USAID)	1,000,000 US\$ over the past two years
<b>Multilateral Cooperation</b>	
WHO (through TDR)	500,000US\$ over the past two years
European Union	Before 2005, the budget for health policy and systems research was close to 200,000 Euros per year (285,000 million US\$)
UNFPA	Close to 100,000 US\$ during the past two years
UNESCO	Close to 100,000 US\$
<b>Global Health Donors: NGOs Supporting Health Development</b>	
Hellen Keller International	30,000 US\$
Médicins Sans Frontieres – CH (MSF)	30,000 US\$
Aide aux Lépreux Emmaus Suisse	50,000 US\$

**Source:** Provided by the Division of Health Operations Research (DROS) of the Ministry of Health of Cameroon Yaoundé, 2007.