

WORKING GROUP ON
HIGHER EDUCATION

**HIGHER EDUCATION
IN
SUB-SAHARAN AFRICA**

**WITH SPECIFIC
REFERENCE TO UNIVERSITIES**

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THE WORKING GROUP ON HIGHER EDUCATION

The Working Group on Higher Education (WGHE) was founded in 1989 as an informal network to strengthen collaboration among African governments, development partners and tertiary education institutions to improve the effectiveness of development assistance and more broadly, to support the revitalization of African universities, polytechnics and teacher training colleges.

Participants include development agencies supporting higher education in Africa, national higher education oversight bodies, ministries of education, and a number of African tertiary institutions.

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THE FOUNDATION PARTNERSHIP

The Partnership for Higher Education in Africa is an initiative of Carnegie Corporation of New York, The Ford Foundation, the John D. and Catherine T. MacArthur Foundation, and the Rockefeller Foundation. Launched in May 2000, the Partnership represents both a belief in the importance and viability of higher education in Africa and a mechanism to provide meaningful assistance to its renaissance. For the presidents of four major US foundations to articulate their faith in Africa is significant and it made an impact. Interest in African universities is greater today than it was in May 2000; the creation of the Partnership is frequently referred to when African universities come up for discussion. Thus, the Partnership has contributed both to a resurgence of commitment to higher education in Africa and a concomitant expectation that benefits will accrue to African universities.

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Foreword

In the year 2000, the Partnership for Higher Education in Africa comprising the Ford Foundation, Rockefeller Foundation, Carnegie Corporation, and MacArthur Foundation invited the Working Group on Higher Education (WGHE), constituted under the Association for the Development of Education in Africa (ADEA); to submit a funding proposal for a regional survey of higher education innovations in Sub-Saharan Africa. The proposal was submitted and subsequently funded by the Partnership. Shortly thereafter, the WGHE formed a research team of four senior African scholars with expertise in higher education issues to undertake the proposed study.

The research team consisted of George Subotzky from the University of the Western Cape, South Africa, who conducted the study in the Southern Africa region; N'Dri Assie` Lumumba from Cornell University, USA/Universite` de Cocody, Cote d'Ivoire, who did the study in the Francophone region; and Njuguna Ng'ethe from the University of Nairobi, Kenya, who was responsible for the Eastern Africa region. The team was later joined by Esi Sutherland Addy from Ghana, who did the Ghanaian case study. Five other individuals deserve mention for their role in the execution of the study: William Saint and David Court, both at the World Bank during the time of the study, for their key role in conceptualizing and coordinating the study; Tracy Bailey who carried out the literature review, Marieme Lo who did some initial work on the literature review and Alice Sena Lamptey who assumed responsibility for the coordination of the ADEA/WGHE.

The WGHE proposal anticipated several outputs, among them, regional reports on innovations in Francophone Africa, Eastern Africa, Southern Africa and Ghana; and a final synthesis report based on the sectoral reports. The regional reports were produced by team members accordingly, following which the synthesis report was drafted and finalized by one of the team members, Njuguna Ng'ethe. The draft was then subjected to both intensive and extensive consultations among the team members before finalization. The exercise of preparing the synthesis was itself also only part of a much longer process, which is described in the next section of this report.

Acknowledgements

The research team wishes to thank The Partnership for funding the study and William Saint for his personal commitment to ensuring its completion. We also wish to thank the Vice-Chancellors, Rectors, Presidents, Chancellors and other university officials for taking time off to respond to the questionnaire and in some cases for agreeing to discuss many issues with us during the site visits to the universities. We also wish to thank them for showing very keen interest when a draft of the report was presented at the Conference of Rectors, Vice Chancellors and Presidents- COREVIP- in Mauritius in March 2003. Thank you for your insightful discussion that provided very useful feedback. The study to a large extent, formed the basis for the three-day Tertiary Education Conference, which was jointly organized by the Association of African Universities (AAU), the Ghana National Council for Tertiary Education (NCTE) and the World Bank, in September 2003 in Accra, Ghana which brought together nearly 200 stakeholder in higher education in Africa. We are grateful for the platform provided for further dissemination of these findings.

Chapter One

INTRODUCTION/BACKGROUND

1.1 Introduction

The last few years have witnessed renewed interest in higher education in Africa after nearly a full generation of neglect or at best episodic attention championing isolated elements of university life, such as strategic planning. This attention is mostly coming from external development agencies, which suggests that African governments are still not in a position to do much about this sector, faced as they are with more urgent life and death issues, such as HIV/AIDS, and escalating poverty levels, all of which have threatened to make higher education look very much like a luxury.

This report is a part of this renewed interest in African higher education. The report is the outcome of a number of recent activities, among them the establishment of the Partnership for Higher Education in Africa. Since its establishment in 2000, the Partnership has sponsored a number of activities, most of which the author has been privileged to take part in.

The overall intention of all the Partnership activities has been to focus attention on African higher education. In pursuit of this, most of the activities have revolved around the African university as the core of higher education. With this institutional focus, the activities have included organizing brain-storming symposia, for example around the question of “visioning”; sponsoring research in a number of cases; and committing substantial funding to specific university activities, including institutional development of the universities.

The common theme in all these efforts has been: “what is the current state of university education in Africa and what is the likely future”? To some, the current state is one of stagnation if not irrelevance. Therefore, the solution is a visionary repositioning of the university. In other words, the salvation of the African university lies in the emergence of a truly African university devoid of colonial vestiges and, therefore, rooted in African values, epistemology, pedagogy and systems of knowledge. This view is certainly radical, if African-centered.

To others, the current state of the university is not that hopeless in that a good number of institutions are engaged in a creative reform process, an interesting feature of which is innovativeness. The drive to innovate is yielding interesting new things and equally interesting new ways of doing old things. The result is that these institutions are changing themselves and their environments, albeit incrementally and perhaps that is all we should expect of them and the higher education systems within which they operate. This is a conservative and arguably, a more realistic rejoinder to

the visioning view, given the near impossibility of calling off the higher education enterprise in order to “vision” it afresh.

A somewhat pessimistic variation of the conservative view is that the African university is simply struggling to survive and anything else that is happening is coincidental and incidental to survival. The future, therefore, lies in the general improvement of the African condition of which the university is only a small part. Under the prevailing circumstances, the university cannot and should not expect any other favours from society. Just being allowed to survive in the current context of widespread institutional atrophy is a big enough privilege.

Somewhere between the radical and the conservative views, as there usually is, is a third position whose premise is that some institutions have shown a higher aptitude than others for engaging in innovative reforms. These institutions are, therefore, “on the move”. The solution to the predicament facing African higher education, therefore, is to understand why this category of institutions has been able to do what it is doing; whether its experience can be replicated elsewhere, and if so under what circumstances. A subtle variation of this liberal position is that some universities are not only on the move but are also engaged in a transformative process, in which case the real issue is: what and how are they transforming and what are the implications of this for themselves and for the wider society, including the higher education systems within which they operate? Depending on the answers to these questions, a future can be charted around the idea of transformation.

Needless to say the above “positions” on the nature of change in African universities are not irreconcilable schools of thought of the types that usually have full fledged epistemologies and recognizable attitudes to change and political ideology. Rather the positions are essentially emerging arguments about the changes taking place in African universities. As such they seem to converge on the argument that there is a wide range of conditions, experiences and interests underlying the process of change and non change in African higher education systems and institutions, which roughly fall into systems and institutions under duress, advantaged ones and relatively advantaged ones. Furthermore, innovation is not restricted to those with substantial resources.

This report is part of this on-going debate. Other contributions to this debate include the Partnership- sponsored case studies of African universities “on the move”. The universities studied so far are: University of Dar-es Salaam, Tanzania; Edwado Modlane University, Mozambique; Makerere University, Uganda; public universities in Ghana; and a number of public universities in Nigeria. In addition, individual Foundations have sponsored related studies. These include a Rockefeller Foundation-sponsored study of reforms in Kenyan public universities, and a Ford Foundation-sponsored study of private universities in Kenya. All these

studies have focused on universities as institutions. The regional studies of which this report is a synthesis have, on the other hand, focused on innovations and issues directly related to these. All the above studies, this one included, have been guided by the epistemological premise that it helps to establish a factual premise before engaging in argumentation.

1.2 The Study Objectives and Research Questions

All the regional studies were guided by a common set of broad objectives and specific questions. These can be summarised as follows:

1. To understand the extent to which innovations are taking place in African universities.
2. To document the innovations taking place in African universities.
3. To understand the type and nature of innovations taking place in African universities.

Within the three general objectives the studies was guided by the following specific questions:

1. What conditions foster innovations?
2. What drives an innovation?
3. What creates or how do we create responsive institutions?
4. Do strategic plans propel or impede innovations?
5. What role do governance innovations play in transformation within institutions?
6. How have institutions sought to balance quality as they have expanded enrolment?
7. How do institutions attract and retain staff?
8. How are institutions responding to HIV/AIDS?
9. What has been the impact of the innovations?
10. Are private institutions more innovative than public institutions?

Building on the above questions, this report, has the following objectives:

1. To highlight some of the conceptual and definitional problems inherent in trying to understand the problem of innovation, more specifically, innovations in universities.
2. To document how the concept of innovation has been operationalized at different levels, that is, at the system, institutional and faculty levels? Are some innovations amenable to operationalization at some levels and not others, for example?
3. To document the salient features of the identified innovations in all the regions studied, including the range and distribution of all the innovations reported.

4. To attempt a comparative assessment of the innovations to the extent permitted by the available data. For example, are there noticeable differences between the Francophone and Anglophone regions? or between public and private universities?
5. To offer some general conclusions based on the regional studies and some recommendations on how to encourage meaningful innovations.

1.3 Methodology

1.3.1 *The Research Process*

The process of the study was as follows:

1. Preparation of a concept paper and an analytical framework- Innovation Matrix- by the ADEA Working Group on Higher Education (WGHE)
2. Identification of the researchers by ADEA followed by a two day workshop in Nairobi, Kenya, during which the researchers discussed the concept paper, the Innovation Matrix and the appropriate questionnaire. During the workshop, the questionnaire was also pre-tested using participants in an AAU annual conference. At the Nairobi workshop, the instruments were adopted by the research team with modifications where necessary. The workshop also agreed on the definition of regions for the purpose of division of labour between the researchers. The workshop further agreed that the research should adopt a two-pronged approach namely: solicitation of information from the universities using a self-administered mailed questionnaire and site visits following the return of the questionnaires. The questionnaires were to be mailed from the World Bank offices in Washington D.C. where the project Coordinator was resident. They were to be mailed to the university vice chancellors, rectors, presidents, chancellors while the responses were to be mailed back to the individual researchers in each region, except for the Francophone institutions that had to return the questionnaires to the World Bank country office for forwarding to the Coordinator at the World Bank in Washington, D.C for further forwarding to the researcher. The workshop also agreed that the project Coordinator would finalise the Innovation Matrix and the questionnaire in consultation with the research team.
3. Revision of the Innovation Matrix and the questionnaire by the WGHE on the basis of the Nairobi workshop deliberations.
4. Mailing of the questionnaires together with an introduction of the

project and the project team to the university vice chancellors, rectors, presidents, chancellors.

5. Commencement of site visits by the research team after receipt of questionnaire returns and after a preliminary analysis of the returns. The decision on which universities to visit would be based on the preliminary analysis.
6. Second researchers' workshop in Nairobi to discuss preliminary analysis and discuss the way forward. This included the decision to commission the concept paper on innovation conducted by Tracy Bailey.
7. A third workshop in Accra to discuss draft regional reports, the format for the final versions of the regional reports and the format for the synthesis of the regional reports. On the basis of the deliberations in Accra the researchers agreed, among others, to address the questions listed above.
8. Finalization of regional reports.
9. Preparation of a draft synthesis report.
10. Comments on the draft report from the research team.
11. Discussion of the draft report during the COREVIP in Mauritius.
12. Finalization of the report.

1.3.2 *The Innovation Matrix and Questionnaires*

The research utilized a framework derived from a concept paper produced by Tracey Bailey. The paper, among other things spelt out the many dimensions of the problem of innovations in African universities. Based on this, the framework used in this research starts with the argument that innovations in African universities, could be taking place in seven areas. These are: Strategic Vision and Mission; Financing: Access/Quality; Governance; Quality/Curriculum: Staff development and retention; Relevance in teaching, research and service. At the same time the innovations could be located at three levels, namely: System; Institution; Faculty. The framework, therefore, sought to identify and analyse innovations on the basis of area of innovation and the level in which the innovation has taken place. Combining the areas of innovation and the levels of innovation, yielded the Innovation Matrix, below, which served as the analytical framework for the study. The matrix enabled the researchers to tabulate the innovations in each cell and to ask the appropriate questions for each cell.

1. Innovation Matrix

AREA/LEVEL	SYSTEM	INSTITUTION	FACULTY
Strategic vision and mission	Clear policy goals Formula funding Incentive funding	Mission statement Strategic plan Action plan Progress or impact Monitoring Priority budgeting	Faculty strategic plan Advisory committees
Financing	Private provision Cost-sharing Student loans Education tax funds Consolidation	Cost-recovery Fee-paying students Management efficiency Income generation Alumni fundraising Business partnerships Rental of assets Private scholarships Time-tabling Business incubation Development officers Business directors	Short courses Consulting units Cost-recovery Commercialization of research
Access/equity	Access policies Quotas Affirmation action Modular/credit system	Distance education Affirmative action Preferential admissions Need-based bursaries Ethics directors	Remedial programs Student counseling Student monitoring Pre-entry programs
Governance	Buffer bodies Stakeholder fora	Representative council Elected Vice-Chancellor Annual reports Independent audits Non-statutory committees Student governance	Stakeholder represents. Decentralized cost ctrs.
Quality/ Curriculum	Accreditation Licensing Qualifications body Institutional rankings	Pedagogical skills dev. Better info access Facilities maintenance Information technology Quality assurance team Incentives programs	Student course eval. Mentoring junior faculty External assessments Sandwich programs Problem based learning
Staff development and retention	Graduate programs Professional development AIDS prevention Pension programs	Staff development prog. Staff credit union or bank Housing assistance Management training Institutional AIDS policy Health insurance	Faculty seminars Institutional linkages
Relevance in teaching, research and service	Institutional diversification Labor market surveys	Academic or industrial partnerships Academic re-structuring Flexible awards system Specialized institutes Development mission Special education	Curriculum reform Academic or industrial partnerships Internships Teachers from industry Prof. Attachments Applied research Tracer studies In-service training prog. Inter-disciplinary prog. Leadership programs Secondary school science promotion

1. Innovation Matrix

AREA/LEVEL	SYSTEM	INSTITUTION	FACULTY
Strategic vision and mission	Clear policy goals Formula funding Incentive funding	Mission statement Strategic plan Action plan Progress or impact Monitoring Priority budgeting	Faculty strategic plan Advisory committees
Financing	Private provision Cost-sharing Student loans Education tax funds Consolidation	Cost-recovery Fee-paying students Management efficiency Income generation Alumni fundraising Business partnerships Rental of assets Private scholarships Time-tabling Business incubation Development officers Business directors	Short courses Consulting units Cost-recovery Commercialization of research
Access/equity	Access policies Quotas Affirmation action Modular/credit system	Distance education Affirmative action Preferential admissions Need-based bursaries Ethics directors	Remedial programs Student counseling Student monitoring Pre-entry programs
Governance	Buffer bodies Stakeholder fora	Representative council Elected Vice-Chancellor Annual reports Independent audits Non-statutory committees Student governance	Stakeholder represents. Decentralized cost ctrs.
Quality/ Curriculum	Accreditation Licensing Qualifications body Institutional rankings	Pedagogical skills dev. Better info access Facilities maintenance Information technology Quality assurance team Incentives programs	Student course eval. Mentoring junior faculty External assessments Sandwich programs Problem based learning
Staff development and retention	Graduate programs Professional development AIDS prevention Pension programs	Staff development prog. Staff credit union or bank Housing assistance Management training Institutional AIDS policy Health insurance	Faculty seminars Institutional linkages
Relevance in teaching, research and service	Institutional diversification Labor market surveys	Academic or industrial partnerships Academic re-structuring Flexible awards system Specialized institutes Development mission Special education	Curriculum reform Academic or industrial partnerships Internships Teachers from industry Prof. Attachments Applied research Tracer studies In-service training prog. Inter-disciplinary prog. Leadership programs Secondary school science promotion

Arising out of both the concept paper and the Innovation Matrix was the questionnaire. The questionnaire was sent to the vice chancellors with the following instructions:

1. The questionnaire should be completed by the person/s designated by the vice chancellor.
2. One questionnaire should be completed for each innovation identified.
3. The respondents should consider innovations at three levels. These are:
 - **Systemic:** innovations which have an impact on the higher education system as a whole.
 - **Institutional:** innovations which are institution - wide in scope and impact.
 - **Faculty/department:** innovations focussed at the faculty or departmental level.
4. The respondent should indicate the institution/department/system to which the innovation refers.
5. The respondent should categorise each of the innovations according to the following categories:
 - **Institutional Mission, Role and Focus:** Innovative ways in which institutions are redefining their mission focus and areas of specialization in response to new opportunities or challenges.
 - **Financing:** Innovative ways in which the sum total of income available for the financing of higher education and institutions is increased.
 - **Governance:** Innovative ways in which internal institutional governance mechanisms are being improved, for instance in broadening participation in decision-making and enhancing transparency.
 - **Curriculum/Quality:** Innovations in curriculum development and course delivery, including the use of new technologies in teaching and learning, and mechanisms to monitor and assure Educational quality.
 - **Staff Development:** Innovative approaches to the development of human resources (training, retooling (up-grading) within higher education institutions and retaining their services (i.e., combating “brain drain”).
 - **Equity:** Innovative ways to increase access and improve performance of students from disadvantaged regions and circumstances.

- **Relevance:** Innovative ways in which the institution is responding to social needs in terms of research knowledge production, graduate output, and service activities to communities.
- **Student life:** Innovative ways in which the institution enriches the political, cultural and social lives of students.
- **Other:** Any other noteworthy area of innovation at your institution.

Chapter Two

HIGHER EDUCATION IN AFRICA: WITH SPECIFIC REFERENCE TO UNIVERSITIES

2.1 Brief Historical Overview

The above matrix should, of course, be understood in the highly varied context of higher education in Africa. The obvious assumption is that an analysis of the concept of innovation in the African context: challenges and opportunities inherent therein and the appropriateness of the issues and questions suggested in the Innovation Matrix and other models or examples of innovative practices, requires some understanding of the current African context. This, in turn, invites the question: what are the major features of universities in Sub-Saharan Africa at the current time, and what are the major historical developments that have contributed to this situation?. This question is answered in a somewhat broad manner since it is not a major mandate of this report to go into too much detail about the state of universities and higher education systems in Africa.

It is now generally accepted that universities and other Higher Education Institutions (HEIs) in Africa are in a state of crisis (Ajayi *et al* 1996:143; Akin Aina 1994:13). This crisis is characterised by, amongst others, diminishing financial resources, stagnation and deterioration of physical facilities, declining salaries and the brain-drain, the closure of many universities, and poor quality of teaching, learning and research (Ajayi *et al* 1996:146-154; Akin Aina 1994:17-18; Mwiria, Kilemi and Ng'ethe, Njuguna, 2003; N'Dri Assié'-Lumumba 2002).

In the Francophone region study for this report, Assié'-Lumumba argues that all the studies on higher education in Africa since the 1980s have departed from the critical and yet fundamentally optimistic tone of the 1970s. Indeed, studies from the 1980s through the mid-1990s have revealed that the universities and other institutions of higher learning on the continent are in a state of crisis. (Assié'-Lumumba: 2002:17)

One of the studies conducted in the 1990's summarized the status of African universities as follows:

First, they are relatively new and weakly established institutions. Second, enrolment ratios are extremely low (2-4%) in comparison with the rest of the world. Third, early curriculum links to religious studies and administrative need prompted development of the humanities and the social sciences while neglecting the natural sciences, applied technology, business-related skills, and research capacities. Finally, African universities are still closely linked to European or North America institutions, which influence curricula and the organization of resources. They are not yet fully adapted to African circumstances. (AAU/World Bank report 1997:2)

Contemporary African universities are the result of a complex mix of past experiences and influences, from their European colonial origins and their continued dependence on the ideas and practices in higher education in Europe and North America in the post-independence era, to the ravaging effects of economic recession, structural adjustment programmes, war, social upheaval, and the debt crisis and the HIV/AIDS pandemic in recent times.

Many universities, especially in Anglophone, Africa were established during the colonial period just after the Second World War (Akin Aina 1994:8). While there were important differences in the way in which the colonial administrations and universities were set up in the various colonial regions, what is clear is that the first universities in Africa were modelled very closely on European origins. This was particularly so in Anglophone and Francophone Africa where the overall purpose “of these institutions was that they were meant to provide the necessary indigenous support staff for the colonial administration” (Akin Aina 1994:9 N'Dri Assie´-Lumumba: 2002). According to Saint (1992:2):

During this formative period for African universities, European linkages served to establish standards, ensure access to international scientific information, train national staff, initiate research programs, and provide a ready frame of reference for institutional development decisions.

This colonial legacy in African universities was characterised by, amongst others (Ajayi *et al* 1996:74-75; Akin Aina 1994:9; Saint 1992:1-2):

- Separation and alienation from the rural majority, particularly in the Anglophone countries, reflecting the ivory tower nature of the colonial institutions
- An overemphasis on the arts and humanities, with little attention given to the sciences, technology, economics and other professional subjects
- Research that was not related to the needs of the majority
- Limited access to higher education since the universities were geared towards serving elite; although in Francophone countries, university access was offered “to all students who successfully complete the secondary school baccalaureate examination.” (Saint 1992:1).

The European influence left a lasting impression on universities in Africa (Ajayi *et al* 1994:67), to the extent that most are still trying to rectify or overcome these problems imbalances and problems. As Saint (1992:1) observes, “Legacies from the pre-independence era still shape the structure and substance of African universities in important ways.” But, it was the leaders of the newly independent nations in Africa who had to confront the challenges of the colonial legacy in order to reorientate universities to meet the socio-economic and political development needs of the time.

After independence, national governments emphasised the role of universities in facilitating the transition to independence and, increasingly as time went by, to broad socio-economic development needs in general. In this regard, one of the most significant innovations and guiding forces for reform which emerged from within African states and universities was the concept of the 'development' or 'developmental' university (Ajayi *et al* 1996:199; Akin Aina 1994:10). According to Akin Aina (1994:10),

Depending on ideology, the nature of the social base of the ruling party, and the specific political and cultural history of the country, development embraced broad human development issues such as equity, social justice and the provision of basic needs or remained at the narrow economist level of an ever increasing gross domestic product and life more abundant for a few.

In line with the orientation towards nation-building and national development, common features of the reform and innovations which took place in the independence era included (Ajayi *et al* 1996:74, 95; Akin Aina 1994:10-11):

- Various curriculum innovations, such as the introduction of vocational and professional educational programmes, greater subject choice (rather than specialisation), and an emphasis “on African culture not only through the study of the humanities but also through incorporating important aspects of indigenous knowledge into courses in medicine, technology and architecture.” (Akin Aina 1994:11)
- The widening of access which resulted in an increase in student enrolments
- The establishment of new universities or new campuses of national universities in countries with large geographical spread, as well as specialised universities in fields such as technology and agriculture.

In addition, the “newly established independent governments made their impact felt in asserting their sovereign rights to own and to control their universities” (Ajayi *et al* 1996:95). According to Ajayi *et al* (*ibid*), the governments were more interested in controlling the administrative side, especially the hiring and firing of senior managers, such as Vice Chancellors. Ajayi adds that many African academics at the time welcomed this government control and intervention (Ajayi *et al* 1996:95):

(...) it was the expatriate staff defending their established privileges who called for the defence of university autonomy and the maintenance of universal standards while the African staff, many of whom felt alienated and discriminated against, tended to seek the intervention of the politicians to give the universities a national character and ensure rapid Africanization.

It is important to note, however, that many African states and universities continued to turn to Europe and North America for ideas about how to structure their higher education systems and institutions. According to Akin Aina (1994:10),

While different from the colonial universities in their essential mission in that they were founded principally on a nationalist and developmental mission, i.e., to promote the twin goals of nation-building and national development, these universities again modelled themselves after identifiable universities in Europe and North America. (Tade; 1994:10) Thus, contemporary African universities in general still bear the mark of their European colonial origins and hence their continued dependence on the ideas and practices in higher education from Europe and North America in the post independence era (Assie´-Lumumba; 2002:18)

2.2 The Nature of the Crisis

Whatever gains were made by universities in Africa in the period after independence were seriously challenged in the late 1970s when, according to Akin Aina (1994:13), most African countries

“entered a phase of a long drawn out economic decline, accompanied by in certain areas, drought, famine and severe ecological degradation, political instability, wars and conflicts, the debt crisis and the imposition of structural adjustment programmes.” The result is that most African universities “are also influenced by the ravaging effects of economic and debt crisis, structural adjustment programmes and deep-seated, destructive conflicts of variable durations, magnitude and intensity (Assie´-Lumumba; 2002.18).

In short, the effect of the economic and debt crisis on African higher education generally was “resource reduction, adjustment and deterioration of services, facilities and quality” (Akin Aina 1994:17). In addition, the political instability in many countries which played itself out in part on university campuses resulted in university closures “leading to serious erosion of learning in African universities” (ibid).

At the same time, although the governments of newly independent countries saw the value of harnessing the expertise, skills, knowledge and facilities of universities to nation-building and national development, the authors of the TFHES (2000:10) argue that over the past few decades, governments and international donors alike have given greater credence, and therefore support, to the potential benefits of primary and secondary education:

Since the 1980s, many national governments and international donors have assigned higher education a relatively low priority. Narrow and, in our view, misleading economic analysis has contributed to the view that public investment in universities and colleges brings meagre returns compared to investment in primary and secondary schools, and that higher education magnifies income inequality. (Ibid)

However, African universities have not been without blame. According to Ajayi *et al* (1996:204): Thus,

The universities are themselves somewhat to blame for contributing to the deteriorating quality they now suffer from. In attempting to respond to the demand for a rapid increase in student numbers, they have succumbed to the temptation to admit students of low calibre, recruit staff of mediocre ability to cope with the increasing teaching load, and resort to improvisation of the physical facilities.

2.3 Conceptualising Solutions

It is in light of the current state of the African university that one then begins to understand the on-going debate as summarized in the introduction to this report. To some, the solution to the crisis lies in Africanisation as part of a radical visioning of the university. To others, the solution is in reform of existing institutions. Among these there are some who see innovative reforms, as offering the best way out of the current crisis. How then are we to understand and recognize innovations when we see them? Part of the answer to this question lies in the very definition and conceptualization of innovation and further, in how we proceed to provide practical meaning to the concept by “doing innovation”.

In addition to definitional/conceptual issues, it is important to identify and appreciate the contemporary and broader global/international issues surrounding African higher education, in relation to which the challenges for innovative change must be seen. These **drivers of innovation** include: massification of higher education; globalization, the rise of the knowledge society and the information-driven global economy; the changing labor market; the impact of new ICTs; the internationalization of higher education and finally, growing demand for higher education institutions to function as market-like organizations in the context of fiscal constraints. We now turn to these issues.

Chapter Three

UNDERSTANDING INNOVATION

3.1 Definitional Issues

There are plenty of definitions of the term “innovation”, which means the problem actually lies in choosing which definition to work with and in applying the definition to what is taking place on the ground. Equally important in our particular case, is the somewhat phenomenological problem of applying the definition to interpret what the universities **think** they are doing when they say they are innovating. Most of the definitions of innovation are to be found in a body of literature, the bulk of which started appearing in the 1960s. A notable feature of this literature is that it is mostly rooted in industrial and commercial settings (Silver 1998:2) and has as a general focus, “strategies for successful industrial and commercial performance in an increasingly competitive marketplace” (Silver, Hannan and English 1997:1).

By comparison, the literature around innovations in higher education is still relatively limited and, therefore, definitions of innovation in higher education are frequently drawn from the literature on innovations in industry and other sectors. This means, therefore, that whenever one discusses an innovation one must keep in mind and actually indicate the domain of the innovation. Domain here refers to the discipline or sector within which the innovation occurs, which might include medicine, the military, art or education. (Darius Mahdjoubi: Innovative Management Network, or IMN 2001) The importance of indicating the domain, in our case, is to show that, not only does the higher education literature on innovation draw from that within business and industry but so too is there a close link between the innovations that emerge in higher education and the ideas and materials already available in the marketplace (Silver, Hannan and English 1997:4). This means that definitions of innovation in higher education are somewhat blurred by other available concepts, such as reform or development. As Hannan and Silver (2000:2) observe,

In relation to teaching and learning there are often reservations about the value of a vocabulary of 'innovation' rather than, say, 'development', which has less of a connotation of novelty and more one of serious and safe planning. 'Innovation' does, however, have currency in higher education, though a more established one in industrial production and related processes.

A further caveat is that because all the many definitions of innovation are drawn from the literature available in industrialised countries it is not clear how African academics will finally define innovation in relation to African social- economic development in general and education development in particular. This is one of the challenges of this study.

One definition of innovation is that it is the act or process of innovating; something newly introduced, (new method, custom, device) etc; “change in

the way of doing things”; “renew, alter”.(Webster's New World Dictionary 1982, Second Edition, quoted by Amidon, IMN 2001) Dunkin has provided a simple and basic definition of innovation as “doing things differently or doing different things”.(Dunkin 2000:2) In the domain of business and industry the locus of innovation is knowledge, with innovation, therefore being defined as “the creation, exchange, evolution and application of new ideas into marketable goods and services for the success of an organization, the vitality of a nation's economy, and the advancement of society as a whole”.(Amidon, IMN 2001)

In the context of business and industry, Ross (IMN 2001) distinguishes between innovation as improvement, and innovation as something original and new. According to Ross “we can distinguish between innovation which has to do with improvement (doing something existing better or different very broadly speaking), the area of 'market pull' and innovation which establishes something New or Altogether different (broadly speaking), 'technology push', e.g. the invention and commercial exploitation of photocopying.

It appears then that in business and industry, innovation is defined as falling somewhere on a continuum between minor improvement and original and unique. In this regard, Murray (IMN 2001) identifies the following demarcations which he found in the recent literature on product innovation:

- (1) product extension (same base product with slight modifications; identical product in a new segment)
- (2) new platform product (net product from which product extensions are possible)
- (3) new-to-the-company products (NIH, but imported to the company who is now going to produce it for the first time)
- (4) new-to-the-world (never been done before; no market exists).

In relation to government policy, innovation is generally seen as the conception, early adoption and implementation of significant new services, ideas or ways of doing things ... in order to improve or reform services, ideas and ways of doing things. (Glor, Editorial Board of The Innovation Journal, or TIJ 2002). Drawing from the above ideas, innovation in higher education has generally been taken to mean “a planned process of introducing change, intended to bring about improvements or solve or alleviate some perceived problem”. (Silver, Hannan and English 1997:2)

From the above descriptions, it is clear that innovation has to do with change, newness, improvement and problem-solving, but it is not synonymous with any of these concepts. Innovation is also related to planned or deliberate action, although any one innovation might well have its roots in a serendipitous discovery. In this sense, a further dimension can

be added to these definitions, and that is, the link with creativity and invention. In this regard, Brodtrick (Editorial Board of TIJ 2002), with specific reference to innovations in industry, argues that innovativeness is a process:

“Innovation is the result of that process. Innovativeness, then, is the application of creative, new ideas to the implementation of inventions. An innovation is an applied invention. Innovativeness is applied creativity”.

In other words, innovation is also part of a creative process that involves the application or implementation of new ideas, practices or inventions. However, Brodtrick points out quite rightly (Editorial Board of TIJ 2002) that it is possible to “be inventive ... without being innovative” in those cases where creative ideas are never implemented, and to “be innovative without being inventive” where creative ideas from somewhere else are implemented.

Regardless of how one defines innovation, any discussion on innovation must include the issue of agency. Who or what can innovate? Schofield (1991:17) provides a useful overview of at least four sources of innovation in this case in higher education:

- (a) individual people and groups within an institution;
- (b) the formal decision-making system for the whole institution;
- (c) departments, schools or the main unit of organization;
- (d) innovation resulting from external pressure.

Second, it is important to take into account the important questions of who the innovation is for, and who it is intended to benefit. In this regard it has been pointed out that:

A difficulty at the heart of the definition is the association of different kinds of innovation with different motivations. Achieving change or the solution of a problem may result, in one instance, in the improvement of the learning outcomes for particular students, or in another instance in financial savings or staff redundancies. It may raise the profile of a teacher or a department in relation to one set of criteria (notably teaching quality assessment) and lower it in another (notably preparation for a research assessment exercise). (Hannan and Silver 2000:10)

Enhancing the situation for the manager (better control of the curriculum through semesterisation and modularisation) may not be the same for the tutor (more assessment points and more marking). Enhancing matters for the tutor (less time spent teaching on more student-centred courses thus freeing more time for research) may not be experienced by the student (less contact time with tutors). Ultimately, the enhancement of student learning ought to be the prime criterion - if students don't learn more or better then we haven't achieved enhancement even if other participants have improved matters from their perspectives. (Hannan n.d.)

Third as Hannan and Silver (2000:11) point out, despite the intention to bring about an improvement, an innovation may fail to do so “or may

produce dubious or 'wrong' outcomes". In this regard, Hannan (n.d.) prefers to use the term 'enhancement' to indicate when improvement has been achieved. The notion of improvement is controversial in itself; for instance, history has shown that improvement might "mean a more effective form of control" (Hannan and Silver 2000:11). Therefore, if innovation is aimed at bringing about improvement, then there is an implicit value judgement that the new practice, service or structure is beneficial. In this way, innovation is linked to ideology and to particular sets of interests. According to Glor (Editorial Board of TIJ 2000) ideology is generally always present as a motivating factor behind innovation. In other words, there is always the possibility that a particular innovation, and the change that it brings about, is not beneficial for *all* those involved.

Fourth, since innovation might not necessarily bring about an improvement, it inevitably involves risk-taking. In this regard, Glor (Editorial Board of TIJ 2002) argues that innovation is an approach used when a society, organization or individual is under sufficient duress, and perceives the present situation as bad enough, that it is worth risking losing for a (presumably) better solution.

Fifth, although innovation is usually associated with 'newness' (new ideas, new services, new practices), it is seldom the case that the new idea, service or practice is actually unique or original. On this issue, a number of authors have pointed out that while an innovation might "be new to a person, course, department, institution or higher education as a whole" (Hannan and Silver 2000:10), it might be established practice somewhere else (Altbach 1982:5; Hannan and Silver 2000:10; Jenniskens 2000:146). As Altbach (1982:5) observes, "What is reform to an educational planner may be a regressive step to a student or professor; what is a dramatic innovation in one country may be established practice in another." Therefore, the newness of the initiative that is called an innovation, and the extent of its potential or success at making an improvement, is contextually defined (Hannan and Silver 2000:12).

Thus, the extent to which an idea, practice, service or structure is considered new depends on the perspective of the adopting actor, which could be an individual, a department, an institution or a country. (Hannan and Silver 2000:10; Jenniskens 2000:146).

Therefore, an innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption. It matters little whether the idea is 'objectively' new as measured by the lapse of time since its first use or discovery. The perceived newness of the idea for the individual determines his or her reaction to it. If the idea seems new to the individual, it is an innovation. (Everett Rogers; 2002).

Introducing a subtle variation of the above, Jenniskens (2000:146) argues that other perspectives might be taken into account, such as the national system of higher education at the macro-level. Thus:

It is also possible to use the macro- or national level as the norm. In the latter case, the relevant question is whether the idea, practice or object is new for the macro-system (country, state, or society) involved. Using this norm, late adopters do not adopt an innovation since the product or idea does already exist within the larger system, and, though it is new for the adopting actor, it is not new anymore for the entire society. ... the latter distinction differentiates between curricula that are new for the national university system involved, and curricula that are new for a particular university or academic department but that are already offered at other universities within the same system.

Sixth, innovation also brings into view the concept of 'reform' since this is usually what we **think** of in relation to changes in higher education. Reform has been defined as "to make or become better by the removal of faults and errors, or abuses, especially of a moral or political or social kind, an improvement made or suggested." (The Compact Oxford English Dictionary: 1996) Reform, like innovation, implies change and improvement. So, how might these concepts be distinguished? According to Altbach (1982:5, original emphasis), the difference is one of scale. In the context of university reforms,

"University reform and innovation are processes related to planned change in higher education. The term reform usually applies to change of a basic structure nature: smaller alterations in the curriculum or in the means of instruction are more properly called *innovations*".

This distinction is not accepted by everyone. However, it is often the case that the terms reform and innovation are used interchangeably in the literature, regardless of the scale of the change involved. In addition, it could be surmised that while innovation might well be part of a broader reform process, it may also take place without any reference to systemic or institutional reform.

Seventh, innovation can also be viewed in terms of the rate and the degree of change that it implies or gives rise to. According to some observers, the change that results from innovation might be either gradual or dramatic. For Silver, Hannan and English (1997:2-3), these different possibilities are best encapsulated by Kuhn's (1970) notions of 'normal science' versus 'paradigm shift'. These two concepts embrace the idea that scientific developments can take place incrementally or in such dramatic proportions that an entirely new paradigm or theoretical framework emerges. Shulte (IMN 2001) also draws on Kuhn's distinction in order to illustrate his idea that innovation is part of a continuum and that it is often the small and incremental innovations which are significant. Thus according to Shulte:

"innovation is a continuous variable. Innovation is a continuum, which can be likened to the discussion to 'normal science' versus 'paradigm shift'.

Thus one does not have to change the world to make an impact. Incremental innovations add value.

Hannan (n.d.) complicates Shulte by arguing for a distinction between 'innovation', the result of which might be quite a dramatic shift from the

existing way of doing things, and 'enhancement', which “implies a gradual process, probably in the same direction as previous developments.” Similarly, Glor (Editorial Board of TIJ 2002) considers that only major changes “deserve the descriptor 'innovative'.”

Eighth, perhaps the extent to which an innovation might be considered a gradual or dramatic change is related to the extent of its impact, dissemination and adoption, as well as the degree of its originality or departure from the norm. Along these lines, Cerych's (1984) three dimensions of change—depth, breadth and level (outlined by Jenniskens 2000:147), provide a useful framework for determining whether an innovation gives rise to nominal or radical change:

The depth of change refers to the extent to which a change implies a deviation from prevailing values or practices. The breadth of change is related to the number of fields affected by the change. The level of change, finally, refers to the goals of the change: is the change directed at the higher education system as a whole, at a specific sector within this system, at specific institutions, at the basic units, or at individuals? Innovations (and changes more in general) differ across these three dimensions. Changes that do not imply a major adjustment of prevailing practices (and do not deviate from prevailing values), that affect only one field or a part of this field, and that affect only individuals, but no larger entities, are smaller-scale changes than changes with 'higher scores' on the three dimensions. Every innovation study will use a more or less arbitrary categorization of changes that are considered to be innovations and changes that are not defined as innovations.

In summary, therefore innovation is about gradual or dramatic change, and about intended or real improvement. It involves creation, adoption or adaptation of new ideas and practices at different levels: individual, departmental, institutional or systemic levels. Depending on the level at which the innovation takes place and other factors, an innovation can produce different outcomes. Taking all these elements into account, innovation in higher education might then be defined as ***the planned implementation or application of new ideas, practices and services, which arise through creativity, interaction and insight, with the aim of improving an existing situation, practice or service, and thereby bringing about change.*** In addition, ***innovation can arise from initiatives at the individual, institutional or systemic levels, and in response to external factors.***

What then are the broad contextual factors which are impacting on higher education internationally, and also specifically in Sub-Saharan Africa, and which are stimulating innovation and change? In trying to answer this question we want to keep in mind the argument by Silver (1998:12), to the effect that innovations are either “responses to a system under pressure or in crisis; individual or unit (course, department) search for improvement or answers to perceived problems, or some combination of the two.”

3.2. Drivers of Innovation

Unlike their African counterparts, Western universities, the first of which were established in the twelfth century in Europe (Bartelse 1995:3; Ross 1976:6; Spurr 1970:9). A common and remarkable feature of these institutions and those that followed, is that despite various developments, and the variations on a theme in different countries, they have remained relatively stable and unchanging over the centuries. Up until the twentieth century, the most notable innovation in relation to the purpose and structure of universities was the linking of teaching to research which emerged in the Humboldtian Revolution in Germany in the early 1800s (Bartelse 1995; Ben-David 1977; McClelland 1980; Noble 1994; Turner 1975).

By contrast, since the Second World War, higher education across the world, but particularly in North America and Europe, has been characterised by rapid and widespread expansion and change (Altbach 1982:5). It could be argued that innovation and change has, over the past few decades, become as much of a trend in or common feature of higher education in these countries, as it has in business and industry. Speaking of higher education in the United Kingdom, Hannan (2000:1), for example, argues that

Our institutions of higher education (HE) are experiencing a period where for many they seem close to a state of 'continuous revolution', at least in terms of internal restructuring, if not with respect to their methods of teaching and learning. Some universities, or at least some parts of some universities, are opting to embrace a culture of change to enable them to respond flexibly and rapidly to new demands.

But what has promoted these developments and the contemporary emphasis on innovation and change? The driving forces are the broad contextual factors social, economic, political and cultural that are impacting on higher education systems and the institutions and individuals within them, and stimulating innovation and change as a result.

While each higher education system and institution has a unique history, character and context, the pervasive forces of globalisation are drawing closer together, nations and higher education systems everywhere. How nations and institutions respond to these pressures varies according to context and is closely related to the extent to which they want to and are able to engage with these developments. It is for this reason that the African context in general is also examined, since there are significant differences in the historical and contemporary factors which have and are setting the scene and the tone of reform and innovation in these countries.

The contextual factors which are encouraging innovation and change in higher education worldwide include the recognition of the potential value of higher education for national development by governments and business

and industry and the massive increases in student enrolments that accompanied this; the rapid technological advances and emergence of the 'learning society' associated with globalisation; economic recession and the financial constraints in contemporary higher education. Although discussed separately, these contextual factors overlap and are interdependent in many important ways.

3.2.1 *The Massification of Higher Education*

Perhaps the most far-reaching effect on higher education in industrialised countries has been the massive increases in student enrolments since the Second World War, in what has been termed the massification of higher education. In the early 1980s, Altbach (1982:6) described the shift from elite to mass higher education as “the most critical contemporary force pressing on universities”. More recently, Bennich-Björkman (1997:6) referred to the massification of higher education as a modern-day “revolution” in higher education.

But why has there been such a renewed interest in higher education in industrialised countries, and on such a massive scale? According to Gibbons (1998:11), various post-War developments gave rise to the increases in school and higher education enrolments:

... the democratisation of politics and society that followed World War II; the growth of the public sector that required more white collar workers (and university graduates); an expanding industrial economy that required more highly skilled and educated workers; the widespread belief that further economic development depended on a supply of educated manpower, especially scientists and engineers; and finally the attractiveness of education itself as a major element of the new welfare states, sustaining and legitimating democratic societies.

The features of contemporary societies are frequently associated with the concept or phenomenon of 'globalisation'. Globalisation is difficult to define, and it is beyond the scope of this paper to explore its many dimensions. Subotzky (2000:5) provides a useful definition:

Globalisation manifests in distinct but related economic, cultural, discursive, symbolic and ideological dimensions. Markers of the process include: the growth in world financial markets ... the dawn of the 'electronic age' and 'information society' and all related information technologies; the downfall of the Soviet empire and the ascendancy of neo-liberal discourse and practice as a dominant world socio-economic and cultural paradigm.

In other words, governments, the private sector and society in general have come to recognise the potential value of universities and other higher education institutions (HEIs) to national socio-economic development (Sanyal 1995:44), especially in terms of knowledge production, the provision of highly skilled professionals, and the fostering of democratic attitudes in the broader population. This has led to a significantly greater demand for higher education and to dramatic increases in government and

industry investment in higher education (Brubacher and Rudy 1999:305; Sanyal 1995:221). This was particularly so in the US where, in the interest of national defense during the Second World War, the federal government invested heavily in research in universities around the development of weapons such as the atomic bomb (Ben-David 1977:114). After the war, further federal monies were invested in research to improve America's scientific and economic advantage vis-à-vis Russia particularly in the context of the launch of the Russian *Sputnik* in 1958 and the Cold War (Ben-David 1977:117).

The massification of higher education has had a number of important consequences for higher education systems. Firstly, the increase in student numbers has been accompanied by changes in the composition, "character and aspirations" of the student population (Gibbons 1998:12), and the staff (Bennich-Björkman 1997:6). The traditionally "homogeneous group of predominantly middle-class or upper middle class men with conservative outlooks" has given way to "a far more heterogeneous group with varying class backgrounds" (Bennich-Björkman 1997:7). An important feature of the new student population is that, more than ever before, it comprises a significant proportion of adults over 25.

The new and diversified student population brought with them new demands in terms of curriculum and educational programmes and effectively challenged "the nature and purpose of higher education for a small elite" (Altbach 1982:7). In addition, the ever-increasing number of students has posed significant challenges to the traditional form of face-to-face contact of the old university systems (Bennich-Björkman 1997:7). The considerable expansion and diversity of the student population has presented a number of challenges to universities in terms of curriculum, resource utilisation and governance, amongst others (Altbach 1982:7).

Secondly, the old elite universities have grown in size, new universities and a variety of non-university institutions of higher education have emerged, and the range of programmes offered has diversified tremendously (Gibbons 1998:11). Gellert (1999:9) argues that, "the single most important influence on curricular and other organisational aspects of institutions of higher education in Europe is the fact that the traditional homogeneous university systems have become diversified through the development of alternative sectors in higher education." These new institutions deliver higher education in a more organised, financially efficient, and responsive manner than most old universities do, which has resulted in mounting pressure for universities to change.

Thirdly, there have been demands for greater responsiveness, relevance and accountability to the primary clients of higher education, namely the students, as well as to the range of external stakeholders, including government, business and industry, and society as a whole (Ekong and Cloete 1997:3). According to Altbach (1982:6), many of these groups have been "eager to exert pressure for reform to achieve their own ends and goals." In particular, national governments began to take "a greater role in

setting institutional goals and policies” (Altbach 1982:6) and many introduced reform initiatives. The reforms have stressed quality and excellence and have focused on, amongst others; “issues of structure and goals, access or participation, governance, and funding” (Ekong and Cloete 1997:3) Also, business and industry have become more vocal in terms of what they need from higher education and what they are willing to offer in return. As a result, there have been changes in programme offerings, such as the introduction of more vocationally oriented programmes (Gellert 1999:11).

In summary, for the first time in history universities have been challenged to be more outward-looking. They have been compelled to engage in new forms of teaching and assessment in order to “assure the public that public knowledge is relevant, useful, and is in the public interest” (Ekong and Cloete 1997:5), and to respond to the needs of the productive sector.

Although nowhere near the scale in industrialised countries such as the USA, university enrolments in African countries, increased considerably during the 1970s and 1980s, mainly at the undergraduate level (Saint 1992:16). The increase in demand for higher education in Africa occurred for a number of reasons. Firstly, more and more children had completed their primary and secondary schooling and were seeking to further their education [Task Force on Higher Education and Society, (TFHES) 2000:16]. In Africa, in general, the reality is that most countries have not yet reached even universal primary enrollment. Nevertheless, the number of secondary school graduates eligible for higher education has kept increasing in absolute terms and also relative to the absorptive capacity of the first set of universities that were created at the time of independence. (Asse-Lumumba: 2002:33), thus forcing the older institutions to expand or forcing governments to open new ones. Secondly, to some extent there was an increase in income which meant that more families were able to send their children to university (ibid). Thirdly, according to Saint (1992:4) “Reduced access to land [had] enhanced the value of education as a viable alternative to land ownership in household strategies for self-improvement.”

As in the industrialised world, the increase in student numbers has resulted in the expansion of existing institutions, as well as the establishment of a variety of new ones both public and private, and including vocational and professional institutions (TFHES 2000:16-17). However, expansion has come at a cost. According to the TFHES it “has caused the average quality of education to decline in many countries as resources are stretched increasingly thin.” (2000:17)
(See also Mwiria, Kilemi and Ng’ethe, Njuguna: 2003)

3.2.2 *Globalisation*

Of particular interest here is how the processes and outcomes of globalisation have and are impacting on higher education internationally, and stimulating innovation and change. In the first place, the availability of new technologies, and especially information and communication technologies (ICTs), has impacted on all sectors in society and how they operate. This is true for the higher education sector where the 'technological push' has given rise to innovations in university administration, as well as in methods of teaching and learning (Silver 1998:2). It has also revolutionised the ways in which people can communicate nationally and internationally, and therefore how they can co-operate and collaborate.

The presence of world markets and a global economy have given new meaning to the concepts of survival and competition. Today, business and industry depend on continual innovation through knowledge production to develop new or to improve existing products and services in order to compete effectively. Therefore, research is happening in sites other than universities, although business and industry continue to depend on and invest in the research skills and expertise of academic researchers. This has resulted in many cases in a greater emphasis on application and context-driven research which Gibbons et al (1994) refer to as 'Mode 2 knowledge production'.

Furthermore, to keep up with the rapid pace of change, the labour force is now required to develop the ability to independently and continuously upgrade and expand their skills and competencies. Castells (2001a:13) calls this "self-programmable" labour; in other words, a workforce that has the built-in capacity to generate value through innovation and information, and that has the ability to reconstruct itself throughout the occupational career on the basis of this education and this information.

Some have argued, therefore, that in a world where knowledge very rapidly becomes obsolete, the emphasis is less on "acquiring a particular body of knowledge in a discipline" but rather on "the development of the skill to acquire new knowledge and the capacity to use knowledge as a resource in the context of the needs of society and at a level commensurate with higher education." (Ekong and Cloete 1997:5). These developments have given rise to concepts such as the 'learning society' or 'knowledge society' and 'lifelong learning', which underpin many of the innovations in relation to curricular, and the way teachers teach and students learn. These shifts will be discussed in greater detail below.

Africa has also felt the effects of globalisation, technological advance and the world economic system, but generally has not been able to participate and compete effectively (Saint 1992:3). The reasons are wide-ranging, not least of which are chronic economic problems, the brain drain, new technologies undermining the value of raw materials in Africa, the high population growth rate and rapid urbanisation, and environmental

problems (Saint 1992:3-4). Many authors note the critical role of universities in helping Africa to address these challenges, as well as to help in understanding and interpreting the implications of globalisation for African nations.

3.2.3 *Financial Constraints in Higher Education*

Financial constraints in higher education are perhaps the single most important explanation of innovations in most African universities. While public and private investments in higher education served to boost university resources in the 1960s and 1970s, the last couple of decades have seen a decline in public funding for higher education as economic recession affects countries worldwide (Bartelse 1995; Squires 1983). The decline in funding, together with related trends, can also be traced to the ascendancy of neo-liberal policies of fiscal constraint, minimalist government and reduced social spending that have become globally dominant as the key planks of the SAPS.

At the same time, the emergence of non-university type HEIs and a growing number of private institutions has meant that universities have to compete for scarce resources. So too does higher education compete with “other social sectors (especially health, nutrition, and population control)” for public and private funding (Sanyal 1995:298). Together with the financial pressures associated with the rapid expansion of higher education (Schofield 1991:5), and calls from national governments for greater institutional efficiency and effectiveness (Silver 1998:13), universities and other HEIs have been compelled to revisit their financial sources, systems and controls. This, in turn, has given rise to a range of innovations in relation to, for example, financial management, institutional or system-level restructuring, and income generation.

An increasingly common trend in this regard is the emergence of 'market' or 'entrepreneurial' institutions in what has come to be termed as the 'marketisation' of higher education (Subotzky 2000:7). According to Subotzky (ibid), fuelled by the processes of globalisation, the marketisation of higher education “is characterised by closer partnerships with outside “clients” and other knowledge producers, by a greater onus on faculty to access external sources of funding and by a managerialist ethos in institutional governance, leadership and planning.”

An important consequence of this trend is that the innovations which have arisen in response to financial pressures are potentially in conflict with those based on educational needs. As Silver (1998:12) puts it, “This 'larger-scale' context of innovation increasingly in the 1980s and 1990s involved a tension between the will to change for educational reasons and mounting pressures to do so for economic ones.” Given this choice, most universities seem inclined to respond more to the economic pressure. (Mwiria, Kilemi and Ng'ethe Njuguna. 2003)

3.2.4 *The Internationalisation of Higher Education*

The increasing presence of arrangements and co-operation between HEIs in different countries is stimulating new forms of innovation and change in many institutions. Different from but related to globalisation, the so-called 'internationalisation' of higher education has been defined in a number of ways. Anderson and Maharasoa (2002:15), for instance, define the internationalisation of higher education as the “importation of higher education, exporting higher education, transfer of academic offerings, distance higher education and formation of higher education networks” on an international scale.

This is becoming increasingly apparent in Europe as a result of European integration. Gellert (1999:13-14) observes that the integrating effect of the European Community has started to introduce pressures for change in HEIs in Europe and will probably continue to do so in the future. Various pieces of legislation from the Commission of the European Communities “have made higher education a legitimate object of policy making on the European level” (Gellert 1999:13). A more pervasive pressure, however, is likely to be the expectation on the part of European students “that the courses which they have participated in and the exams which they have passed in another country will be acknowledged and accepted with equivalent credits at their own home university” (ibid).

In Africa, some regional or multi-country institutions, or at least the regional role played by some institutions such as Université de Dakar (now Cheikh Anta Diop) or Université d'Abidjan (now Université de Cocody) for the West African sub-region or the Bénin-Togo axis, have ceased to function, but still exhibit some form of internationalization in that they still attract students from a wide international pool. New sub-regional and regional organizations have been created. For example, in the East African region, the universities of the three countries that form the core of the East African Community, Kenya, Uganda and Tanzania now accept each others credits and are poised to move even closer with the 2002 reinvigoration of the hitherto dormant East African Inter-University Council. Thus internationalization of university education is already under way in Africa.

How then are African universities thinking of and reflecting on innovations in practice? This research argues that if innovations are taking place then they must be taking place as in the Innovation Matrix in order to reflect global, systemic, and institutional challenges. We now turn to the research findings but first a methodological note.

Chapter Four

SALIENT FEATURES OF REPORTED INNOVATIONS

4.1 Methodological and Other Notes

The questionnaires analysed in this report were sent to a total of 134 institutions out of which 53 institutions or 39.6% responded. The institutions reported a total of 453 innovations for an average of 8.5 innovations per institution. However, it is evident from the detailed presentation below that some institutions in each region accounted for the bulk of the reported innovations. It is therefore important to make several methodological and other related points upfront.

(i) **The response rate is quite good for the kind of methods used but could have been higher.** Several reasons are suggested for the response rate. First, the nature of the major collection instrument and the mechanism of receiving the information collected, in this case, the self-administered questionnaire appear to have been an obstacle. Indeed, even in industrial countries with good communication infrastructure, data collection methods that use self-administered questionnaires to be returned by the respondents by mail, even when self-addressed stamped envelopes are provided, are usually characterized by low response rates. In the African context, with its structural and communication problems, the response rate is quite commendable.

(ii) The response rate may also be explained by some factors that may be indicative of some of the persistent structural and institutional problems of governance and management. In some cases a change of the officer-in-charge, or the letter having been addressed to an officer who was no longer occupying the position, were offered as an explanation for not being able to locate and for not having responded to the questionnaires.

(iii) In some cases, for example in Francophone Africa, there was confusion regarding the actual purpose of the study and its sponsor. As indicated earlier, a detailed cover letter accompanied the questionnaires and explained to vice chancellors, presidents, and rectors the purpose and significance of the study as well as its sponsors (the Partnership Foundations) and initiator (ADEA/WGHE). In some cases, however, there was an assumption that the study would be used for further implementation of the dreaded structural adjustment programmes (SAPS). This assumption may be explained at least in part by the fact that the questionnaires and cover letters were sent from the World Bank which was the case for the universities in all the countries and in the case of francophone countries, the instructions indicated that the completed questionnaires were to be returned to the local World Bank office. Despite the World Bank's recently expressed interest in renewing support for higher education, the divergence of views between the World Bank and African institutions since the structural adjustment programs and their conditionalities still seems to run deep.

(iv) A number of university officials pointed out during site visits that the survey questionnaire was rather complicated in that it required the respondent to place the innovations as indicated in the Innovation Matrix. Furthermore, it required that the responding institution photocopy the questionnaire and send it to the relevant faculties, departments and other management units. Some might have viewed all this as too much work and therefore, simply ignored the questionnaire. Others might have done the minimum the result being under-reporting of innovations in any one institution.

The **representativeness of the responses** also deserves comment at this point. It is important to note that the submissions discussed in this report do not constitute a statistically representative sample of initiatives across regional institutions, in any of the particular region covered by the study or any given country or in any one institution. There are many other noteworthy innovations throughout the continent, which are not listed and discussed here. This is because the report focuses only on **responses** to the questionnaire circulated to the higher education institutions. In other words, the number of submissions from any one institution should not be interpreted as an indication of the extent of innovation at that institution. Likewise, the range of innovations reported here should not be interpreted as an indication of general trends.

Even though the site visits provided extremely useful supplementary information, the visits, naturally, did not add to the statistical representativeness of the data. Further, the amount of information contained in each questionnaire returned varied quite widely. In most cases, only the questionnaire form was filled which means the descriptions of the innovations lacked details. In others, considerable additional unsolicited information was supplied. In the case of some institutions, which provided multiple submissions, innovations were merely named with no further information presented in the questionnaire. For the purpose of completeness, however, all submissions received were tabulated regardless of how much information was provided.

Categorisation of the responses also needs some qualifying comments. In categorising the submissions, several problems were encountered. These were: the non-categorization of some submissions by the institution. As a result, a judgement had to be made as to the appropriate category; the categorisation of others was clearly problematic in terms of the definitions provided in the questionnaire. Some of these were therefore recategorised; a few submissions were listed in more than one category by the institution. In the southern Africa and Francophone region these cases are tabulated in different categories. This is especially true of “quality”, and “relevance” as defined in the questionnaire. “Quality” is linked to teaching and learning. However, some submissions related to quality in all aspects of institutional life and these have therefore been located in different categories in the case of southern Africa region. With regard to “relevance”, many submissions could, arguably, fit into this

category particularly those categorised in the *Institutional Mission, Role and Focus*, and *Curriculum and Quality* categories.

The **impact of the innovations** is an issue that will interest the reader. On this, it should be noted that the innovations reported here have not been evaluated in any way with regard to their effectiveness, impact or success. An innovation is in essence a process. Indeed, some of the interviewees argued that by definition, an innovation is an unfinished business because the innovative mind is a restless mind always looking for further ground to explore. According to this view, a cross-sectional assessment or an observation at a specific stage cannot properly capture its dynamics. An appropriate analysis and understanding would require an assessment over some of the different stages in order to seize the sense of movement. Given the purpose and the time frame of this study and the data-collection instruments it was not possible to fully capture these key elements.

However, even if the time allocated permitted, it would not have been possible to observe the process in the cases where the innovations are at an advanced stage in the implementation process. Indeed, the innovations reported are at different stages with some not yet fully formulated. Even then, it is still appropriate to consider as innovations “good” or “interesting ideas” regardless of the implementation stage that they had reached at the time of the research. Indeed, even the responses that simply provide a list of changes they label as innovations, projected innovations, or possible areas of innovation are in some cases worth reporting, if only for future purposes or understanding what may constitute critical areas of concern.

The **value of the study to the institutions** was that it simply provided them with the opportunity to highlight not only long-established initiatives, but also interesting new ones aimed at meeting emerging challenges in higher education. As stated above, some are in the early stages of implementation, and others are still in the embryonic form of ideas or proposals. What this means is that it is beyond the scope of this report to evaluate the effect or impact of these innovations. It would, however, be important to do this at a later stage.

In spite of the above caveats, it will become evident on reading the report, that the findings do not contradict available literature on innovations in higher education in general or innovations in African higher education in particular. Neither does it contradict what is already known about innovations in other and African universities. If anything, the reported findings tend to conform to findings from other studies. It is expected that as the report collates a range of innovations, it will be a major resource for practitioners', providing information on the changes that are taking place in Sub-Saharan African universities.

4.2 Overview

The nature and scope of innovations in African higher education vary between institutions, both within countries as well as internationally, but they cover every aspect of institutional life. This is true of innovations reported in this study. This feature of the innovations is perhaps best captured in *The Innovative Campus*, in which Kliewer (1999, p. 17) points out that:

“It is a challenge to grasp, put your fingers around, touch and feel the idea of innovation in higher education ... there is a vast range of typology, ranging from the alternative campuses for their out-of-the-ordinary programs, (with) their wacky, handmade, one-of-the-kind designs ...”

Innovations can also be classified on the bases of curricular novelty, structural change such as “new experimenting organizations; innovative enclaves within existing organizations; holistic and piecemeal changes; and peripheral, environmental” changes (Kliewer 1999: p. 18). There are also innovations based on the institutional policy of student selection and access or philosophy of education with regard to the level of abstraction of the content and process of knowledge acquisition, The innovations reported are, therefore, wide in scope and come very close to approximating what Kiliewer described. Thus they and can be placed

(...) on a continuum ranging from open campuses to elite institutions) and educational methods (how to best integrate theoretical and practical knowledge, on a continuum ranging from campuses that connect theory to practice at “immediate times and locations” [inside the classroom] to those that prefer to keep experiential practice distant from the classroom setting or entirely separate from the college or university program) (Kliewer; 1999. P18.).

The levels of innovations reported by universities in this study are similar to what Squires (1983, p. 4), captured in his study some twenty years ago. Squires describes three levels of innovation in higher education, namely “innovations at the central, policy-making level; innovations in the organization and management of educational institutions; and innovations in curricula and teaching.” Silver (1998:3) provides a similar typology which includes: “(a) organisation and management, (b) curriculum and (c) teaching and learning.” From these categorizations, it is possible to see that innovations may occur at international, national/system, institutional, departmental, and individual **levels**. These are the levels anticipated in one of the axis of our Innovation Matrix and indeed innovations were found to have taken place at these **levels**, especially the last three. The **areas of innovations** reported by universities in this study are similar to those outlined in the Matrix, which are also similar to those found in past studies.

With regard to the **drivers of innovation** suffice it to recall that, in the case of the crucial area of educational delivery, it is rare that innovations in higher education respond to only one set of contextual factors. This was found to be the case in this study. According to Silver (1998: p. 15), the motivations or driving forces behind innovations in teaching and learning can be categorized into internal and external forces, but in our view, so can motivation in other areas. From a more nuanced point of view, innovation, especially in teaching and learning, could be viewed in terms of individual, departmental, institutional, or systemic initiatives.

In their review of innovations in teaching and learning in the United Kingdom, Hannan and Silver (1998: pp. 6-9) found that since the 1970s, innovations have moved from individual to guided and finally to directed initiatives. This very useful insight is not self-evident in this study but is worth keeping in mind. In addition to providing the insight, Hannan and Silver's (Op. cit, pp. 138-139.) also generated a typology of drivers that has been largely vindicated by this study. The typology is as follows:

- Individual and group innovations “classroom and course related, a direct response to student needs and professional concerns”
- Disciplinary initiatives stimulated by subject or professional associations, or based on “informal collaboration amongst subject specialists across institutions”
- Innovations responding to the educational media using available new technologies and developing software or resource-based learning materials
- Curriculum-prompted innovations adapting to semesterization and modularization, as well as changes in disciplinary fields and the move towards interdisciplinarity
- Institutional initiatives such as policy and staff development, and the introduction of educational development units
- Systemic initiatives such as the introduction of new kinds of institutions by government (e.g. the Open University) or system-wide changes in funding
- Systemic by-products such as Teaching Quality Assessment and changes in student funding.

Many of the **contextual drivers** outlined earlier have also been found to apply to the universities covered in this study, again with regard to delivery of education. These include; changes in student numbers and diversity, limited resources, national policies, labor market demands, the availability of new technologies, developments in theories of learning, the implications of the 'learning society', lifelong learning, globalization, and the internationalization of higher education. In this regard, Africa is probably not very different from other parts of the world.

Keeping the above observations in mind, we can now summarize **the key features of the innovation reported in this study** as a prelude to discussing them later in more detail.

- Universities have now embraced the practice of developing new vision and mission statements and are in various stages of developing such statements. Whether the new statements go beyond the traditional mission of teaching and research, to something more ambitious, for example, the intention to become centres of excellence is the real question in the context of innovations.
- A new departure in the re-statement of university visions and missions is the creation of entirely new and sometimes niche institutions such as the Northern Campus in Namibia, Mbarara University in Uganda, the University of Development Studies in Ghana, the Kigali Institute of Science and Technology in Rwanda and Jomo Kenyatta University of Agriculture and Technology in Kenya.
- Universities are embracing strategic planning and are, again, at different stages of the process. The innovations here, have to be sought in the contents of the plans.
- Except for very few institutions such as the University of Mauritius, the University of Botswana, UCAC in Cameroon and maybe a few others in South Africa, all the other universities have been operating under enormous financial constraints as result of the African economic crisis of the 80s and 90s and the dominant neo-liberal policies. Therefore, many of new initiatives particularly the financial areas have, arguably been driven by the need to address institutional financial crises. Whether the new reforms are also innovations is the issue. Have they for, example addressed the two dimensions of financing; sufficiency and efficiency or just one?
- Programme diversification has been on the increase, though it is debatable whether this has been done innovatively.
- Some governance innovations are being introduced, though as we argue later, they are neither many nor radical.
- Curriculum review is on the increase, though formidable obstacles are still to be overcome before this becomes the norm.
- Except, for a few cases, for there is no involvement of industry in the design and reviews. Most of the mechanisms for review again, arguably, fall short of being innovative.
- New delivery mechanisms such as semesterisation are on the increase.

- The concept of lifelong learning has emerged and increased in importance.
- Open learning and distance education have emerged, particularly with the fast-paced technological invention with direct impact on information and communication in general and with specific application to education thus offering possibilities of higher education to a wider range of the population.
- Use of ICTs is on the increase, with interesting innovations emerging around how to use the ICT, for example in distance learning, on- line registration, university management and improvement of quality, for example, through on- line access of teaching materials).
- Demand for university education has been expanding at an unanticipated rate and this has been one of the drivers of innovations especially since the mid-1990s.
- Collaborative arrangements intended to improve access are on the increase. However, most of these are still at the national level with few, if any, innovative initiatives to create regional and international collaboration.
- A number of collaborative arrangements for the purpose of quality improvement, for student exchange and research are now in place but more innovative approaches are needed to make the African universities equal partners in the collaborative arrangements.
- Mergers at national and international, institutional, and departmental levels have become a fairly common strategy for improving the efficiency and effectiveness of higher education institutions. Affiliation of institutions at the international level, in many cases through ICT programs, from a few courses to full institutional linkages, has been an increasing format of cooperation.
- In the case of Francophone countries, the formal linkage between each African institution and a mother institution in the metropolitan country has been a tradition. However, the new framework is supposed to be one of free linkage between two institutions based on equality and mutual benefit, thus doing away with the old French style, which was one of dependence and paternalism
- Interesting variations of distance learning are emerging with some institutions combining a dual mode of traditional institutions complemented with distance learning. This is the

case, for instance, at the University of Namibia and Université Marien Ngouabi in Congo-Brazzaville. In contrast, other institutions operate on a single-mode basis of distance learning only. UNISA is the most advanced single-mode case, not only in Africa, but also in the world. New single-mode systems have recently been implemented. For instance, the Open University of Tanzania already enrolls more than 10,000 students. These modes are gradually expanding throughout the continent. The World Bank has also set up the African Virtual University (AVU) that includes several countries.

- Vocational/professional/ skills development and work-based programmes have increased, with or without the distance learning component.
- Innovative approaches to teaching, learning, and assessment are emerging. For instance, more importance is being accorded to student-led seminars and lectures; interactive seminars have been introduced; group or team work with multi disciplinary perspectives is being introduced. Students' projects are increasingly being presented, not only to other students and lecturers but also to assessment panels of outsiders, including potential employers.
- Concern for relevance is on the increase. This is being reflected in partnerships intended to encourage interaction between higher education and other sectors of society, notably government, business and industry, and community.
- Universities now display a renewed vigour in establishing links with industry. In general, universities have devised a number of strategies for improving the management of university-industry partnerships around knowledge production and knowledge commercialisation. These include: setting up industrial liaison units to provide support to staff; setting up institution-wide offices to manage the commercialization of university knowledge and services; links involving industries in curricula revision; industry representation in university governance structures; consulting for industry; joint discussions on issues of intellectual property and other forms of partnerships in part to address issues of financial constraints, and relevance. Some of the university-industry links, for example, joint curricula review are potentially quite innovative.
- Staff development/ retention still remains a major challenge even though some innovations are taking place in this area.

- A few universities are addressing the problem of “publish or perish” by supporting the establishment of domestic journals, though; it is still true that “too many African scholars are sticking to the traditional pattern of gaining recognition; for example, by preferring to publish in overseas journals. They seem to consider that the departure from this pattern means being less scholarly.” (Ajayi et al. (op. cit., p.234). In this case it is the scholars who are being less than innovative, though in the case of francophone countries, the criteria are set at CAMES. What the teachers and researchers do is to match the requirements (Assie’-Lumumba: 2002.)
- Universities seem keen to moderate the traditional ivory tower image. The most important innovations around this issue, are pedagogical, for example, the introduction of Problem- Based Learning(PBL); creation of new institutions with community orientation as their major mission; inclusion of some community mandate in new mission statements.
- Some critical innovations are either missing or are very few.

4.3 Range and Distribution

4.3.1 *The Southern Africa Region*

In the Southern African region, questionnaires were circulated to a total of 52 higher education institutions (HEIs): 36 in South Africa and 16 in other Southern African countries and. Responses were received from 21 institutions, a modest institutional response rate of 40%. Of these, more than half (12 or 57%) were from South Africa. The other submissions were received from institutions in Botswana, Lesotho, Malawi, Namibia, Swaziland, Zambia and Zimbabwe.

In all, a total of 175 individual submissions were received from these 21 institutions. Table 1 lists the institutions included in this report (grouped by country) and indicates the number of submissions made by each institution. A significant majority of submissions (41 out of 175 or 23%) came from the University of Pretoria. The University of Malawi followed with 22 (or 13%) of the submissions, and the Rand Afrikaans University with 19 (or 11%). It is noteworthy that, among the 12 South African institutions, which responded, only two were historically disadvantaged institutions and three were from technikons. As pointed out earlier, this however, does not imply that there are no innovations occurring in the latter. It is simply that a few responses to the survey were received from the technikons.

Table 1: Number of reported Innovations by institution in the southern Africa region

Country	Institution	Number	Percentage
Botswana	University of Botswana	2	1%
Lesotho	National University of Lesotho	7	4%
Malawi	University of Malawi	22	13%
Namibia	University of Namibia	13	7%
South Africa	University of Cape Town	5	3%
	University of the Free State	1	1%
	Medical University of South Africa	1	1%
	University of Natal	9	5%
	Potchefstroom University for Christian Higher Education	9	5%
	University of Pretoria	41	23%
	Rand Afrikaans University	19	11%
	Rhodes University	9	5%
	University of Venda for Science and Technology	5	3%
	Cape Technikon	7	4%
	Technikon Pretoria	2	1%
	Technikon Witwatersand	1	1%
	Swaziland	University of Swaziland	5
Zambia	Copperbelt University	4	2%
Zimbabwe	Africa University	4	2%
	Solusi University	2	1%
	University of Zimbabwe	7	4%
Total		175	100%

The initiatives analysed in this report were grouped according to the innovation categories in which they were identified by the institution. The number within each of the 11 categories is provided in Table 2. For reasons discussed earlier, several submissions are listed in more than one category. As a result, the number in Table 2 below (209) is more than that in Table 1 (175).

Table 2: Submissions by Innovation Matrix in the southern Africa region

Area/Level	System	Institution	Faculty	Total
Relevance in teaching, research and service		18	28	46
Curriculum and quality	1	20	25	46
Student Life		24		24
Access/Equity		19	4	23
Staff development and retention		17	3	20
Financing		17	2	19
Strategic Vision & Mission		15	3	18
Governance		11	1	12
Other		1		1
Total	1	142 (67.9%)	66 (31.5%)	209

We wish to reiterate that some of the submissions received from single institutions were either very closely related to other initiatives, or could have been classified in one or more other categories. Likewise, it was not always possible to determine definitively whether an innovation was at the institutional or faculty level. The majority appear to be institution-wide initiatives, with only one at the systems level.

In examining these figures, we wish to state reiterate that quantification of the survey results in terms of the categories does not necessarily provide a reliable indication of the range of innovations in Sub-Saharan African higher education institutions. Because the list of submissions received is not representative, no trends can be generalised from this. Still is worth noting that by far the majority of submissions fell into the categories of *Relevance*, and *Curriculum and Quality* (46 out of 209, or 22%, each).

Student life is also surprisingly ranked quite high. It is perhaps also worth noting that financing innovations do not seem to rank as high as one would initially expect and neither do governance related innovations. Several innovations on AIDS were mentioned and are discussed later in this report.

It would have been interesting to assess whether there is any difference in the innovative behavior of the old and the new universities in the southern Africa region but the number of the returns to the questionnaire does not allow this potentially insightful comparison, in the context of the socio-political underway especially in South Africa.

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4.3.2 *The Eastern African Region*

In the Eastern Africa region, the questionnaire was mailed to 44 universities in eight countries, namely, Rwanda (1), Eritrea (1), Ethiopia(3), Uganda (8), Sudan (12), Tanzania(9), Mauritius(1), Kenya (9). Out of this a total of 16 universities, [a 36% response rate], responded from five countries. The 16 responses came from Rwanda (1), Uganda (3), Sudan (2), Tanzania (3), Mauritius (1), Kenya (6).

The response rate was not as high as expected partly, one suspects because the questionnaire was a self-administered questionnaire, and partly because it was addressed to the vice chancellors, who, no doubt, delegated the work to someone, who in turn might not have had time to complete the questionnaire. Another reason for the low return rate that came up during the site visits was that the instrument was too complex and time consuming, given that it required the respondent not only to identify the innovations but also to identify their level in the Innovations Matrix. In a large complex university with many innovations, this task might have required the combined efforts of a large team, hence the inclination to ignore the questionnaire. In this region only the University of Dar Es Salaam attempted a comprehensive response and indeed this required a team to accomplish. The relatively high response rate from Kenya was on account of personal visits by the researcher in charge of the region.

The 16 universities reported a total of 173 innovations as shown on table three below:

Table 3. Number of Reported Innovations Per University In the eastern Africa Region

No.	University	Number of Innovations
1	Kigali Institute of Science and Technology, Rwanda.	10
2	University of Muratius, Muratius.	15
3	Kilimanjaro Christian Medical College, Tanzania.	2
4	University of Dar-Es-Salaam, Tanzania.	35
5	St Augustine University, Tanzania.	17
6	Islamic University of Science and Technology, Uganda.	4
7	Mbarara University of Science and Technology, Uganda.	3
8	Uganda Martyrs University, Uganda.	8
9	University of Science and Technology, Sudan.	3
10	Shadi University, Sudan.	10
11	Egerton University, Kenya.	6
12	Maseno University, Kenya.	9
13	Kenyatta University, Kenya.	18
14	Jomo Kenyatta University of Agriculture and Technology.	10
15	Moi University, Kenya.	14
16	University of Nairobi, Kenya.	8
	Total	173

As in the case of the southern Africa region, one does not want to put a great deal of emphasis on the number of reported innovations by way of rigorously comparing the universities with each other. This is because the number of reported innovations might very well depend on what each university considered to be an innovation. In this regard, it is very unlikely that those responding to the questionnaire took the trouble to reflect on the meaning of innovation before embarking on answering the questionnaire. We shall return to this issue later. For the moment, all we can safely say is that all the responding universities consider themselves to be engaged in one or other form of innovating. Some, like the University of Dar-Es Salaam, Tanzania, and Kenyatta University, Kenya, appear on the basis of their responses, to consider more of whatever they are engaged in as innovative compared to the other respondents. A related point is that, from what we otherwise know of these institutions, the number of innovations were under-reported, depending on whether the questionnaire was widely distributed or whether it was filled by one individual.

Perhaps more important than the number of listed innovations is the types of activities that the universities consider as innovations. Table three shows the matrix summaries of the actual responses from the questionnaires

Table 4: The Innovations Matrix in eastern Africa

Area	Level			
	System	Institution	Faculty	Total
Strategic Vision and Mission		12	1	13
Financing		21	7	28
Access/Equity		29	6	35
Governance		10	1	11
Curriculum/Quality		12	12	24
Staff development and retention		8	3	11
Relevance in teaching research and service		15	36	51
Student Life		-	-	-
Total		107(61.8%)	66(38.2%)	173

The matrix shows that no innovations were reported at the system level and yet we do know that innovations have been taking place at this level. Kenya and Mauritius, for example, have Commissions Of Higher Education, with the Kenyan commission playing an important role in accreditation of private universities and the Mauritius commission playing a role in financial mediation between the universities and the government. Kenya also has a Higher Education Loans Board and a Joint Admissions Board, both of which play some important roles, at the system level, in the areas of access, through loans and admissions affirmative action.

Equally important are financing issues such as formula funding in Kenya, which is done on the basis of a fixed and uniform unit cost, at the expense of universities offering the more expensive technical courses. Existence of a national IT policy in a country like Rwanda is a system level innovation that the universities are expected to respond to and so are cost-sharing policy decisions in place in Kenya and Uganda, for example. The reason why these innovations were not reported could be that the respondents simply paid attention to institutional levels alone and ignored the system level.

It comes as no surprise that institutional level innovations are the largest category with innovations taking place in all the areas anticipated in the analytical framework. One is not surprised that issues of access/equity and finance feature prominently at this level, given the well-known financial, pipeline and related political pressures confronting universities in Africa. It was evident from the site visits that the universities are under immense pressure to increase access even though funding from the state was generally shrinking. Mauritius was the exception, being the only university not to report immense financial constraints. It is also evident from the responses that universities are beginning to respond positively to issues of relevance and curriculum/quality, even though there is tremendous tension between increased access and the need to maintain quality.

Faculty level innovations are in most cases a direct consequence of some institution-wide innovation. In other words, they are mostly triggered by a higher-level innovation. For example, the innovation to institute income-generation activities will trigger the income generating units at faculty/departmental levels. Some faculties will respond more positively than others to the trigger, which may explain why there are fewer innovations at this level than at the institutional level. The areas of relevance and curriculum quality are the exceptions, a fact which is not counter intuitive, given that such activities as curriculum reform, academic industrial partnerships, internships, applied research, design of new/more relevant programmes, sandwich programmes, mentoring junior faculty e.t.c all take place at the faculty level in the first instance. In other words, that is where they belong. In eastern Africa region it is the proliferation of new programmes that accounts for a good number of the innovations at the faculty level.

In all, the three areas of relevance, access/equity and financing seem to be the most important, in that order, to the university innovators. One is not surprised that finance is not the most "innovative" in that the room for innovation with regard to financing issues is usually limited to a few activities such as fee-paying students, income-generating units, cost-cutting and cost-saving measures. The scope for innovations on relevance, on the other hand, can be quite wide and indeed can be directly correlated with size of the university such that the more the faculties/departments, the more the likely innovations.

No specific mention is made on innovations related to HIV/AIDS. This could very well be on account of the fact that the questionnaire did not specifically solicit response on this issue. Thus, the relevant information on this could have been subsumed under any of a number of categories, including student and staff welfare. This interpretation of the “missing area” is upheld by the fact that innovations in this area did indeed turn up in some universities during the site visits. Equally surprising is the absence of innovations in the category of student life. Again, initiatives in this category could have been subsumed under others or is it possible that there really are no innovations in this area?

4.3.3 *The Francophone Region*

In the francophone region, the questionnaire was sent to 38 institutions in 15 countries out of which 16 universities responded to the questionnaire. This was a response rate of 42 %, which was not quite as high as expected. Returns were received from Burkina Faso (1), Cameroon (3), Cote d`Ivoire (3), Regional based university in Cameroon (1), Central African Republic (1), Chad (1), DRC (1), Niger (1) Senegal (2), Madagascar (2)

Table 5: Reported Innovations in Francophone region

Unit	University	Reported Number of Innovations
1	University of Ouagaduugou, Bukina Faso.	8
2	University of Douala, Cameroon.	2
3	University of Youndie 1, Cameroon.	23
4	University de Buea, Cameroon	3
5	University de Bouake, Cote d'Ivoire.	5
6	University d' Abobo-Adjame, Cote d'Ivoire.	15
7	University de Cocody, Cote D, Ivoire.	15
8	University Catholique de l'Afrique Centrale, (UCAC), Cameroon.	4
9	University de Bangui, Centrale Africa Republic.	7
10	University de N'Djamena, Chad.	8
11	University de Lumbumbashi, DRC.	9
12	University de Niamey, Niger.	1
13	University de Cheikh Anita Diop, Senegal.	1
14	University de Baston Berger, Senegal.	1
15	Universite Toamasima, Madagascar.	1
	Total	105

Other sources show that, in every Francophone institution, there are changes that have been taking place among which several can be classified as innovations but which might not have been reported for reasons discussed in sub-section (1.2.). However it is worth noting here that the three institutions that have the highest number of reported innovations are among those that were visited after they failed to respond. Thus they had the benefit of receiving clarifications about the purpose, sponsor and potential use of the survey results and about the meaning of innovation. While size, sphere of coverage and history, might be factors in the number of innovations, among and those reported, this may not necessarily be the case. For instance Cocody (an older institution) and Abobo Adjamé with different history and size report the same number of innovations.

Of the Francophone countries DRC is the largest, with the most complex set of higher education institutions. However, the war and the subsequent difficulty of communication constitute an obvious explanation of the low return. One institution (Université de Lubumbashi) managed to send its questionnaire.

Though not suggested by table 5 it is possible to identify four types of institutions, all struggling to capture and sustain a momentum of renewal through innovations: These are:

- The “old” institutions that faced tremendous pipeline pressure in the 1980s and 1990s. These are the Université d'Abidjan, Université Yaoundé I, and Université Cheikh Anta Diop;
- Université de Ouagadougou, which is relatively new but faced similar problems as the old ones until its total collapse and subsequent reconstruction.
- Newer institutions trying to avoid being in the path of their former mother-institutions by making use of new opportunities and resolving to be relevant. These include Abobo-Adjamé, Bouaké, and Douala.
- The private institutions, which in general have more solid support from their affiliated/mother international and religious institutions. Secular universities have been joining this group but they are small and more selective institutions complementing rather than competing with the larger public institutions.

Though, again, not evident from table 5, a comparison of older and newer universities shows that, while the two categories have differences, for instance, in terms of size and track record, they are faced with similar challenges. For instance, the questions of how to make the curriculum more relevant and the need to proceed through the exercise of institutional

strategic planning are the same although they are expressed differently: one based on demand and learning from its own past while the other is also driven by demand but based on the past experience of the older institutions. Unlike the older universities that were created, in their time as new as new institutions with new infrastructure, the new universities established in the 1990s inherited old infrastructures, from other institutions that previously occupied these facilities and from which these universities were created. These facilities are neither sufficient nor in good enough condition to meet their needs. There are even areas where the new institutions are in worse condition, for instance, in the areas of library infrastructure, laboratories, and even space for large classes.

There, however, appear to be differences between the old and new institutions in the capacity of the new institutions to take advantage, more quickly and fully, of the new context of contemporary trends. The newer institutions appear better positioned to provide a favorable platform for these new trends to express themselves. In addition the leaders of these new universities are implementing new rules for managers, which appear to grant more autonomy to the latter.

A comparison between public and private universities would be useful. However, the only private institution included in the study is the UCAC, which is not representative of other private institutions, most of which do not have the legal status of university, even if they fulfill many of the functions of the universities and have operated more and more as key complements of the public universities. Most of these institutions are secular, although the churches do have current or projected institutions of higher learning in several countries including Madagascar and Côte d'Ivoire, and especially DRC. Most of the secular institutions are owned and operated by nationals while a few are more international. Université Ivoirienne-Canadienne that offered its first Masters diplomas in 2002. Although some of these institutions may not even be called universities, they actually participate in the provision of higher education knowledge systems and services and thus, it would have been informative to have them included in order to know at least if and how they influence the process of change in the universities. The growing component of distance learning should also be taken into consideration in order to address higher education in a comprehensive framework.

Table 6: Innovation Matrix in Francophone region

LEVEL AREA	System	Institution	Faculty	Total
Strategic Vision and Mission	-	16	7	23
Financing	-	7	1	8
Access/Equity	1	7	-	8
Quality and Curriculum	-	30	8	38
Relevance in teaching, research and service	-	11	8	19
Staff development and retention	2	8	-	10
Governance	-	11	-	11
Student Life	-	7	1	8
TOTAL	3	97(92.3%)	25(20%)	125

*Number of individual innovations reported without the multiple counting by critical areas: 105 cases.

As in the responses from Southern and Eastern Africa, most of the innovations in Francophone Africa are located at the level of institutions and again as in the responses from other regions in this study, very few are reported at the system level. As in other regions too, the dearth of innovations at the system level could easily be explained by the fact that respondents to the questionnaire were university personnel who, in spite of instructions, therefore, chose to respond only to institutional issues at the expense of external system-wide issues. Thus, had the questionnaire been sent to ministries of education, for example, system innovations would probably have been better captured.

However, compared to the other regions, the Francophone region has a higher percentage of reported innovations at the institutional level. It is suggested that one reason for this could very well be the centralized tradition of administration in Francophone universities, whereby little autonomy is granted to or sought by people at the lower levels of the administrative ladder, a fact that could explain the comparatively few reported innovations at the faculty/departmental levels. (N'Dri Assié-Lumumba :2002) compared to the other regions. However, in order to avoid an inaccurate reading and an erroneous interpretation of the process of change in francophone countries, it might be appropriate to point out that although the presidents, rectors, and vice-chancellors were asked to direct the questionnaires to the appropriate units/individuals to fill them out, the mere fact the questionnaires were directed to the institutional level may have influenced the level of innovations likely to be reported, (N'Dri Assié-Lumumba: 2002).

It is evident from table 6 that quality and curriculum have been identified as the most important area for innovative efforts. Innovations in this category, range from introduction of new courses to the use of computers in teaching and learning. Innovations aimed at increasing relevance are also worth noting especially because they are increasingly manifesting themselves in better communication with and service to the wider community and society, (N'Dri Assie' - Lumumba: 2002). Equity and access are not major areas of innovation and when they do receive some attention, they tend to be in gender terms only, thus neglecting other dimensions such as class and regional/spatial, (N'Dri Assie' - Lumumba: 2002).

Student life/service has not attracted many innovations even though student strikes continue to disrupt the functioning of many universities, including the disruption of the fieldwork for this research. Yet, innovations to improve student life, while not necessarily cheap to implement, are easily identified. Normally they would include integrating students in the running of the university through better representation, creating placement offices, offering on- campus employment, offering counseling services, offering recreational facilities e.t.c. Quite surprisingly issues of vision and mission also rank quite high, compared to the other two regions. Financing innovations do not seem to rank very high even though one would expect this category to rank quite high.

Similarly governance issues do not rank very high. This is quite surprising given the prominence of the governance discourse in the 1990s. The reason why governance has not been the subject of more innovations in Francophone universities could be that the issue has been reduced to the selection by election, of university rectors/presidents. Indeed it has now become a reality that the head of a university must be elected even though this has not substantially changed the highly centralized and politicized administrative structures and culture. To the extent, therefore, that governance is addressed beyond the narrow concern of electing the heads of institutions, it is again restricted but this time to the improvement of technical support for management as opposed to a search for broader participation in decision making and enhanced transparency, (N'Dri Assie' -Lumumba: 2002).

The innovations in Francophone countries appear to exclude some of the major challenges. For instance, the rate of HIV/AIDS infection in Côte d'Ivoire and Burkina Faso, are estimated above 10 percent, the highest according to available statistics in West African countries. Although it is lower in West Africa compared to several Southern African countries, it has still reached a level that requires massive intervention. Yet, the innovations reported do not include any component on the subject of HIV/AIDS, except for one health insurance scheme in Burkina Faso. This is different in southern Africa and in some Eastern African countries which have built into their programs general health and HIV/AIDS components. Again it is quite possible that innovations in this area failed to turn up on

account of the profile of respondents, given that innovations of this type are more likely to turn up at the faculty and departmental levels.

4.3.4 *The aggregate Matrix*

Combining the regional Innovation Matrices presents an aggregate picture of the survey returns. This is presented in table 7 below.

Table 7: Aggregated Innovation Matrix

Unit	Area/Level	System	Institution	Faculty	Total
1.	Strategic Vision/Mission.	-	43	11	54
2.	Financing.	-	45	10	55
3.	Access/Equity.	1	55	10	66
4.	Quality and Curriculum.	1	62	45	108
5.	Relevance in Teaching, Research and Service.	-	44	72	116
6.	Staff development and Retention.	2	33	6	41
7.	Student Life.	-	31	1	32
8.	Governance.	-	32	2	34
	TOTAL	4	345 (68.2%)	157 (31%)	506

*Note. The totals in the matrix add up to more than the 453 responses reported due to multiple coding in the regional matrixes.

As expected, the combined matrixes do not reveal anything new beyond what is evident in the regional matrixes. Most of the innovations are at the institutional level, compared to system and faculty/departmental levels. Relevance, quality and curriculum issues by far dominate the areas of innovation reported in the survey. In this regard, the Francophone region is different. In the other two regions innovations in relevance and to a large extent in curriculum are reported as taking place at the faculty level, where one would indeed expect them to be located because of their very nature. Apparently, this is not the case in the Francophone region.

Student life, staff development and governance areas rank low and the financial area does not rank as high as one would have expected. Specific reforms related to HIV/AIDS are not mentioned though some turned up during field visits. Possible explanations the trends depicted in table 7 have been offered in the regional summaries above. We shall, therefore not repeat them here.

4.3.5 Innovations in Ghana

4.3.5.1 Policy and System Levels

The study on Ghana, the only one carried out in a single country, represents Anglophone West Africa. It revealed similar trends in higher education innovations. Innovations have been taking place both at the system and the institutional levels. Current reforms are traceable to the 1991 Government White Paper on Reforms in the Tertiary Education System that outlined the principles underlying the reform process. One of the outcomes of the White Paper was the establishment of The National Council for Tertiary Education in 1998.

The other major output of the tertiary education programme was a set of policy reform objectives that include: establishment of an Integrated Tertiary Education System; co-ordination of tertiary education with other sub-sectors of the education system; making Tertiary Education more cost-effective and able to provide quality education; increasing funding for tertiary education; providing greater access to tertiary education for qualified people and significant increase in the proportion of women students; restructuring enrolment and output of tertiary institutions to achieve an appropriate balance in the provision of skills in science, technology, social sciences, humanities and the arts in relation to national needs; achieving balance between the supply of higher diploma and Technician Level Personnel; introducing programmes and courses for advanced technician training in appropriate institutions; introducing programmes and courses geared to the working people for national development; ensuring overall balance between the supply of trained personnel from tertiary institutions and labour market demand; and improving the internal administration of all tertiary teaching institutions.

The policy reforms have resulted in major reforms at the system level. The major ones are:

Integrated and Coordinated Tertiary Education System

Under the new educational reforms three bodies were established to supervise and co-ordinate the tertiary education system. They are: The National Council for Tertiary Education (NCTE); National Accreditation Board (NAB); National Board for Professional and Technician Examinations (NABPTEx)

Upgrading of Training and Technical Institutions to Tertiary Status

Polytechnics were upgraded to tertiary education status to offer middle and high-level career-focused training and skills development required for national growth and development. In addition, with the support of Japan International Agency for Co-operation (JICA) the Ministry of Education

appointed a study team to prepare a master plan for the strengthening of technical/vocational education in Ghana. Demand-driven innovative programmes are to be introduced in six areas including Hospitality and Tourism, Manufacturing, Business and Information Technology in polytechnics using competency-based training (CBT). Polytechnics in Ghana are to introduce B.Tech programmes. Polytechnics have established Industrial Training Advisory Boards (ITABs), a medium through which expertise from industry is brought to bear on the work of Polytechnics.

The Regional Colleges of Applied Arts, Science and Technology (RECAAST)

One of the innovations envisaged under the White Paper mentioned above was the introduction of the concept of RECAAST, an amalgamation of institutions such as Teacher Training Colleges, Agricultural Training Colleges and Nursing Training Colleges on regional basis. Although this concept has not worked as envisaged, almost all of these types of institutions have been or are being upgraded and affiliated to one university or the other. Teacher training colleges are to be upgraded into diploma awarding institutions. Nursing training colleges have introduced diploma programmes and are processing their affiliation with the University of Ghana and KNUST.

The National Film and Television Institute (NAFTI) and the Ghana Institute of Journalism (GIJ) have introduced degree programmes through a process of affiliation with the University of Ghana. Thus, although the concept of RECAAST has not been implemented in the form envisaged, its object may be coming into focus with these developments.

Information and Communication Technology as a Tool for Teaching and Learning

ICT programmes have been pursued over the years by the public tertiary institutions in Ghana. The libraries in the universities provide email and Internet services to students. Ghana Inter-Library Lending and Document Delivery Network (GILLDNET) has been established with the Balme Library of the Legon playing a leading role. The University of Education at Winneba and the Ho Polytechnic have formed a partnership with private providers to set up ICT facilities on campus to augment available provision at a cost to students.

African Virtual University sites have been established on the campuses of the leading universities with the capacity for exchanges between the universities in Ghana and their counterparts abroad. The AVU's have been offering training in computer literacy and advanced computer skills to students on demand.

Changes in Governance and Management Structures

As part of the new education reforms, a number of changes have been initiated in the governance of institutions at the tertiary level. The President of the Republic of Ghana, for example, can no longer be the Chancellor of a public university. Chancellors are now appointed from among persons who have distinguished themselves in various spheres of life. The Governing Councils of the respective tertiary institutions rather than the government are the appointing authorities for the chief executives of the institutions. The vice-chancellors, who were before appointed by government, are under the 1992 Constitution of the Republic of Ghana, appointed by the University Council.

Strategic Planning: Public universities are adopting strategic planning and have been through at least one five year cycle. They are supported, in this exercise, both by partners from the local private sector and international Foundations.

Diversification of Funding

The White Paper on the Reforms to the Tertiary Education Sector proposed a new system of funding and financing of tertiary education based on cost sharing between government, students and the private sector. Under the new scheme, students were to gradually assume the responsibility of payment of full costs of lodging and incidental expenses.

Implementation of this policy has faced stiff opposition considering the fact that government had since the inception of university education in Ghana, taken on full sponsorship of all students, which included not only boarding and lodging but also a stipend. Opposition has been based on the perception that cost sharing is part of the World Bank's structural adjustment regime.

Today, the concept of cost sharing is no longer being debated. What continues to raise critical debate is its form and impact on matters of equity. Students now make contributions towards the use of academic and residential facilities. A good number of students now seek accommodation in private hostels. A related development is the introduction of sponsored fee-paying. Under the new policy, the approved quota for both fee-paying Ghanaians as well as foreign students is 5% of the student population in a given public university.

A major landmark on the tertiary education landscape is the introduction of the Ghana Education Trust Fund into which two percent of Value Added Tax (VAT) proceeds are paid. This is meant to supplement to government's budgetary allocation to the education sector. The key drive for this innovation was agitation by constituencies in higher education for increased funding to their sub sector specifically.

Gender Equity

There has been marked improvement in the enrolment of females in public tertiary institutions in Ghana (polytechnics and universities). This state of affairs is due to favourable admission policies of the institutions and promotional activities of non-government organisations. Female participation has increased from 25 percent to 38 percent in polytechnics and universities from 1996/1997 academic year to 2001/2002 academic year. The national policy is to achieve gender parity

Many of the current system and institutional innovations are, therefore, down stream strategies and activities generated from a national policy reform initiative. The institutional level reforms began about a decade after the national policy reforms. They were initiated by faculties, departments, and university management; a situation that is similar to the other regions in this report.

4.3.5.2 *Institution-Level Reforms*

Financing

The University of Ghana has introduced the following financial reforms: Fee paying aimed at 'generating 30% minimum of recurrent cost requirement. As part of this reform a hostel for foreign students has been put up from the participation of foreign students in University of Ghana programmes and a Deanship for foreign students has been established; The LLB has been turned into a post-first degree cost-sharing regime; Private participation in providing residential facilities has been introduced. Private providers are now being permitted to construct such premises. The university alumni have put up a Hostel as has the Ghana Hostels Company, a purely private concern. In all these students pay residential charges that allow the investor to fully recover the cost of the facility.

The Kwame Nkrumah University of Science and Technology has decided to experiment with the admission of fee paying students, both nationals and foreign. This has yielded considerable revenue and it is fast becoming a reliable, regular alternative source of financing.

The Central University College, a private institution finances itself through students' fees and sponsorship by the Church. Ashesi University, another private institution that opened its doors in 2002 has been very active in fundraising. The institution has to date raised US\$ 2.6m

Curriculum Quality/Access

The University of Ghana has: created an 'off campus' degree awarding facility out of the 'Workers College', which is in the City Centre. (Legon the main campus of the university is some 13 kilometres outside the city of Accra.) This off campus facility awards degrees in humanities. The courses are mainly run in the afternoons thus allowing working people to enroll and still keep their jobs. The university has introduced computer literacy as a graduation requirement and established a Medical Education Unit in the College of Health Sciences. Established in 1999, the Unit is used in evaluating courses, clerkships, curricula, teaching methods and examination in the College of Medicine. Workshops and Seminars on Teaching Methodologies as well as courses in proposal writing for grants are also mounted annually. Modularized graduate programmes have enabled the School of Public Health to offer flexible and consistent problem-based teaching and learning. The university has been closer to the community through the 'Leventis' Agricultural programme, for example. Sponsored by the Leventis Company, the programme brings farmers to the Agriculture Research Station of the Faculty of Agriculture, for 10 months to train in various aspects in their areas of interest. Intensified computerisation of the administrative processes has been introduced for; admissions, students' records, examinations, personnel records, accounts and payroll. This has facilitated timely reporting and retrieval of information thus enhancing management operations. The measure has assisted in improving the quality of institutional management.

Kwame Nkrumah University of Science and Technology has: focused the curriculum of the department of Civil Engineering on using new and locally available materials and technology in the Housing and Construction industry; reformed the Agriculture Engineering Department so that it is now able to develop and fabricate implements for farmers. This is feeding into the quality and relevance of the teaching programme. Graduate students in this programme are provided entrepreneurial skills mainly in business management and administration.

The University Of Cape Coast has introduced community attachment by way of a Supervised Enterprise Project for B.Sc. Agriculture Extension students who now must spend one semester of their programme undertaking an enterprise developed and driven by farmers in particular localities.

The University of Development Studies has introduced: practical attachments for students in the Faculty of Applied Sciences who now must have at least 6 weeks of practical training in establishments relevant to the courses taught at the faculty; problem- based and community based learning at the School of Medicine and Health sciences; community attachments in the Faculty of Agriculture. Students and teachers live in the

community for 7 weeks during the 8-week field trimester. The Participatory technology development (PTD) model has been fully incorporated into the teaching curriculum of the faculty. The model teaches students the important role the people and communities have to play.

The University of Education at Winneba has introduced: distance learning through radio: a Centre for Policy Studies in the Department of Specialized Professional Studies in Education. The Centre serves as a research and training centre for policy, administration and management issues. Emphasis is placed on policy issues that are relevant to the development of education in Ghana. A data bank of policies has been established; a B.Ed (Post Diploma) and Diploma in Basic Education programmes; the most advanced distance education programme in the country. There are three major private universities in Ghana. They are: Valley View sponsored by the Seventh Day Adventist Church, Central University College, sponsored by the International Central Gospel Church (a Private Pentecostal Church); and Ashesi University initiated by a Private businessman. They reported curriculum reforms whose major thrusts are expansion and diversification

Central University College was envisioned to be a place where “transformational leaders would be trained.” It started in October 1998 with a few students. By October 2002, the student population had grown to 2000. Beginning with two courses in the School of Theology and Missions, the institution now covers additional six courses offered at the School of Business and Management and Administration, The business programmes include BSc degrees in Management, Administration, Agribusiness Management, Banking and Finance. Diploma programmes are also offered in Business Administration and Human Resource Management.

Ashesi University started instruction in March 2002, offering four-year undergraduate courses in computer sciences and business administration, based on liberal arts core curriculum. Working in collaboration with Swarthmore College, (the College of the Founder), University of California, Berkley; University of Washington and Microsoft Corporation, (where the Founder worked for a long time) the institution has developed an innovative curriculum that is aimed at giving its students the skills and knowledge necessary to compete effectively in the global economy. The curriculum integrates liberal arts with cutting edge business and computer science.

Student Life

At Kwame Nkrumah University, students have decided to contribute voluntarily into a fund for building a hostel for students. Freshmen contribute ₵ 120,000 and continuing students ₵ 50,000. The University of the Cape Coast has established a radical residential policy. Students, on admission, spend a year in residence then take two years out of residence and then return to complete the programme in residence.

Institutional Reforms

The University of Development Studies

The institution operates a trimester system, which allows the students to devote a semester to community attachment. The arrangement makes the training different from other institutions in Ghana and underpins the institution's development-oriented stance. During attachment students are expected to gather data through the use of participatory rural appraisal techniques, and submit findings to District Assemblies and Development Agencies.

In all, the innovations reported from Ghana are similar to those from the other regions. Most are in the area of curriculum reform and seem to have been initiated mostly at the institutional level. Few are in the area of student life. None is addressing HIV/AIDS. The Ghanaian study is however different in the way system level policy reforms have triggered innovations at institutional levels.

4.4 The Innovation Areas

4.4.1 *Vision and Mission*

The new vision/missions can be located in two ways. Either they are direct statements or they are deducible from what the universities are doing and how they are doing it. When they are direct statements, they are, of course, much easier to analyse than when one has to deduce them from activities, which are often scattered in tens of units in any one university. The most common trend these days is to develop a written statement, usually, though not always, as the first stage in a long process of producing a strategic plan. In this report we are interested in the two locations of visions, but more so in the first location. The word "vision" is used broadly to incorporate vision, mission, mandate and the core values of the institutions.

Though not among the top three mentioned innovation areas, most African universities have now embraced the development of new strategic visions. This compared to the 1980s and 1990s when this type of exercise was largely seen as an external imposition of possible financiers of the universities. In a sense then, one of the most important systemic innovations is the embracing of the vision development exercise for two reasons. One, the visions are increasingly being followed by strategic planning, which means they are not just empty statements but are helping to generate some university management tools. Two, the visions could very easily become the vehicle through which a collective statement of the African universities' aspirations might emerge and not the other way whereby the collective aspiration is an abstract creation of education reformers. In this regard, an interesting exercise would be to collect all the visions and to subject them to a critical analysis to see what collective picture emerges.

It is perhaps not inaccurate to say that, for most universities, covered in this study, and especially the newer ones, the current vision development exercise represents the first time, at best the second time, that these universities have been involved in the exercise. Hitherto most were content to operate under the old “all seasons” vision and mission, whose uniform theme was easily reducible to the two innocuous functions of the university-teaching and research. In contrast, the current exercise seems to be a little bit more ambitious and appears aimed to direct the universities beyond the traditional twin mandates of teaching and research. The still evolving vision and mission statements seem to have a number of common threads. They are seeking new sources of mandates; they are seeking to make universities more relevant; they are upholding the virtues of quality and in some cases equity; their underlying philosophy is incremental rather than transformational; and overall they indeed represent what the universities would indeed like to become, especially with regard to the enumerated values.

The visions seem to seek to expand the sources of the university mandates. Traditionally, most of the universities have perceived their mandate as coming from the state, with the latter also having the responsibility of determining the universities' overall direction. The new vision statements seem to acknowledge community and other non-state entities, such as the private sectors, as legitimate sources of university mandates, whose interests, therefore, must be taken into account in designing university programmes. Thus a good number of them have included community attachments in their curriculum designs. These include; University of Ghana; University of Development Studies Ghana; KIST, Rwanda; Mbarara, Uganda, Universite` de Toamasina, Madagascar, and several others in this study.

The visions reflect a new quest for “relevance”. This is done in several ways. Firstly, the word “relevance” usually appears in the mission statements. Secondly, there is an expressed desire on the part of the universities to play a role either in development in general, or more specifically, in poverty alleviation. Thirdly, some cases, the quest for relevance is reflected in a specific endorsement of local/indigenous knowledge. Fourthly, a few universities have been started specifically with relevance in mind. This is, for example, the case with the University of Development Studies in Ghana, the Oshakati campus in Namibia, Mbarara University in Uganda, Shandi University in the Sudan and Universite d'Abobo-Adjame, Cote` d'Ivoire. Fifthly, there seems to be a greater appreciation of the value of multidisciplinary, if not interdisciplinary knowledge. Sixthly, a good number of universities are seeking to define niche areas. For example, Cape Technikon has embarked on a process of *redefining the institutional niche areas and programme mix*. Thus, course heads have been instructed to critically reflect on their programmes in relation to a changing target audience, the nature of the need being addressed, changing labour market demands, and the competencies developed through the programme. The

Kigali Institute of science and Technology, in Rwanda, the Jomo Kenyatta University of Agriculture and Technology, in Kenya, and the University of Mauritius also seem to be moving in the same direction. They are all seeking a technology-based niche, with the University of Mauritius seeking to carve for itself a regional niche in computer science and IT.

The new visions recognize that two of the biggest challenges facing African higher education are: maintaining quality in the context of rapid expansion and dwindling resources and contributing towards social justice by promoting equity. Thus nearly all visions include the intention to provide high quality education as well promoting equity. Alternatively, these issues are mentioned as part of the underlying values of the university vision.

One of the characteristics of the evolving body of visions is that most are couched in the philosophy of incrementalism. Thus very few are grounded in the philosophy of transformation. In this study, perhaps only four universities fall in the latter category; the University of Pretoria in South Africa, the University of Lesotho, the Central University College, Ghana and Universite Ouagadougou, Burkina Faso. The University of Pretoria has sought to redefine its mission and role from that of a predominantly conservative, white Afrikaner, male-dominated institution, to that of a university, which encourages access to higher education for the entire South African population. It also aims to ensure that the institution is nationally and internationally competitive. To achieve these ends, the University has introduced a new *Integrated Marketing and Communication Model* within a decentralised management system, to market their new institutional image. [It should be noted here that, in the context of post-apartheid South Africa higher education policy, transformation is a key word. Accordingly, all institutions now define their strategic missions and change initiatives in terms of transformation. However, the extent to which change actually realizes the stated policy goal of transformation is not clear. Consequently the policy objective should be the subject of continuing monitoring and research.]

The University of Lesotho has established a *Transformation Forum* as part of the process of self-evaluation and analysis. The Forum comprises both internal (staff and students) and external (government Ministries, Chamber of Commerce, Alumni Association, Parents' Association, non-governmental organisations and community-based organisations) stakeholders. The four transformation themes include the relevance of academic programmes, fiscal resource mobilisation and management, human resources development and management, and the relevance of institutional organs and structures. The Central University, Ghana was started in 1998 with the stated mission of training transformational leaders.

Two examples of the new vision/ mission statements illustrate the above general points.

The proposed vision of the University of Nairobi, Kenya, is:

To be a leading centre of excellence in the pursuit of development, dissemination and preservation of knowledge, inspired by African values, and committed to virtues of quality and relevance; and to contribute to the dynamic socio-economic and cultural development of Kenya, Eastern Africa and the world at large) The mission of the university is to maintain a leadership role in the pursuit of development of knowledge through quality and relevant teaching, research, consultancy and community service. (UON 2002)

The vision of the University of Botswana is:

to be a leading academic centre of excellence in Africa and the world. The mission of the University is to advance the intellectual and human resource capacity of the nation and the international community. (University of Botswana: 2000)

A statement of values, upon which the implementation of the vision will be based, usually accompanies most of the vision/mission statements. The University of Botswana, for example, has opted for the following values: *Students centredness; Academic freedom; Academic integrity; Cultural authenticity; Internationalism; Professional and ethical standards; Social responsibility; Equity; Autonomy as an institution; Public accountability; Productivity*

With a change of a word here and there, the above vision and value statements could be about any African university except perhaps those seeking a highly specialized niche. Even then, the niche would probably be an addition to the general vision, which would most likely resemble the above statements. The values of the University of Botswana are interesting in that though they are stated as values; they are, on closer examination, aspirations. Thus, they represent what, the universities are yet to achieve. They are, therefore an integral element of the new vision.

4.4.2 Relevance

In addition to what we have already mentioned in 4.4.1, the search for relevance is manifesting itself in many other ways. These include: deliberate re-orientation of universities towards local communities; putting more emphasis on indigenous knowledge; links with the private sector; mounting bridging courses in areas considered to be crucial for national development; and mounting programmes, again considered critical for national development.

Traditionally universities have paid some homage to the notion of community responsibility usually done through an on and off community project, which neither the university nor the students took very seriously.

This appears to be changing. In this study, the new and more serious forms of university-community interaction seem to go beyond the traditional idea of community service to a greater appreciation of the community as a partner in the fulfillment of the overall university mission. Furthermore, there seems to be a greater appreciation of the need for the universities to engage in more community capacity building and empowerment. This is evident in many universities, including, for example, the Community Higher Education Service Partnership Programme of the University of the Free State, South Africa, that seeks to integrate community service with learning in collaboration with local communities; the establishment of a Community Development and Education Unit at the Oshakati campus, Namibia; the community attachments programmes at KIST in Rwanda, Mbarara in Uganda, Moi in Kenya, University of Ghana, and the University of Development Studies, Ghana; tapping of indigenous knowledge in arts through teaching by artists with relevant expertise at Universite de Bouake; research collaboration between postgraduate students and farmers at the university of Malawi.

This new mood is perhaps best captured at the universities of Namibia. The Faculties of Humanities and Social Sciences, and Law at the University of Namibia have embarked upon an initiative to bring about the *empowerment of local communities through indigenous knowledge*. This multidisciplinary research project focuses on the previously neglected areas of local/community history, customary law, traditional medicine/healing, and liberation politics. Some of the projects have included the establishment of a community-based museum in Warmbad in southern Namibia; the codification of customary law in Namibia; and, appropriate technology indigenous knowledge and its relevance for the sustainable utilisation and management of natural resources.

Related to the new community orientation is the new awareness about indigenous knowledge- an important but still contested issue. One of the most exciting series of innovations related to relevance revolves around the desire to incorporate indigenous knowledge into the corpus of university knowledge. This type of innovation is exciting partly because it is sometimes controversial and partly because it has some transformative potential. It is controversial because some of the more conservative researchers and teachers still have to be convinced that this type of knowledge, for example, indigenous psychiatry is actually knowledge. It is potentially transformative because in some cases it is empowering local communities while at the same time beginning to redefine the university teacher to include, for example, indigenous herbalists, some of whom have never been to a modern school let alone a university. Innovation in this category include: an innovation at Universite de Bouake, Cote d'Ivoire that has integrated traditional artists in the training of students; the creation of the Center for Complementary Medicine and Biotechnology at Kenyatta University, Kenya, one of whose objectives is to foster research in traditional healing methods; and the work being done in the department of

Biochemistry, University of Ghana. The above-mentioned University of Namibia community programme also belongs to this category. Although at its initial stages it is worth noting that the Universite Bangui, Central African Republic, envisages to set up a comprehensive programme in indigenous knowledge and medicine.

Collaboration between the universities and the private sector is evident in many universities covered in this study, including the University Of Douala, Cameroon, the Cape Technikon, South Africa, the University of Namibia, University of Nairobi, JKUAT, KIST and many others. The collaboration has taken many forms, including, joint research activities intended to boost commercialized research, joint curriculum review, industrial attachments, provision of outright research grants to universities, provision of scholarships in certain fields, support to dissemination activities. One of the major problems facing innovations in this area is that, except for South Africa, many industries in the other region are not sufficiently endowed to offer major support to the universities. In some countries, such as Rwanda, hardly any industries exist.

A closer look at the types of bridging courses offered by most universities indicates that the universities are being selective in that they tend to offer these courses in those areas considered most relevant for national development, in particular, science and technology, including computer science and engineering. These courses and mathematics also happen to be the worst taught at the secondary school level, hence the need for the bridging.

A look at the above innovations shows that most of the programmes have been designed with relevance in mind. In some cases, this has been interpreted to mean response to market demands as in the case of the many parallel degree programmes. In some other cases, this has been interpreted to mean response to perceived national problems. Either way, new programmes have been designed around such concerns as gender, IT, food and nutrition. In addition, new, more relevant delivery mechanisms are being designed, including distance education. Concepts, such as life long learning, complement the move towards more relevance.

There are two areas that are relatively neglected in the category of programme innovations. These are; programmes on leadership and regional approaches to programme development. In Southern Africa there are few exceptions. One is The *Institute of Peace, Leadership and Governance* at Africa University that was established in response to the need for peace, effective leadership and good governance as prerequisites for development in Africa. The Institute offers a Masters Degree programme in Peace, Leadership and Governance; advanced diploma courses; executive development programmes conferences, workshops and seminars. The other is at the Cape Technikon. The *Top Cats Junior Leadership Programme at the Cape Technikon* seeks to develop strong

leadership skills in technikon students for leadership roles in various clubs and societies and institutional governance, and also for leadership roles in society.

Students are trained in problem-solving techniques such as collecting information, generating ideas, creativity, analysing and displaying data, reaching consensus and planning action. In addition, the University of Pretoria, together with the Universities of the Western Cape and Dar-es-Salaam, and in co-operation with the Desmond Tutu Academy in Cape Town, have established the *Desmond Tutu Chair in Leadership Development and Future Studies*. A senior academic is invited for three years to develop courses to run postgraduate seminars and to stimulate research in the areas of Leadership Development and Future Studies. In the Eastern Africa region only two universities reported programmes on leadership, the University of Dar-es-salaam, Tanzania and KIST in Rwanda. None were reported in the Francophone region. Central University College, Ghana, also has a leadership development mission.

With regard to regional approaches to programme development, Rhodes University reported their participation in a *regional (Eastern Cape) initiative, which aims to reduce unnecessary duplication in the provision of higher education programmes* at the regional level. Through the regional higher education consortium the Eastern Cape Higher Education Association all institutions in the region have agreed to inform each other of intentions to introduce new programmes. All the other HEIs are given four weeks to object to the proposal and/or to identify areas of potential collaboration, before the proposal is submitted to the Minister of Education. Université Gaston Berger, Senegal, has a regional breath as its programs target areas that are of common interests to Sahelian countries. This regional mission was emphasised during the 1992 study on Francophone universities by the author of the Francophone regional report included in this synthesis.

4.4.3 Finance

Innovations in finance are well known and fairly well documented. They include; mounting of parallel degree programmes; admitting self-sponsored students into the regular programmes; introducing cost cutting measures through, for example staff retrenchment programmes and outsourcing of some services; mounting of short demand driven courses for targeted clients; introducing staff rationalization through, for example, development of models of staffing; fundraising; consultancies, including creation of special consultancy units in some cases; incorporating university companies with the special responsibility of coordinating income generating activities. All these methods were captured in this study. Two observations, which came up often during site visits, are worth making here.

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First, the universities are still overwhelmingly dependent on the state for their financing, except, of course private universities. In this regard, one is struck by the absence of a truly innovative method of fundraising. Rather, what the innovations reveal are somewhat discreet activities. The innovations show only three well-orchestrated, highly coordinated fund raising campaigns both in the Southern Africa region. The first of these is the University of Swaziland, which has undertaken *extensive fund-raising activities* in order to generate the funds required to build a home base for the new Institute of Distance Education. Fund-raising has been targeted at the Swaziland government, the general public, the private sector, donors and individuals. The second is that of the Bunda College of Agriculture at the University of Malawi. In response to reduced government funding and donor fatigue, the College has *appointed a Business Director and a Development and Marketing Manager* whose responsibility it is to improve the financial base of the College through fund-raising, and to market the College to donors. The third is perhaps the University of Pretoria Business Enterprise Division, which could be regarded as a fundraising initiative even though this primarily involves sourcing funds from commoditization of knowledge and services.

The relative under-emphasis of fund raising campaigns could plausibly be explained by the fact that, in most cases, there are no local industries to raise funds from. Still it might be possible to raise funds from external agents. When this is done it is mainly for specific research activities with little funding for institutional development. Even in research fundraising, the majority of universities have been less than successful in doing this, with the consequence that research is terribly under funded.

Two, efficiency in financial management still remains a major problem in most universities, an issue that some of the universities in this study are trying to address and that more should endeavour to address. Still this innovation does not feature much in this study. What features prominently is the sufficiency dimension of financing. One of the few exceptions is the Bureau for Institutional Research and Planning at the University of Pretoria which has introduced an *Academic Staff Budget and Allocation Model* that seeks to rationalise the use of academic staff's time, thereby combating the cutbacks in state funding and assisting in managerial decisions on academic staff provision and allocation to schools/departments. The Model is based on a time-driven accounting procedure.

4.4.4 *Curriculum/Quality*

Innovations reported under this category were in the area of curriculum and programme development; new approaches to teaching and learning, often combined with the introduction of new educational technologies; and quality assurance. Whether developments in these areas have taken the form of comprehensive, institution-wide curriculum reform, or whether

they have focused on specific aspects of teaching and learning, HEIs are responding to changes in the local and global contexts in a variety of ways. These contexts include, for example, international trends in higher education, such as open, lifelong and flexible learning; the impact of information and communication technologies; and, demands from external stakeholders such as government, business and industry, and local communities. Innovations in this category therefore overlap with the relevance category.

Curriculum restructuring is one of ways universities have responded to the problem of curriculum reform. One of the most common forms of restructuring is modularization which is designed to complement the introduction of the semester system. The modules are delivered in several ways. Some, like KIST, Rwanda, refer to this innovation as the cumulative credit system. The system allows a student to obtain a Certificate, a Diploma, an Advanced Diploma and finally a Degree with each award being self-standing but each leading cumulatively to the next award. Thus, the student can terminate studies on obtaining any one of the awards and resume studies any time thereafter if he/she so desires.

Others, like the University of Mauritius refer to the system as the Cash Accumulation and Credit Transfer system. The Rands Afrikaans University, South Africa, has a similar system called the “honourable exit levels” that allows a student to exit with a certificate or a diploma if for some reason they are unable to complete the degree programme. The University of Natal has also adopted a modular approach to curriculum design. In Francophone Africa, Universities of Ouagadougou, Burkina, Faso, Abobo-Adjame, Cote D’Ivoire, have also adopted a modular credit system. Kenyatta University in Kenya has recently introduced a system similar to that of the University of Mauritius.

Innovations in curriculum have also increasingly taken the form of introducing new programmes as indicated above. This is usually in response to the problem of relevance indicated above. Of special interest in the eastern Africa region is the appearance of such non-traditional degree programmes as refugee studies and tourism in Kenyan universities and the somewhat rare leadership programs indicated above. Curricula for most of the community outreach programmes are also usually quite new as are curricula in traditional medicine and other areas of indigenous knowledge.

Most of the reported on-going curriculum reforms are incremental in nature with very few universities engaged in university-wide reforms. The best examples, in the latter category, are all from the southern Africa region. These are: Pretoria, Natal, and Venda, South Africa; the Universities of Malawi and Lesotho. *Education innovation* at the University of Pretoria spans the management of education innovation; continuous renewal of the educational model; e-education and new learning environments; information technology infrastructure; electronic academic information

service; partnerships/alliances with other education institutions and the private sector; interdisciplinary programmes and a modular system; rationalisation of faculties; computer literacy and language proficiency of students; the restructuring of research at all levels, including the introduction of research focal areas; and, mechanisms for quality assurance and assessment.

The University of Natal has introduced institution-wide curriculum development with the objective of producing graduates who are able to meet the demands of a developing society in the knowledge economy. As such, students acquire competencies in a range of areas including research skills; critical analysis and problem-solving skills; basic numeracy; good writing and presentation skills; and, familiarity with information technology. The University has adopted a modular approach to curriculum design, which has facilitated the development of the new curricula. There has also been a move towards mixed-mode, materials-based education.

The University of Venda for Science and Technology has undertaken *widespread reform of the curriculum* in line with the change in focus to science and technology to ensure that it is sensitive to regional and international issues such as gender, disability and globalisation. It has also involved the infusion of indigenous knowledge and technologies into the curriculum from such diverse fields as traditional arts and crafts, traditional cosmetics, traditional food systems and medicine, knowledge of the environment, and African civilisation. Amongst the new programmes that have been introduced are Youth and Gender Studies, and an Institute of Indigenous Knowledge Systems. Curriculum restructuring has also involved the introduction of core modules on African Civilisation, computer literacy and communication skills, and the curriculum is designed to be learner-centred, problem-based and project-driven.

Until recently, the University of Malawi's curriculum had remained the same since the institution's establishment in 1965. A *thorough review of the curriculum* has been undertaken and a range of new courses and programmes have been introduced that are relevant to today's needs and problems, such as the issues of HIV/AIDS, the environment and gender. A Gender Studies and Outreach Unit, and a Natural Resources and Environmental Centre, have since been established. The Faculty of Agriculture, in consultation with stakeholders, has developed a new 4-year BSc Degree programme with several new course options out of the old 5-year programme, and has introduced demand-driven short courses. The University of Malawi has also attempted to expand postgraduate provision through the introduction of new postgraduate programmes in Economics and a Masters programme in Environmental Issues.

All the faculties at the National University of Lesotho (Agriculture, Education, Humanities, Natural Sciences, and Social Sciences) as well as the Institute of Extramural Studies have *restructured, or are in the process*

of restructuring, their programmes. New postgraduate programmes have been introduced at all levels in response to developing societal needs and demands. The erstwhile Faculty of Science has been transformed into a Faculty of Science and Technology, with a diversified curriculum. A new Faculty of Health Sciences is about to be launched.

New pedagogies are emerging and circulating. One that the respondents were quite excited about is field-based learning and its several varieties. The Université Catholique de l'Afrique Centrale in Cameroon appears to have a wide variety of courses using the field-based learning methodology, including business, human rights, human resources management, public policy, philosophy of education, and theology. Problem-based learning (PBL) is a variety of field-based learning now in use in a number of universities. Those which reported this innovation were: the Medical University of South Africa; the faculty of Health Sciences at the university of Pretoria South Africa; faculties of medicine at Moi University, Kenya and Mbarara University Uganda; the School of Public Health, University of Ghana; the University of Development studies, Ghana. The University of the Transkei, South Africa also uses PBL and actually exported it to Mbarara University following a consultancy by Transkei and a subsequent study tour to Transkei in 1996.

As opposed to traditional teaching methods, which start with the basic sciences in the first three years of medical training, PBL starts with a problem, which the students are required to solve. In the process of solving the problem, the students quickly discover that they have to work in groups because of the multi-dimensional nature of the problem. Thus, they start appreciating the holistic approach to learning, which requires that each student reads on an aspect of the problem and discusses this aspect with the other students if the problem is to be solved at all. Thus PBL is not lecture-based. Rather, it is based on group work with students largely learning on their own. Students are, therefore forced by the nature of the problem they are solving, to search for information on their own and to compete with each other.

PBL requires good resources, including a good library, good Internet connectivity, and good transport for field activities. For these reasons it might be difficult for many universities to adopt this pedagogy, one of whose virtues is that it is highly compatible with community orientation since in nearly all cases the problem to be solved especially in public health and community medicine are located in the community. Thus it is not, for example, surprising that among the Francophone institutions reported in this study, Université Catholique d'Afrique Centrale, with self-effacing modesty but solid resources, has spearheaded and is at ease with this pedagogy.

Quality assessment is one of the thorniest governance issues in most universities partly because most universities cannot agree on the

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mechanisms for the assessment. Quality assurance was reported by a number of the respondents though one gets the feeling that this aspect of curriculum quality still has some way to go. The reported forms of quality assurance include external examiners, establishing internal quality assurance standards, including creating quality assurance manuals. The Southern African region seems to have more institutions engaged in quality assurance than the other regions as a direct result of this being a key aspect of emerging national policy in South Africa.

Quality Assurance and Promotion in Research: a process at the Potchefstroom University began with the development of a manual, upon which all postgraduate programmes and research activities at the University were fundamentally re-evaluated and restructured. This led to the development of 13 focus areas linked to the broad fields of the National Qualifications Framework. The process also includes external audits, peer review, and annual self-evaluation (SWOT analyses) concerning effects on research practices, publication outputs, postgraduate student numbers and success rates, research development, co-operation links and the promotion of research team strengths. A university Assessment Committee was also established.

A *Quality Care Programme* has been established by the Centre for Higher Education Studies at the Rand Afrikaans University which seeks to promote and ensure quality and relevance in all aspects of university life teaching, research and institutional mission, vision and focus. The quality process is driven by a representative *Quality Care Committee* whose activities include departmental self-evaluation for academic and non-academic staff under the guidance of an international expert and student feedback. A number of structures have or are being put in place around language competency, ethics and research methodology training.

Standing Committees in the Faculty of Natural Science at the Rand Afrikaans University have been established: To ensure that systems are in place to effectively manage research, graduate output and expansion, and community/social responsibility activities. These committees include the Faculty of Natural Science Academy for Extra-curricula Instruction; a Research Committee; and, Postgraduate and Undergraduate Examination Committees.

Potchefstroom University has introduced a *Learning-Management System (LMS)*, developed specifically for the University, in order to better manage the new virtual aspects of flexible learning (e-learning). The LMS is an electronic system called "Alexander", which was developed by the University, in collaboration with an outside firm. The University of Lesotho also reported that they conduct periodic workshops on academic programmes assessment and development/improvement, and reviews and evaluations of the subject system, as part of their quality assurance approach.

In the Francophone region the Universite de Ouagoudougou at Burkina Faso reported that it has established an evaluation mechanism. Cocody, Cote d'Ivoire reported two innovations both for monitoring teaching, especially workload by departments. Cocody also reported what sounds like the most exciting innovation, at least for teachers although it is still limited to the School of Medical Sciences- a system of automated correction of exams with an optical scanner. Unfortunately details on this exciting innovation were not reported.

In the Eastern Africa region the University of Mauritius reported what is potentially a very useful innovation, the establishment of a University Quality Assurance Team (UQAT). The UOM established the UQAT in 1999 as the institution's response to this general problem. The UQAT is a sub-committee of Senate and is chaired by one of the pro vice chancellors. In order to function effectively, the UQAT has sub- committees in the faculties and centres.

The UQAT has a wide mandate which includes: developing student feedback questionnaires, developing information sheets on academic modules, preparing a compendium of the various university academic/ non academic rules and regulations, restructuring of filing in central administration and conducting mock institutional audits from time to time. Unfortunately, UQAT is one of those innovations with a long process. At the moment it is still in its infancy and, therefore, its effectiveness cannot as yet, be established. All the same, it has begun its work, concentrating initially on academic matters. However, its work is still being regarded as experimental and as such it is not yet integrated into staff promotion. If the UQAT works as expected, it will be worth keeping an eye on as African universities seek effective quality control mechanisms.

At the system level, The National Accreditation Board in Ghana is worth mentioning here given that it takes a system- wide approach. The accreditation process is conducted on the basis of a thorough process of peer review, which new universities have gone through. The process is working well for now even though it is hampered by lack of funding. The major test of will come when the older universities are assessed. This situation also applies to Kenya where the Commission for Higher Education has concentrated on chartering new private universities without follow- up quality assessment. The Commission has yet to tackle the politically sensitive question of quality control in the six public universities. The situation is not very different in the other countries covered in this study. Most have yet to establish system-wide mechanisms of quality control. A common feature in nearly all the universities is the increasing use of IT in a bid to enhance quality, including curriculum quality. The efforts are, however, uneven and seem to depend very much on the ability of each institution to acquire the necessary IT as well as national policies, capacities and infrastructure. Thus some, like the university of Mauritius and KIST in Rwanda are operating within well articulated national IT

policies with Mauritius, for example, in the process of establishing a Cyber City as a key element in the stated policy of positioning the country as the IT capital of the eastern African region with assistance from India.

For other universities, just installing a functioning Email system is quite an achievement. The more technologically advanced, like KIST, in Rwanda are assembling their own computers as well as serving as an ISP for the university and surrounding communities, including secondary schools. In all, the intentions are very positive with some universities like Cocody intending to establish a “Francophone digital campus”. Several Kenyan universities, including the University of Nairobi are also making commendable efforts albeit in the absence of a national IT strategy and a clear role for universities in this strategy. One of the most positive signs is the emerging computerization of university libraries, as in University of Dar-es Salaam, Tanzania, and UCAC, in Cameroon, for example.

4.4.5 Access and Equity

Some of the innovations in the area of access and equity have been discussed under other categories. They include: foundation programmes; affirmative action especially on admission of female students and in some cases students disadvantaged in other ways; various modes of distance learning; parallel programmes; scholarships for designated groups; spatial distribution of university facilities, including establishment of new campuses; All these types of innovations were reported. Two observations will complement what has already been presented.

The first one is the point made in the francophone regional study to the effect that equity issues in the region have tended to be understood in gender terms, specifically the female gender. The point seems confirmed by the innovations listed under this category. Of the seven innovations, four are intended to increase access for female students. This somewhat narrow perception of equity is worth more reflection for one gets the feeling that it is also true of other regions in the continent, partly because gender equity issues have become part of the university discourses and might, therefore, be easier to accommodate at the institutional level than other equity dimensions such as region and class. However, as noticed for instance during the 1992 study of universities in Francophone Africa conducted by the author of the Francophone report in this study, there is some mobilization and strategizing around the issues of the rights and special needs of physically challenged students even though no innovation in this area was reported during this study.

In general, the gender focused innovations offer two models with regard to the target-groups. One model focuses on female students by offering or projecting to offer scholarships to capable students with little or no resources. This is happening at UCAC, Cameroon. In addition, provision of a supportive environment, for instance better access to housing services is

taking place at Yaoundé I, Cameroon. Another model aims at offering a course to all interested students, with the expectation of changing their knowledge and values with regard to gender. The most comprehensive extension of this model is the creation of an academic unit to train students and also offer a series of activities such as seminars/workshops and conferences targeting the entire university community and its social surrounding. This is the model with the most immediate and long-term transformative goal, as articulated at Université Cheikh Anta Diop, Senegal.

The second observation one wishes to make is that the Southern Africa region, especially South Africa, revealed a more interesting variety of access and equity innovations than other regions, no doubt as a reflection of the transformation taking place in South Africa. In South Africa, transformation in relation to race and gender equity is high on the current national policy agenda. As a result, HEIs have been compelled to respond to calls for equity at both staff and student levels. In particular, the Employment Equity Act (1998) provided imperatives and incentives to bring about staff equity in three designated groups, namely; black people (including African, Indian and so-called Coloured people), women, and people with disabilities. South African HEIs have, therefore developed policies and introduced new structures aimed at bringing about equity. These have given rise to a variety of programmes and processes directed towards equity amongst staff but its effectiveness still remains to be seen.

The Rand Afrikaans University is in the process of establishing a *Transformation and Equity Directorate* to manage and facilitate employment equity activities. The University of Pretoria has set aside *special equity funds* to reach equity targets. The University of Venda has established an *Equity Unit* to redress race and gender imbalances amongst staff, and to improve the performance of students from designated groups. An Equity Officer has been appointed who will be responsible for ensuring that the action plans for staff development and recruitment are implemented. The *Employment Equity Policy*, at Potchefstroom University, was approved by Council in 1998. A budget is available to address employment equity, especially in academic positions, and Heads of Departments have set long and short-term numeric goals for employment equity. The first Equity Report was submitted to the Department of Labour in June 2000.

With regard to employment equity amongst staff, institutions have created posts, set goals for appointing staff, provided cash and other incentives for staff from designated groups to upgrade their qualifications, and introduced early retirement policies to make space for younger candidates. The Faculty of Education at the University of Pretoria reported that numerous African and female academics have been appointed and the staff component has been extended to include research staff. The Faculty of Law has implemented an *Academic Associates Programme*, which encourages

new graduates particularly those from the designated groups to further their studies and to consider pursuing an academic career. Academic Associates are appointed to the Faculty for one year where they participate in teaching and research activities and are given bursaries to pursue postgraduate study.

The Rand Afrikaans University's plan to bring about employment equity involves filling posts especially in the non-academic sector with individuals from the previously disadvantaged groups; the creation of senior academic posts for the exclusive appointment of African, Coloured and Indian staff; aggressive management of the University's Equal Opportunities Plan; and, the allocation of Masters and Doctoral bursaries, as well as assistant positions, to people from the designated groups.

Rhodes University has introduced the *Mellon Foundation Programme for Accelerated Development: Academic Posts*, which aims to enhance the employability of staff members of designated groups in order that they may compete successfully for permanent academic posts. Five 3-year contract posts for Junior Lecturers and Lecturers are created each year, and teaching loads are reduced so that members can complete their research or research degrees as well as the Postgraduate Certificate in Higher Education. In addition, mentors are appointed, development plans are drawn up, and ongoing monitoring of progress is conducted.

In a similar vein, the University of Natal's Employment Equity Office has implemented an *Academic Internship Programme*, which seeks to accelerate the rate of employment of academics who have been previously disadvantaged in respect of educational and employment opportunities. Lecturers from the designated groups are appointed to 3-year supernumerary contract posts with a commitment to mainstreaming incumbents on conclusion of the three years. The Programme includes a mentoring process and assessment.

Cape Technikon has two initiatives aimed at employment equity, namely the *Creating Space* project the drafting of an Early Retirement Policy to accelerate the process of achieving equity targets; and, *Growing our Timber* in which potential students from designated groups are identified for mentorship and development into Junior Lecturer positions.

One unique innovation, in all the regions, is the provision of facilities and equipment to address the needs of *students with disabilities*. None was reported in either the francophone or the Eastern Africa region and none was reported from Ghana. In the southern Africa region two innovations were reported, at the Rand Afrikaans University, and the University of Lesotho. The Student Services Bureau at the Rand Afrikaans University has given attention to the *needs of disabled students* through improving access to venues and by providing special equipment, such as apparatus to assist blind or visually impaired students during tests and examinations.

Similarly, the University of Lesotho has established a *Special Education Needs Unit* within the Academic Development Centre to provide academic and emotional support to students with special needs in particular, visually impaired and physically disabled students. The University has also built a number of ramps to improve the accessibility of staff and students in wheelchairs.

4.4.6 Staff Development and Retention

Innovations in this category seem to indicate that in general this issue is still to be addressed adequately. In other words, the innovations in this category are less than inspiring, except those coming from South Africa. There are some initiatives, including sourcing of scholarships for staff, provision of benefits such as housing and medical benefits, occasional salary increments but most of these initiatives can hardly be called enterprising. This is particularly true of staff retention. Perhaps the problem is that staff retention is a multi-faceted problem requiring for its solution innovations in all other areas, such as housing, medical, remuneration, teaching conditions e.t.c.

Few universities, therefore, reported innovative initiatives in the area of staff retention though a few reported innovations in staff development. In the Francophone region Abobo-Adjame was the only institution to articulate the problem of brain drain and to indicate that through a particular program, it intends to prevent it. This program consists in training post-graduate professionals in different industrial sectors and offering local employment by identifying appropriate and potential jobs. More generally, this is designed to improve the relevance of education to the labor market in part by marketing the professors and researchers' know-how to the private and public sectors and to make the faculty make an effort to offer courses that are relevant to the labor market needs. Other universities in the region are going about the problem in an indirect way for, example through, the provision of research and dissemination funds at the Younde 1, provision of better health services at Ouagadougou or monitoring teaching loads in order to make sure that the staff are not overloaded at Cocody. Introducing optical scanners for marking examinations at Cocody could also help in staff retention.

The Eastern Africa region is not any different. There are a few strategic initiatives specifically aimed at the problem of staff development and retention. The university of Dar-es Salaam cited an initiative of in-country training for engineering staff in which honoraria are paid upon successful completion of the course. The initiative is strategic in that it seeks to encourage local training on the assumption that overseas training will increase brain drain, as the trainees tend not to return. With the support of the World Bank, the University of Mauritius has developed a comprehensive academic staff development programme aimed at postgraduate training, either locally or overseas. Other universities cited

intentions rather than actual programmes.

Again South Africa seems to be richer in innovations in this area, no doubt, again, because of the ongoing transformation. The innovations include mounting special courses and programmes, establishing special incentives and budgets and creating special structures and systems. The University of Natal's has a *Certificate Course for Student Service Providers* whose aim is to train existing staff in tertiary institutions and to recruit new staff in the area of student services. Rhodes University's programme leading to the *Postgraduate Certificate in Higher Education* aims to equip academics with the practical skills and theoretical understandings necessary to practice as tertiary educators in a multi-lingual, multicultural institution. This is part of a Mellon Foundation Programme for Accelerated Development.

The *Young Scholars Development Programme* in the Faculty of Education, University of Pretoria aims to promote a research culture in the Faculty, build the research capacity of young academic staff, and increase research outputs. Rhodes University's *Programme of Training and Development for Heads of Departments (HoDs)* is in response to the perceived lack of management and leadership skills and experience amongst academic staff, and the need for the institution to be run in a more "business-like" manner. The programme includes induction training, and the provision of a manual for HoDs detailing their roles and responsibilities, administrative demands, and the resources at their disposal. The *Academic Associates Programme* in the Faculty of Law at the University of Pretoria encourages new graduates to further their studies and to consider embarking upon an academic career.

Technikon Witwatersrand has established a *Study Incentive Scheme*, which aims to raise the level of qualifications of academic staff, to increase the number of staff members with postgraduate research degrees (Masters and Doctoral), and to increase the number of postgraduate students enrolled at the Technikon. Cash incentives are paid to staff members half on registration and the other half on graduation. Rand Afrikaans University's Centre for Higher Education Studies has established a *Skills Development Committee (SDC)* and a *Skills Development and Training Committee (SDTC)* which aim to bring about meaningful consultation between the institution as employer, and the employees in all occupational categories in the University, on matters relating to training and development. The SDC is the core driver of skills development in the institution and the SDTC records the training of each employee on a monthly basis, compiles Personal Development Plans, works out the logistics for training, and assists with Quality Assurance.

The University of Venda will establish an *Institute for Higher Education and Skills Development* in 2002, which aims to refine and implement staff development and welfare policies and practices. The functions of the Institute will be to promote quality of teaching and learning, research and

publication, student outcome, and institutional growth and development. The focus will be on providing a Certificate Programme for staff, as well as activities around retraining, team building, research, educational travel, publishing and career advancement.

The *Integrated Performance Management System for Academic Staff* introduced at Potchefstroom University aims to improve academic output and staff development. The integrated system involves the development of individual task agreements between staff and the dean/director on an annual basis; self-evaluation by staff members with a view to development; and, a formal performance appraisal system that forms the basis for all staff-related decisions, e.g. promotion and remuneration.

The University of Pretoria has introduced a *staff performance management system* that is linked to remuneration. The University has also established an institution-wide *Education Innovation and Consultation Service* that aims to transform the traditional contact education model to a flexible education and delivery model with regards to curriculum quality. The new Unit for Education Innovation and Consultation Service, which comprises eight education consultants who are dedicated to one or more faculties, provides a wide spectrum of contextualised education support services. Activities include, amongst others, the development of outcomes-based study materials; investigating improved continuous and electronic assessment practices; workshops on educational topics of strategic importance; assistance with the implementation of each Faculty's education innovation plans; collaboration with other universities with similar infrastructure; research; involvement in the development of institutional education policy; and, development of training material to be included in the "development and training toolbox."

Outside South Africa, *training and development in a range of skills relevant to new educational technologies* will be provided to staff at the University of Namibia in support of the introduction of e-learning at the university. Amongst others, these include courseware development and using e-learning as a method of delivery. The Chancellor College at the University of Malawi has made funds available to send junior faculty for postgraduate training in the South African Development Community. Local departments have also been encouraged to establish postgraduate programmes for members of staff. The University of Lesotho has set funds aside for the initial training, induction and development of all categories of staff in the institution.

The University of Swaziland has established an *Academic Development Centre*, which is responsible for providing a wide range of training and support to staff members to ensure excellence in teaching and research. As such, the objectives of the Centre are to facilitate access to up-to-date computer and communications technologies for both conventional and distance modes of delivery; to provide support around curriculum design; to

provide induction programmes for new academic staff; to enhance quality control measures and staff performance evaluation; to establish linkages with business and industry in order to facilitate staff exchanges and internships; to address gender equity needs, particularly in science and technology; and, to provide institutional management and leadership skills training to academic and senior administrative staff.

The University of Lesotho has embarked upon a process of *staff development for academic development* which includes, amongst others, a variety of developmental activities (workshops, seminars, discussions, formal and informal courses and self-instructional materials); an induction programme; and, assistance to and consultation with staff around, for example, curriculum design and evaluation, teaching methods and media, and managing teacher-student relationships.

Since the introduction of the UZ Amendment Act in 1990, the University of Zimbabwe has lost a number of staff members to neighbouring countries where conditions of service are better. There has also been a decline in the image of the University and reduced government funding. The Registrar's Office intends to implement an initiative, which will mobilise financial resources and improve the recruitment and retention of staff members.

4.4.7 Governance

Two types of equally important governance reforms were reported. The first type revolves around the idea of representation in decision-making. The second is centred on enhancing institutional efficiency through provision of management support systems. Of the two, the second category seems to have generated more innovations perhaps because it is less controversial compared to the first and possibly because it does not attract as much public attention as the first.

The first category of reforms is manifested in several ways, among them development of strategic plans, decentralisation of university structures and increasing representation without altering the arrangement of the structures. Increasing representation has, for example, been done through creation of representative committees. In the francophone region, several universities reported the first category, perhaps in line with the governance discourse that loomed large in the policy recommendations in the 1990s, both in the political process and in the management of education. The University of Ouagadougou, Bukina Faso, seems to be the most advanced in this area. Civil society is represented in the university Board and in the Teaching and University Life Council. External research institutions are represented in the Scientific Council.

This has made possible a new culture of ownership by all the constituencies represented. The call for democratic and transparent systems of governance made from within by faculty and students alike and from

outside by international organizations and donors in general has had some impact. Thus the current practice, for example, of electing presidents and rectors by their peers on a competitive basis. The creation of a Research Ethics Committee at Abobo-Adjame, Cote D'Ivoire, arguably also belongs to this category of governance innovations. With its Horizon 2020, Younde`1 appears to have established the furthest planning vision by outlining where it wants to be in 2020 as a leading academic and development institution. For this purpose a task force for the university strategic plan has been established. University of Buea, Cameroon also reported being engaged in the development of a strategic plan.

All the other governance innovations reported from the Francophone region belong to the second category and are concentrated in just three universities. They are: establishment of a computer unit to enhance the management of registration, exams and academic records at Younde1, Cameroon; establishment at Younde1 of an administrative unit for monitoring and evaluation of teaching and exams, including monitoring of transparency in overtime payment of staff; electronic management of student exams at Abobo-Adjame, Cote D'Ivoire; facilitation of computer proficiency for management, electronic budget management and electronic management of student registration at Cocody, Cote D'Ivoire.

In the Eastern Africa region, a number of universities reported innovations in the first category. These are: University of Mauritius; Dar-es Salaam, Tanzania; St Augustine, Tanzania; University of Science and Technology, Sudan; Shandi University Sudan; and Kenyatta University, Kenya. The University of Mauritius has developed a 1999-2004 Strategic Plan that was launched in the year 1999. The Plan focuses on the need to significantly increase access, relevance and quality of teaching programmes, research requirements, expanding and diversification of funding, strengthening management and increasing management efficiency. Existing statutes make no provisions for consultation committees at senior management level and among deans and directors. Non- statutory committees have now been set up to consult on such matters as day-to-day management issues, policy and its monitoring, financial auditing, promotion, recruitment, and staff grievances. Dar-es Salaam has embarked on an ambitious programme of decentralization as part of institutionalisation of strategic planning through the requirement that all faculties and institutes prepare annual rolling plans which are reviewed twice a year under the chairmanship of the vice chancellor. Decentralised time- tabling is part of the exercise. The university is also the only one in the region that has a leadership-training school - the Uongozi leadership Institute. St Augustine, Tanzania, has developed a Corporate Strategic Plan for the period 2001-2009/10.

The University of Science and Technology, Sudan- is addressing governance through power sharing between Colleges and Departments. Shandi University, Sudan- reports the innovation power sharing between

the three Campuses, located in two provinces, and the central university administration. Kenyatta University, Kenya- has embarked on a massive decentralisation exercise aimed at reorganisation of the university into schools.

Governance innovations in the second category were reported by a number of universities. As mentioned earlier in this report, the University of Mauritius has established a Quality Assurance Team as a sub-committee of Senate to promote quality culture at the university through monitoring quality standards and practices. Sub-committees of UQAT have been set up in Faculties, Centres and the Central administration. The university has also established an Internal Audit Mechanism and a Management Information System. The university of Dar-es Salaam, Tanzania, reported extensive computerization and training in computer literacy as one of management innovations. St Augustine Tanzania, intends to address governance during the current plan, by introducing performance measurement criteria to be incorporated into job descriptions. The plan also intends to address among other things, the establishment of financial planning and management systems; establishing unit costs.

The Southern Africa region reported innovations that are more holistic in approach and therefore difficult to slot into the above two governance types. All the same they were aimed at both restructuring and developing new mechanisms in order to improve the efficiency and effectiveness of governance, as well as to ensure that decision-making processes were transparent, accountable and consultative. The submissions relating to the development of new policy frameworks, institutional structures and appointments, or processes included the following initiatives:

The University of Cape Town has introduced the *AIMS project (Audit and Integration of Management Systems)* which has as its objective the evaluation and, where necessary, the redesign of the University's basic systems of management and governance. The project was organised according to a number of streams, one of which was titled *Organisation Design and Governance (ODG)*. The primary objective of the ODG stream was to examine decision-making at the University, within the framework of the legislation and the principle of co-operative governance, and to bring forward recommendations regarding the committee structure and the roles and responsibilities of the University's executive officers.

The University of Pretoria has introduced new *Model for the Management of Marketing and Communication*. Effectively, this new Model facilitates the strategic functioning of the marketing and communication of the institution at a corporate level. The University of Pretoria has also undertaken the *complete restructuring of academic and support systems*, such as the rationalisation of faculties and the introduction of new schools, and has *outsourced certain activities*. It has also established a *campus company*, which is charged with managing short courses, contract research

and consulting services. In general, the University of Pretoria has rapidly moved from a centralised to a decentralised form of government.

In response to the limited, academic-only representation in decision-making bodies, the University of Natal has implemented a system whereby *non-academic staff and students have greater representation and participation in decision-making processes*. This serves to increase openness, transparency and democratic principles in decision-making. Where appropriate, students are provided with training to ensure their full understanding of the processes under discussion.

The University of Botswana has put a *new management system* in place one that is more responsive to growth and change. This new system involves a move away from the traditional British system of a Registrar and Bursar to one that includes Divisions and Directors.

The University of Swaziland has established a *University Planning Centre*, the core function of which is to facilitate, harmonise and co-ordinate planning at all levels in the University, as well as the implementation of the recommendations of the strategic plan. In part, this involved ensuring that properly skilled and trained staff was available in the Centre in the whole gambit of planning areas (economic and financial, human resources, physical facilities, data analysis, etc).

The University of Lesotho is currently *reviewing, restructuring, rationalising and realigning management and administration systems* with a view to greater professionalism, efficiency and effectiveness. The University is also considering the merits and demerits of moving from a centralised to a decentralised form of governance.

Some approaches to improving efficiency and effectiveness included decentralising governance completely or in certain aspects to faculty and departmental levels. Submissions in this regard included the following:

The University of Malawi has embarked upon a process of *devolution of administrative and financial responsibilities* from the central administration of the University to the constituent Colleges in order to improve efficiency and effectiveness. This has involved decentralising recruitment and the senate to the Colleges; upgrading College Principals to Chief Executives; restructuring positions at the central office to remove redundant positions and recruit professional staff; and, developing a strategic plan for the University. The Chancellor College of the University of Malawi has also sought to increase the autonomy and decision-making powers of the Deans of Faculties and Heads of Department within the College to overcome the delays in the bureaucratic system.

Mergers are also emerging as a new way of responding to governance issues. In South Africa, this is part of systemic national policy aimed at the

reconfiguration of the higher education landscape. Within this policy, some innovations with regard to the merger process were reported. The best example is university of Pretoria, South Africa. In response to the need for rationalisation of teacher training colleges and incorporation into the higher education sector, the *Faculty of Education at the University of Pretoria merged with the Pretoria College of Education* in 2001. The campus of the College became part of the infrastructure of the University. The Faculty is divided into two schools, namely the School for Teacher Education, and the School for Educational Studies.

Ghana also reported some innovations in the governance area at the system level notably that the president of the republic is no longer chancellor of public universities. In addition, appointments of vice chancellors are made by the University Councils, rather than the government. In all it would seem that the system- wide reforms in Ghana do constitute a bold departure from the traditional heavy state involvement in the running of higher education institutions. Kenya has recently embarked on system wide university reforms beginning with the state president relinquishing his position as chancellor of all public universities. This is also the case in Uganda. South Africa is currently involved in a systemic transformation of the entire higher education system that is likely to have major impacts on institutional governance.

4.4.8 *Student Affairs*

Given the magnitude of the problems related to student life in most African universities, relatively few innovations were reported in this area. None was reported in Eastern Africa region. The Francophone region reported a handful of innovations in this area. At the Université de Douala one aspect of the ICT programme that focuses on the computer/internet system for the school of economics and commerce aims to contribute to not just support learning but also to the whole experience of living, learning, and connecting to the world and, therefore preparing for future life.

At Université Younde 1, the support for networking of cultural clubs and associations and participation in various championships, for instance, during their trophy weeks, aims to improve student life. At the university, the promotion of sports and cultural activities in general has been designed as a means to enhance students' morale and sense of purpose.

The Université Nord Madagascar has a program of environmental studies that has practical applications requiring student to participate in finding solutions to real-life problems, such as industrial waste, and water, air, and soil treatment and protection. This programme provides not simply more relevant courses but also motivate students and enhances their welfare. The southern Africa region reported a substantial number of innovations in student life that ranged quite widely in their focus.

The Student Services Bureau at the Rand Afrikaans University has introduced a *Positive Guidance Programme* for first-year students, which aims to develop and expand students' skills so that they can effectively adapt to the demands of university studies and life. Developed by psychologists and conducted by trained facilitators, the Programme focuses on, amongst others, values, leadership, communication, cultural diversity, group awareness, adjustment and coping strategies. The Student Services Bureau also utilises *students in support and development roles in the form of tutors, mentors, peer-helpers and RAU-buddies*. The aim is to expand the existing professional support and development service provided to students and has the added advantage of equipping students with transferable skills. Action research is used to develop these programmes on an ongoing basis to ensure that they stay relevant and needs-based.

The Division of Student Services at the University of Natal has implemented a *Student Development Programme*, which focuses on ways to build an effective student affairs and services operation that supports students in their academic endeavours and enhances their personal, social, cultural and cognitive development. Each Department in the Division has contributed to an integrated Student Development Plan and there is also a process for sensitising the academic staff to students' needs.

In addition, a task team in the Division of Student Services at the University of Natal is in the process of setting up a system, developing policy and identifying appropriate institutional structures and personnel to oversee an initiative for *Non-Academic Transcripts*. These transcripts will record students' participation in the whole gambit of student development activities, such as clubs and societies, the Students' Representative Council, leadership courses, etc. The aim is to encourage student participation in these activities through formal recognition of such involvement. The Non-Academic Transcripts can also be used as the basis for letters of recommendation for students that are frequently requested of faculty. The University of Venda has upgraded their *student development and welfare services*. The project will provide and maintain high quality residences and services which are conducive to productive learning and a creative social life; infuse a holistic academic culture and impart the skills necessary for success in the modern world; provide comprehensive support services to help students complete their studies successfully; and, inculcate academic and intellectual development skills to ensure balanced and mature leadership amongst the students.

The Solusi University has introduced a number of programmes referred to as "*Convocation*" which address the spiritual, moral and emotional needs of students. It is compulsory for students to attend 80% of these programmes.

Finally, the University of Malawi has introduced a *Student Advisory Service* in which ten students from various years of study are placed under the personal tutorship of one member of staff.

Institutions have come up with innovative ways to assist students to market themselves, secure employment or engage in entrepreneurial activities. The *Career Centre* at the Rand Afrikaans University is aimed at improving the employability of students and assisting both students and Alumni in finding employment. The Centre offers workshops on job-hunting techniques, interviewing skills, development of curriculum vitae, and work ethics, amongst others. It also acts as a central point through which companies can recruit students.

The Faculty of Education at the University of Pretoria offers a service to final-year students which aims to assist in marketing their services for employment. The *curriculum vitae* of those students who are interested in participating are compiled into a composite document, which is distributed to 200 schools in and around Pretoria, as well as to schools in neighbouring provinces. In this way, students are marketed to the broader education community and the composite document assists school principals in selecting new staff members.

The University of Cape Town has introduced a *Student Enterprises Project* which is a student-driven, educational and job-creation initiative that seeks to ensure that the academic institutions of South Africa fulfill their role in the promotion of sustainable entrepreneurship. As such, the project aims to entrench the entrepreneurial paradigm in the academic culture of the University; provides an effective business development and support service to students and local communities; provides practical entrepreneurial experience; creates jobs for students; and, supports entrepreneurship development in the local communities of the Western Cape.

The University of Zimbabwe has implemented a *Student Part-Time Employment Scheme* which provides opportunities for students to work for a maximum of 6 hours a week at Z\$50 per hour. The various departments in the University (such as the Library) identify these work opportunities for students. The *Student Volunteer Project* at Rhodes University is an example of an innovative way to provide students with work-related experience and skills.

The increase in demand for student residences and, particularly in the South African context, the increased diversity in the student population, has led some institutions to restructure and expand residential provision and to attend to the need to manage diversity and bring about cultural transformation of residences, where appropriate.

In response to the increasing demand for student residence, particularly by black students, the University of Cape Town has reorganised their existing residences into a *Three-Tier Residence Model*. The first tier offers a uniform standard of accommodation and facilities for junior students. The second and third tiers provide students with accommodation and services appropriate to the developmental and learning needs of more senior and

postgraduate students.

As part of their *Residence Development Capacity* initiative, the University of Cape Town has also created a number of Residence Development Officer (RDO) posts. The RDO team, in collaboration with part-time wardens and house committees, provides a full range of support services to new students; contributes to the development of a strong culture of learning in residences; and, seeks to support the enrichment of the cultural and social experiences of students via a range of purposeful strategies designed to contribute to their holistic development.

Potchefstroom University has developed a *Code of Conduct for Residence Communities*, which aims to bring the cultures and traditions of residences in line with the character (ethos) of the University and the Constitution of the country. Residence management had to evaluate the existing cultures and traditions against the core values of human dignity, mutual respect, educational value and responsibility and do away with those that conflicted with these criteria.

In relation to student governance, the University of Cape Town is in the process of undertaking a *Student Governance Review*, which is the first of its kind in the South African higher education context. The first phase of the Review, which was completed in 2000, focused on mapping out a methodology for reviewing student governance; developing an overview of the student governance landscape locally and internationally; and, identifying the key criteria for carrying out an effective Student Governance Review. The second phase of the Review involved facilitating the investigative work of six project teams which focused on the structural relations between the different student governance structures at the University; student participation and representation on University committees; appropriate incentives and capacity development for student leaders; participation in student governance and methods of communication; financing and resourcing student governance; and, electoral systems used by the different student governance structures.

The Student Council of Potchefstroom University has established a *Student Human Rights Commission* and a *Student Senate*, both of which are aimed at giving students a platform to air their problems and seek solutions, and to participate in institutional governance.

The University of Lesotho has set out to *expand the learning facilities and space available for students*. Science and computer laboratories, lecture theatres, seminar rooms, a moot court, additional toilets, a resource centre and hostels have been built.

In response to the need for adequate accommodation for postgraduate students at the Bunda College of Agriculture at the University of Malawi, College administration and departmental staff have utilised tuition fees to construct a new postgraduate hostel.

The Academic Planning and Quality Assurance Office at Rhodes University publishes a *University Digest of Statistics* annually. The Digest provides comparative statistical information in respect of the University and its two campuses, with particular reference to student and staff demographics, academic departments and faculties, and university finances. The Digest is intended for use by those responsible for the planning and management of the University, as well as for persons outside of the institution. It is also used for formal institutional audits, quality assurance, formation of three-year rolling plans, and for inter-institutional and international benchmarking purposes.

Chapter Five

CONCLUSIONS

What then can we conclude from the survey? First, some important areas do not feature prominently in the reported innovations. Second, some reported innovations seem to have more potential for transformational impact. Third, the survey did not answer all the original research questions though it provided insights to most of them. We now turn to a detailed presentation of the conclusions.

5.1 Innovations Not Featuring Prominently

Looking at the reported innovations as a whole, it would seem that certain types of innovations are either missing altogether or are very rare when, in fact, one would expect them to be in abundance, given what is known of the challenges confronting African universities. We provide a sample of these below:

- There are very few innovations that have a regional approach. One innovation is at Rhodes University. The other one is UCAC, which, by its very mandate is a regional university with two campuses in Yaounde and projected campuses in Douala.
- Innovations on development of university leadership. There are several innovations addressing the problem of leadership but none addressing university leadership in particular.
- Financing innovations are many, but most seem to address the sufficiency dimension. Relatively few address the efficiency dimension.
- Only one innovation on maintenance of physical facilities was reported- the students' role in maintenance at KIST, Rwanda. Given the state of physical facilities in most universities one would have expected more innovations in this area.
- There were no innovations reported on utilisation of space even though this is one of the most controversial issues in all universities. Arguably though, mounting classes in the evenings as some universities now do, begins to address both the sufficiency and efficiency dimensions of the space problem.
- Innovations on student affairs are few and yet we do know that this area requires a great deal of attention, especially because of student disturbances. Only one innovation is aimed at a complete review of student governance- at the University of Cape Town.
- Innovations targeting students and staff who are physically handicapped are only two, one at the Rands Africaans and the

other at the University of Lesotho.

- Especially missing are innovative approaches to student accommodation. The exceptions to this are innovations at the Kwame Nkrumah University of Science and Technology, Ghana.
- Innovations in the area of HIV/AIDS are very few given the magnitude of the problem.
- Innovations targeting the general state of statistics at the universities are also rare though these might have been subsumed under the category of Management Systems. Innovations in this area would address both generation of statistics and easy availability of the statistics for research and governance purposes.
- Specific innovations on monitoring and quality control are not as many as they should be, again given the threatening crisis of quality in many universities.
- Only one innovation, at Pretoria, specifically seeks to link remuneration to performance even though the subject has been a major element of public discourse throughout the 1990s.

5.2 Most Interesting Innovations

In the course of the site visits the research team encountered a great deal of genuine interest in the subject of innovations, often reflected in such questions as: What are some of the most interesting innovations that you have come across? What problem are they addressing and are they common problems? Are the innovations replicable and inexpensive to replicate? The same questions were raised when a draft of this report was presented to the Conference of Rectors, Vice Chancellors and Presidents- COREVIP- in Mauritius in March 2003.

Self-evidently, providing satisfactory answers to these questions might require a minute analysis of each of the innovations reported by the universities, possibly leading to a ranking of the innovations on the basis of some criteria. This would, in turn require a great deal more information and time than was available to the research team. In lieu of this rather complex exercise, the researchers nominated, on the basis of the questions above, a few of what the team thought were some of the more interesting innovations; this without any attempt to go into the analytical question of what we mean by “interesting”. The purpose, therefore, is to illustrate a general issue, rather than to advance the analysis, after looking at the following fifteen innovations, the reader is invited to re- read section 4 of the report with a view to nominating her/his own list.

(i) Approach to Innovation: The University of Pretoria's Comprehensive Approach. Can you afford it?

This university submitted a large number of innovations in response to the survey. Taken together, the approach to innovative change being undertaken at this university represents an important example of an integrated institution-wide approach to change, covering every aspect of institutional life from vision, mission and strategic planning, to the development of new inter-disciplinary centers and programmes, to the institution-wide application of ICTs and e-learning (including the creation of a virtual campus which allows all aspects of institutional life to be conducted electronically), quality assurance, access and staff development programmes, the systematic exploitation of income-generating activities through the commercialization of knowledge production and services; and staff allocation models, among many other innovations. It must be noted that these innovative changes are driven in this case by substantial accumulated resources a condition which is obviously not in itself replicable. However the planned comprehensiveness and inter-relatedness of these changes stand as an interesting example for other institutions.

(ii) The Community as Partner: The *Community Higher Education Service Learning Partnership Programme* at the University of the Free State, South Africa. Ready to end a hand in service delivery?

This programme aims to integrate community service projects with the core academic activities of the University teaching, learning and research in collaboration with local communities and service providers. Through partnerships between academic departments, local disadvantaged communities and community service providers (government departments, non-governmental organizations etc), the aim is to contribute simultaneously towards community development and achieving greater relevance in curricula, teaching and learning methods and student assessment. Through the activity of **service learning**, students are exposed to community development issues and priorities while enhancing their learning within formal programmes, thus going beyond traditional voluntaristic approaches to service. The importance of this innovation is that it provides the operational basis for higher education to contribute towards community development, while simultaneously enriching the quality and relevance of students' learning.

(iii) Overcoming the Challenges of Physical Location: The University of Namibia at Oshakati. Are you ready to relocate for relevance?

The establishment of this new campus represents a number of related innovations and this is the main reason why it is interesting. All aspects of the programmes offered, campus activities and resources are oriented towards the regional development of the surrounding community. The

development of the campus, its programmes and their curriculum focus were planned **in collaboration with community stakeholders through workshops**. A *Community Development and Education Unit* responds to the economic, social, educational and cultural needs of the local communities through training, advisory, consultancy and research services in the areas of new leadership development, small business development, careers development, historical and cultural research, and access. An *access programme* aims at improving the educational standards of school learners thus enabling them to enter higher education. The *open learning system* provides degree programmes through advanced educational technologies, direct tutorial support and learning materials. In support of e-learning, staff are trained in courseware development and using e-learning as a method of delivery. This innovation thus combines development and high-tech teaching and learning technologies. It would be of interest to someone planning a new university or an autonomous campus of an older university. This scores very high on relevance, access and comprehensive approach but it might score low on replicability because it is not a cheap innovation.

(iv) Listening to the disadvantaged: Female Students Affirmative Action. Who is listening?

The UCAC has established a project offering capable female students scholarships to give them a chance to receive a solid education that will project them as women leaders. This project includes providing supportive environmental conditions such as better access to housing services to improve their learning conditions at Yaoundé I. The most comprehensive model aiming to train students and also offer series of activities such as seminars/workshops, conferences' targeting the entire university community and its social surrounding is also offered. Université Cheikh Anta Diop, Senegal, offers different but equally important ways to tackle the problem of female gender inequity. Public universities in Kenya have also instituted affirmative action with respect to admission of female students. Now the female students are admitted at one point lower than their male counterparts. Affirmative action for female students or other historically and socially disadvantaged groups might not require much by way of extra resources. What it does require is the will and commitment

(v) Problem- Based Learning. (PBL): Time for more pedagogical innovations?

Relevance is usually associated with content, not pedagogy. Problem-based learning as a new pedagogy has been adopted by many institutions including: Université Catholique de l'Afrique Centrale in Cameroon; the Medical University of South Africa; the faculty of Health Sciences at the university of Pretoria, South Africa; faculties of medicine at Moi University, Kenya and Mbarara University Uganda; the School of Public Health, University of Ghana; the University of Development studies, Ghana; The

University of the Transkei, South Africa. These innovations address the issues of relevance and contribute to tearing down the wall between the university and its surroundings. Given the paucity of pedagogical innovations in most universities (not just in Africa) this pedagogy appears to capture both the quest for developmental relevance and the desire by the universities for new pedagogies in the African context. This is in a context of very low financial allocations to teaching as well as absence of teacher-aiding technologies. The main drawback for PBL is that it is quite expensive especially with regard to its human resources requirements but it has the advantages of replicability and indisputable relevance.

(vi) The Ghana Education Trust Fund: Ready for collective action for more systemic financing?

It is not very often that education constituencies win some concessions in the cutthroat budget wars that are common everywhere. In Ghana this constituency seems to have made some headway through the The Ghana Education Trust Fund into which two percent of Value Added Tax (VAT) goes. It is applied to the education sector to supplement government's budgetary allocation. Assuming this tax is permanent and will increase as compliance increases, there will be a relatively secure financial source for the education sector in the future. This systemic innovation requires political will to introduce. Political will is in theory replicable. The major drawback of the innovation is that, by virtue of its systemic nature it is beyond the scope of a single university to "will" requiring as it does a great deal of collective action

(vii) Future Human Resources: Young Scholars Development Programme, Pretoria. Ready to retire?

The Young Scholars Development Programme in the Faculty of Education, University of Pretoria which aims to promote a research culture in the Faculty, build the research capacity of young academic staff, and increase research outputs is noteworthy as it plans for the future thus creating the foundation for new traditions. This programme also addresses one of the emerging but rarely broached subjects in African universities, that of aging faculty following very little training in the 1980s and 90s for faculty replacement. Even with better conditions and terms of service this problem will only be partially solved. The other half of the solution is accelerated training of the kind that was available in the 1960s and 70s. At Abobo-Adjamé, Côte d'Ivoire, the special attention paid to the major problem of brain drain is also addressing the future human resources but from a different perspective. The Young Scholars innovation is certainly replicable though by no means cheap. For the latter reason, it will require a great deal of will and determination on the part of universities.

(viii) Incorporating HIV/AIDS into the curriculum: Can you appreciate the problem?

A number of universities have begun appreciating the magnitude of the HIV/AIDS problem as noted in this report. However few have gone as far as the University of Malawi in seeking corrective measures in the teaching arena. Given the obvious importance of the HIV/AIDS pandemic, the university's **thorough review of the curriculum** in order to introduce a range of new courses and programmes is worth lose attention. This innovation is desperately needed in all African institutions and is not costly, especially considering the cost of the alternative- massive loss of the most productive individuals.

(ix) One for the Teachers: Optical-scanner/reader at Université de Cocody. Grading finally made easy?

One of the major problems that lead to permanent staff dissatisfaction is the large number of examination papers to grade, and which takes away time for research which in turn hinders promotion and contribution to the production of knowledge. This innovation in the field of Medical Sciences at Cocody is an inspiring innovation for all university teachers. This is replicable perhaps not as easy in other disciplines but at least in similar disciplines of sciences in other institution in different countries

(x) One for the Continent: The *Institute of Peace, Leadership and Governance* at Africa University. Towards finally teaching peace and leadership?

In a continent ravaged by wars and poor leadership, the need to teach and research peace ranks very close to HIV/AIDS. The Institute was therefore, established in response to the need for peace, effective leadership and good governance as prerequisites for development in Africa. This requires duplication throughout the continent.

(xi) Quality Assessment: The University Quality Assurance Team (UQAT); University of Mauritius. Ready to be assessed?

Though this innovation was not yet fully operational at the time of the research, it represents the future of standards in the universities. It is potentially a very useful innovation in the establishment of high quality, teaching, research, and service.

(xii) Tapping of indigenous knowledge: New epistemologies and pedagogies from the “unschooled” on campus?

As noted in the report, a number of universities have started tapping into indigenous knowledge in such diverse areas as the arts, medicine, psychiatry and agriculture. The so-called “unschooled” make a delightful

sight on the campuses where they are teaching. Their appearance apart, they are facing an uphill task convincing western trained professionals, especially in the technical disciplines, that they indeed are the custodians of some form of knowledge. The innovative part in their being on campus will be primarily epistemological and pedagogical, precisely the two areas in which African scholarship has not been particularly creative. The custodians of indigenous knowledge are to be found in a number of universities including Université de Bouaké, Côte d'Ivoire, Kenyatta University and University of Nairobi, Kenya.

(xiii) Infrastructure and Training: KIST: Killing two birds with one stone?

The KIST curriculum has been designed with the well-known practical problem of infrastructure maintenance in African universities in mind. The students are, therefore required to participate in the maintenance of the institute's infrastructure as part of their training. According to KIST, 80% of all repairs at the institute are done by the students. In this regard, a great deal of emphasis has been put on maintenance of ICT equipment, as well as maintenance of electrical installations and equipment. A special fund is being set up for the purpose of training the students in ICT maintenance and for sending the students overseas to be attached to workshops for the sole purpose of learning maintenance skills. For the same reason, KIST is assembling the computers it uses in the institute. This innovation should be ready to replicate in most areas of training. In a sense it comes without cost, given that the students will be trained anyway.

(xiv) The Visioning Exercise: KIST, Rwanda: Are we taking history seriously?

Often forgotten in the quest for universality is the fact that universal as they are, universities must still operate within a specific historical context. In the case of Rwanda, this is the recent tragic history of genocide. Thus, the vision and mission of KIST are best understood, indeed can only be understood, in the context of the recent history of Rwanda particularly the 1994 genocide. The genocide resulted in the loss of the most skilled manpower in the country as well as the need for national reconciliation both of which demanded that KIST review its vision and mandate in order to reposition itself within the new national circumstances.

Rwanda has never had a tradition of either higher education or industries. The Belgians who were the colonial masters did not want to start a university. The initiative was, therefore, taken by missionaries who started the National University of Rwanda. Even then, the university was and still is a liberal arts institution with little inclination towards technology and, therefore, contribution towards industrialisation. After the 1994 genocide, the Rwanda government put up KIST as a technical institute with the overall **mission of producing technicians as agents of**

industrialisation. The original curriculum was written by German professors, as part of German technical assistance. After two years the curriculum was reviewed in order to make it more relevant. Engineering was added as a result of the review.

The pedagogical philosophy/approach of KIST is to teach basic principles as in any university but to teach them in such a way that they can be easily related to actual development problems. Thus, all teaching must be directly applicable to development. KIST, therefore, sees itself as a developmental institute/university with the overall mission of **training for national development, national reconciliation and national integration with a clear focus on the role of science and technology in pursuing its vision and fulfilling its mission.** Thus, as well as training engineers and technicians, both English and French are required at KIST as well as the history and culture of Burundi. In addition, as noted in the summary above, the timetable provides for Ingando i.e. training for civil defense in designated training camps.

(xv) Self-Financing: Student/Staff Welfare: Kwame Nkrumah University Of Science and Technology. The winner?

Student and staff do not often come together for a common cause, especially when the cause entails taking away their meagre resources. This innovation entails just that. The innovation addresses the problem of student accommodation. Currently Kwame Nkrumah has an enrolment of 13,000 but only offer bed spaces to only 5,000 of them. In the first instance, the academic staff decided to use part of their pension fund to invest in the construction of a 250-unit student residence that would rent space to students. The unit was quickly taken up by students, at a rate of US\$ 375 per year. By way of comparison, the government's charge for university residence halls is about US\$25 per year. The experience has been so positive that the academic staff has decided to construct a second rental hall.

In the second instance the students have decided to construct their own residence hall! In late 2000 the students agreed, through the Student Council, to levy a student building tax on themselves of approximately three dollars apiece. Part of the funds was used to construct the foundation of the building. (Students did the plans, with advice from academic staff). Another portion of the fund was used to purchase equipment to launch a student FM radio station on campus. Income generated from the sale of radio advertising, together with that from other fund raising activities will go towards completion of the building, (which is being built in modular fashion so that each completed section can be occupied as finished and the rent used towards the completion of additional sections. At the beginning of the 2002 academic year the students levied themselves a second time. Even final year students who will have no possibility of enjoying the benefits of this effort have contributed without complaint. The model is reportedly now under consideration by students from two other public universities, Winneba and Cape Coast.

5.3 The Research Questions

Turning now to the original research questions, we attempt to synthesise the insights emerging from the survey. In this regard, our general conclusion is that the questions were good questions, even though not all were fully answered by the information we were able to gather with the survey. We have, therefore, in a number of cases, utilised information not directly gathered through the survey to answer some of the questions.

(i) What do universities mean by “innovation”?

It is evident from the list of items listed as innovations by the universities that they have assumed a rather broad view of innovation compared to industry. Though knowledge is a key feature of innovation in both industry and the university, on closer scrutiny, this “common” denominator turns out to be unhelpful in the attempt to apply the industry conception of innovation to the university. The industry conception of the role of innovative knowledge is quite simply instrumental in that innovative knowledge is such by virtue of it leading to industrial well-being. Universities rarely ever view innovative knowledge in purely instrumental terms, assuming one is certain of what constitutes “innovative knowledge” in the university context where the normal discourse is normally one of “new knowledge”. Perhaps when the knowledge leads to marketable technology one would be permitted by the normally conservative university knowledge establishment, to refer to it as “innovative knowledge” in the manner that industries do. A number of the innovations reported in the study have at their core, generation of marketable technology.

The majority of the reported innovations exhibit all the ambiguities of the term “innovation” presented in Section 3 of the report. Thus innovation is most often associated with a new way of doing things or doing different things. An initiative that is not new might, nonetheless, constitute an innovation because of prevailing circumstances in that context. It is clear that many of the innovations submitted fall into this category, following or even mimicking trends in developed countries. Many initiatives are therefore new in the context of higher education in Africa and represent attempts (some clearly successful) at bringing about change and reform in higher education, often under adverse conditions.

This gives rise to the notion of *innovative adaptation*. The current hegemony of dominant discourses and practices, coupled with new global informational and knowledge networks, ensure the very rapid dissemination of new trends. The potential positive outcome of this is that useful trends may quickly be adopted. The danger lies in the uncritical uptake of policy trends, which might not advance developing country priorities. Many institutional leaders want to be demonstrably associated with the latest trends. The temptation to engage in “innovatism” changing for sake of changing and intoxication with everything new is a potential

problem, which can lead to the uncritical chasing of new fashions and trends, driven by the fear of being left behind.

As discussed in Section 3, innovation is often linked to the notion of change and improving a situation or addressing a problem. Ongoing change, in the form of both continuous improvement of practice and institutional strategic responses to changing environmental circumstances is (or should be) regarded as a 'normal' aspect of higher education institutional life. The survey and interview data showed that many people find it hard to distinguish between innovation and normal adaptive change. Thus, especially at the institutional level, many aspects of ongoing change, such as new programmes development, are regarded as innovations when in reality they are normal aspects of institutional growth.

The notion of exceptional or particularly creative change is a way of distinguishing routine change from innovation. This was the stated criterion for an innovation award in one of the institutions visited. While it may simply beg the question as to what makes an initiative exceptional or creative, it is still a useful notion.

Closely associated with this but distinct from it and from the idea of newness, is the notion of uniqueness or originality. An initiative might be new in a context, but not unique or creative. Also associated with innovation is the idea of risk-taking of breaking new ground amidst uncertainty of outcomes, constrained resources or circumstances of stress or duress. Learning is also associated with the meaning of innovation. Indeed, as one interviewee pointed out, instructive failures are useful in determining whether an innovation actually works.

(ii) What conditions foster and drive innovation?

Innovations are fostered and driven by a combination of conditions, none of which acting alone might be sufficient to foster the innovations. Internally there must be need for the innovation. In some cases, innovation has been driven by external conditions. This is, for example, the case with KIST in Rwanda and the University of Mauritius. Both have innovated because they consider themselves as developmental universities, which in itself, has triggered innovations at the institutional and faculty levels. In some cases, the peculiar mandate and history of some universities have contributed to their innovative character. Ouagadougou in Burkina Faso, Abobo-Adjame`, Cote d'Ivoire, Mbarara University in Uganda and the JUAT in Kenya, fall in this category. Again, nearly all the universities in South Africa given the history of apartheid have been innovating.

In general therefore, as indicated in 4.2 the range of drivers of innovations is as wide as the levels at which innovations take place. As we have pointed out, the levels are **global, national regional, institutional and individual.**

Although it is difficult to associate any one area in the Innovation Matrix with a peculiar set of driving conditions some of the drivers are self-evident. At the institutional level financing innovations have been driven by the need for the institutions to broaden their financial base. This is true of both public and private universities, though public universities have had a more urgent need for financing innovations, given their traditional dependence on the state. Institutional level reforms, on their part have triggered faculty level reforms.

Access/equity and innovations seem to be driven mostly by external societal pressures. Governance, curriculum, and staff development innovations appear to be driven mostly by internal institutional demands both at the institutional and faculty levels. Innovations in the area of relevance are clearly the result of internal pressures/demands as well external pressures, for, example, societal demands for short courses or market-oriented degree programmes.

The influence of both external and internal factors is also evident in the decision to develop new institutional visions. In the eastern Africa region, for example, of the 16 universities that responded to the questionnaire, 8 expressly mentioned vision/mission and strategic planning as one area of innovation and between them they had a total of 13 innovations as shown above. All the 8 universities indicated that the innovations were the result of both internal and external circumstances. To KIST, it was the need to position the institution in the context of national reconciliation and emergency manpower needs following the Rwanda genocide.

The University of Mauritius was responding to changed manpower needs in light of new development conditions. Dar-Es Salaam has been driven mostly by an institutional will to reform and by societal conditions friendly to a new university vision. St Augustine has been driven mostly by internal funding requirements while Uganda Martyrs has been driven, like KIST, by the need for national reconciliation. Shandi, in the Sudan has been responding to the well known problem of community university relations, while Moi and the JKUAT in Kenya developed their vision/missions and strategic plan in the case of Moi, as part of their original mandates from society. The University of Development Studies, Ghana, derived its mission from conditions external to the university but internal to Ghana. So did the Northern Campus in Namibia and Universitie de Ougadougou.

(iii) How do we create responsive institutions?

Responsiveness as opposed to accountability means reading correctly the potential arena of demands and taking appropriate action before the demands are made. Responsiveness therefore demands proactive behavior. This further means that in thinking of proactive behaviour, we should, therefore, think of the notion of proactive responsiveness to external changes. Accountability on the other hand entails explaining the reasons

for the action to the relevant parties and doing so in relation to performance against stated and agreed goals and expectations, especially regarding public funding and national policy goals. In this regard, universities might not be highly accountable institutions and seem to be doing little to improve the situation. However they are moving towards increasing their responsiveness. One way of creating responsive universities is to encourage them, through financial and other incentives, to continue with the current trend towards more responsiveness. The trend, as reported in the survey, is being manifested in a number of ways. These include: the pedagogy of Problem- Based Learning, which as we have seen is anchored in community problems; express mission of being a community oriented university; inauguration of various community outreach programmes; links with industry; regular curriculum reform as reported in a number of universities; new programmes designed to tap societal demands. However, this trend can only be accelerated if the universities are also encouraged to be more open internally. The more open the universities, the quicker it is for them to process the identified demands from society.

(iv) Do strategic plans propel or impede innovations?

It is not clear whether innovations occur as a direct result of institution-wide strategic planning or as result of initiatives at the sub- institutional levels. A key finding, however, is that aligning innovation with stated plans is an important strategy in institutionalising an innovation. Here the role of leadership and executive management is important. The sustainability of innovations is generally perceived to be closely linked to the terms of office of vice-chancellors/presidents/rectors/chancellors, and other key personnel. The trend is increasing towards shorter periods, which, in turn might impacts directly on innovation. Senior leaders tend to want to make their individual mark on the institution, often truncating previous initiatives. This often generates tensions. In the Botswana case, the tension between executive management and faculty was very apparent.

On the surface, strategic plans can impede innovations if spontaneous creativity is taken as the core element of an innovation. In this case, a Ten Year Strategic Plan could theoretically imprison the potential innovators within itself. However, in practice, a strategic plan, in most cases serves simply as a road map with plenty of room for exercising creative energy along the way. Dar-Es Salaam University is a case in point. Of all the universities covered in the Eastern Africa region Dar, is the strongest with regard to strategic planning, sometimes to the extent that strategic planning has become something of a managerial religion at the institution and yet, Dar also reports the highest number of innovations, all rooted in the strategic plan. In Eastern Africa, Makerere University is another case of a university strong in both strategic planning and innovation. This however, is not to say that a university needs a strategic plan to be innovative. Not so. Kenyatta University is arguably the most innovative public university in Kenya and yet it innovates without the benefit of a

strategic plan, usually through strategic retreats and administrative committees appointed by the innovation-minded vice chancellor.

(v) What role do governance mechanisms play in transformation within an institution?

This study shows that there are a number of governance innovation under way few of which can claim to be transformational. (see 4.4,7). The notion of institutional transformation has become something of a buzzword in the study of universities, especially since the launching of a series of university studies two years ago under the auspices of a consortium of Foundations seeking to revitalize interest in African higher education. (see 1.1) The series of studies is organized around the concept of transformative innovations in African universities. (The primary author of this synthesis is involved in this series of studies and can, therefore freely borrow from that experience). To the extent that African universities are engaged in transformative innovations at all, the institutional transformations are on account of many factors, governance being only one of them. As stated above governance innovations, as in this study, do not seem to feature very prominently among the transformative innovation. Yet, governance mechanisms such as staff/student unions, elected vice-chancellors as is the case in Ghana and the elected Presidents of the three public universities in Cote d'Ivoire, non- statutory committees as is the case in the University of Mauritius, or the normal ad hoc university committees have played a lead role in guiding innovations. The importance of governance mechanisms, therefore, seems to lie in their transformative potential, even in those institutions currently taking the lead in this reform area.

(vi) How have institutions sought to balance quality as they have expanded enrolment?

Quality maintenance is a touchy issue in African universities partly because everyone fully understands the tension between quality and access. As this study shows, reform has been taking place in the two areas with access- related reforms featuring more prominently than quality reforms. All the same, the tension between the two is being addressed in a number of ways. These include: staff development programmes, student/staff assessments, external examinations, extra incentives to staff, for example, when they teach in the parallel programmes, expansion of facilities with income from the fee-paying students, and in some cases, establishing annual intake limits at the system level. In general, therefore, the universities are alert to the issue of balancing expansion and quality and they have put some mechanisms in place to maintain a balance. The main worry though, is that universities report fewer than expected quality control mechanisms, some of which are not yet fully operational thus making it difficult to assess their effectiveness.

(vii) How do institutions attract and retain staff?

Innovations in staff development and retention do not feature very prominently in the innovations agenda. Thus in the survey responses, this innovation area comes third from the bottom. Only student life and governance categories fair worse. This is perhaps not surprising if one assumes that the issue is relatively straightforward and, in fact can be tackled with relatively few innovations. On the other hand, as we have stated in 4.4.6 above, the issue could be a complex multi-faceted one requiring many innovations and a great deal of resources and resourcefulness. With the exception of a few universities, (for example, the Universities of Mauritius, Botswana, Namibia and UCAC, Cameroon), most universities outside South Africa do not have the necessary resources with which to attract and retain staff. But even without immense resources, some universities have incorporated staff development in their strategic plans as reported in 4.4.6. In general though, staff development, especially for academic staff seems to be an ad hoc affair with members of staff left to fend for themselves by way of sourcing scholarships. The parallel degree programmes have somewhat stemmed the brain drain because the lecturers are now able to earn some extra income from the programmes. Ongoing staff right-sizing, sometimes using new modeling instruments is expected to realize substantial savings, some of which will could go into improving academic staff welfare. All the same as indicated in 4.4.6 staff development and retention issues demand more innovative attention.

(viii) How are the institutions responding to HIV/AIDS?

One knows that universities are very much aware of the problem of AIDS. However, it is quite alarming that very few universities indicated an innovation to do with HIV/AIDS. The innovations include teaching about HIV/AIDS and setting up units to deal with awareness and other aspects of the disease. Dar, Tanzania, has set up a Technical AIDS committee, JKUAT, Kenya, has established a HIV control board and its medical centre serves as a Voluntary Counseling and Testing centre. Perhaps the university that has the most innovative approach to the problem of HIV/AIDS is Kenyatta University, Kenya. The university has introduced teaching of AIDS at the certificate, diploma, and postgraduate levels, in addition to setting up an HIV control unit. The University of Nairobi has also established a HIV Control Unit, in addition to its now well-known research programme on HIV vaccine. The research, which is a collaborative effort between the university and Oxford University, UK, is based on commercial sex workers in Nairobi who seem to have developed a resistance to the HIV virus. Only three universities in southern Africa reported innovations related to HIV/AIDS. The University of Malawi has introduced courses on HIV/AIDS in its revised curriculum. Solusi University has established a community outreach programme on HIV/AIDS, and the University of Namibia is developing new approaches to promoting awareness of HIV/AIDS in several faculties.

(ix) What conditions facilitate implementation and institutionalization?

A key finding of the study is that the process of implementing and institutionalising innovations is crucial to its success or failure. Opposition and contestation are endemic to higher education institutions as complex, loosely coupled organisations, with the vested interests of various stakeholders, disciplinary clusters and other groups. Opposition is the inevitable response to a successful innovation itself, as this implies change. As one interviewee put it, "Success breeds opposition". For this reason, careful strategies are required to deal with opposition and resistance in implementing and institutionalising an innovation. In higher education institutions, proponents of innovation must be as innovative in their change management as in the innovation itself. Two dimensions of innovation can therefore be conceptualised: the substantive and strategic aspects of innovation respectively. The latter dimension of innovation contributes mainly in ensuring institutionalisation, in the light of obstacles. Clearly, to successfully implement innovation, a rich understanding of the intricacies of higher education change and the politics of individual institutional dynamics is necessary. No wonder that for some interviewees, successful implementation was subsumed into the definition of innovation.

The findings of this study, especially from the southern Africa region, show that a wide range of strategies are employed to ensure implementation and institutionalization. Particularly important are: informal lobbying in order to shift views of key staff; identifying likeminded staff, 'first movers' and using existing networks; using an incremental rather than a totalising approach, even within institution-wide initiatives; understanding the views and position of opposition and skeptics; not taking opposition on head-on; tactical and creative handling of meetings; placing items tactically on agendas and waiting for opportunistic absences; creating structures such as Task Groups and sub-units especially by executive management in order to avoid formal structures and ensuring their composition comprises sympathetic staff. Also important is the creation of decentralised sub-structures in the faculties to institutionalise and mainstream the initiative, usually while retaining a central entity; Recruiting sympathetic staff for new positions and lobbying them thereafter; creating a variety of incentives, such as awards, to support the innovation; after successful informal lobbying, moving to capturing the innovation in formal documentation, carefully choosing language and often couching it in terms of institutional vision, mission and goals to avoid contestation. As part of all the above, one must utilise research evidence and expertise in the field to win credibility.

(x) Are the innovations comparable?

The innovations are comparable though a great deal of care should be taken in doing this because the institutions and the systems in which they operate are different. The institutions in South Africa, for example, display more

sophistication in their approach no doubt due to the national context. Arguably, single university systems are likely to impact differently on the innovative instinct of the only university compared to the impact of a complex system on the many universities in the system. All the same, as we have seen, most of the institutions are trying to address similar issues.

(xi) Are private institutions more innovative than public institutions?

Few private universities responded to the questionnaire. In eastern Africa, only three private universities out of 16 responded to the questionnaire. Between them they reported 27 innovations for average of 9 innovations. The 13 public universities on the other hand reported 153 innovations for an average of 11.8 innovations. In the Francophone region, only one private university (UCAC in Cameroon) out of 16 responded to the questionnaire. For the second private university (université Ivoirio-Canadienne in Abidjan, Côte d'Ivoire, data collection was cancelled due to the political situation in Côte d'Ivoire). UCAC reported four major innovations. However, as a young institution, it is still growing and envisaging new courses that may be considered part of the regular development growth needs.

Together the 15 public institutions reported 101 innovations with an average of 6.8 innovations per institution and a wide range from 23 innovations at Yaoundé I and Cocody and Abobo-Adjamé reporting 15 innovations each, to just one innovation for instance at Université de Niamey and Université Gaston Berger. In Southern Africa, the questionnaires were circulated only to public higher education institutions. It is, therefore, not possible to answer this question on the basis of the survey information. However, one often hears in the public discourse, the suggestion that private universities by virtue of many factors, including their newness, and small size are more innovative than their public counterparts because they are able to change course much faster when the need arises. On the other hand, one also has encountered in the public debate the argument that going by the quantity of innovations, the public universities, by virtue of their bigger sizes, are bound to "out innovate" the private ones.

All the above aside, going by what we otherwise know of the two types of universities, the appropriate answer would seem to be that neither of the types is necessarily more innovative than the other for it very much depends on the issue at hand. Thus, private universities seem to more innovative, for example, on fundraising, management of student affairs, relevance, marketing of their programmes to the public, general public relations and in some cases, governance. They are arguably, not very innovative on matters relating to designing new programmes, staff development, equity/access. Indeed, the issue of equity/access is almost, by definition, alien to most of the private universities given that they are

interested only in those who can afford to pay. Few have bursary programmes. Even fewer seem to have any affirmative action programmes. In all this they have been out innovated by the public universities. There is however one exception in this study. Indeed, UCAC, Cameroon, and has essentially adopted equity as an essential component of its foundation and mission. While it is in search of funding to develop some of its programs, including scholarships for female students, it currently has a stable resource base.

(xii) What has been the impact of the innovations listed?

Of all the questions guiding the research, this was the most difficult to answer because the universities did not answer it. One suspects that they did not answer because, like the author of this report, they are suspicious about impact questions and impact assessments. Because impact questions are notoriously difficult to answer, the tendency is to answer by equating the objectives of the innovation with the impact. The easiest impact question to answer was on access and the universities did indeed answer that enrolments have gone up as a result of the innovations such as affirmative action, accrediting middle level colleges, establishing distance learning mechanisms. There was also some attempt to answer the question with regard to financing reforms. Here, the universities indicated that they are now able to generate some income, which they are ploughing back into the university. The University of Nairobi, for example, is now able to generate close to 25% of its annual financial requirements from income generating activities, most of it from fee-paying students.

The impact of innovations on Vision/Mission, strategic planning, governance, curriculum quality, staff development and retention, and relevance are likely to be long term, which might explain why we all find it difficult to deal with the issue of impact. There is however, one access innovation, which seems to have had an immediate impact. The parallel/fee paying programmes have succeeded in changing the images of the universities from the ivory tower image to a more public friendly image. One hopes that the fee-paying students will also demand more value for their money, which will have a major impact on quality and university accountability in general. The programmes, together with increased enrolment of regular students, have however had the negative impact of stretching the available physical facilities. In addition we must keep in mind our earlier observations that an innovation is a process, a fact that makes it difficult to freeze it for the purpose of studying its impact. Thus most of the innovations reported are still unfolding.

Chapter Six

PARTING THOUGHTS AND RECOMMENDATIONS

6.1 Parting Thoughts

Universities, unlike researchers, do not have the luxury of meditating on the meaning of things before doing them. Thus, we have to deduce the meaning of innovation from what the universities have been doing. **The deduced meaning suggests that the universities understand an innovation to mean some recent change in the activities of the institution, especially change that has introduced a new activity and sometimes a new way of doing old things. Either way, innovation is more or less being equated with any new development.** This is true of all the different categories of innovations in the Innovations Matrix and applies at all innovation levels.

The purpose of innovation is, by definition, a changed or improved situation. The success of this must, therefore, be shown through verifiable evidence. Understandably, given the nature of this study, very little of this was presented or available. However, it is important to highlight the need for systematic monitoring and evaluation of innovations in order to determine their effectiveness, success, benefits and efficiency.

The purpose of innovation in the context of African higher education is to contribute towards national development goals and through this to improving the human condition. In the light of this, semantic deliberations about definitional boundaries run the risk of becoming counterproductively 'academic' in the derogatory sense. These preoccupations are less interesting than focusing on the purpose of innovation.

For these reasons, it may be more productive to focus on transformation, change and change management and effectiveness of this through monitoring and evaluation, than on the more slippery notion of innovation. It is our view that the really useful findings of this study are those which illuminate the challenges of change management in implementing and institutionalizing ideas which bear the promise of effecting purposeful change towards the development priorities of the continent. With this in mind we now make a few recommendations.

6.2 Some Recommendations

(i) Given that an innovation is a process rather than an event, we recommend **a repeat survey** to focus on the innovations reported in the survey, but this time concentrating on the lessons learned and the impacts of the innovations. As we have indicated in this report, the question on the impact of the innovations yielded the least information partly because the innovations were still relatively new. The repeat survey should put

emphasis on site visits and observation in order to provide a detailed documentation of the innovations. The survey should be longitudinal in approach since innovations are in essence dynamic.

(ii) The process of the survey and other interactions indicate that there is the desire on the part of universities to know more about what others are doing in higher education innovations. Therefore, we recommend that the AAU open a **Web page on innovations in African universities** in order to encourage sharing of information in this area.

(iii) As agreed during the preparatory meeting for the survey, this report should be distributed widely in both French and English. We recommend that in the first instance, **the report should be posted on the AAU Website and any other appropriate Sites**, pending publication.

(iv) In view of the immense interest shown by CORVEP in the question of innovation in general and this survey in particular, we recommend that **a future COREVIP be devoted entirely to the issue of innovations**, with special focus on innovations in universities.

(v) In order to encourage more innovations in African universities, we recommend that **the AAU jointly with ADEA establish an Innovations Award** to be competed for by the universities on an annual basis. The Universities should be encouraged to submit innovations in each of the categories outlined in the Innovation Matrix for assessment by a panel drawn from academia, the private sector, and the public sector.

(vi) Innovations can quite often be expensive. Therefore, we recommend that ADEA, the AAU and other parties interested in higher education in Africa establish **an Innovations Incubation Fund** to facilitate, especially the early stages of, innovations. It is our feeling that most innovations are likely to die/be killed at this stage due to the intense competition for scarce resources.

(vii) As stated above, universities, quite often do not have the time to think of what they are changing as “innovation”. The result is that innovations are not well documented because no one has thought of them as such. We, therefore, recommend that **universities establish innovation registries** to document, store and update from time to time, the innovations taking place. This should be in addition to units implementing and coordinating innovation.

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