Chapter 3

Higher Education Funding Frameworks in SADC

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Executive summary

Two sets of issues provide the rationale for an exploration of higher education funding frameworks in the Southern African Development Community (SADC). First, in Africa in general and in SADC in particular, the analysis of higher education financing issues is critical to enhancing access and equity. Currently access and equity are unacceptably low. Moreover, access is highly inequitable in terms of gender, location and socio-economic status. Higher education financing policies must act to address this twin challenge of access and equity.

A second and related issue concerns the relationship between higher education and development. There needs to be a greater recognition on the part of African policy makers of the growing importance of higher education for development in its broadest terms (that is, economic, environmental and social). Recognition of the increasing importance of higher education in developing countries will lead to greater attention being paid to how higher education can and should be financed.

Part 1 provides key features of the higher education financing patterns and models in eleven SADC countries: Botswana, Lesotho, Madagascar, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. It was not possible to gather any information on the other three SADC member countries — Angola, the Democratic Republic of the Congo and Malawi — during the timeframe for this project.

Part 2 draws together the common themes, good practices and possible lessons from the country studies.

African higher education is characterised by extremely low participation rates. With the exception of Mauritius and South Africa, this is true also for the countries considered in this chapter. Moreover, three key determinants — gender, socio-economic status and region — act to skew the already low participation rates in favour of males, richer families and urban households.

Access and equity in higher education are fundamentally determined by access to and the quality of secondary education. In most SADC countries, access to secondary schooling is extremely limited and often of poor quality.

Public spending on higher education as a proportion of the education budget varies substantially among countries considered in this report. In the case of Lesotho, Mozambique, Namibia, South Africa and Swaziland, higher education spending is relatively high as a percentage of the education budget.

Several reasons can be given for low higher education expenditure. First, there may be inadequate expenditure on education in general, as a percentage of the government’s budget. Second, where education expenditure may be considered to be adequate or reasonable, there might be considerable political pressures in ensuring that the schooling sector gets the overwhelming share of the public sector’s commitment to education.
Third, in many developing countries, in a situation of serious resource constraints, there is often keen inter-sectoral competition for financial resources from health, housing, social welfare and other government functions. Finally, the case for increased higher education financing has not been helped by the low prioritisation of this sector by many African governments. The value of higher education for economic growth and broader social and sustainable development has not yet been fully recognised by African governments.

Some common themes

It is evident that higher education financing in the countries considered in this chapter is often inadequate, and it is inequitable and inefficient in almost every country.

Higher education participation rates remain low in the context of a growing population, even though enrolments are growing everywhere in absolute terms, in several cases quite dramatically. In the face of serious financial resource constraints for higher education, education ministries have responded mainly in two ways. First, there has been a clear shift towards cost sharing in the form of tuition fees in countries such as Namibia, Zambia and Zimbabwe. In some countries (Tanzania, Zambia and Zimbabwe for example), this has taken the form of a dual track system where a fee-paying system co-exists with a free, government-sponsored scheme for some students. Second, governments in virtually all countries have permitted the introduction and subsequent expansion of the private education sector.

While the cost sharing and private sector strategies have enabled the government to address to some extent the issue of inadequate public sector funding of higher education, it has resulted in greater inequity almost everywhere. Unlike in Namibia and South Africa, where everyone pays tuition fees, cost sharing in Zambia and Zimbabwe, for instance, is only for those who cannot access government sponsorships. These government sponsorships invariably go to students from more affluent households who are able to access the best schools. However, both Zambia and Zimbabwe have adopted some measures to address these inequities through adopting quotas for the disadvantaged, and Mozambique provides scholarships to students from rural areas.

Furthermore, many of the poor in Africa appear to be seeking access to private higher education, a situation unlike that of the industrialised world. While these providers may help to address capacity gaps in higher education provision, many of the countries in which they are operating lack the necessary regulatory capacity to monitor quality effectively. In most SADC countries, unlike in the industrialised world, private higher education institutions are for-profit institutions.

Inadequacy of funding for higher education is often a consequence of weak departments of higher education within ministries of education. In several SADC countries, there is an inability and/or unwillingness to motivate for more higher education funding; at a political level, primary and secondary education and other departments within the ministry often get preference.
A widespread lack of planning and oversight capacity in these ministries sometimes results in universities spending more than they have been allocated, or building up huge debt burdens (e.g. Zambia).

Inefficiency of higher education expenditure has been exacerbated by the absence in most countries of a systematic funding mechanism such as a funding formula. Most countries rely on incremental budgeting processes (for example, increases linked to inflation) rather than developing a funding formula that would be able to ensure greater predictability in the budgeting process and certainty of revenue for higher education institutions. Such predictability would be enhanced also by the development of closer links between education planning and the budgetary process, the latter ideally comprising a three-year medium-term expenditure framework. Very few countries, with South Africa being a notable exception, have established the necessary planning capacity for higher education in the ministry of education and/or appropriate budgetary frameworks for the country as a whole.

A major aspect of inefficiency in expenditure relates to the manner in which so-called ‘loan schemes’ operate in several countries. In Botswana, Lesotho and Tanzania, for instance, governments operate loan schemes for higher education students. In practice, however, these are study scholarships to be used at both local and foreign institutions, as no serious efforts (except until this year in Tanzania) have been made to collect such loans. In practice, therefore, higher education has been free. It has also been inequitable as the students who access these ‘loans’ are often from the most affluent households.

In several small countries – especially Botswana, Lesotho and Mauritius – limited capacity has resulted in substantial resources being spent on education outside the country. In Mauritius, the costs of international study are borne by private households. In Botswana and Lesotho, however, the costs have been carried largely by the state. While there are clearly high private returns to individuals, the social benefits to Botswana and Lesotho more broadly (through, for example, returning graduates, remittances) have not been quantified and the cost to the taxpayers has been high.

Poor academic salaries lead to poor quality of education and/or poorly motivated staff, which in turn leads to low internal efficiency (as reflected in high drop-out and repetition rates and poor quality of outputs).

In several SADC countries (Lesotho, Tanzania and Mozambique), there is significant external donor involvement in higher education financing. The long-term implications for the government are considerable.

**Good practices**

It is evident that the overall picture of higher education financing in the SADC countries, with a few notable exceptions, is characterised by inadequacy, inefficiency and inequity. Nevertheless, there are several examples of ‘good practice’ that member countries may want to study and possibly emulate.
Financing practices that address the inadequacy of public expenditure

- **Private-public partnerships:** To address the issue of scarce public resources, Botswana is establishing a new university on a private-public partnership basis. In this model, the state will provide substantial funding for capital expenditure while the private sector will be responsible for operational expenditure. A similar venture is being created in Zambia at the Mulungushi University.

- **The differentiated government funding model:** In Mauritius, public institutions are not all funded in the same way. Institutions yielding high private returns (e.g. the University of Technology), receive lower fund levels compared to institutions yielding greater social returns (such as teacher education).

- **Cost sharing:** Several countries have recently introduced cost sharing in the form of tuition fees to address the inadequacy of institutional revenue. This is particularly so in Namibia, Mauritius, Zimbabwe, Zambia and Tanzania. South Africa has always had a system of fee-paying in higher education. However, not all countries apply cost sharing equitably because of the dual track tuition programmes (e.g. Zambia, Tanzania and Zimbabwe).

Financing policies that address equity

- **Provincial scholarships:** Mozambique provides scholarships to poor students from rural areas.

- **Loans to students in private higher education institutions:** Botswana and Tanzania (until this year) effectively see these as grants. These grants enhance equity, as students from lower socio-economic groups tend to attend private higher education institutions.

- **Loan schemes to address access and equity:** South Africa’s national student loan scheme is designed to attract larger numbers of historically disadvantaged students into higher education. Although there is some controversy about how ‘disadvantage’ is defined, the scheme attracts a high level of funding from government, operates at a high level of efficiency in terms of cost recovery and uses ‘means testing’ to ensure that loans go to those who are at the lower end of the socio-economic spectrum.

Financing policies that promote efficiency

- **Linking higher education planning to budgeting:** In South Africa, there is a close link between planning (at both the institutional and system levels) and funding. Higher education institutions are required to submit three-year ‘rolling plans’ to the government as part of the state's planning and medium-term expenditure framework budgeting process.

- **Funding to improve quality of education provision:** Mozambique provides a funding facility, the quality enhancement and innovative facility, which is an initiative to reward both public and private institutions and individuals for the development of quality enhancement programmes.
Some possible lessons

It is inevitable, given serious public resource constraints, that the higher education sector must look at alternative mechanisms to generate funds to enhance access and equity. Among the funding mechanisms that need to be considered are cost sharing and loan schemes that promote access and equity and are efficient in terms of cost recovery. A third issue relates to the development of a funding formula for higher education that can promote the more effective utilisation of scarce financial resources and enable governments to achieve the broader objectives of the higher education system (e.g. appropriate human resources development).

Cost recovery

The case for cost sharing can be made on several grounds. There are numerous rationales for students and families to share the costs of tertiary education with taxpayers. The arguments often used to make the case for cost sharing are:

- public money available for tertiary education is lacking in light of enrolment growth and competing priorities for public funds;
- those who benefit should contribute to the costs of tertiary education;
- public savings from individual contributions can be channelled to improve equity of access; and
- tuition fees introduce the virtues of price as a market mechanism.

However, there may be a number of technical aspects that make the realisation of cost sharing in developing/poor countries more challenging. This is essentially related to two aspects. First, the cost-division formula (i.e. the share that each of government and the students/families should pay) is difficult to calculate because the magnitude of tertiary education externalities is very difficult to measure. On the other hand, to be compatible with access and equality of opportunities, cost sharing must be accompanied by measures that remove financial barriers to tertiary education entry at the time of the enrolment decision, especially for the more disadvantaged groups. This requires effective and efficient student financial aid systems typically formed of need-based grants and loan schemes, and possibly other programmes to compensate for unequal education opportunities at the secondary level.

Developing an efficient and equitable loan scheme

Important lessons can be drawn from the South African and Kenyan experiences with regard to designing and implementing an effective student loan scheme. It is encouraging to see Namibia moving towards developing a loan scheme, but there are few signs elsewhere in SADC. The South African and Kenyan schemes are specifically designed to address issues of equity even though there is criticism of the Kenyan scheme, because it does not provide adequate loans to poor students in private higher education institutions.
Utilising financial resources effectively to attain higher education objectives

The funding framework developed in South Africa in the post-apartheid era re-conceptualised the relationship between higher education institutional costs and government expenditure on higher education. This framework is seen as a distributive mechanism, that is, a way of allocating government funds to individual institutions in accordance both with the budget made available by government and with government’s policy priorities.

The funding framework developed for higher education in South Africa attempts to address questions of equity and efficiency, including enhancing predictability, ensuring recognition of budget constraints and promoting institutional autonomy and equity.

The challenges for policy makers across the region with respect to higher education financing are numerous and can be captured in a series of questions:

• How do ministries of education and higher education institutions make the best possible (most efficient) use of current, limited resources?
• How can ministries of education develop a strong case to ministries of finance about the importance of higher education for economic and broader social development?
• What alternative funding mechanisms (loans, cost sharing etc.) are possible in poorer SADC member states?
• If cost sharing is to be considered as a possible funding mechanism, how can greater equity be ensured?
• In cost sharing systems, is it possible to re-direct current resources being expended in poor quality private systems towards expanding public sector capacity?
• If a loan scheme is being planned, are the necessary pre-conditions in place? For instance, is there an effective tax administration system? What role can employers play in cost recovery? Is there institutional infrastructure for means testing?
• Is a higher education planning and budgeting framework necessary to enhance the case for more funding and to promote more effective utilisation of current funding? And if so, what institutional arrangements are needed to promote systemic and institutional planning?
• Can higher education financing be used to ‘steer’ the system to obtain governments’ objectives, e.g. in human resources development?
Introduction

The financing of higher education in SADC reflects trends that are evident in Africa, particularly with respect to enhancing access and equity of citizens to higher education. In SADC countries access and equity in higher education are unacceptably low, particularly in terms of gender, location and socio-economic status. Higher education financing policies thus face a twin challenge of access and equity.

A second and related issue concerns the relationship between higher education and development. There needs to be a greater recognition on the part of African policy makers of the growing importance of higher education for development in its broadest terms (that is, economic, environmental and social). Recognition of the increasing importance of higher education in developing countries will lead to greater attention being paid to how higher education can and should be financed.

The terms of reference for this project called for an analysis of the following issues:

• current levels of public funding of higher education with respect to other levels of education and in an international developing country context;
• patterns of state funding – for example research, teaching, student residences, earmarked funding;
• expenditure by programme – the humanities, sciences, etc.;
• equity in public expenditure on higher education;
• the extent of loan and grant financing; and
• the nature and magnitude of private financing of higher education.

Given data limitations, this project was not able to obtain the necessary data to provide any detailed analysis either of types of funding or of programme funding. With respect to private financing of higher education, the chapter describes the nature of private financing, but little data were collected to describe the magnitude of this phenomenon.

In this chapter, Part 1 provides key features of the higher education financing patterns and models in eleven SADC countries: Botswana, Lesotho, Madagascar, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. It was not possible to gather any information on the other three SADC member countries – Angola, the Democratic Republic of the Congo and Malawi – during the timeframe for this project.

Part 2 draws together the common themes, good practices and possible lessons from the country studies.
Access and equity in African higher education

Obtaining a measure of access and equity is difficult in Africa, partly because it is not always clear what is meant by higher education. In many countries (e.g. Egypt, Botswana) higher or tertiary education implies all post-school or post-secondary education. In South Africa, on the other hand, higher education refers only to university education. In this regard, comparing gross enrolment ratios might be inappropriate. For example, South Africa's gross enrolment ratio for higher education is 15% while Egypt's (encompassing all post-school education) is around 30% and Mauritius (also encompassing all post-school education) is at 34%.

Notwithstanding this definitional problem, it is evident that participation in higher education in Sub-Saharan Africa is low in both absolute and relative terms. Of 23 Sub-Saharan African countries for which data are available, only Mauritius and South Africa have a gross enrolment ratio in double figures. Among these countries, the gross enrolment ratio ranges from 0.4% in Malawi to 15% in South Africa and 34% in Mauritius.

Moreover, participation rates in Sub-Saharan Africa are substantially lower than the average for both developing countries and industrialised/developed countries (Table 1). In addition, the median participation rate for Sub-Saharan Africa is 2.5% compared to the developing country median of 13% and the industrialised country median of 58% (UNESCO, 2008).

Table 1  Participation rates in tertiary education: percentage gross enrolment ratio, weighted average

<table>
<thead>
<tr>
<th>Region</th>
<th>1999 (total) (%)</th>
<th>1999 (female) (%)</th>
<th>2005 (total) (%)</th>
<th>2005 (female) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed countries</td>
<td>55</td>
<td>60</td>
<td>66</td>
<td>74</td>
</tr>
<tr>
<td>Developing countries</td>
<td>11</td>
<td>10</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: UNESCO (2008)

In addition to low participation rates, access to higher education is highly inequitable. There are three important determinants of inequity:

- gender;
- socio-economic status; and
- region.

In almost all Sub-Saharan African countries, with the possible exceptions of Mauritius and South Africa, women have substantially lower participation rates. Table 1 demonstrates some of this inequity, particularly in relation to developed countries, where female participation has exceeded that of males.
on average. Moreover, where women have managed to enter higher education in Sub-Saharan African countries, their participation is often concentrated in so-called traditional ‘women’s’ disciplines such as the humanities and education, rather than in commerce, engineering and science.

Second, access to higher education is often dependent on socio-economic status. In many Sub-Saharan African countries, enrolment at universities and other higher education institutions is dominated by students from the highest income quintiles. Often, public funding mechanisms act to exacerbate such inequities by providing free higher education to the ‘best’ students, who invariably come from the wealthiest households.

Third, in almost all Sub-Saharan African countries, participation in higher education is skewed in favour of students from urban and metropolitan areas. Students from rural households face enormous barriers to accessing higher education in general and the higher quality higher education institutions in particular. In summary, these three stratifying factors – gender, socio-economic status and region or location of origin – act to skew the already low participation rate in favour of males, richer families and urban households.

The main barrier to access: poor and inadequate schooling

Access and equity in higher education in Sub-Saharan Africa are fundamentally determined by access to and the quality of secondary education. In the past two decades, most Sub-Saharan African countries have pursued a policy of universal primary education although not all of them have succeeded in this goal. One critical outcome of universal primary education has been the vast increase in primary school leavers seeking secondary education. In countries such as Kenya, Mozambique, Uganda and Tanzania, the capacity to absorb anything more than a small proportion of primary school leavers in the secondary school system is extremely limited. In the light of this limited capacity of public sector secondary schooling, households have had to seek places in a growing fee-paying private system, which is of poor quality in many of the countries reviewed in this chapter. In addition, large numbers of children drop out of schooling after the primary phase, as the gross and net enrolment figures in Table 2 demonstrate. These data reveal that participation rates in secondary education in Sub-Saharan Africa are at best only about half of the developing country average.

In addition, in the richer Sub-Saharan African countries – such as South Africa, where participation rates in secondary education are much higher – there is substantial differentiation in the quality of primary and secondary schools. In these countries, factors such as socio-economic status and region of origin determine access to better quality secondary education and eventually to better quality higher education.
Table 2  Gross enrolment ratio and net enrolment ratio in secondary education – percentage weighted averages, 2005

<table>
<thead>
<tr>
<th>Region</th>
<th>Gross enrolment ratio: lower secondary (%)</th>
<th>Gross enrolment ratio: upper secondary (%)</th>
<th>Gross enrolment ratio: total secondary (%)</th>
<th>Net enrolment ratio: total secondary (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed countries</td>
<td>104</td>
<td>99</td>
<td>102</td>
<td>92</td>
</tr>
<tr>
<td>Developing countries</td>
<td>75</td>
<td>46</td>
<td>60</td>
<td>53</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>38</td>
<td>24</td>
<td>32</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: UNESCO (2008)

Public commitment to higher education spending

As a percentage of total national income, spending on education by most countries in the Eastern and Southern African region is relatively high in a comparative sense (see Table 3). In fact, in countries such as Kenya, Lesotho and Namibia, public expenditure on education is relatively high.

Table 3  Public expenditure on education as a percentage of gross national income, 1999 to 2004, Eastern and Southern Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage of gross national income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>2,8</td>
</tr>
<tr>
<td>Botswana</td>
<td>3,3</td>
</tr>
<tr>
<td>Democratic Republic of the Congo</td>
<td>4,6</td>
</tr>
<tr>
<td>Kenya</td>
<td>6,2</td>
</tr>
<tr>
<td>Lesotho</td>
<td>10,0</td>
</tr>
<tr>
<td>Malawi</td>
<td>4,0</td>
</tr>
<tr>
<td>Mauritius</td>
<td>3,3</td>
</tr>
<tr>
<td>Mozambique</td>
<td>2,4</td>
</tr>
<tr>
<td>Namibia</td>
<td>7,9</td>
</tr>
<tr>
<td>South Africa</td>
<td>5,7</td>
</tr>
<tr>
<td>Swaziland</td>
<td>5,5</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2,2</td>
</tr>
<tr>
<td>Uganda</td>
<td>2,5</td>
</tr>
<tr>
<td>Zambia</td>
<td>1,9</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>4,7</td>
</tr>
<tr>
<td>Africa</td>
<td>4,8</td>
</tr>
<tr>
<td>Developing countries</td>
<td>4,5</td>
</tr>
<tr>
<td>Industrialised countries</td>
<td>5,5</td>
</tr>
</tbody>
</table>

Other: UNESCO (2008)
However, public spending on higher education as a proportion of the education budget varies substantially between the countries considered in this report, ranging from a low of 10% in Madagascar to 40% in Lesotho.

There are often several reasons for low higher education expenditure. First, there may be inadequate expenditure on education in general, as a percentage of the government’s budget. Second, where education expenditure may be considered to be adequate or reasonable, there might be considerable political pressures to ensure that the schooling sector gets the overwhelming share of the public sector’s commitment to education. Third, in many developing countries, in a situation of serious resource constraints, there is often keen inter-sectoral competition for financial resources from health, housing, social welfare and other government functions. Finally, the case for increased higher education financing has not been helped by the low prioritisation of this sector by many African governments. The value of higher education for economic growth and broader social and sustainable development has not yet been fully recognised by African governments.

Higher education and development

Higher education policy is becoming increasingly important on national agendas. The widespread recognition that higher education is a major driver of economic competitiveness in an increasingly knowledge-driven global economy has made high quality tertiary education more important than ever before in both industrialised and developing countries.

As the Organisation for Economic Co-operation and Development (OECD) has recently pointed out, tertiary education contributes to social and economic development through four major missions:

- the formation of human capital (primarily through teaching);
- the building of knowledge bases (primarily through research and knowledge development);
- the dissemination and use of knowledge (primarily through interactions with knowledge users); and
- the maintenance of knowledge (inter-generational storage and transmission of knowledge) (OECD, 2008).

The same research report referred to above also points to the changing nature of tertiary education. For most of the 20th century, tertiary education, which was more commonly referred to as higher education, was what happened in universities. This largely covered teaching and learning requiring high-level conceptual and intellectual skills in the humanities, sciences and social sciences, the preparation of students for entry to a limited number of professions such as medicine, engineering and law, and disinterested advanced research and scholarship. These days, tertiary education is much more diversified and encompasses new types of institutions such as polytechnics, university colleges or technological institutes.
These have been created for a number of reasons:

• to develop a closer relationship between tertiary education and the external world, including greater responsiveness to labour market needs;

• to enhance social and geographical access to tertiary education;

• to provide high-level occupational preparation in a more applied and less theoretical way; and

• to accommodate the growing diversity of qualifications and expectations of school graduates (OECD, 2008).

As participation in tertiary education has expanded, tertiary education institutions have assumed responsibility for a far wider range of occupational preparation than in the past. As the result of a combination of the increased knowledge base of many occupations and individual aspirations, not only doctors, engineers and lawyers, but also nurses, accountants, computer programmers, teachers, pharmacists, speech therapists and business managers, now receive their principal occupational qualifications from a tertiary education institution. Furthermore, tertiary education institutions now offer much more than traditional degree-level courses. While the extent of such teaching is not large, many examples can be found of tertiary education institutions that offer adult education and leisure courses, upper secondary courses to prepare students for tertiary-level study and short specific occupational preparation at sub-degree level. In addition, it has become more common for tertiary education institutions not only to engage in teaching and research, but also to provide consultancy services to industry and government and to contribute to national and regional economic and social development (OECD, 2008).

In addition, substantial reforms are taking place in tertiary education systems. Mainly aimed at encouraging institutions to be more responsive to the needs of society and the economy, these reforms have involved a reappraisal of the purposes of tertiary education and the setting, by governments, of new strategies for the future. The reform process has also resulted in institutions gaining more room for manoeuvre, but demands for clearer accountability to society increased in the process. As a consequence, the tertiary education sector is expected to contribute to equity, ensure quality and operate efficiently.

Higher education has only recently come to be regarded as important again. While it was in vogue in the 1950s and 1960s, higher education subsequently fell out of favour. It had no place amongst the various development paradigms of the mid-20th century, from basic needs to rural development to structural adjustment and policy reform. Even when human capital began to garner attention in the 1990s, the focus was on those aspects that directly affected the human capital of the poor, namely primary education and health (Kapur and Crowley, 2008).

It is not helpful that the role of higher education, both in theoretical and policy terms, lacked adequate empirical knowledge of what was happening within universities and to the students who spend a considerable part of their prime years in these institutions. While it is clear that there has been substantial
growth in higher education whether measured by the number of students or amounts spent, it is unclear just how meaningful this large growth is. Researchers have found it exceedingly difficult to get a good grip on two critical output measures – how to measure quality in higher education and how to determine the value added by higher education over and beyond the student’s innate abilities (Kapur and Crowley, 2008). As Kapur and Crowley show, it is entirely possible that even in systems that are of good quality, the credentialing aspects of higher education benefit the few who have access to it and crowd out from labour markets others who have similar ability, but lack access. The more prevalent formal qualifications, the more pressure to educate oneself. In other words, the upward spiral in education credentialing may not yield social benefits commensurate to the expenditure.

Why higher education?

Stemming from the belief that tertiary education yields lower social returns than other investments, especially primary and secondary education, and therefore should receive fewer public resources, the international development community has neglected tertiary education for a substantial period of time (Schultz, 1998). Investments in tertiary education are often considered regressive, reproducing existing social and economic inequalities. A 1986 World Bank study estimated that social rates of return on higher education in developing countries were on average 13% lower than the returns on basic education (Psacharopoulos, Tan and Jimenez, 1986). A more recent review, looking at 98 countries from 1960 to 1997, found that the typical estimate of the rate of return from primary schooling was 18.9%, while for tertiary education the return was 10.8% (Psacharopoulos and Patrinos, 2002).

While there are some concerns as to whether these calculations reflect marginal (‘extra’ or additional) or average rates of return, there are also more serious conceptual misgivings. Earnings reflect not only additional education, but also other characteristics, such as innate ability. Wages may not reflect productivity given the degree to which they depend on a host of institutional factors and the nature and structure of labour markets. While the returns on investment in basic education are visible and nearly immediate, the returns on higher education are far more elusive and difficult to measure. Re-evaluations of data suggest that standard estimates of social returns to tertiary education do not accurately reflect the positive public externalities, as they are based on the private returns measured by wage differentials and the social costs associated with education (Birdsall, 1996). A growing body of literature suggests that the conventional estimates of the return on investment in education do not accurately reflect the social value added by tertiary education, including job creation, good economic and political governance, increased entrepreneurship and increased inter-generational mobility (Bloom, Canning and Chan, 2006).

In the context of development, the economic benefits of universities naturally receive the most attention. These range from universities’ role in developing a country’s skill base to their role in creating codifiable public knowledge, such as publications, journals, books, patents and prototypes. In recent years, the benefits of more direct university-industry partnerships – including contract research, cooperative research, technology licensing, faculty consulting – and access to specialised equipment and incubation services, have been noted. Universities also provide the public space to
A broader (than purely economic) rationale for higher education was also well recognised in developing countries. Many of the leaders of developing countries had been educated abroad and were aware of the socialisation effects of higher education producing new nationalist elites (Kapur and Crowley, 2008). They also recognised that technological weaknesses had contributed to colonisation in the first place and they believed that building higher education institutions was important to foster the technological capabilities that would hedge against history repeating itself. Higher education was considered essential for developing the capabilities for ‘self-reliance’. Since most newly independent developing countries were largely agrarian, nowhere was the need for domestic technical capabilities more apparent than in agriculture.

Economic historians have long recognised that increasing agricultural productivity is vital to improve living standards in almost any poor country. An important reason why the green revolution was far more successful in Asia than in Africa was the greater domestic technological capabilities in the former region. These were developed through local agricultural universities and research centres that could adapt the new green revolution technologies to local conditions. Thus, in the absence of domestic skills, even global public goods (embodied in this case in the green revolution technologies) have very limited payoffs. Today, poor developing countries face even worse odds (Kapur and Crowley, 2008).

Higher education and economic growth

Higher education is an important form of investment in human capital development. In fact, it can be regarded as a high level or a specialised form of human capital, and its contribution to economic growth is very significant. The contribution of higher education to development can be varied:

- It contributes to the rapid industrialisation of the economy by providing individuals with professional, technical and managerial skills.

- In the current context of transformation of nations into knowledge economies and knowledge societies, higher education not only provides educated workers, but also knowledge workers who stimulate the growth of the economy.

- It creates attitudes and makes possible attitudinal changes necessary for the socialisation of the individual and the modernisation and overall transformation of societies.

- Fourth, and probably most important, higher education facilitates, through teaching and research, the creation, absorption and dissemination of knowledge.

- Higher education also contributes to the formation of a strong nation state, and at the same time promotes globalisation.

- Lastly, higher education allows people to enjoy an enhanced ‘life of mind’, thus offering the wider society both cultural and political benefits.
What is the effect of higher education on economic growth? There is a general presumption that higher education is not necessary for economic growth and development, particularly in developing countries. It is argued that it is literacy and primary education, rather than higher education, that are important.

As described earlier, estimates of the rate of return also contributed to strengthening such a presumption. Conventionally the contribution of education to economic development is analysed in terms of education earnings relationships and more conveniently in the form of rates of return, which act as a summary statistic of the relationship between lifetime earnings and the costs of education. Again, as pointed out briefly earlier, available estimates on rates of return show that the social rates of return on investment in primary education are the highest, followed by secondary education. The returns on investment in higher education are the least. The pattern is more or less true in general with respect to private rates of return. Such evidence is extensively used to discourage public investment in higher education in favour of primary education. Though the rate of return on investment in higher education is lower than that of primary education, it should nevertheless be noted that higher education does yield an attractive rate of return in society (above 10%) and to the individual as well (19%). (Note: private rates of return refer to the net benefits to the individual of education as opposed to social rates of return which refer to the net benefits to society of investing in education.)

The rate of return estimates in Table 4 are regional averages. There are wide variations in the rates of return between several countries. But on the whole, they show that:

- investment in higher education yields positive rates of return to the individual and also to the society at large;
- in several countries social rates of return are high, above 10%, which can be considered as an alternative rate of return; and
- rates of return seem to have increased over the years in some countries.

Generally, declining rates of return over time are often expected, but this is not necessarily the case in all countries. For example, in some Asian countries, the rate of return is increasing. This may be due to the rapid increase in the demand for higher educated personnel.

Table 4  Returns on investment in higher education

<table>
<thead>
<tr>
<th>Region</th>
<th>Social</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia*</td>
<td>11,0</td>
<td>18,2</td>
</tr>
<tr>
<td>Europe*/Middle East/North Africa</td>
<td>9,9</td>
<td>18,8</td>
</tr>
<tr>
<td>Latin America/Caribbean</td>
<td>12,3</td>
<td>19,5</td>
</tr>
<tr>
<td>OECD</td>
<td>8,5</td>
<td>11,6</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>11,3</td>
<td>27,8</td>
</tr>
<tr>
<td>World average</td>
<td>10,3</td>
<td>19,0</td>
</tr>
</tbody>
</table>

Source: Psacharopoulos and Patrinos (2002)

* Some countries in these regions are not members of the OECD
The contribution of higher education to economic development can be measured with the help of a production function or even a simple regression equation. Using the gross enrolment ratio and higher educational attainment as higher education variables, Tilak (2003) has shown that both can be expected to have a positive effect on the level of economic development as measured by gross domestic product per capita.

Higher education and technological absorption

Rapidly changing technology makes a significant difference to the economic growth of nations. The United Nations Development Programme (UNDP) (2001) developed a technology achievement index, based on the degree of creation of technology in a given economy, the extent of diffusion of old and recent innovations, and human skills. It is clear from this index that the level of achievement in technology strongly depends on the level of higher education in a given economy. After all, higher education and research contribute to the development of new technology and to innovations and their diffusion. So one can expect higher education to have a profound effect on the development of technology in any society. In fact, the level of achievement in technology may be a close indicator of economic growth itself. Most countries with high enrolment ratios in higher education have become ‘leaders’ in technology, with high levels of achievement in technology, as shown in Table 5. The converse is also true: a large number of countries with low enrolment ratios (say less than 10%) are ‘marginalised’ in the area of technology. Those with medium enrolment ratios (nearly 20%), such as Singapore and Hong Kong, have indeed become ‘potential leaders’ in technology (Table 5).

<table>
<thead>
<tr>
<th>Gross enrolment ratio</th>
<th>High technology achievement index (&gt;0.5)</th>
<th>Medium technology achievement index (0.4-0.5)</th>
<th>Low technology achievement index (&lt;0.4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (&gt;20)</td>
<td>New Zealand, Korea, Australia, Israel, Japan</td>
<td></td>
<td>Philippines</td>
</tr>
<tr>
<td>Medium (11-20)</td>
<td>Singapore</td>
<td>Hong Kong</td>
<td>Thailand, Cyprus, Syria</td>
</tr>
<tr>
<td>Low (&lt;10)</td>
<td></td>
<td></td>
<td>Iran, Indonesia, Malaysia, India, Sri Lanka, Nepal, China, Pakistan</td>
</tr>
</tbody>
</table>

Table 5 Higher education (gross enrolment ratio) and technology (technology achievement index)

The UNDP (2001) classifies countries such as the Philippines and Thailand, which have medium and high levels of enrolment, as ‘dynamic leaders’. The remainder, countries that did not successfully expand their higher education systems, are indeed ‘marginalised’. Not one of the ‘low enrolment ratio’ countries (countries with less than 10% enrolment in higher education) has achieved high or medium levels of achievement on the technology index.
The relationship between higher education and technology can be shown statistically as well. The simple coefficient of correlation between enrolment ratio in higher education and the technology achievement index in Asian and Pacific countries is as high as 0.8 and that between technology and higher education attainment is 0.65. Though the number of observations is small, the simple regression equations show a very strong and statistically significant effect of higher education on a country’s level of achievement in the field of technology.
Part 1: Country profiles – key features of higher education financing

1.1 Botswana

Structure

Tertiary education in Botswana refers to all education that requires the minimum entry level of senior secondary education and includes certificate/diploma, degree and other advanced courses offered by the various institutions. Table 6 summarises the institutions that currently operate in the country. The main provider of tertiary education programmes in the country has been the University of Botswana, which was established in 1982. It was a campus of the University of Botswana, Lesotho and Swaziland, which was discontinued as such in 1975. There are currently ten public and five private tertiary education institutions. A second government-funded university is being established – however, it will be operated as a public-private partnership.

In addition to the University of Botswana, other major players in tertiary education are the colleges of education offering diploma and certificate courses (currently six), institutes of health sciences (currently five), the Botswana Accountancy College and the Botswana College of Agriculture. The University of Botswana and the colleges of education report to the Ministry of Education, while the institutes of health sciences report to the Ministry of Health, and the Botswana College of Agriculture falls under the Ministry of Agriculture. In terms of governance structure, the Botswana College of Agriculture is an associate institution of the University of Botswana with separate governance under the Ministry of Agriculture, while the colleges of education and the institutes of health sciences are affiliated to the University of Botswana for quality assurance and certification of programmes.

The development of tertiary education has had three clear phases. The first phase was a period prior to 2001, when most students were sponsored to study at the only public university (University of Botswana), the colleges of education and national health institutes. A few students were sponsored to study at universities outside the country, especially in areas that were not offered by the local university. These included medicine, engineering and other applied science subjects. In 2001, the government of Botswana abolished the youth service and was therefore faced with two streams of students, one coming from the youth service and one just having completed secondary education. To deal with the double intake, government had to seek more places for students, and South African universities were at the receiving end. At that time there were no private universities operating in the country on a major scale.

Between 2001 and 2007 (the second phase), given limited national capacity, the government of Botswana sought to increase participation through funding of students in institutions outside the country.
The third phase is the current period, which started in 2007. A major feature of this period is the government’s decision to extend scholarships to Batswana students admitted to private local institutions. Among the private institutions that are eligible for scholarships are Limkomking University of Arts and Technology, Ba Isago University College, the National Institute of Information Technology, Academy of Business Management and Gaborone Institute of Professional Studies. The scholarship takes the form of tuition paid by government for the sponsored student; however, students do not enjoy any direct government funding.

Plans are at an advanced stage to start a second government-funded university named Botswana International University of Science and Technology to be located in Palapye in the central district of the country. This institution is to be funded under a public private partnership, but with a larger proportion of the capital development funding coming from government. This university, together with the private providers, will increase access to tertiary education in Botswana quite significantly.

Table 6  Tertiary education institutions in Botswana

<table>
<thead>
<tr>
<th>Public institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  University of Botswana – certificates, diplomas and degrees</td>
</tr>
<tr>
<td>2  Molepolole College of Education – diploma in secondary teaching</td>
</tr>
<tr>
<td>3  Tonota College of Education – diploma in secondary teaching</td>
</tr>
<tr>
<td>4  Tlkwengo Teachers College – certificates and diploma in primary teaching</td>
</tr>
<tr>
<td>5  Francistown Teachers College – certificates and diploma in primary teaching</td>
</tr>
<tr>
<td>6  Lobatse Teachers College – certificates and diploma in primary teaching</td>
</tr>
<tr>
<td>7  Serowe Teachers College – certificates and diploma in primary teaching</td>
</tr>
<tr>
<td>8  Botswana College of Agriculture – originally offering certificates and diplomas but now offering degrees in agriculture</td>
</tr>
<tr>
<td>9  Institutes of health sciences (currently five) – diploma in nursing</td>
</tr>
<tr>
<td>10 Botswana Accountancy College – certificates, diplomas and professional accounting courses (Chartered Institute of Management Accountants, Association of Accounting Technicians, Association of Chartered Certified Accountants)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Private institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Limkomkin University of Arts and Technology</td>
</tr>
<tr>
<td>2  Ba Isago University College – a branch of the University of South Africa</td>
</tr>
<tr>
<td>3  Academy of Business Management</td>
</tr>
<tr>
<td>4  Gaborone Institute of Professional Studies</td>
</tr>
<tr>
<td>5  National Institute of Information Technology</td>
</tr>
</tbody>
</table>
Higher Education Funding Frameworks in SADC

Access and participation

Tertiary enrolment increased slightly from 1% of the relevant age cohort in 1970 to 3% in 1991 (World Bank, 1994:217). This was because there were few spaces for tertiary education, given that only one university and a few colleges of education were in existence during this period. However, participation increased to 7.3% by 2005, with participation in universities increasing from 3.7% to 5.7% during the same period.

Increasing access to tertiary education is a major government objective. As part of moves towards creating a knowledge-based economy, the newly established Tertiary Education Council proposes to increase access to tertiary education to 17% by 2016 (which is the end of the country’s Vision 2016 planning document) and to 20% by 2020. Increased capacity will be met through the expansion of the current institutions and the planned Botswana International University of Science and Technology.

Financing

Education expenditure as a percentage of total gross domestic product rose from 7.3% in 1993/94 to a peak of 10% in 2001/2002, before beginning to decline again slightly, reaching 9% in 2005/06. This figure is relatively high in terms of both middle income and developing countries.

In 2004/05 and 2005/06, the proportion of the education budget allocated to universities and teachers’ colleges amounted to approximately 11% and 12.5% respectively. This figure is relatively low compared to the recommended benchmark of 15 to 20%. A further 25% and 26% respectively were allocated to other post-secondary and vocational institutions in these two years (Botswana Central Statistics Office, 2008).

Higher education in Botswana has generally been free in practice. Government has provided both institutional and student funding, the latter through the initial universal provision of bursaries. In some instances these bursaries were supposed to have been recovered through payments by graduates once they entered the labour force. Those students who went into tertiary institutions other than universities received 100% funding with no requirement to pay back. A serious problem was that the overwhelming majority of the graduates from the universities did not bother to make the required repayments. This was partly the result of poor co-ordination between the employers and the bursaries department of the Ministry of Education, making it difficult to find out who was contributing or even to trace graduates (Republic of Botswana, 1991).

Following the recommendations of the Presidential Commission on the Revised National Policy on Incomes, Employment, Prices and Profits of 1990, the bursary system was re-organised into a loan/grant system. This was provided to every citizen who qualified to go to university to study for a course of his or her choice. This loan/grant scheme for higher education students was introduced in 1995. Loans are payable on a sliding scale. Students studying in subject areas that are deemed to be in
short supply are awarded 100% grants. Loan beneficiaries are required to pay back the loans within a stipulated period after training, and the loans are interest free.

The loans versus grants ratio is based on the human resources needs of the different sectors of the economy and is aimed at giving students an incentive to follow the areas that are considered scarce while also providing for cost recovery from higher education. There are five categories of human resources needs with various financial incentives attached to each category. Category 1 comprises those areas experiencing a critical shortage of human resources. These include medicine, dentistry, engineering, professional accounting, actuarial studies, as well as certain science and technology areas. This category provides for a 100% grant for both tuition and maintenance costs. In return, students are required to take up employment in Botswana for a specified period of time.

The subjects that fall into category 2 comprise areas of human resources shortage because programmes were unattractive to students in the past. These included subjects such as economics, statistics, town planning, chemistry and agricultural science. This category attracts a 100% grant for tuition costs and a 50% loan for maintenance. Graduates contribute in terms of service for a specified period plus repayment of 50% of the maintenance loan. Subjects that fall under category 3 are those needed to satisfy the market or balance demand and supply. Examples of these are law, public administration, journalism, social work and psychology. Students in this category receive a 50% grant and a 50% loan for tuition costs and a 100% loan for maintenance costs. Graduates contribute in terms of service for a specified period plus repayment of 50% loan on tuition costs and 100% of maintenance costs. Category 4 applies to programmes that benefit the economy and society but are less of a priority. These include sociology, philosophy, museum studies, physical education and archaeology. Graduates have a similar degree of cost recovery to category 3 in that they are expected to contribute in terms of service for a specified period plus repayment of 50% loan of tuition costs and 100% of maintenance costs. Category 5 is for programmes that are considered to have low social benefits. These include hairdressing, cosmetology, photography, modelling, interior design and the performing arts. Cost recovery is in terms of service in Botswana for a specified period of time and repayment of 100% loan on both tuition and maintenance costs (Botswana Ministry of Education, Department of Student Placement and Welfare, 2006).

Since the inception of the loan/grant system, more than 96 000 students have been sponsored. As Table 7 shows, prior to 2001, a majority of the sponsored students were in Botswanan tertiary education institutions, particularly the University of Botswana, the colleges of education and institutes of health sciences. In 2001, which is when youth service was abolished, as stated earlier, government had to deal with placing the two streams by increasing enrolment at South African universities. Almost 5 000 students were sponsored to study at various South African and other regional and international universities.

In 2007, as a consequence of government sponsorship of students at private tertiary education institutions in Botswana, local enrolment increased by more than three times year-on-year from 5 500 in 2006 to 15 450 in 2007 (Table 7).
Table 7  Student placement trend

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>1 320</td>
<td>3 283</td>
<td>3 698</td>
<td>3 784</td>
<td>4 374</td>
<td>5 556</td>
<td>6 054</td>
<td>6 232</td>
<td>6 495</td>
<td>5 953</td>
<td>5 490</td>
<td>5 511</td>
<td>15 451</td>
</tr>
<tr>
<td>South Africa</td>
<td>2</td>
<td>20</td>
<td>36</td>
<td>196</td>
<td>177</td>
<td>399</td>
<td>4 782</td>
<td>3 304</td>
<td>1 765</td>
<td>1 605</td>
<td>1 664</td>
<td>1 563</td>
<td>1 373</td>
</tr>
<tr>
<td>Other countries</td>
<td>173</td>
<td>294</td>
<td>381</td>
<td>818</td>
<td>402</td>
<td>415</td>
<td>662</td>
<td>448</td>
<td>404</td>
<td>403</td>
<td>345</td>
<td>648</td>
<td>1 333</td>
</tr>
<tr>
<td>Total</td>
<td>1 495</td>
<td>3 597</td>
<td>4 115</td>
<td>4 798</td>
<td>4 953</td>
<td>6 370</td>
<td>11 498</td>
<td>9 984</td>
<td>8 664</td>
<td>7 961</td>
<td>7 499</td>
<td>7 722</td>
<td>18 157</td>
</tr>
</tbody>
</table>

Source: Ministry of Education

It is evident, however, that the loan/grant scheme has not been successful in several aspects. First, it has had limited success in increasing outputs of students in priority areas. Between 1997 and 2005, the total number of students sponsored was 28 672, with 22 796 or 80% of them enrolled at the University of Botswana. The majority (64%) were in category 2. Category 1, with the most critical needs, was second with 22% while students falling into category 5, the least preferred, constituted 0.3%. The picture had changed little by 2007. The majority of those sponsored were still in category 2 at 54%. Category 1 only had about 12% of the students, which is even lower than the proportion of total students in that category sponsored between 1997 and 2005. Given the tightness of the labour market for graduates (at least up until recently), it may be that the advantages of studying what are generally perceived to be difficult subject areas (especially science and engineering) are not sufficiently great relative to other degree courses.

Second, the cost of the scheme is especially prohibitive when the proportion of students studying outside the country is taken into account. In 2007, 15% of the sponsored students were studying in other countries. The cost of studying in the United Kingdom, for example, is about 20 to 30 times as much as studying at a private tertiary education institution in Botswana.

Third, there have been very meek efforts at recovering the costs of the loans. In practice, students were given grants in a fully subsidised system. There are indications, however, that in 2008 the loan/grant scheme was being reviewed to be able to address some of the problems that it has experienced since its implementation in 1995. Among the issues to be addressed are long-term sustainability, more effective alignment to the country’s human resources needs, enforcement of loan agreements, recovery of loans from beneficiaries, and implementing effective administration and management of the scheme.

Apart from the lack of an effective means to attract students in the priority areas (category 1) the loan/grant system has had a problem of low loan repayment rates mainly because of poor information on graduates.

A major problem with this financing model so far has been the lack of cost recovery. The Ministry of Education’s Department of Student Placement and Welfare has inadequate capacity and resources to trace or track the beneficiaries once they finish their studies. There is also lack of information from the demand side of the labour market as well as the absence of a national human resources database.
The country is unlikely to grow at the same economic growth rate as it did in the past, so financing education in general and higher education in particular will become even more challenging. There is therefore an urgent need to make the scheme sustainable through increasing the repayment of loans.

Key higher education financing features in Botswana – a summary

- Education expenditure as a proportion of gross domestic product relatively high at 9%.
- Proportion of education budget allocated to higher education relatively low at 12.5%.
- Scholarships to students in private higher education institutions.
- New university being established on public-private partnership basis.
- Higher education has been ‘free’ in practice.
- Loan/grant scheme based on human resources needs with financial incentives linked to relative scarcity.
- Loan system ineffective (not addressing scarce human resources) and inefficient (no cost recovery).

1.2 Lesotho

Structure

Higher education in Lesotho includes technical education, teacher training and university education. Lesotho has one tertiary-level technical education institution, the Lerotholi Polytechnic, which offers both certificate and diploma courses.

The Lerotholi Polytechnic offers a range of courses, including certificates, diplomas, and degrees. The college provides practical training in fields such as engineering, business administration, and agriculture. The National University of Lesotho, on the other hand, offers both undergraduate and graduate programmes in a variety of disciplines.

The Higher Education Act, enacted in 2004, addresses the provision of higher education. The act seeks to:

- regulate higher education through the establishment and registration of both public and private institutions;
- establish a council on higher education, whose main function is the quality assurance of higher education institutions; and
- provide guidelines on the governance and funding of public institutions.

This council on higher education is intended primarily as an advisory body for the sub-sector.
There are several higher education institutions outside the ambit of the Ministry of Education and Training, specifically under the Ministries of Agriculture, Health, and Finance and Development Planning. These institutions are respectively the Lesotho Agricultural College, the National Health Training College and the Centre for Accounting Studies. Table 8 provides a list of the higher education institutions and their associated ministries.

Private higher education has seen significant growth mainly through distance education provided by South African institutions.

Table 8  Higher education institutions and their associated ministries

<table>
<thead>
<tr>
<th>Ministry</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and Training</td>
<td>National University of Lesotho</td>
</tr>
<tr>
<td></td>
<td>Lesotho College of Education</td>
</tr>
<tr>
<td></td>
<td>Lerotholi Polytechnic</td>
</tr>
<tr>
<td></td>
<td>Institute of Development Management</td>
</tr>
<tr>
<td></td>
<td>Lesotho Institute of Public Administration and Management</td>
</tr>
<tr>
<td></td>
<td>Machabeng College</td>
</tr>
<tr>
<td>Health</td>
<td>National Health Training College</td>
</tr>
<tr>
<td></td>
<td>(Christian Health Association of Lesotho – not a higher education institution, but the mother organisation for the nursing schools established by the churches)</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Lesotho College of Agriculture</td>
</tr>
<tr>
<td>Finance and Development Planning</td>
<td>Centre for Accounting Studies</td>
</tr>
</tbody>
</table>

The Education Sector Strategic Plan 2005-2015 identifies four sets of ‘main policies’ for the higher education sub-sector:

- increased access (on equitable basis) to higher education;
- improved relevance of higher education to make it responsive to the demands of the labour market;
- improved efficiency in institutions of higher learning; and
- the inclusion of gender, human immunodeficiency virus (HIV) and acquired immune deficiency virus (AIDS) education in higher education curricula and activities.

Associated with these main policies are the following critical challenges:

- enhancing the quality of higher education through well-programmed and structured curriculum improvement;
- improving the developmental relevance of higher education;
- addressing the structural/infrastructure expansion of institutions of higher learning to facilitate quality and a secure learning environment;
• improving management efficiency and effectiveness in higher learning institutions;
• expanding the involvement of the private sector in the provision of higher education programmes; and
• enhancing information and communication technology capacity and e-governance.

Access and participation
The gross enrolment ratio of 3% is very low and is largely the outcome of poor access to secondary education. The gross enrolment ratio in secondary education is around 28%.

Financing
Lesotho spends a very large proportion of its government budget on education in general and higher education in particular with very poor returns. Table 9 shows that education expenditure as a percentage of gross domestic product reached 21% in 2002 and as a percentage of the government budget it was 26%.

Compared to education spend in other developing countries as well as industrialised countries, both these figures come in at the highest point. Higher education is substantially financed by the government. The National University of Lesotho, for instance, gets about 90% of its funds from the state.

Table 9  Government expenditure on education

<table>
<thead>
<tr>
<th>Year</th>
<th>Education expenditure in millions of Maloti</th>
<th>Education expenditure as percentage of gross domestic product</th>
<th>Education expenditure as percentage of government budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>335,4</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>1997</td>
<td>443,6</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>1998</td>
<td>491,6</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>1999</td>
<td>673,4</td>
<td>17</td>
<td>28</td>
</tr>
<tr>
<td>2000</td>
<td>720,5</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>2001</td>
<td>696,0</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>2002</td>
<td>867,3</td>
<td>21</td>
<td>26</td>
</tr>
</tbody>
</table>

Source: Central Bank of Lesotho Annual Report 2002

Table 10 shows that the education budget was projected to remain at high levels up to and during the 2007/08 financial year.
Recurrent expenditures on higher education increased from 29% in 1998/99 to 36% of the total recurrent budget in education in 2003/04 and 37% in 2004/05 – excluding the Lesotho College of Education (under the Department of Teacher Education in the Ministry of Education) and the Lerotholi Polytechnic (under the Department of Technical and Vocational Education). If higher education is defined to include all post-secondary institutions, thus including the Lesotho College of Education and Lerotholi Polytechnic, the tertiary sector will absorb approximately 40% of the education budget. However, even this figure does not include government funding of higher education institutions falling under the ministries of Agriculture, Finance and Development Planning, and Health.

Government support for higher education institutions is given in the form of subventions to autonomous institutions. The National University of Lesotho, along with the Lesotho College of Education and Lerotholi Polytechnic are Lesotho’s three largest institutions of higher education. Table 11 details the allocation of the higher education budget, but includes only those institutions falling directly under the Ministry of Education and Training as well as the loan/bursaries provided by the National Manpower Development Secretariat in the Ministry of Finance and Development Planning.

Table 11  Subventions to higher education institutions, 2003/04, 2006/07 in millions of Maloti

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Institute of Development Management</td>
<td>1,9</td>
<td>2,1</td>
</tr>
<tr>
<td>National University of Lesotho</td>
<td>117,0</td>
<td>121,0</td>
</tr>
<tr>
<td>the Lesotho College of Education</td>
<td>17,0</td>
<td>21,0</td>
</tr>
<tr>
<td>Lerotholi Polytechnic</td>
<td>14,6</td>
<td>18,0</td>
</tr>
<tr>
<td>National Manpower Development Secretariat tertiary bursaries</td>
<td>201,3</td>
<td>Not available</td>
</tr>
<tr>
<td>Total</td>
<td>351,8</td>
<td></td>
</tr>
</tbody>
</table>


National Manpower Development Secretariat tertiary bursaries constitute the largest component under higher education recurrent expenditure (57% in 2003; 70% in 2005/06 – calculated from Table 11). Even though this bursary is supposed to be a ‘loan bursary’, its recovery rate is so low that it
is essentially a grant. The value of National Manpower Development Secretariat bursaries increased from M65-million in 1998/99 to M300-million in 2005/06.

The fact that the National Manpower Development Secretariat falls administratively under the Ministry of Finance and Development Planning has made it very difficult for the Ministry of Education and Training to monitor the expenditure patterns, but it is still part of the education sector expenditure. A very high proportion of tertiary students receive the scholarship and as long as they pass examinations at the end of the academic year, scholarships are renewed automatically. For example, 5 247 National University of Lesotho students were provided with National Manpower Development Secretariat scholarships out of a total of about 7 000 students in 2003/04 (World Bank, 2005).

Table 12 shows the annual national budget amounts allocated to the Ministry of Education as a whole and the National Manpower Development Secretariat expenditures on loan bursaries. The table also shows that since 2001, National Manpower Development Secretariat actual expenditures have been in excess of its annual budget due to a high growth rate of student enrolment in tertiary institutions. Since students were already enrolled and registered with their respective tertiary education institutions, these financial commitments had to be funded rather than being postponed. This over-commitment was not just a once-off expenditure, but rather a recurring problem for at least four consecutive years (2001 to 2004). Furthermore, the amounts involved were also very high, in excess of 50% of the allocated budget for the financial years 2003 and 2004.

Table 12  Budget allocations and National Manpower Development Secretariat over-commitments

<table>
<thead>
<tr>
<th></th>
<th>National budget in millions of Maloti</th>
<th>Education budget in millions of Maloti</th>
<th>National Manpower Development Secretariat allocation in millions of Maloti</th>
<th>National Manpower Development Secretariat actual expenditure in millions of Maloti</th>
<th>Percentage variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/01</td>
<td>1 988</td>
<td>513,2</td>
<td>83,1</td>
<td>80,4</td>
<td>+2,6</td>
</tr>
<tr>
<td>2001/02</td>
<td>2 098</td>
<td>551,5</td>
<td>114,1</td>
<td>122,0</td>
<td>-7,9</td>
</tr>
<tr>
<td>2002/03</td>
<td>2 365</td>
<td>687,1</td>
<td>115,2</td>
<td>176,6</td>
<td>-61,4</td>
</tr>
<tr>
<td>2003/04</td>
<td>2 703</td>
<td>747,8</td>
<td>195,0</td>
<td>249,8</td>
<td>-54,8</td>
</tr>
<tr>
<td>Growth rate</td>
<td>136%</td>
<td>144%</td>
<td>235%</td>
<td>311%</td>
<td></td>
</tr>
<tr>
<td>Annual growth</td>
<td>34%</td>
<td>36%</td>
<td>59%</td>
<td>78%</td>
<td></td>
</tr>
</tbody>
</table>
Higher Education Funding Frameworks in SADC

The current loan/bursary fund was established in 1978 by the Minister of Finance and Development Planning. It was envisaged that the loan/bursary would constitute a revolving fund. This loan/bursary scheme replaced the traditional scholarship award that used to be awarded to students as pure study grants or scholarships. It was designed for Basotho students who had been admitted to tertiary education institutions in Lesotho, South Africa or internationally. The old bonding system only required that students should serve the government of Lesotho or at least work in the country after completion of their studies.

The main funding sources for the loan/bursary scheme consists of three components:

- the government appropriation from the annual consolidated budget;
- international donor assistance for education and training grants; and
- student loan payments into the revolving fund after completion of studies.

The loan/bursary is available to all candidates who are eligible and who have obtained admission to a tertiary education institution. It is interest free. The obligation or the percentage of the loan/bursary to be paid by the student is contingent upon successful completion of the course and upon employment in the Lesotho civil service.

Table 13 shows the allocation of bursaries by country and by institution within Lesotho. It is evident that a large proportion of loan/bursary funds accrue to Lesotho students studying in South Africa.

### Table 13 National Manpower Development Secretariat expenditure by country and institutions in millions of Maloti

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesotho</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• National University of Lesotho</td>
<td>85,0</td>
<td>87,0</td>
</tr>
<tr>
<td>• Centre for Accounting Studies</td>
<td>3,5</td>
<td>1,5</td>
</tr>
<tr>
<td>• Machabeng</td>
<td>1,7</td>
<td>1,1</td>
</tr>
<tr>
<td>• Lesotho College of Agricultural</td>
<td></td>
<td>1,6</td>
</tr>
<tr>
<td>• Institute of Development Management</td>
<td>0,8</td>
<td>1,1</td>
</tr>
<tr>
<td>• Lerotholi</td>
<td></td>
<td>4,8</td>
</tr>
<tr>
<td>• Other local institutions*</td>
<td>17,3</td>
<td>1,2</td>
</tr>
<tr>
<td>Other African universities</td>
<td>5,0</td>
<td>6,4</td>
</tr>
<tr>
<td>International universities</td>
<td>1,0</td>
<td>14,0</td>
</tr>
<tr>
<td>Post-primary</td>
<td>15,0</td>
<td>19,0</td>
</tr>
</tbody>
</table>

*Could include amount for Lesotho College of Agriculture and Lerotholi
Table 14 shows that the projected cost of higher education is expected to decline from M515-million in 2005/06 to M492-million in 2014/15. During the entire period of the Education Sector Strategic Plan, the government is expected to be able to fund about two-thirds of the projected higher education budget.

The government is currently introducing scholarships for South African study in priority fields; these include general postgraduate studies, along with health sciences, engineering, building technology, information technology and tourism. It is also considering strengthening the recovery of certain bursaries (as loans) from the graduates. These are certainly positive steps forward.

However, given the current relatively high level of government funding of higher education and known priorities in primary and secondary education, as well as in non-formal education (e.g. adult literacy), it is not clear whether the government of Lesotho will be able to increase funding to higher education. The Education Sector Strategic Plan data shown in Table 14 indicate that it cannot. Thus higher education institutions will need to develop innovative mechanisms to increase funding from non-governmental sources. In addition, it is well known that the higher education system is highly inequitable, providing disproportionate access to students from the higher socio-economic groups. A major challenge for the higher education institutions therefore relates to how access can be enhanced for those from socio-economically disadvantaged backgrounds. In this regard, the National Manpower Development Secretariat using its merit-driven selection process, does give those students from socio-economically disadvantaged backgrounds the opportunity to access higher education.
1.3 Madagascar

Structure

There are six public universities in Madagascar. Total current enrolment in private higher education is more difficult to assess. Most institutions have quite small enrolments of between 100 and 400 students. Private institutions have been operating since the 1960s. By the mid-1990s there were 16 such registered institutions, none of them having more than 500 students.

The World Bank reported in 2000 that higher education in Madagascar was in crisis in the early 1990s. Campuses were taken over by squatters and vandals. Little if any teaching was taking place because senior members of staff could not enter buildings. The quality of education was extremely low, little or no research was conducted, the staff were demoralised and the students alienated. A large portion of public financing was clearly being wasted. Students repeated courses as many as five times. The internal efficiency of institutions (e.g. drop-out and repetition rates) was approximately 30% and external efficiency (such as system responsiveness to the labour market) was less than 10% in many faculties and departments.

Beginning in the early 1990s, the government took a series of courageous policy decisions to reform higher education. The aims were to improve quality and relevance, to diversify and modernise provision and to network with other institutions abroad. Through a series of bold yet politically sensitive decisions, campuses were cleared with minimal coercion. Through a selective admission process, the number of students was reduced from about 44 000 in 1992 to 18 000 in 1998, and scholarship repetition was limited to two years. Gradually, facilities were repaired, services streamlined and improved, and conditions for teaching and learning restored.

Among other things, measures were taken to improve institutional and financial management and the collection of individual student profiles. In the central ministry, basic statistics such as student pathways and financial data were collected and a financial model constructed.

Major policy decisions were taken to advance diversification; two higher institutes of science and technology were created, offering short training cycles focused on the needs of industry and its involvement in the governance of the institutions. Curricula were developed jointly and delivered through co-operative programmes. Additionally, private sector involvement was encouraged and supported by the government.
To facilitate modernisation, steps were taken to introduce a number of innovations. Institutions were encouraged to reallocate, within their existing budget, funding to student support and services. Discussion on the allocation of finance to departments on the basis of differentiated and weighted unit costs was introduced. The possible privatisation of some services was also debated.

Later, a governing body for grant utilisation was established, independent of the Ministry of Higher Education and representative of all sectors of higher education. Inter-institutional working parties were set up to consider major issues. These included:

- funding private higher education;
- modernisation of curricula and increasing relevance to developmental needs;
- staff development policies;
- modernisation of teaching methods;
- human resources management at all levels and in all kinds of institutions; and
- the establishment of quality assurance and programme accreditation systems (Viens and Lynch, 2000).

Access and participation

The number of students enrolled in tertiary education (public and private) increased from 31 000 in 1998/1999 to 33 000 in 2002/03 (UNESCO, 2007). The gross enrolment ratio declined slightly during this period from 2,3% to 2,1%. Enrolments in the public university system actually declined from around 33 000 in 1993 to less than 19 000 in 1997, but then rose again.

Tertiary enrolment is unevenly distributed across the country. The university in the capital, Antananarivo, traditionally accounts for the overwhelming majority of students (on average between two-thirds to three-quarters).

Financing

Public expenditure on education as a percentage of gross domestic product is low (3,2%), but high in terms of the government’s budget (25% in 2007). A relatively small amount of the education budget is devoted to higher education (10%).

Higher education institutions rely heavily on government funding, deriving on average 90% of their income from government. Only about 7% of income is from student fees and remaining income is derived from donations. Research funding is also heavily reliant on government investment (SARUA, 2008).

There is a strong and pervasive culture of free higher education. University tuition fees are nominal (about US$6 per year) and government subsidises the living costs of students. These subsidies are
referred to as a national bursary scheme. In addition, there is a student loan facility administered through the Ministry of Budgets for students in their final year of study. Both the bursary and loan schemes are supposed to operate as loans, with a ten-year repayment cycle. However, loan repayments are seldom made.

There is no documented funding formula for allocating resources to institutions. There is an annual budgeting cycle, where universities apply for funds and incremental inflation-related budget increases are negotiated. Government appoints and pays for all permanent university staff. The remaining government funding allocated to the institutions is reportedly not sufficient for effective operation (SARUA, 2008).

There does not appear to be a culture of calculating tuition costs. The one institution that has made these calculations excluded the costs of permanent staff employed by the ministry. As such, tuition costs were shown to be much lower than actual.

### Key higher education financing features in Madagascar – a summary

- Public expenditure on education is low as a percentage of gross domestic product (3.2%), but high as a proportion of the government budget (25%).
- Low expenditure on higher education – 10% of education budget.
- High level of government funding of higher education institutions (90%).
- Nominal tuition fees.
- No funding formula for institutions – allocation on an incremental budgeting basis.

### 1.4 Mauritius

#### Structure

The history of higher education in Mauritius can be traced back to the setting up of the School of Agriculture within the Department of Agriculture in 1914. This school was integrated into the University of Mauritius when it was created in 1965. However, it was only in post-independent Mauritius that several public higher education institutions complementary to the University of Mauritius were created. Over the years, the higher education sector has increasingly become diversified. Currently, it comprises a multiplicity of institutions: publicly funded, private local, a branch campus of an international institution, one regional institution and cross-border supply institutions. Among the publicly funded institutions, there is both diversity through mission and programme differentiation.

There are seven recognised public higher education institutions, of which the main ones are the University of Mauritius, the University of Technology, the Open University and the Institute of Education. The others are the Mahatma Gandhi Institute, Mauritius College of Air and the Rabindranath Tagore Institute.

In 2006, 32 private higher education institutions were registered with the Tertiary Education Commission. At the time, these institutions offered a total of 140 accredited programmes on various levels (certificate, diploma, bachelor’s, master’s and professional) on a full-time, part-time and distance
education basis (List of Registered Institutions and Accredited Programmes, 2006). All the private higher education institutions are for-profit institutions.

Currently none of the private institutions has awarding powers. They mainly run programmes of international universities through collaborative arrangements. These universities are based in Australia, France, India, South Africa and the United Kingdom. The programmes are taught by academic staff recruited locally.

In 2006, there were some 50 overseas institutions and examination bodies providing courses and programmes through distance education and open learning. These institutions/bodies are based in the United Kingdom, South Africa, India, France/Réunion, Switzerland and the United States of America (Participation in Tertiary Education, 2006). Several of the institutions also have collaborative arrangements with the private local institutions.

Access and participation

Total enrolment in the higher education sector stood at 33,230 in December 2006. This represented a gross tertiary enrolment ratio of 34.1%. The gross tertiary enrolment ratio is calculated as the percentage of the Mauritian population aged 20 to 24 years enrolled in higher education institutions both locally and outside the country.

Some interesting features of access and participation in Mauritius include the following:

- About three-quarters of students were undertaking their studies locally in 2006. Of this number, 62% were enrolled in publicly funded institutions.
- Enrolment in public higher education institutions accounted for 46.5% of the total enrolment and 53.5% were in private local and international institutions.
- With an enrolment of 14,036 students, five higher education institutions (University of Mauritius, Mauritius Institute of Education, the Mahatma Gandhi Institute, Mauritius College of Air and University of Technology of Mauritius) accounted for 42% of the higher education student population and 91% of the enrolment in public institutions between them.
- The University of Mauritius is the largest provider of local tertiary education, accounting for 22.2% of enrolment as opposed to 4.9% for the University of Technology of Mauritius, 12% for the Mauritius Institute of Education, 2% for the Mahatma Gandhi Institute and 1.2% for the Mauritius College of Air.
- Total enrolment has more than doubled, from 16,375 to 33,230, between 2000 and 2006 with the gross tertiary enrolment ratio increasing from 15.1% to 34.1% during this period.

Financing

As a percentage of the gross domestic product, government expenditure on education is relatively low at 3.1% in 2006. Education expenditure as a percentage of the government budget stood at just over 13% in 2006, which was also relatively low. Moreover, higher education expenditure as a percentage of the education budget was only 11%.
As a percentage of the education budget, government recurrent spending on higher education increased from 12.9% in 2000/01 to 15.4% in the next year, but has since declined steadily to 11.2% in 2006/07.

Non-governmental financing of higher education is comparatively high with extensive involvement of the private sector, non-governmental organisations and parents. It is estimated that government spending accounts only for about 25% of total expenditure.

Financing of higher education in Mauritius is thus largely undertaken by the government and households, demonstrating a large element of ‘cost sharing’ in the Mauritian system. The students enrolled in public higher education institutions are funded to a very large extent by the government. Students enrolled in private local higher education institutions and those in international institutions pay the full cost of their education.

The key elements of higher education financing can be described as follows:

- All students in public higher education institutions pay general fees (application fees, registration fees, library fees etc.).
- At the University of Mauritius, full-time undergraduate students do not pay tuition fees; all other students (part-time and postgraduate) pay tuition fees, although not the full cost.
- At the University of Technology of Mauritius, all students pay tuition fees, although not the full cost. The funds generated annually by the University of Technology amount to approximately 70% of the requirement for the recurrent budget. The remaining 30%, together with the capital budget are met through government grants.
- At the Mauritius Institute of Education, which runs mostly in-service programmes for teachers, no tuition fee is charged.
- The Mauritius College of Air, whose target group is the working population, provides life-long learning and continuous professional education. This college charges tuition fees for all its programmes.
- Students in other public higher education institutions do not pay tuition fees.

There is no funding formula or model applied to the distribution of government funds. However, there is a clear policy that the University of Technology of Mauritius should derive most of its income from student fees, while the University of Mauritius should offer free tuition to full-time undergraduate students. Institutional budgets – including projected income streams – are submitted annually to government and funding levels are negotiated on this basis. An incremental budgeting process is generally expected, although the proportion of government funding required by the University of Technology of Mauritius has been declining over time. Most university staff positions are approved and paid for by government. In future, programme-based budgeting will be conducted and three-year budget cycles will be used. The free tuition policy is considered an historical legacy, so any new institutions would also be fee paying.
Table 15 shows the distribution of funding sources in the higher education system. Government grant funding accounts for just over one-fifth (21.5%) of the funding sources in the system. More than half of the funding for higher education is provided by private sources for international study. Moreover, the per capita cost of private local education is one-third that of international study (calculated from Mohadeb, 2008). It is evident therefore that Mauritian higher education is a largely private system.

Table 15  Funding sources for higher education

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Percentage of funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>21.5</td>
</tr>
<tr>
<td>Government grants</td>
<td>3.9</td>
</tr>
<tr>
<td>Other sources</td>
<td></td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>25.4</strong></td>
</tr>
<tr>
<td>Private local</td>
<td>20.0</td>
</tr>
<tr>
<td>International</td>
<td>54.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The high percentage of Mauritian nationals studying abroad is attributed to the limited local capacity. Of the 33,230 students participating in higher education in Mauritius in 2006, 15,464 (about 46.5%) were enrolled at public higher education institutions. The remaining 53.5% were enrolled at higher education programmes in private local or international institutions, and these students settled the full cost of their higher education. The private institutions, local and international, receive no state funding and as such, they are self-financing. They generate their income from various sources, but mostly from tuition fees.

The large majority of students, including those enrolled in public higher education institutions, support themselves either from private sources or through loans contracted privately from financial institutions. A limited number of undergraduate and postgraduate scholarships and bursaries are available from both the public and private sectors and from donor countries and agencies. The University of Mauritius operates a grant system for students with special needs, but on a small scale.

There is no national or state-supported student loan scheme. However, there are several student loan schemes that are operated by individual institutions, albeit on a small scale. In view of the profitable market, most of the financial institutions have introduced loan schemes to support students to study either locally or internationally. The conditions vary between institutions, but the majority provide upfront money with payback during or after graduation and in some cases with a moratorium.

With continued expansion in enrolment resulting from increasing and broadening of access to higher education coupled with national policies for promoting life-long learning, there is a need to ensure that the sector is financially sustainable and remains competitive in a world of global accessibility and increased student choices.
The proportion of government expenditure allocated to the higher education sector as a percentage of the total expenditure on education is decreasing. Government expenditure on higher education as a percentage of gross domestic product is also decreasing. Yet there is a need to increase the gross tertiary enrolment ratio from its present level of 34.1% to 40% in 2010 and to 45% in 2015. It is less likely that the share allocated to the higher education sector will increase significantly in the next decade. It will be very difficult for the government to sustain such increases and increased cost sharing is very likely in the near future.

The current system of funding for higher education is inequitable. Even within the public higher education institutions, the amount allocated by government grants to students varies significantly. More than 50% of students enrolled in higher education have to pay the full cost of their education. With the decrease in the share of total government expenditure on education allocated to higher education from 12.9% in 2000 to 11.2% in 2006 and the decrease in the share of the gross domestic product allocated to higher education from 0.42% in 2000 to 0.34% in 2006, there are indications that the government is finding it more and more difficult to fund higher education.

Higher education is of critical importance to the socio-economic development and competitiveness of Mauritius, more so for the attainment of the objectives set by the government to develop the knowledge industry and to make Mauritius a knowledge hub in the region.

However, limited general capacity and the lack of funding in relation to capital requirements, in particular, are considered the main challenges facing the higher education sector. As a result, plans to develop additional campus facilities for the University of Technology have not been approved. The University of Mauritius has reported a lack of operational funding as a constraining factor. Both universities reported resource and infrastructure constraints that have a major negative impact on their ability to achieve their goals and objectives (SARUA, 2008).

### Key higher education financing features in Mauritius – a summary

- Government covers only 25% of total higher education expenditure.
- A differentiated government funding model prevails e.g. the University of Mauritius provides free undergraduate education while the University of Technology students all pay fees, but not full cost.
- No funding formula – incremental budgeting used by institutions.
- Fifty-five per cent of funding for higher education goes from private households to international institutions.
- No national student loan scheme in place, but several private ones. The University of Mauritius operates a small loan scheme for needy students.

1.5 Mozambique

**Structure**

Of the 26 higher education institutions in the country, 14 are universities and 12 are professional and vocational institutions accredited by the Ministry of Education and Culture. Among the higher education
institutions, Universidade Eduardo Mondlane is the oldest and largest, accounting for 61% of all enrolment among the public higher education institutions and 41% of all student enrolment, public and private.

Two important institutions were established as part of the regulatory framework for higher education:

• the Higher Education Council, which brings together the Ministry of Education and Culture and all higher education institutions at the highest level in a collaborative effort to shape the mechanisms in support of policy implementation in the sector; and

• the National Council on Higher Education, Science and Technology, which is the consultative organ for the Council of Ministers and a broader forum with the mandate to oversee the articulation and the integration of planning processes between the higher education, science and technology sectors. It is made up of representatives from various sections of government, the Council of Higher Education, representatives from research and higher education institutions, business associations and civil society. As a sounding board for evaluating progress of policy implementation, the National Council on Higher Education, Science and Technology functioned as a crucial body in scrutinising new Ministry of Education and Culture policies and proposals before they were presented to the Council of Ministers for approval and legislation. Crucially, the National Council of Higher Education, Science and Technology made recommendations to the Council of Ministers with respect to the creation of new institutions.

Access and participation

Access to higher education has grown tremendously during the past two decades albeit from a low base. Between 1989 and 2006, the number of students enrolled at higher education institutions increased from 3,750 to almost 40,000. During this same period, the number of higher education institutions increased from 2 to 26, with half of the total being private. Two-thirds of the students are enrolled in public institutions. Female students account for one-third of total enrolment. However, in spite of the recent rapid growth in student numbers, the gross enrolment ratio is less than 1%.

Financing

At the beginning of this decade, higher education expenditure comprised only a very small proportion of the total education budget. For example, in 2001, total education expenditure comprised 6.5% of gross domestic product and higher education expenditure only 0.8% of gross domestic product. However, since 2004, public spending on higher education increased dramatically, growing by 23% between 2004 and 2005 and 6% the following year. Spending on higher education now constitutes between 64% and 70% of the total education budget. Given that Mozambique is one of the poorest countries in the world, this is a shocking statistic in terms of its implications for access to primary and secondary education.

Most of the public funds for higher education have been spent on building new physical infrastructure; strengthening human capacity, particularly academic staff, at the higher education institutions; and creating the necessary information and communications technology infrastructure for the sector.
There is minimal cost sharing in the public system. Students currently pay a low tuition fee, around US$100 per year.

The government finances higher education through two basic mechanisms. First, it makes funds available to:

- the Ministry of Education and Culture for policy development, including quality assurance mechanisms;
- higher education institutions and staff in both public and private institutions, through the Quality Enhancement and Innovative Facility – an initiative to reward institutions and individuals for the development of quality enhancing programmes; and
- students, through a provincial scholarship fund, to which students from the rural provinces can apply for funding to study at any of the accredited higher education institutions.

Second, the government provides direct funding to the public higher education institutions, through a mix of instruments including:

- direct budgetary allocations to the institutions, through submission of specific proposals to parliament;
- grant funds from development partners directed to the higher education sector; and
- credit funds, e.g. from the World Bank in preferential conditions, to fill gaps in public financing.

State funding at the institutional level is based on inputs (number of students) only. No account is currently taken of output factors such as graduates. However, a system was designed in 2003 by the then Ministry of Higher Education, Science and Technology and implemented at higher education institutions to capture, classify and produce adequate information for education cost centre analysis. The system, designed with technical support from international partners, was based on international best practices, adapted to the local reality, and piloted at Universidade Eduardo Mondlane.

Later, the system was further developed to cover Universidade Eduardo Mondlane and three other major public higher education institutions and implemented in these institutions, establishing a system-wide co-ordinated education cost accounting and reporting system.

Private higher education institutions are not entitled to any direct funding or subsidies from the government. As stated earlier, however, in 2002 the government introduced a provincial scholarship fund, which has immensely benefited students from poor, rural backgrounds gaining access to higher education. In addition, staff at private institutions can apply for grants from the Quality Improvement Fund (QIF).

In summary, it is evident that access to higher education has been increasing rapidly from a low base in the late 1980s. This has been due to the expansion of both public and private sector provision. However, the government is spending about two-thirds of its education budget on higher education. This is highly inequitable in the light of the country’s failure to achieve universal primary education and its low participation rate in secondary education.
In addition, there is little evidence to suggest that the high level of expenditure is efficient both at the institutional level (as measured in terms of internal efficiency, e.g. drop-out and repetition rates) and with regards to external efficiency measures (system responsiveness to the labour market).

Finally, although there are few data available, it is likely that the high level of spending is concentrated on those households in the two top quintiles, with the poor again having to seek access in the private higher education sector. To some extent, equity is being promoted through the provincial scholarship fund, but the amount of funding directed towards this scheme is relatively small and can make no more than a minimal impact.

### Key higher education financing features in Mozambique – a summary

- High level of expenditure on higher education as a percentage of the education budget (60% to 70%).
- Minimal cost sharing – nominal tuition fees.
- Government finances quality improvement initiatives in both private and public higher education institutions.
- Government funds higher education institutions directly on the basis of inputs (student numbers).
- High dependence on donor funding.
- No direct funding of private higher education institutions.
- Provincial scholarship scheme to address equity.
- Pattern of funding suggests high degree of inefficiency and inequity.

### 1.6 Namibia

#### Structure

In Namibia, institutions of higher education can be separated into the tertiary education and vocational education categories. The public tertiary institutions include the University of Namibia, Polytechnic of Namibia, four colleges of education and three colleges of agriculture. There are approximately ten private institutions including the International University of Management and the Institute of Management and Leadership Training. In addition, vocational training centres are spread across the country.

#### Financing

Namibia is one of the biggest spenders on education (as a percentage of national income) in the region. Between 1996/97 and 2004/05, tertiary education’s share of the budget went from 15% to a high of 18%, but then declined again to 15% in 2005/06.

The distribution of funding within higher education was as follows in 2003/04:

- colleges of education – 15%;
- vocational training centres – 15%;
- University of Namibia – 38%;
Higher Education Funding Frameworks in SADC

Polytechnic of Namibia – 20%; and
student support – 12%.

During the 2003/04 financial year, more than N$48-million was allocated to student support through the Student Financial Assistance Scheme. However, a key concern was that only a few students benefited from the scheme. In 2002, only 40% of University of Namibia students received any kind of financial support (Marope, 2005).

In the 2003/2004 financial year, the university and the polytechnic received almost 60% of the total allocation compared to teacher training and vocational education and training institutions. This suggests that the allocation of government resources in higher education is not equitable (Marope, 2005).

There is also evidence that the overall public spending on education and training in Namibia is substantially skewed in favour of the rich. About 80% of the population receives only 40% of government subsidies.

Furthermore, learning outcomes are inequitably distributed against learners in the rural northern regions. There is evidence to suggest that the urban population has substantially greater opportunities to access higher education than the rural population (in the order of 70% versus 30%).

Inequalities in learning outcomes mirror major disparities in the distribution of resource inputs. Overall, schools in the northern regions (Caprivi, Kavango, Kunene, Oshana, Ohangwena, Omusati and Otjikoto) have lower physical, human and financial resources. This results in only 40% of the grade 10 graduates from the northern regions qualifying for entry into senior secondary schools on national examinations compared with more than 60% in the rest of the country. This low achievement translates into under-representation of these regions at the tertiary level.

Despite the increase in financial resources allocated to higher education institutions, there are no clear criteria for how funds are allocated and no agreed performance indicators to account for the funds received. In the absence of clear criteria, the Ministry of Education has adopted a policy of incremental budgeting. The gap between what institutions request and what they are allocated is huge and growing. This partly arises due to differences in the institutions’ and the government’s financial year. The financial year for the institutions commences in January, while the government’s financial year begins in April. The national budget is presented to parliament in mid-April. Thereafter, it takes the Ministry of Education a couple of months before it can allocate funds to institutions. Therefore, the institutions only know their exact allocations in the middle of their financial year. This creates not only uncertainty, but also a risk of overspending. The synchronisation of financial years could facilitate planning (Marope, 2005).
To address this problem, the university and polytechnic have advocated for a formula-based budget allocation (per learner formula), but no progress has been noted on this as yet.

Namibia has succeeded in introducing cost sharing with the introduction of tuition fees. With cost sharing resulting in increasing costs borne by students and their families, student loans are also increasingly being used as a means of overcoming problems related to access and equity. In Namibia, the Student Financial Assistance Scheme has recently shifted from a bursary scheme to a loan scheme.

In summary, a positive feature of the Namibian system relates to the fact that it is managing to shift some of the burden of higher education funding on to the beneficiaries. However, as is the pattern in most of the countries examined in this report, financing is highly inequitable with respect to such factors as socio-economic status and region.

Furthermore, even though higher education spending is relatively high, it appears to be highly inefficient. The costs of tertiary education per student in Namibia are high and arise in part because of lower weekly teaching hours by staff compared with lower levels of the education system, smaller average class sizes, higher average salaries and more extensive requirements for facilities, including student boarding. Evidence of inefficient use of resources at present include high repetition and drop-out rates from tertiary institutions, in some cases small department and class sizes and under-utilisation of some facilities. As an example, the ratio of teaching staff to students is 1:12 in colleges of education compared with international norms, which are closer to 1:20. This inefficiency has resulted in cuts in other discretionary areas, e.g. textbooks.

In the absence of any constraints imposed on these cost drivers, the sector faces both a decline in quality of education provided, through a decline in the provision of key inputs, and an over-expenditure on its allocated budgetary ceiling. However, constraints should not focus on cutting the amount of expenditure, but can shift to focusing on reforming the patterns and mechanisms of allocation of available resources and their efficient spending with the aim of reducing unit costs. Increasing efficiency and reducing unit costs through better spending enable better use of available resources, improved management of the system and achievement of more with the same means. The resulting funds that are mobilised by efficiency gains can then be channeled toward efforts to improve the future performance of the sector.

Key higher education financing features in Namibia – a summary

1. High level of expenditure on education – higher education receives 15% of education budget.
2. National loan scheme benefits relatively few students.
3. No clear criteria for funding allocation – gap between institutional requests and actual allocations is large.
4. Cost sharing (tuition fees) has been introduced.
5. Unit costs of higher education are high, indicating systemic inefficiency.
1.7 South Africa

Structure
In the new democracy, South Africa’s racially defined institutions were rationalised through a merger process into 23 non-racial universities. There are currently three categories of universities in the country:

1. universities (those institutions that were as such during the apartheid period and remain so);
2. universities of technology (the former technikons or technical universities); and
3. comprehensive universities (which merged universities and technikons).

Financing
There are several features of the South African higher education financing framework that are somewhat unique in the African and SADC contexts.

First, there is a serious public commitment to spending on higher education. As Table 16 shows, expenditure on higher education has increased substantially in nominal terms between 1996 and 2008.

Table 16 Higher education spending in South Africa in billions of Rand

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<tr>
<th></th>
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<tbody>
<tr>
<td>Total education</td>
<td>42,10</td>
<td>51,10</td>
<td>83,30</td>
<td>110,20</td>
</tr>
<tr>
<td>Higher education excluding National Student Financial Aid Scheme</td>
<td>4,10</td>
<td>7,10</td>
<td>10,80</td>
<td>14,50</td>
</tr>
<tr>
<td>National Student Financial Aid Scheme</td>
<td>0,30</td>
<td>0,44</td>
<td>0,86</td>
<td>1,18</td>
</tr>
</tbody>
</table>

Spending as percentage of gross domestic product

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<tbody>
<tr>
<td>Total education</td>
<td>6,62</td>
<td>5,36</td>
<td>5,27</td>
<td>5,14</td>
</tr>
<tr>
<td>Higher education</td>
<td>0,82</td>
<td>0,74</td>
<td>0,68</td>
<td>0,68</td>
</tr>
</tbody>
</table>

Spending as percentage of government budget

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Total education</td>
<td>23,97</td>
<td>21,82</td>
<td>26,38</td>
<td>27,74</td>
</tr>
<tr>
<td>Higher education</td>
<td>2,97</td>
<td>3,02</td>
<td>2,59</td>
<td>2,44</td>
</tr>
</tbody>
</table>

Source: Department of Education, South Africa (2007)
Second, South Africa has developed one of the most effective student loan schemes for higher education. Called the National Student Financial Aid Scheme, it is an income contingent scheme designed for needy students. The scheme is funded by the government (to the tune of R1.18-billion in 2008, up from R300-million in 1996), and loans are paid back through the tax administration system when the graduate is employed and has reached a particular income threshold. The loan scheme has one of the highest recovery rates internationally.

Third, there is a close link between planning (at both the institutional and system levels) and funding. Higher education institutions are required to submit three-year ‘rolling plans’ to the government as part of the state’s planning and medium-term expenditure framework budgeting process. Fourth, a key component of the higher education financing framework is that it is underpinned by a funding formula.

The funding framework proposed in the 1997 White Paper reconceptualised the relationship between institutional costs and government expenditure on higher education. The new funding framework is seen as a distributive mechanism, that is, a way of allocating government funds to individual institutions in accordance both with the budget made available by government and with government’s policy priorities. The new framework in effect recognises that institutional costs tend to be functions of income – of what is available to be spent. Government funds for higher education institutions are therefore not designed to meet specific kinds or levels of institutional cost, but are intended rather to pay institutions for delivering the teaching and research-related services specified by government-approved plans.

In terms of the higher education funding framework, higher education institutions receive the following:

1 **Block funds**, which are undesignated amounts made available to each institution and which consist of:
   - **research** funds generated by approved outputs;
   - **teaching** funds generated by planned full-time equivalent student enrolments and approved teaching outputs; and
   - **institutional** factor funds to address equity.

2 **Earmarked funds**, which are designated for specific purposes.

The funding framework developed for higher education in South Africa has a number of important implications for equity and efficiency.

1 **Predictability**: Implementing a formula-driven approach ensures a level of predictability, particularly with regards to ‘certainty of revenue’. Institutions are aware of the factors driving the formula and will know, within certain parameters, the magnitude of resources that will flow to them over a certain period. Such certainty undoubtedly enhances institutional planning.
2 **Recognition of a hard budget constraint:** The new funding framework is driven by the availability of public resources for higher education rather than by the costs of provision. The various mechanisms in the framework come into operation only after government has determined the total of public funds that should be spent in a given year on higher education and what services should be delivered by the higher education system.

3 **Promoting institutional autonomy and equity:** By using a mixture of block and earmarked grants, the formula achieves both these goals. Block grants give institutions a degree of freedom to use funds as they wish, while earmarked grants are by definition directed towards the attainment of specific goals such as equity. These goals are met through research development, for example, and foundation programmes for the historically disadvantaged.

4 **Efficiency incentives:** the formula-driven framework provides for this in a number of ways:
   - The block grant component rewards efficiency of outcomes in research. Grants are based on the output of publications and of master’s and doctoral graduates. Research grants are moreover not based on a pre-determined monetary amount, but are measured against benchmarks based on academic capacity.
   - Inadequate research performance by the system as a whole will result in surpluses of funds allocated for research. These funds provide a further incentive to stimulate output in that they are distributed on a pro rata, or output-determined basis.
   - Outputs and inputs: The formula is designed in such a way that it rewards the output of certain categories of graduates more than it does others (for example, professional bachelor’s degrees as against other bachelor’s degrees). Such a funding mechanism enables the government to stimulate the development of skills that are in short supply. As with research, teaching output funds are determined not by pre-set amounts of funding, but developed through a set of benchmark graduation rates, based on the National Plan for Higher Education. In line with this, the formula promotes differential funding in line with the country’s human development needs (for example agriculture and health sciences as against librarianship and psychology).
   - Through institutional funding, the framework promotes economies of scale and thus lower institutional unit costs.

5 **Equity:** This is enhanced in a number of ways:
   - earmarked funding inter alia for capacity building, research development and foundation programmes for the historically disadvantaged;
   - institutional factoring for students from historically advantaged backgrounds; and
   - institutional factoring for small institutions, especially those in rural areas.

In summary, South Africa has reached a high level of sophistication in the development of its higher education funding mechanisms, particularly with the close link between its planning and budgeting processes and its implementation of a relatively simple funding formula. The system has
also benefited from always having had a fee paying system, so no new cost sharing mechanisms had to be developed. Finally, there is a strong systemic thrust towards greater equity exemplified in both the funding formula and the student loan scheme. However, the South African system faces enormous challenges with respect to quality and efficiency. The apartheid legacy of differentiated systemic quality and efficiency persists, except that the main determinant is no longer race, but socio-economic status and region.

<table>
<thead>
<tr>
<th>Key higher education financing features in South Africa – a summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. High commitment to public spending on higher education.</td>
</tr>
<tr>
<td>2. Very effective student loan scheme.</td>
</tr>
<tr>
<td>3. Close link between planning and funding.</td>
</tr>
<tr>
<td>4. Funding formula redistributes to achieve government’s higher education objectives.</td>
</tr>
<tr>
<td>5. Substantial cost sharing (fees) in the system.</td>
</tr>
<tr>
<td>6. Serious quality and efficiency questions.</td>
</tr>
</tbody>
</table>

1.8 Swaziland

Swaziland spends a relatively high percentage of its gross domestic product (6.2%) on education. Its public expenditure on education as a percentage of all government expenditure, at 19.5%, is also relatively high. Its expenditure on higher education as a percentage of public expenditure on education was 22% in 2007, which compares favourably with most developing and SADC countries (SARUA, 2008).

The University of Swaziland receives the bulk (66%) of its funding from the government. However, it is also able to generate a sizeable portion (20%) of its income from student fees. The University of Swaziland derives almost all (98%) of its research income directly from government subsidies.

Swaziland does not use a funding formula to allocate public funds to higher education institutions. Each year, the University of Swaziland puts forward a budget to government, which projects its needs. The government then indicates what it can afford, and the university has to adjust its budgets accordingly. The government grant is a lump sum, which is given to the university on a quarterly basis. How this budget is allocated between, for example, research and teaching activities, is an internal university decision.

Students pay admission and tuition fees. These amount to between US$1 105 and US$1 200 for undergraduate students, and US$1 886 and US$2 500 for postgraduate students. Financial support to students is available in the form of scholarships, grants and loans. Almost all students (95%) receive additional support to cover their tuition and other university fees. Scholarship administration is undertaken by the Scholarship Secretariat in the Ministry of Education. Graduates are required to pay back the loan component of the scholarship upon completion of their studies, at an interest rate of 5%. There are also scholarships for Swazi nationals to study outside the country in priority fields.
The Ministry of Education reports that its main challenges are:

- inadequate funds from government to provide scholarships to higher education students;
- inadequacy of space at higher education institutions to absorb all students qualifying to enter and inadequacy of higher education institutions;
- brain drain of lecturers caused by poor salaries and other quality of work life issues; and
- lack of up-to-date equipment and facilities required to provide training and skills development that is commensurate with the changing socio-economic environment (SARUA, 2008).

The main funding challenges relate to the discontinuation of capital budgeting by government, the decline in the value of grants and donor fatigue (SARUA, 2008).

### Key features of higher education financing in Swaziland – a summary

1. High level of education expenditure (20%) as a percentage of government budget.
2. Higher education constitutes 6.2% of gross domestic product.
3. High level of expenditure on higher education as percentage of education budget.
4. High level of government funding (80%).
5. Relatively high level of tuition fees (20% of institutional revenue).
6. No funding formula – government assesses institutional budgets.
7. Substantial student financial support with grants and loans.

### 1.9 Tanzania

#### Structure

A fundamental shift in Tanzania’s development, economic and education policies, including higher education financing policies, was made in 1967 through the Arusha Declaration, a political blueprint that intended to make Tanzania a socialist and an economically self-reliant state (Ishengoma, 2008). According to one of the principles of the Arusha Declaration, access to scarce resources such as education was to be regulated and controlled by the government to ensure equal participation by all socio-economic groups.

The Arusha Declaration, among other things, was implemented in tandem with nationalisation and control of the major means of production by the state, including the scrapping of school fees in primary and secondary education and tuition fees in higher education. Until 1967, students in higher education institutions paid tuition fees, but poorer students were assisted through government bursaries.

When Tanzania adopted socialism in 1967, bursaries were granted to all students enrolled at the then University College of Dar es Salaam on signing of a bond to work for the government for a period of at least five years. If a student failed to honour this bond, s/he would have to refund all the costs incurred at university. In 1974, the government abolished the bursary system and took responsibility
for paying all the costs of higher education. The rationale for this change in the financing of higher education policy was to make higher education accessible to all socio-economic groups, in this way achieving one of the major goals of the Arusha Declaration – that of building an egalitarian society. The government continued to finance all the costs of public higher education until 1992/1993, when it instituted cost sharing in higher education policy.

According to the National Higher Education Policy of 1999, higher education encompasses all courses of study leading to the award of a first degree, advanced diploma, postgraduate or any higher-level degree. In the context of this definition, the system of higher education in Tanzania is dual and composed of:

1 universities and university colleges; and
2 non-university higher education institutions (institutes and colleges), mainly offering three-year advanced diplomas in professional fields such as accountancy, engineering, social welfare, materials management, community development, business administration and related fields of study.

Public universities and university colleges are under the jurisdiction of the Ministry of Higher Education, Science and Technology, while public non-university institutions are regulated by respective government ministries.

In 2007, there were 12 public universities and colleges enrolling some 39 000 students, including the Open University of Tanzania with almost one third of the enrolments. In addition, there were 20 private universities and colleges enrolling just more than 12 000 students. There were also another 14 public and 2 private non-university higher education institutions enrolling a further 16 000 students.

Access and participation
Tanzania’s university age participation rate during 2005 was 0.27%. This is low compared to Kenya at 1.47% for the same year and Uganda with 1.33% (United Republic of Tanzania, 2005:6). This low participation rate can be attributed, inter alia, to the low participation rate in secondary education in Tanzania and limited capacity in this country’s higher education system. For example, in 2005 only 30% of those who applied were admitted to the University of Dar es Salaam. According to UNESCO data, the gross enrolment ratio for Tanzania in 2004 was around 1% compared to 3% for Kenya and Uganda, and 5% for Sub-Saharan Africa.

Financing
Education financing has historically been the responsibility of the government with some limited shared responsibility between parents, institutions, communities and donors at all levels of education. However, the financing of higher education in Tanzania, according to the cost sharing policy introduced in the 1992/1993 academic year, is currently supposed to be a shared responsibility between the government and the beneficiaries, i.e. parents and students, and other stakeholders.
Education expenditure at around 4% of gross domestic product is relatively low, but as a percentage of the total government budget is high at about 25%. The share of tertiary education in the education budget increased from 17.7% in 1998/99 to 21.9% in 2006/07, while the primary education spend declined from 72.6% to 64.5%; and that of secondary increased from 7.3% to 12.5%. Teacher education spend declined from 2.4% to 1.1%. The share of higher education at nearly 22% is relatively high.

As indicated, financing of public higher education in Tanzania – in the context of cost sharing in higher education policy – is intended to be a shared responsibility between the government, students and their parents, communities and external donors. In 1998, the government’s Task Force on Financial Sustainability of Higher Education identified major sources of financing public higher education and consequently came out with a formula that, to some extent, is currently being applied. The distribution of contribution to higher education financing according to source was suggested as follows:

- central government, local governments and communities – 82%;
- students, parents and households – 12%;
- higher education institutions plus donors – 4%; and
- other sources plus higher education institutions staff – 2%.

The task force also proposed the following funding sources for each higher education institution: the government, which should be responsible for capital development as well as recurrent and other administrative and personnel emoluments; parents and students; funds generated by institutions, donors and other private sources; and institutional staff through consultancy and commissioned research. In practice, despite the policy of cost sharing, the government is the major source of funds for public higher education.

In addition to this funding sources proposal, the task force made specific recommendations on the three main sources of funding for public higher education, including strategies to attain a financially sustainable public higher education system within the context of cost sharing. The details of these recommendations are summarised in Table 17.
Table 17  Recommended main sources of funding for public higher education institutions in Tanzania

<table>
<thead>
<tr>
<th>Main source</th>
<th>Financing strategies</th>
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<tbody>
<tr>
<td>1 Central and local government</td>
<td>1  Government direct subventions to higher education institutions</td>
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<tr>
<td></td>
<td>2  Educational levies</td>
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<td></td>
<td>3  Government grants administered by designated bodies</td>
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<td></td>
<td>4  Bilateral and multi-lateral agreements</td>
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<td></td>
<td>5  Tax relief on imported educational materials</td>
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<td></td>
<td>6  Tax relief to third party investors on infrastructure</td>
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<td></td>
<td>7  Borrowing funds from international agencies and banks</td>
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<td></td>
<td>8  Mobilisation of public moral and material support to the sector</td>
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<td></td>
<td>9  Guaranteed core funding</td>
</tr>
<tr>
<td></td>
<td>10 Performance-based investments on campuses</td>
</tr>
<tr>
<td>2 Students through cost sharing</td>
<td>1  Payment of fees from their earnings</td>
</tr>
<tr>
<td></td>
<td>2  Payment of fees from parents’ earnings</td>
</tr>
<tr>
<td></td>
<td>3  Private loan scheme for qualifying students</td>
</tr>
<tr>
<td></td>
<td>4  Public (government) loan scheme</td>
</tr>
<tr>
<td></td>
<td>5  Employers’ scholarships for their employees</td>
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<tr>
<td></td>
<td>6  Extended family contributions</td>
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<tr>
<td></td>
<td>7  Trust funds and other scholarships</td>
</tr>
<tr>
<td></td>
<td>8  Work study schemes</td>
</tr>
<tr>
<td>3 Institution-generated income through revenue diversification</td>
<td>1  Privately sponsored student tuition fees</td>
</tr>
<tr>
<td></td>
<td>2  Faculty contracted research, consultancy and service delivery</td>
</tr>
<tr>
<td></td>
<td>3  Short courses</td>
</tr>
<tr>
<td></td>
<td>4  Lease operations of buildings, facilities and land</td>
</tr>
<tr>
<td></td>
<td>5  Rationalisation of the mode of offering of various services in campuses</td>
</tr>
<tr>
<td></td>
<td>6  Institution of cost cutting measures</td>
</tr>
<tr>
<td></td>
<td>7  Donor and alumni donor funds, endowments and gifts</td>
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<tr>
<td></td>
<td>8  Accruals from fixed deposits</td>
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<tr>
<td></td>
<td>9  Sale of patents</td>
</tr>
<tr>
<td></td>
<td>10 Sale of prototypes</td>
</tr>
<tr>
<td></td>
<td>11 Sale of books and other academic items</td>
</tr>
</tbody>
</table>

Source: Ishengoma (2008)
While to some extent the above formula for the financing of public higher education is currently being applied in public higher education institutions, in practice the government – despite its declining subventions to public higher education institutions – remains the major source of financing public higher education, specifically capital development and recurrent expenditures. The University of Dar es Salaam, for example, received 66% of its funding from government and 29% from external donors with less than 5% from institutional revenue. The corresponding figures for the Sokoine University of Agriculture were 72,3% and 1% respectively.

The government’s recurrent funding to the universities is currently based on capitation grants to universities developed from unit costs of different courses and student numbers targeted to be enrolled in a given academic year. Through the Higher Education Students’ Loans Board and the Tanzania Education Authority, the government is also the major source of financing for tuition-dependent private higher education institutions. This financing takes the form of loans to students enrolled at private universities and university colleges.

While the percentage share of external donors in financing Tanzanian public higher education has been declining over the years, their financial contribution to the public higher education sector is still significant.

The Tanzania Education Authority is a publicly funded facility that gets annual allocations from the Treasury. It can raise additional financial resources from individuals and foundations. It provides grants and soft loans to both public and private education institutions at all levels, from primary to higher education. By July 2005, it had disbursed grants totaling 10,9-billion Tanzanian Shillings and 5,1-billion Tanzanian Shillings in soft loans to 34 private education institutions (including private universities and university colleges) and 62 public education institutions.

Private universities rely heavily on external donors for their core funding – external donors contribute between 70% and 80% of core funding – and on institutional contributions mainly from tuition fees. Private universities also rely on limited government support, mainly through the Higher Education Students’ Loans Board, which provides loans to students enrolled in specific programmes, and the Tanzania Education Authority, which provides grants and soft loans for capital development in private education institutions.

A revolving student loan scheme did exist in the 1960s and 1970s, but it collapsed due to lack of supervision. Income-contingent loans from this interest-free loan scheme were recovered from monthly salaries of university graduates for a period of 18 months.

In implementing cost sharing in higher education policy, the government introduced a student loan scheme in the 1992/93 academic year, initially to cover student accommodation and meal costs. This loan scheme operated under the jurisdiction of the Ministry of Science, Technology and Higher Education until July 2004, when the Higher Education Students’ Loans Board was established. By July 2003 a total of 26-billion Tanzanian Shillings in loans were due for recovery, but no loan recovery had taken place until 2007/2008, mainly because the board had no viable loan recovery mechanism.
and because of the politics surrounding the student loans scheme. The Higher Education Students’ Loans Board managed to collect 917-million Tanzanian Shilling (approximately US$1-million).

The Higher Education Students’ Loans Board began its operations as an independent government organ in July 2005. The act that established the board stipulates that eligible and needy Tanzanian students who secure admission to higher learning institutions may seek loans from the board to meet some of the costs of higher education.

The major objectives of the loans board are:

- to strengthen the implementation of cost sharing policy in higher and technical education by providing financial assistance on a loan basis to academically able, but needy students unable to meet higher education expenses; and
- to recover monies lent to students who have graduated and are serving the nation in different sectors within and outside the country.

The board is mandated to give loans to:

- needy Tanzanian students pursuing higher education in either public or private universities within Tanzania;
- students studying abroad under development partnership scholarships; and
- a limited number of needy Tanzanian students pursuing master’s or doctorate degrees in public local or private universities.

Students enrolled in both public and private universities may apply for loans to cover tuition fees as charged by institutions with fee limits placed according to the discipline.

In addition to the above expenses, the board also pays limited sums for meals and accommodation, books and stationery, field research, special faculty requirements and practical training.

Tanzanian students studying abroad on bilateral scholarships can also apply for loans to cover: maintenance costs (US$120) per month; health insurance (US$200) per academic year; and travel (return ticket) up to US$1 200, paid once. Other students enrolled in higher education institutions abroad under other arrangements may be considered for a loan not exceeding US$3 500 per academic year.

According to recently revised guidelines and criteria, loans are granted to students pursuing first degrees or advanced diplomas in national priority courses such as medical and physical sciences, engineering and technology, accountancy, economics, commerce, finance, law and education. Furthermore, under these new guidelines, the board provides loans of up to 60% of the required tuition fee, 60% of the recommended special faculty requirements and practical field expenses, and up to 100% of the recommended research expenses in the following fields of studies only: medicine (including human, veterinary and dental surgery), pharmacy, engineering, architecture.
and agricultural sciences. In addition to the above guidelines, the board imposes a cap on the maximum number of new students to be financed for each respective higher education institution, both private and public. Apart from a general statement contained in the loans conditions section in the application form, conditions for loan repayments are not stipulated.

As a response to the public universities students’ strike in April 2007 opposing the proposed 40% contribution to higher education costs, the Higher Education Students’ Loans Board issued new guidelines for loans, but retained the same old loan items for the 2007/08 academic year. According to these new guidelines, the loan percentage for various approved loan items, including tuition fees, would differ from one student to another depending on the socio-economic status of the student, parents or guardian, as would the maximum loan amount allowable for each loan item. Loans will now be approved according to means testing. While these new guidelines appear to promote equity of access to loans and consequently to higher education, given the board’s current operational problems, the implementation of the above guidelines is likely to be very problematic. The board is already facing serious operational problems such as issuing loans to non-Tanzanians and ineligible Tanzanian students.

Higher education financing policies, specifically the current student loans scheme, are exacerbating the already existing inequities in higher education in Tanzania. Empirical studies on equity in higher education reveal that higher education is inequitable because of the disproportionate representation of children from upper and middle class families in both public and private higher education. One study has shown that the top 20% of the Tanzanian population in terms of wealth consumes 40% of all government spending on education because this group is disproportionately represented in secondary and higher education.

Other studies have revealed that access to higher education in Tanzania is greatly influenced by correlates such as socio-economic class, religion, ethnicity and gender. To implement a student loan scheme without proper means testing – as Tanzania is currently doing – is essentially to consolidate inequities in higher education. There is abundant international research that demonstrates that the children of the wealthy in most countries disproportionately benefit from higher education.

To a large extent, financing of higher education through the Tanzania Education Authority also exacerbates inequities in higher education financing. As stated earlier, the Tanzania Education Authority also grants soft loans and grants to private higher education institutions; many of these are affiliated to religious organisations in Tanzania and abroad, and charge higher tuition fees compared to public higher education institutions. These institutions are also characterised by low enrolments. While there cannot be objections to some form of public financial support to private higher education, especially on the basis of need, the fact that government financing of the public universities and university colleges has been on the decline, makes the above practice to some extent inappropriate.
### Key higher education financing features in Tanzania – a summary

1. Education expenditure as a percentage of budget is high.
2. Government is the largest funder of higher education, followed by institutional funding and student loans.
3. Limited cost sharing.
4. Recurrent funding based on ‘capitation’ grants and unit costs.
5. Significant donor involvement.
6. Loans to students in private higher education institutions.
7. No cost recovery from loan system until 2007/08.
8. The Tanzania Education Authority provides grants and soft loans to both public and private higher education institutions.

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### 1.10 Zambia

#### Structure

Zambia’s higher education structure comprises a mix of public and private universities. The largest public universities are the University of Zambia in Lusaka with some 9,000 students and the Copperbelt University with about 5,000 students.

There are also several private universities including the Open University, which is the largest private higher education institution, and the North Rise University, a faith-based institution. Officials at the Ministry of Education were unsure whether the Open University was a for-profit or not-for-profit institution.

The government welcomes private international universities; these are seen as important investors in the country. Recent entrants include Cavendish University (Australia) and Bolton University (United Kingdom).

An interesting development relates to the recent establishment of Mulungushi University in Kabwe in the central part of the country. Previously a management college, it has been converted into a university. The Ministry of Education has provided ‘start-up’ costs, but the university has to finance its own operational costs bill and be self-sufficient in this regard.

Other vocational tertiary institutions are governed by the Ministry of Science, Technology and Vocational Education. The Zambia Centre for Accounting Studies – created by government, but run as a private institution – is run by a trust as a not-for-profit institution.

#### Financing

Universities in Zambia are semi-autonomous – they are supposed to generate a certain amount of their own revenue. However, the universities are not transparent with respect to expenditure or revenue, and the Ministry of Education appears to be either too weak or indifferent to ensure greater accountability.
Higher education appears to be reasonably well funded compared to other education sectors. Up to the 1990s, education funding in general was falling, but the percentage of higher education funding remained constant. Between 13% and 18% of the education budget has been allocated to higher education between 2002 and 2005 (Table 18).

Table 18  Government expenditure on universities, 2002 to 2005 in millions of Kwacha

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Zambia</td>
<td>31 837</td>
<td>56 549</td>
<td>70 534</td>
<td>56 759</td>
</tr>
<tr>
<td>Copperbelt University</td>
<td>15 468</td>
<td>18 093</td>
<td>21 619</td>
<td>17 924</td>
</tr>
<tr>
<td>University bursaries</td>
<td>14 337</td>
<td>16 814</td>
<td>29 383</td>
<td>58 167</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61 642</strong></td>
<td><strong>91 456</strong></td>
<td><strong>121 536</strong></td>
<td><strong>132 850</strong></td>
</tr>
<tr>
<td>As percentage of total education budget</td>
<td>12,7</td>
<td>13,7</td>
<td>18,2</td>
<td>17,6</td>
</tr>
</tbody>
</table>


Student funding

About 7 500 students are annually ‘sponsored’ by government to attend public universities. Universities invoice the bursaries committee in the Ministry of Education for their allocation of the sponsored students. These students receive bursaries for up to 75% of the total costs of their education, which include fees, books and living allowances.

Other students accessing public institutions are required to pay full fees, with average fees being around US$1 000 per year.

A loan scheme was being planned for 2008, but at the time of writing no infrastructure had been put in place.

Institutional funding

The Ministry of Education provides block grants to universities. These grants are not calculated according to a formula, but rather calculated incrementally; they are also often dependent on political whims. In addition, parliament can provide supplementary funding.

The universities submit budgets on an annual basis, but these appear to be totally unrealistic. On average the institutions get less than 10% of what they ask for. Furthermore, the institutions have huge debts. They are often bailed out by the Ministry of Finance – this is seen as an incentive for them to continue to build debt.
It is evident that, as is the case in other African countries, the 7,500 students with scholarships come from the best socio-economic backgrounds. To compensate, however, universities have some quotas for rural students (15%) and females.

<table>
<thead>
<tr>
<th>Key features of higher education financing in Zambia – a summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New university, Mulungushi, is state-funded, but expected to be self-sufficient with regard to operational expenses.</td>
</tr>
<tr>
<td>2. Poor oversight of higher education by the Ministry of Education results in poor institutional budgeting and high debt levels.</td>
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<tr>
<td>3. Funding as a proportion of education budget is at around 20%, which is relatively high.</td>
</tr>
<tr>
<td>4. Dual track tuition with government-sponsored and fee-paying students.</td>
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<tr>
<td>5. No funding formula.</td>
</tr>
<tr>
<td>6. Ministry of Education decides on institutional allocations, but institutional budgets are unrealistic.</td>
</tr>
</tbody>
</table>

1.11 Zimbabwe

Structure

Tertiary education in Zimbabwe includes universities, teacher education colleges, polytechnics and other technical colleges. Most of the colleges are under the jurisdiction of the Ministry of Higher and Tertiary Education, although some, such as the nursing schools and the agricultural colleges, fall under the auspices of the Ministry of Health and Child Welfare and the Ministry of Agriculture respectively.

Zimbabwe has nine public universities at different stages of development, with the University of Zimbabwe as the only one that can be described as having reached full maturity status. The others are still being developed and have not yet reached full capacity in terms of physical plant and comprehensive degree programme offerings. However, it has been decided, in principle, that the country should have a public university in each of its ten geographical provinces. With this in mind, foundation committees have now been set up to investigate the possible establishment of a university in each of the Matebeleland South, Mashonaland East and Manicaland provinces.

The private sector, especially the religious organisations, has also been very active in recent years with offers to establish university institutions at various places. With the advice of the National Council for Higher Education, the government has approved charters that have led to the establishment of the following universities:

- Solusi University near Bulawayo, run by the Seventh Day Adventist Church;
- Catholic University in Zimbabwe, located in Harare;
- Africa University, located near Mutare in Manicaland and run by the American Methodist Church; and
- Women’s University in Africa, currently located in Harare, but with its eventual home in Marondera in Mashonaland East Province and run under a private deed of trust.
Financing

Infrastructure funding

Infrastructure development at public universities is undertaken almost entirely from government funds under the Public Sector Investment Programme. The funds are allocated to each institution in the annual national budget appropriation. It is not easy to predict in advance exactly how much each institution will need for construction in a given year. The funds are transferred to each institution on the basis of actual work carried out each month as certified by a quantity surveyor and/or supervising architect. The common feature is that the budget is soon depleted due to the ravages of inflation and shortages of foreign currency. Invariably government has to come up with supplementary funds, sometimes several times during the course of a financial year.

In general, because of the developing nature of the universities, government is continuing to provide huge capital outlays for physical infrastructure. This trend is likely to continue for the foreseeable future since most of these universities are only in the early stages of development. For example, Lupane State University does not have a single completed building yet. The National University of Science and Technology has only seven buildings nearing completion out of a projected number of 20 or more.

Midlands State University, Bindura University of Science Education and Great Zimbabwe University will also be engaged in heavy infrastructural development for many years to come.

On the whole there is no general formula used to decide how much capital grant funding government should provide to each institution each year. Decisions have been based on each university’s construction projections for a given year taking into account the ravages of inflation, which have caused even the professional fees of contractors to escalate in unpredictable ways. What can be said, however, is that there is commitment on the part of government to provide the necessary physical infrastructure for the universities and to refurbish existing buildings. This existing infrastructure was in some cases originally designed for tertiary education institutions that have now been transformed into universities.

Private universities have to fund their own construction costs. In the case of church-funded institutions, most of the money comes from the ‘mother’ church and from charitable donors. The original buildings at Solusi and Africa University were constructed from funds provided by the headquarters of the African Seventh Day Adventist Church and the American Methodist Church respectively. The Catholic University in Zimbabwe received a small grant from the Vatican, while the Women’s University in Africa received a donation from the government of Zimbabwe in the form of a dairy farm just outside Marondera in the Mashonaland East Province. For further development of infrastructure the private universities will continue to depend on well-wishers in their sponsoring churches or on the donor community. In addition, a proportion of student fees is used for infrastructural development. A case in point is Solusi University, which used fees to build married student residences and built a women’s residence with a generous Swedish donation.
Recurrent expenditure in public universities
On average about 95% of the recurrent expenditure of public universities is covered by government grants. The remaining 5% is covered by student fees and other funds from sources such as sponsored research and the letting of university facilities.

The bulk of recurrent expenditure is on staff salaries. In recent years salaries have been determined through collective bargaining and lengthy negotiations with the unions. Zimbabwe has come to a point where salary negotiations are carried out on a monthly basis owing to the hyper-inflationary environment in which the country finds itself. It is difficult to compare salaries at Zimbabwean universities with other universities within the Southern African region.

Student sponsorship
Private universities are full fee-paying institutions. Students are sponsored either by their parents or by companies and private individuals who are able and willing to do so. Many of the students at Africa University and Solusi University come from countries other than Zimbabwe. This enables these universities to collect fees in foreign currency, a rather scarce commodity in Zimbabwe at present.

The majority of students in the country are Zimbabwean nationals. In the distant past, they all used to enjoy full sponsorship by the government through a budget provision under the title National Education Training Fund. At that time there was no cost sharing. The government grant covered tuition fees as well as subsistence or ‘payout’, as this was called. At the beginning of each semester the students would queue to receive their payout rather than to pay fees. Now the students queue in order to pay tuition fees, and their subsistence is taken care of by their parents or other well-wishers. There is no more free higher education except in cases of dire need as demonstrated by a means test.

Over the years the student sponsorship grant gradually went from a 100% grant to a 75% grant to a 25% loan, then a 50% grant/50% loan, a 25% grant/75% loan, until eventually complete cost recovery was introduced. Students are now expected to pay for all their requirements through parental or other support. However, as stated above, the government has said that no student should be turned away from a university solely on the basis of his/her inability to pay fees. For this purpose means tests determine the very needy, who are covered by government grants under a cadetship scheme that involves the bonding of students to work in the Zimbabwean public service for some time after they complete their studies. This facility is open to students at both public and private universities.

Parallel programmes have been established in most of the universities. While normal entry to the universities is based on a ‘points system’, once the institutions have filled their quotas, they open admissions to those applicants who failed to get in through the formal arrangement. These applicants do not have to compete on the basis of academic excellence. They only need to satisfy the minimum entry requirements and demonstrate the ability to fully sponsor themselves. They come in as a ‘parallel’ group to the formal one. Normally their classes are conducted after hours. The curricula and examinations are identical to those used in the formal classes.
Apart from granting greater numbers of students access through the parallel scheme, universities are using the arrangement to raise more funds, since they do not have to account to the government for these parallel programmes. These funds have enabled universities to top up the remuneration of their staff. In turn this has helped to reduce the university brain drain. Midlands State University is a very good example of a university that has had a successful parallel programme.

### Key features of higher education financing in Zimbabwe – a summary

1. Because of the economic crisis most public higher education institutions are not fully developed.
2. Inflation has had debilitating effects on higher education system – e.g. staff salaries, capital expenditure.
3. Infrastructure at public universities is funded by the state, but seriously affected by inflation and a shortage of foreign currency.
4. No funding formula exists for the allocation of capital grants.
5. Ninety-five per cent of recurrent expenditure is funded by the state and 5% by fees.
6. Previous full sponsorship of students by government has been replaced by a parallel programme of fee-paying students.
7. Parallel programmes are used by institutions to augment revenue.
8. Government provides some means-tested grants to needy students.
Part 2: Common themes, good practices, possible lessons

Funding mechanisms are especially important in shaping higher education outcomes in areas such as quality, efficiency, equity and system responsiveness. A key question is why governments intervene in and subsidise tertiary education.

Economic theory provides widely accepted underlying principles to justify governmental intervention in (and public funding of) tertiary education. Concerns at two levels provide the rationale for government’s involvement:

1. efficiency concerns, often called market failures; and
2. equity concerns, mostly related to providing equal educational opportunities to all.

The involvement of the government ranges from regulation through subsidisation to production of tertiary education services.

A case for governmental intervention occurs whenever a prerequisite for a perfectly competitive market is not met (an instance known as a market failure). In the area of tertiary education, the major established market failures are the ‘externalities’ generated by tertiary education activities, the imperfection of human capital markets and the incomplete information in the tertiary education sector.

Another rationale for government intervention relates to fairness. In fact, economic theory stipulates that an efficient allocation of resources is not necessarily fair in the sense that a given social welfare function (i.e. an arbitrary statement of how society’s well-being relates to the well-being of its individual members) does not reach its optimal value. Hence, even if an efficient outcome is reached, a government intervention may be necessary to achieve a fair distribution of educational resources. In the area of tertiary education, this usually translates into two types of intervention by the government:

1. ensuring equal educational opportunities to individuals; and
2. using tertiary education as a vehicle for social mobility.

Government intervention in this domain is also likely to enhance social cohesion.

It is widely accepted that individuals with the aptitude and desire to benefit from tertiary education should not be denied opportunities as a result of a given disadvantage. The government can play a role in ensuring that educational opportunities are not a function of factors such as socio-economic status, region of residence, race, religion, ethnicity, disability or gender. This is achieved through programmes to promote access to and successful completion of tertiary education by groups identified as having a specific type of disadvantage.
Salmi and Hauptman (2006), for instance, identify three goals that countries seek to achieve through the funding of tertiary education:

1 Increasing access to, and equity in, tertiary education as measured by:
   - increasing overall participation rates for students of a traditional enrolment age who enter a tertiary education institution in the year following their graduation from secondary school;
   - expanding the number and range of lifelong learning opportunities, particularly for older students and other non-traditional groups of students, including distance learners;
   - reducing disparities in participation rates between students from low and high family backgrounds as well as other important dimensions of equity such as gender and racial/ethnic group; and
   - increasing private sector investment and activity in the provision and support of tertiary education activities.

2 Increasing the external efficiency of tertiary education systems by improving both:
   - the quality of education provided; and
   - the relevance of programmes and of graduates in meeting societal and labour market needs.

3 Improving the internal efficiency and sustainability of tertiary education systems by:
   - reducing or moderating the growth over time of costs per student and improving how resources are allocated, both among institutions and within institutions; and
   - decreasing repetition and raising the rates of degree completion.

This report has attempted to assess the structure and pattern of higher education financing and the implications for access and equity in a comparative study of eleven SADC countries.

As stated earlier, African higher education is characterised by extremely low participation rates. With the exception of Mauritius and South Africa, this is true also for the countries considered in this report. Moreover, three key determinants – gender, socio-economic status and region – act to skew the already low participation rates in favour of males, richer families and urban households.

Access and equity in higher education are fundamentally determined by access to and the quality of secondary education. In most SADC countries, access to secondary schooling is extremely limited and often of poor quality.

Public spending on higher education as a proportion of the education budget varies substantially among countries considered in this report. In the case of Lesotho, Mozambique, Namibia, South Africa and Swaziland, higher education spending is relatively high as a percentage of the education budget.

As reported earlier, where higher education expenditure is low, there are often several reasons for this. First, there may be inadequate expenditure on education generally, as a percentage of the
government’s budget. Second, where education expenditure may be considered to be adequate or reasonable, there are considerable political pressures to ensure that the primary and secondary education sector gets the overwhelming share of the public sector’s commitment to education. Third, in many developing countries, in a situation of serious resource constraints, there is often keen inter-sectoral competition for financial resources from health, housing, social welfare and other government functions. Finally, the case for increased higher education financing has not been helped by the low prioritisation of this sector by many African governments. The value of higher education for economic growth and broader social and sustainable development has not yet been fully recognised by African governments.

2.1 Some common themes

It is evident that higher education financing in the countries considered in this report is often inadequate, and it is inequitable and inefficient in almost every country.

Even though participation rates remain low in the context of a growing population, enrolments are growing everywhere in absolute terms, in several cases quite dramatically. In the face of serious financial resource constraints for higher education, education ministries have responded mainly in two ways. First, there has been a clear shift towards cost sharing in the form of tuition fees in countries such as Namibia, Zimbabwe and Zambia. In some countries (Tanzania, Zambia and Zimbabwe for example), this has taken the form of a dual track system where a fee paying system co-exists with a free, government-sponsored scheme for some students. Second, governments in virtually all countries have permitted the introduction and subsequent expansion of the private education sector.

While the cost sharing and private sector strategies have enabled the government to address to some extent the issue of inadequate public sector funding of higher education, it has resulted in greater inequity almost everywhere. Unlike in Namibia and South Africa, where everyone pays tuition fees, cost sharing in Zambia and Zimbabwe, for instance, is only for those who cannot access government sponsorships. These government sponsorships invariably go to students from more affluent households who are able to access the best schools. However, both Zambia and Zimbabwe have adopted some measures to address these inequities through adopting quotas for the disadvantaged and Mozambique provides scholarships to students from rural areas.

Furthermore, many of the poor appear to be seeking access to private higher education in Africa; this situation is unlike that of the industrialised world. However, in several countries – especially Mozambique, Tanzania and Zambia – many of the private higher education institutions are of questionable quality. The situation is not helped by the absence of an effective regulatory framework for private higher education in most countries. In most SADC countries, unlike in the industrialised world, private higher education institutions are for-profit institutions.

A further dimension of the private sector expansion is the entry of international providers of higher education in several SADC countries (e.g. Zambia). While these providers may help to address capacity
gaps in higher education provision, many of the countries in which they are operating lack the necessary regulatory capacity to effectively monitor quality.

In the countries under consideration here – Madagascar, Mozambique, Namibia, Tanzania, and Zambia, for instance – higher education financing is extremely inefficient. This is due, in part, because higher education financing is largely ad hoc and not based on sectoral planning. In some cases budgeting is done on a purely incremental basis and in others solely on inputs (student numbers).

Inadequacy of funding for higher education is often a consequence of weak departments of higher education within ministries of education. In several SADC countries there is an inability and/or unwillingness to motivate for more higher education funding; at a political level, primary and secondary education and other departments within the ministry often get preference.

There is moreover a widespread lack of planning and oversight capacity in these ministries. This sometimes results in universities spending more than they have been allocated or building up huge debt burdens (e.g. Zambia).

Inefficiency of higher education expenditure has been exacerbated by the absence in most countries of a systematic funding mechanism, such as a funding formula. Most countries rely on incremental budgeting processes (for example, increases linked to inflation) rather than developing a funding formula that would be able to ensure greater predictability in the budgeting process and ‘certainty of revenue’ for higher education institutions. Such predictability would be enhanced also by the development of closer links between education planning and the budgetary process, the latter ideally comprising a three-year medium-term expenditure framework. Very few countries, with South Africa being a notable exception, have established the necessary planning capacity for higher education in the Ministry of Education and/or appropriate budgetary frameworks for the country as a whole.

A major aspect of inefficiency in expenditure relates to the manner in which so called ‘loan schemes’ operate in several countries. In Botswana, Lesotho and Tanzania, for instance, governments operate loan schemes for higher education students. In practice, however, these are study scholarships to be used at both local and foreign institutions, as no serious efforts (except until this year in Tanzania) have been made to collect such loans. In practice, therefore, higher education has been free. It has also been inequitable as the students who access these ‘loans’ are often from the most affluent households.

In several small countries – especially Botswana, Lesotho and Mauritius – limited capacity has resulted in substantial resources being spent on education outside the country. In Mauritius, the costs of international study are borne by private households. In Botswana and Lesotho, however, the costs have been carried largely by the state. While there are clearly high private returns to individuals, the social benefits to Botswana and Lesotho more broadly (through, for example, returning graduates, remittances) have not been quantified, but the cost to the taxpayers has been high.
Poor academic salaries lead to poor quality of education and/or poorly motivated staff, which in turn leads to low internal efficiency (as reflected in high drop-out and repetition rates and poor quality of outputs).

In several SADC countries (Lesotho, Tanzania and Mozambique), there is significant external donor involvement in higher education financing. The long-term implications for the government are considerable.

2.2 Good practices

It is evident that the overall picture of higher education financing in the SADC countries, with a few notable exceptions, is characterised by inadequacy, inefficiency and inequity. Nevertheless, there are several examples of ‘good practice’ that member countries may want to study and possibly emulate.

Financing practices that address the inadequacy of public expenditure

- **Private-public partnerships:** To address the issue of scarce public resources, Botswana is establishing a new university on a private-public partnership basis. In this model, the state will provide substantial funding for capital expenditure while the private sector will be responsible for operational expenditure. A similar venture is being created in Zambia at the Mulungushi University.

- **The differentiated government funding model:** In Mauritius, public institutions are not all funded in the same way. Institutions yielding high private returns (e.g. the University of Technology), receive lower fund levels compared to institutions yielding greater social returns (such as teacher education).

- **Cost sharing:** Several countries have recently introduced cost sharing in the form of tuition fees to address the inadequacy of institutional revenue. This is particularly so in Namibia, Mauritius, Zimbabwe, Zambia and Tanzania. South Africa has always had a system of fee paying in higher education. However, not all countries apply cost sharing equitably because of the dual track tuition programmes (e.g. Zambia, Tanzania and Zimbabwe).

Financing policies that address equity

- **Provincial scholarships:** Mozambique provides scholarships to poor students from rural areas.

- **Loans to students in private higher education institutions:** Botswana and Tanzania (until this year) effectively saw these as grants. These grants enhance equity as students from lower socio-economic groups tend to attend private higher education institutions.

- **Loan schemes to address access and equity:** South Africa’s national student loan scheme is designed to attract larger numbers of historically disadvantaged students into higher education. Although there is some controversy about how ‘disadvantaged’ is defined, the scheme attracts a high level of funding from government, operates at a high level of efficiency in terms of cost recovery and uses ‘means testing’ to ensure that loans go to those who are at the lower end of the socio-economic spectrum.
Financing policies that address efficiency

- **Linking higher education planning to budgeting**: In South Africa, there is a close link between planning (at both the institutional and system levels) and funding. Higher education institutions are required to submit three-year ‘rolling plans’ to the government as part of the state's planning and medium term expenditure framework budgeting process.

- **Funding to improve quality of education provision**: Mozambique provides a funding facility, the Quality Enhancement and Innovative Facility – an initiative to reward both public and private institutions and individuals for the development of quality enhancement programmes.

2.3 Some possible lessons

It is inevitable, given serious public resource constraints, that the higher education sector must look at alternative mechanisms to generate funds to enhance access and equity. Among the funding mechanisms that need to be considered are cost sharing and loan schemes that promote access and equity and are efficient in terms of cost recovery. A third issue relates to the development of a funding formula for higher education that can promote the more effective utilisation of scarce financial resources and enable governments to achieve broader objectives of the higher education system (e.g. appropriate human resources development).

Cost recovery

Cost sharing can take a number of forms:

- the introduction of tuition fees where those did not exist;
- a rise in the level of tuition fees where those already existed;
- the creation of a special tuition paying track for a proportion of students;
- the imposition of ‘user charges’ (e.g. registration fees) for recovering the expenses of some previously heavily subsidised institutional services (such as meals and accommodation);
- the reduction of student grants or scholarships;
- an increase in the effective cost recovery on student loans (e.g. through a reduction of the subsidies on student loans); and
- the limitation of capacity in the highly subsidised public sector together with the official encouragement of a tuition dependent private tertiary education sector (OECD, 2008).

The case for cost sharing can be made on several grounds. There are numerous rationales for students and families to share the costs of tertiary education with taxpayers. The arguments often used to make the case for cost sharing are:

- public money available for tertiary education is lacking in light of enrolment growth and competing priorities for public funds;
- those who benefit should contribute to the costs of tertiary education;
- Public savings from individual contributions can be channelled to improve equity of access; and
- Tuition fees introduce the virtues of price as a market mechanism.

However, there may be a number of technical aspects that make the realisation of cost sharing in developing/poor countries more challenging. This is essentially related to two aspects. First, the cost-division formula (i.e. the share that each of government and the students/families should pay) is difficult to calculate because the magnitude of tertiary education externalities is very difficult to measure. On the other hand, to be compatible with access and equality of opportunities, cost sharing must be accompanied by measures that remove financial barriers to enter tertiary education at the time of the enrolment decision, especially for the more disadvantaged groups. This requires effective and efficient student financial aid systems typically formed of need-based grants and loan schemes and possibly other programmes to compensate for unequal education opportunities at the secondary level.

The implementation of student assistance programmes is hindered by aspects such as:
- Difficulties in determining the extent of need of students (or families);
- Problems of recovering costs from graduates in the form of loan repayments;
- The need for a substantial initial investment to launch a loan system based on public funds;
- The absence or limitations of private capital markets for student loans to complement the limited amounts of student lending available from public schemes; and
- In a number of countries, the absence of a sufficiently affluent middle class that can afford tuition fees.

This requires substantial investments in financial assistance to students (and families), often not readily available from the public budget.

A third dimension includes arguments of a strategic nature. It broadly relates to the assumption that the political acceptance of cost sharing disadvantages tertiary education relative to competing claims on public money. The two main arguments are as follows:

1. Assuming that tertiary education has greater ability to supplement its public revenue with private revenues (not necessarily limited to cost sharing) places it at a great disadvantage relative to other social areas (such as basic education, health or welfare) and makes the reduction of dedicated public funds politically easier.
2. While a policy of cost sharing combined with student financial aid might target resources better, politicians might give lower priority to the development of the student aid system than to the expansion of cost sharing (e.g. higher tuition fees).

Clarifying what government wants from its funding is likely to be of great consequence. The question of what the government wants for its funding support is fundamental to the whole endeavour, yet in many countries there is no clear reasoning behind any particular level of funding other than the most general social, economic and tax equity rationales. Often too little attention is paid to using
funding processes to address concerns about the relevance of tertiary education, including meeting the emerging societal and economic needs.

Developing an efficient and equitable loan scheme
Important lessons can be drawn from the South African and Kenyan experiences with regards to designing and implementing an effective student loan scheme. It is encouraging to see Namibia moving towards developing a loan scheme, but there are no such signs elsewhere in SADC. The South African and Kenyan schemes are specifically designed to address issues of equity, even though there is criticism of the Kenyan scheme because it does not provide adequate loans to poor students in the private higher education institutions.

Utilising financial resources effectively to attain higher education objectives
The funding framework developed in South Africa in the post-apartheid era reconceptualised the relationship between institutional costs of and government expenditure on higher education. This framework is seen as a distributive mechanism, that is, a way of allocating government funds to individual institutions in accordance both with the budget made available by government and with government’s policy priorities.

The funding framework developed for higher education in South Africa has a number of important implications for equity and efficiency and these are, briefly (see Section 1.7 for detail):

- ensuring predictability through a formula-driven approach;
- driving higher education funding frameworks by the availability of public resources for higher education rather than by the costs of provision; and
- promoting institutional autonomy and equity by using block and earmarked grants to incentise efficiency e.g. by rewarding research outcomes, rewarding the output of certain categories of graduates and so stimulating the development of scarce skills, earmarking funding for research capacity building and development, and redressing disadvantage by institutional factoring for students and small, rural, institutions.

Given the South African experience, key practical actions that other SADC countries adopting a funding formula should take note of are the following:

- **Simplicity**: Design a formula that is simple and can be understood by the broadest possible section of the higher education community.
- **Promote understanding and acceptance** of the formula by institutions through designing appropriate consultative mechanisms and undertaking training programmes.
- **Develop effective data management systems** at both the institutional and government levels to ensure that the formula (particularly with respect to the input and output elements) can be implemented effectively.
- **Higher education-labour market linkages:** Design an effective system to monitor the outputs and outcomes of the higher education system in relation to the needs of the labour market and the economy.

The challenges for policy makers with respect to higher education financing are numerous and can be captured in a series of questions:

- How do ministries of education and higher education institutions make the best possible (most efficient) use of current, limited resources?
- How can ministries of education develop a strong case to ministries of finance about the importance of higher education for economic and broader social development?
- What alternative funding mechanisms (loans, cost sharing, etc.) are possible in poorer SADC member states?
- If cost sharing is to be considered as a possible funding mechanism, how can greater equity be ensured?
- In cost sharing systems, is it possible to re-direct current resources being expended in poor quality private systems towards expanding public sector capacity?
- If a loan scheme is being planned, are the necessary pre-conditions in place? For instance, is there an effective tax administration system? What role can employers play in cost recovery? Is there institutional infrastructure for means testing?
- Is a higher education planning and budgeting framework necessary to enhance the case for more funding and to promote more effective utilisation of current funding? And if so, what institutional arrangements are needed to promote systemic and institutional planning?
- Can higher education financing be used to ‘steer’ the system to obtain governments’ objectives, e.g. in human resources development?
References


