FINANCING HIGHER EDUCATION IN AFRICA

R.D.D. BLAIR
Speciss College
and
IRT/Speciss Consulting Services
Harare, Zimbabwe

1. INTRODUCTION

The UNESCO "Policy Paper for Change and Development in Higher Education" provides the overall context for a discussion on financing higher education in Africa. The paper indicates that UNESCO, whilst taking a very broad and comprehensive view of higher education, is focusing quite strongly on four major themes: relevance, quality, intra-African and international co-operation and management. The UNESCO Introductory Note for the African Regional Consultation Preparatory to the World Conference on Higher Education to be held in Dakar 1-4 April, reveals that the financing of higher education is to be considered as part of the sub-theme on managing higher education. This document also links the financing of higher education to a partnership with the productive and service sectors of the economy. Much of the Policy Paper is extremely sound, but it is of some concern that, whilst addressing several of the key financing issues, a reform of the way universities are financed is not seen as meriting at least equal status in the deliberations with the four areas focused on. Effectively relegating financing to a part of the management theme tends to down-play the importance of financial reform. This paper for the Eastern and Southern African Consultation on Higher Education, builds upon and further develops the themes contained in a paper presented to the Zimbabwe Ministry of Higher Education's Victoria Falls Conference on the Problems of Financing African Universities (Blair 1994) and attempts to provide an overview of various strategies and policies which will be needed to more effectively finance higher education in Africa in the immediate future. In so doing it argues that financial reform is the essential pre-requisite for the achievement of all the other major issues, including the main areas of focus identified in the UNESCO Policy Paper, and that a "Financial compact" will have to precede the "academic covenant" envisaged by UNESCO.

Whilst much of this paper is relevant to all universities in Africa, it should be noted that it is based primarily on experience and information from Anglophone Africa and particularly Southern and Eastern Africa. It is primarily addressed at policy makers at national level (government ministers, senior public servants), because it is at that level that the major reforms are needed to enable more effective financing to develop, but is also directly aimed at the leadership at institutional level (university Vice Chancellors). Hopefully it will be of interest to the productive and service sectors of the economy as well, as the eventual outcome of any reforms of higher education finance will directly affect these sectors.

At the outset it may be worth attempting to summarize the "primary agendas" of each of the major stakeholders in higher education. Unfortunately, they are probably quite different from the laudable objectives of the UNESCO Policy Paper. Crudely stated they are probably as follows:

Government:
To off-load a significant proportion of the cost of funding universities and future growth of the university system onto the private sector without giving up too much control or surrendering any tax revenue.

Private sector:
To secure more effective, responsive universities producing more immediately useful graduates, and gain better access to useful research and advisory services.

Universities:
To obtain a higher level of funding from anywhere without having to grapple too seriously with sensitive internal inefficiencies.

Students:
To continue to secure increasing access to higher education, with improving quality and relevance in the programmes they study and the environment in which they work but without having to contribute very much financially to the cost of their education.

All of these revolve around the financing of universities and, as that is the overall theme, an opportunity presents itself to explore how solutions to the problems of financing African universities might lead to the attainment of at least some of the "objectives" set out in the UNESCO Policy Paper, and the "private" agendas of each sector.
This paper attempts to provide pointers to the overall context in which the financing of higher education should take place, and indicates some of the essential "environmental" policy prerequisites that have begun to emerge after several years of research and experimentation elsewhere and in Africa.

2. THE ROLE OF UNIVERSITIES IN AFRICA

There is general agreement that there are three major roles for universities in developing countries:

Producing high level manpower - the personnel for scientific, technical, managerial and teaching jobs and the future leadership of the country.

Carrying out research to generate knowledge and innovation that is primarily (not solely) relevant to the country's development.

Providing advisory services to assist national development.

In some countries, particularly where there is only one national university, universities have played a role in the development and strengthening of a national identity and have served as fora for pluralistic debate.
The development of higher education is generally accepted as being closely correlated with economic development. The proportion of a country's students expected to proceed to higher education averages 51% in the OECD countries, compared with 21% in middle income countries, and only 6% in low income countries. Whilst to some extent there is a cause and effect process in operation, there is no doubt that higher education does lead to economic development.

3. THE CURRENT SITUATION

In many countries, including everywhere in Africa, higher education is in a crisis. Higher education is almost universally heavily depended on governments for funding, and costs per student are very high compared to other educational sectors. The 1980s saw many economies operating under severe resource constraints, and grappling with the conundrum (particularly acute in Africa) of how to preserve and improve quality in higher education with diminishing financial resources from traditional sources and rapidly increasing student numbers. The crisis manifests itself in several ways:

Resource constraints: African universities (even in South Africa) are severely underfunded in relation to their student populations and current methods of operation. State expenditure per student is declining, but enrollments are generally increasing rapidly, largely due to the imposition by governments of an agenda for increased student access to higher education without linking it to funding. This trend is shown on a world scale in Figure 1. During the 1980s expenditure on higher education in Africa fell from 0.7% to 0.5% of GNP. Based on forecasts of GDP growth as an optimistic indicator of higher education budget growth, and forecasts of enrollments based on current primary and secondary school enrollments, real public expenditure on higher education in Africa is likely to fall by a further 25.8% by the year 2000 (Ziderman and Albrecht, 1995). Finally, a very high proportion of higher education funding in many African countries is spent not on tuition, but on student welfare, housing and food.

Inadequate staffing: In many African universities, academic staffing has been undermined by large outflows of staff to other sectors of the economy (or to other countries or continents), deteriorating salaries in real terms, inadequate housing and transport, and a generally declining standard of living. Most academic staff attempt to carry on two or three jobs at once. However, an Africa-wide study that the author conducted during 1993 indicated that the position at some universities is not as bad as is commonly believed (though there is cause for concern): in several cases staffing numbers increased in

absolute terms in the period 1988-1992, and as a ratio of occupied academic posts to budgeted academic posts. Furthermore, staff student ratios "improved" in some institutions and were lower in 1992 than in 1988.

Average annual percentage growth rate

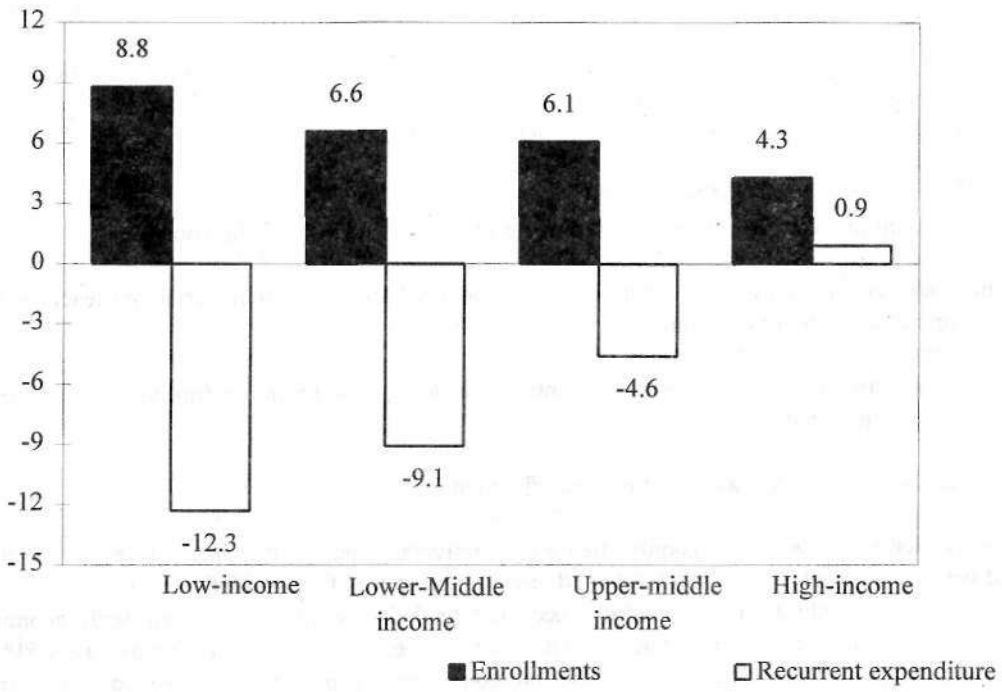


Figure 1: Higher education enrollment and public expenditure on higher education.
Source: Higher education: the lessons of experience, p. 17.

The survey also indicated that academic staff at the African universities examined had a strong commitment to academia, with priorities being research and publishing, teaching and seeking academic promotion. However, dissatisfaction with remuneration packages and research opportunities was considerable, and a real concern is the loss of and declining proportion of senior staff at the full professorial level.

Deteriorating infrastructure: In most African universities there is considerable evidence of overcrowding, a lack of maintenance, and declining resources available for the acquisition of books, journals and equipment. A survey of 31 African universities revealed that the average number of university library books per student had failed from 49 in 1980 to 7 in 1990.

Internal inefficiencies: Virtually all universities in Africa are characterized by considerable internal inefficiencies manifested in factors such as:

-very low staff student ratios

-bloated complements of non-academic staff

-high student drop-out and repeat rates

-low graduation rates

-high non-education expenditure in residences, catering, medical and municipal services

-involvement in areas unrelated to a university's mission (such as the operation of security services, bookshops, garages, bakeries, etc).

For example, in 1991, across 15 African universities surveyed by the author, the overall ratio of non-academic staff to students was 1 :3.6 and of academic staff to students 1:11.5 (Blair, 1992). Data from one southern African university (University of Zimbabwe) and one east African university (University of Dar es Salaam) are indicative of these inefficiencies, whilst also showing wide variations:

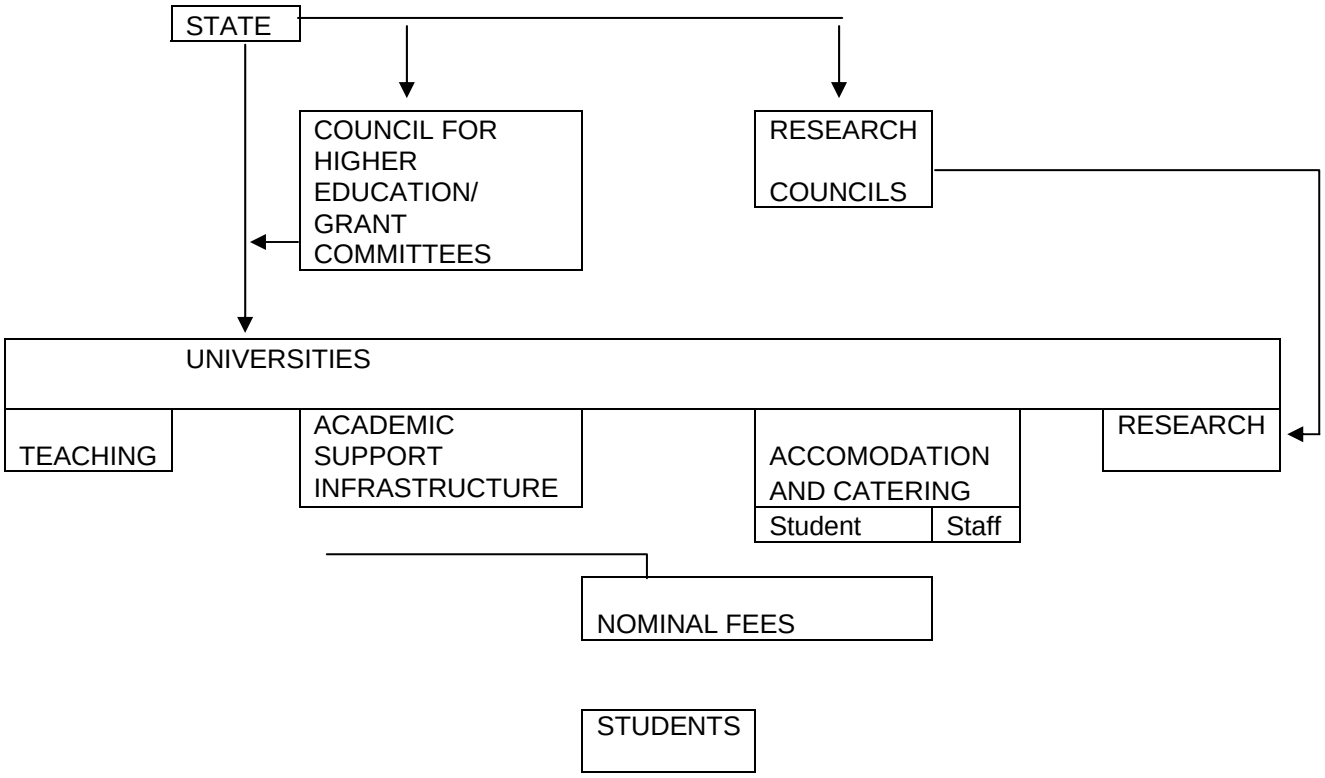
Radio of	UZ	UDSM
Non-academic staff: students 1:	4.00	1.75
Academic staff: students 1:	10.70	5.23

External inefficiencies: Most African countries currently experience significant graduate unemployment, largely as a result of economies showing little growth and therefore no increase in the demand for skilled professional labour, and the declining role of the public service as a major employer of university graduates. In addition there are significant distortions in the labour market for university graduates that inflate the private returns from higher education (factors such as high starting salaries largely determined by civil service regulations, and significant subsidising of university studies) and make attending an institution of higher education attractive, particularly when other jobs are not generally available. In most countries there is also a significant imbalance between students undertaking programmes in the humanities and social sciences as opposed to engineering and the hard sciences (largely the result of the school system, but partly because, in the past degrees in the humanities and social sciences led to readier employment by government).

Declining research output: Over the past decade research output in most developing countries has declined, as the depressed economic climate meant that national research efforts could no longer be maintained.

Inequities l0nation6.108 Tc(pas) Tj

This delivery system is schematically shown in figure 2.



- whilst universities are generally genuinely underfunded, they are inefficient in the utilization of what resources they do have (financial, staff and infrastructure). There are insufficient incentives to use scarce resources more efficiently and government restrictions often prevent a more efficient redeployment of resources within the university.
- because state funded universities have relatively limited autonomy in real terms they are basically unresponsive or slow to respond to changes in the labour market or student demands.

4. STRATEGIES FOR REFORM

As African universities sank deeper and deeper into crisis, a considerable amount of research and experimentation, largely funded by international donors, took place to identify ways of halting the slide and placing universities on a solid base to face the balance of the decade and the 21st Century. Most of the strategies identified are predicated on the view that:

- the bleak economic outlook and other government priorities (such as bloated defense expenditure) are unlikely to allow public financing for higher education to increase significantly in the foreseeable future;
- all governments are committed to expanding access to higher education, but often with little reference to the availability of resources, the need for quality, market demands and, to date at least, at little direct cost to students.

The UNESCO Policy Paper is correct in urging governments to see expenditure on higher education as a long term national investment for economic competitiveness, but it is unrealistic to expect that African governments will in fact improve higher education funding in real terms.

The funding crisis is likely to be exacerbated by the strong evidence that the priority for education expenditure should be at the primary and secondary levels rather than at university level in a developing country, as greater social returns and economic growth accrue from such expenditure. In addition, there is considerable evidence that expenditure at other levels of higher education (e.g. polytechnics and other technical institutions) can pay a bigger dividend nationally than expenditure at university level.

The emerging consensus, both from within Africa and elsewhere in the developing world, seems to be that there are four broad areas of reform that can achieve the desired results without massively increased public funding:

- The development of variety amongst institutions within the higher education sector, including the establishment of private institutions.
- Encouraging public institutions to diversify their sources of funding, including cost recovery or sharing with students.
- Redefining the role of government in higher education, and linking State expenditure to performance measures.
- The establishment of

Figure 3: Degree of differentiation of higher education systems by income level.
Source: Higher education: the lessons of experience, p.29.

The Development of Non-University Institutions

In East Asia, particularly in the "Four Tigers", student enrollments in non-university institutions (both State and private) have grown faster than enrollments in universities. The growth in university enrollments was 11% in the period 1975-1980, and 6% in 1980-1988, whereas the growth in non-university institutions in the same periods was 24% and 10% respectively. Non-university institutions in the higher education sector include polytechnics, short course technical institutions, community colleges (American style), distance education colleges, adult education colleges, and institutions offering courses in both higher and lower education sectors.
The main advantages of such institutions are that:

- they tend to be cheaper to finance, running shorter courses, with lower per student costs and lower dropout rates. (In Ghana, for example, per student cost at non-university institutions such as diploma awarding colleges are only 40% of the average per student cost at the Ghanaian universities.)
- they appear to be able to respond more flexibly to market demands, and to produce graduates who are in greater

On the basis of experience elsewhere in the world, there must be a future for private universities in Africa once a reasonably level playing field, and an encouraging and fair regulatory framework (containing at least the following essentials), exists:

- An avoidance of restrictive regulations and controls, particularly on tuition fees.
- An appropriate accreditation and evaluation mechanism, possibly market based.
- A willingness to allow foreign, established degree programmes to be offered.
- Possibly technical assistance in curriculum development and management.
- The ability for State awarded scholarships and loans to be held at public and private institutions without restriction.
- The absolute minimum of controls so that universities are entirely autonomous to accept their own students, set their fees, determine a programme and recruit staff.
- Speedy consideration of applications for the establishment of new universities, perhaps allowing the market to determine the success or failure of the venture rather than attempting to ensure its success through highly demanding up front requirements.
- Tax exemptions for private institutions so that they are placed on the same footing (income tax free) as State institutions.

If it can be shown that private institutions can expand student enrollment opportunities at a lower per student cost than expanding the State universities, there may be some justification for public subsidies of (or at least financial incentives towards) capital and research programmes at private universities on a competitive basis with public universities.

It is by no means certain that the various pieces of relevant legislation in Africa that govern the establishment of private institutions meet these criteria. Certainly the Zimbabwe National Council for Higher Education Act (with which the author is familiar) does not and would need to be amended to facilitate the establishment of private institutions at both university and non-university level. Ideally the fundamental criteria would be for existing public universities and polytechnics to be placed on a fair competitive basis with private institutions in respect of fees - public institutions would have to charge full cost economic fees and receive little or no State support that is not available to the private institutions. The State would provide its support through the provision of scholarships, grants and loans tenable at any approved institution (public of private). Indeed, if a conducive environment was created, consortia of business organizations and educational institutions in a number of African countries could be encouraged to develop private universities without the possibly narrow religious focus of the existing, mainly church based institutions.

6. DIVERSIFYING THE FUNDING OF PUBLIC INSTITUTIONS

A second major strategy for the reform of higher education is for public institutions to diversify their sources of funding in order to reduce their total reliance on government. There are several ways in which progress could be achieved:

- Donations and grants
- Income generation
- Cost sharing with students

Donations and Grants

All universities receive a proportion of their funds through donations and grants from business, alumni, and international donors. International donors have played a significant role: in 1991 81% of the budget of the University of Eduardo Mondlane in Maputo was supplied by donors; and over the years most African universities have received very significant funding for staff development programmes. However, reliance on donors is obviously undesirable, and now many donors are quite rightly looking for evidence of self-sustainability for projects that they may provide initial assistance for.

The success of African universities in mobilizing resources from their business communities and alumni is almost non-existent. A study of a number of African universities (Blair, 1992) indicated that only a few South African universities had successfully developed strategies and organizations to secure funding from the private sector and alumni in a significant way. It is certainly worth pursuing such avenues. Progress will require universities to:

- Establish foundations and development offices to raise funding in a professional way

- Develop alumni associations for long term financial benefit to the university
- Provide a tangible service to the givers in order to bolster the "social responsibility' rationale for giving.

The funding received from such sources can be applied in a variety of ways: building construction, endowment of professorial chairs, acquisition of library books and scientific or technical equipment, academic staff travel, staff salary supplementation, scholarships for needy students, an investment endowment for the university.

The development of fund raising as a significant form of income generation will depend on scarce managerial and fund raising skills. Vice Chancellors, following the pattern established by their colleagues in the USA and UK, will have to spend an increasing proportion of their time talking to potential donors and business people in order to secure funding.

The experience of the USA, and increasingly the UK, Australia and South Africa, indicates that alumni (essentially private and public sector representatives with a connection to the university) can becorne very significant sources of funding. Relative to society as a whole, graduates are well off in African countries, and probably have a strong bond towards their university. The development of a relationship between a university and its alumni is a long term one, but African universities should start establishing the infrastructure and organization to develop this relationship and ultimately benefit from it. Most institutions in Africa already have organizations that can be described as alumni associations (commonly called graduates associations or convocations), but it is clear that most are inactive, and very few contribute income to the institution. Although the prospects of alumni support becoming a really significant form of income generation for universities are slight and in the future, institutions should start now on the critical period of "friend raising" that is necessary before any significant fund raising can be expected. The success of "old boys" associations at school level in many African countries demonstrates that the culture which allows alumni associations to flourish so successfully in the USA is not absent in Africa

In a reformed higher education environment where the public universities were seen as more independent and less dependent on government for finance, there are prospects for the private sector and alumni to contribute in a reasonable way (though perhaps not significant in overall terms) through donations and the establishment of endowments for the public universities. Unfortunately there is no chance in the foreseeable future that Africa's universities could accrue endowments such as the US$545 million of the Harvard Business School, or attract donations such as the £20 million from a Saudi Arabian businessman to Oxford University to fund a business school. While success on such a scale cannot be envisaged, Africa's universities are not without hope in attracting donations: the major reason the private sector would contribute to university funding is to try and ensure that the quality of graduates (a firm's future high level employees) is improved. However, in a highly competitive environment many firms may feel that it would be sponsoring the future high level staff of its competitors (the "free-rider" problem) and therefore firms can be encouraged to provide individual, bonded scholarships for students (see Figure 6). Another major incentive to such "income generation" would be a tax regime that encouraged donations. (In Chile, private companies get a tax exemption on 50% of the value of donations to universities, and in India 15% of contributions are tax deductible.)

Income Generating Activities

Universities can embark on a large range of income generating activities primarily through the use of their facilities and expertise. The list of possibilities includes:

- Continuing professional education/vocational courses
- Contract research
- Consultancy services
- Study abroad programmes
- External hire of university facilities/conference management
- Publishing

Virtually all of these activities are undertaken in some form or other in most African universities. However, they do not take place in an organized, co-ordinated fashion, and their management leaves a lot to be desired. Most institutions cannot even report on the income generated through such activities, let alone whether they make a contribution to university overheads or operate at a profit. Furthermore, there is a major disincentive: in most countries the generation of income through such activity effectively reduces the government's budget allocation. Consequently a primary area for reform in any strategy would be for governments and universities

to agree on a fixed government budget allocation for any accounting period, and to allow and encourage universities to generate additional income that they would retain and utilize at their discretion. Indeed, governments could operate a formula whereby a proportion of its funding was tied to the generation of matching funds through income generating activity.

All the potential areas for such activity have benefits in non-financial terms as well, through bringing the university into closer contact with the business/private sector, through providing services of direct use to the private sector, and through providing additional avenues for staff to secure income. However, as was stated in respect of donations and grants, even in a conducive overall environment, the effective operation of income generating activities is highly dependent on universities having access to effective management skills - presently in extremely short supply in Africa.

Continuing Professional Education/Vocational Courses

There is strong demand from the private sector for courses that update practicing professionals. The expertise available in universities is often ideal for such training, and it is legitimate for universities to meet the demand. Universities have expertise in organizing training programmes and have classrooms and other facilities available (particularly during evenings, weekends and vacation periods),the use of which should be maximized. Such programmes should be offered only on the basis of charging an accurately calculated full-cost fee, plus an overhead (i.e. no State subsidy), and must be effectively and efficiently organized. They are an extremely valuable and effective way for universities to interact and serve their communities whilst also generating income.

Contract Research

Contract research can be defined as research that an outside organization wants carried out and is prepared to pay for. In some African countries universities have a strong comparative advantage in contract research by being relatively well-endowed in terms of equipment and being a unique national reservoir of expertise. However, contract research is relatively underdeveloped in Africa: although half the institutions involved in the author's Financial Diversification Survey (Blair, 1992) claimed to be undertaking such work, only one could give any data on income earned. As national economies are revitalized there will be the potential for a much wider range of clients for contract research as business expand and new emerging businesses enter the marked place.

An interesting innovation to encourage a demand for university services has been developed in Jordan. Small and medium size firms can receive State subsidies for their purchase of services from higher education institutions - the so called "R&D Voucher" scheme (Eisemon, 1991, cited in Ziderman and Albrecht, 1995).

Consulting

The organization of Consultancy services by universities for the private sector and international organizations is often seen as the quickest and potentially most successful route to the generation of significant funding for universities. This optimism is misplaced: although in most African universities many members of the academic staff are actively engaged in Consultancy, in the main they do so entirely for their own benefit, and often at cost to the university through lost time and free use of university facilities. It will require the provision of an extremely effective and efficient service by universities to both the consumers of such services and to the academic staff providing them for any university organization to be able to effectively break into this market. It is unlikely that in foreseeable future universities will have the necessary management skills to successfully undertake such an operation. Nevertheless the effort is probably worth making (best done through an arms length private company with professional management), as the potential advantages to a university through organized Consultancy are overwhelming:

- The cash flow produced benefits members of staff personally (a positive factor for attracting people to and retaining them in an academic career), as well as departments, faculties and the university as a whole.
- A surplus should result that can be spent as the university determines.
- Improved and closer contact between the university and industry/commerce producing better communication and understanding: the university becomes more relevant and is seen as a positive resource to be tapped.

All the other possibilities mentioned in paragraph 37 warrant attention and implementation. Most universities do rent out their facilities, but not in a businesslike manner. The potential exists to provide a service to the private sector through such activities, whilst generating a positive contribution to overheads. Further thoughts and details on some of the issues involved - particularly from a university perspective - are provided in appendix 1.

The commonly expressed fear about universities pursuing income generation activities in a professional manner is that they may lose sight of their primary objectives of teaching and research, and that the quality of both deteriorates. However, experience in the developed world indicates that the opposite occurs. For example, although Warwick University, which embraced income generation with gusto, was once described as a "business university" that had supplanted the ideals of academic excellence with those of the industrial corporation, in 1994 it was rated by the UK Higher Education Funding Council as Britain's fifth best research university, and given high marks as a teaching institution. At a time when other British universities were struggling to make ends meet, Warwick University was able to spend £10 million on hiring 50 world class research fellows in a range of academic disciplines.

All the income generating activities have potential and should be pursued by African universities interested in diversifying their sources of funding and developing a a as

- if students have to pay for their education they will value it more, there will be an incentive for them to complete the programmes quickly in order to reduce the costs, and they will be less likely to take action

been encouraging (e.g. non-repayment as high as 81% in Kenya), the problem has to be tackled as a matter of urgency.

Any state funded loan scheme should be a revolving fund with loan repayments being paid into the fund to assist future students: in the long term it could become self-sustaining. In addition, there is considerable potential for private sector support and advice (e.g. from banks) for the development of loan delivery and collection schemes. Student loan schemes should not be limited to government loans only - the private sector should also construct such schemes.

The establishment of a comprehensive, effective loan system for students in higher education is a complex and somewhat technical issue which cannot be gone into in depth in this paper. The primary issues, which have been succinctly summarized by Ziderman and Albrecht (1995), are:

- the lending mechanism/institution
- the repayment mechanism
- targeting needy and able students
- interest rates and subsidies
- mechanisms for minimizing default.

Their excellent tabulation of the policy options available for each of these primary issues is reproduced as Appendix 2 for the attention of policy makers in this field.

An absolutely crucial factor - apart from the technical aspects of developing a loan system - is to make potential students and society as a whole aware of the rationale for tuition and other fees, and of the advantages to society of loan schemes. This is where governments and politicians should play a responsible, leading role in making the public aware of the true situation of higher education funding in their country, why it is equitable and fair for students and their families (rather than taxpayers) to pay most of the cost, and why the quality of the education and the living environment (accommodation, meals, facilities) should improve as a direct consequence of their fees.

8.

(g) Moral Pressure	Publish lists of defaulters (Jamaica).
(h) Required insurance	Require student to pay an up front fee to insure against losses that result from death or debilitating illness or accidents (Brazil).
(i) Bar further credit	Bar access to further credit if in default (Brazil).
(j) Collection agencies	Utilize private collection agencies to locate students and secure payment (Honduras, Colombia).