
Higher Education in Ethiopia: The Vision and Its Challenges

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Abstract

Ethiopia is embarked on a higher education expansion and reform programme of impressive dimensions. Expansion will create new universities, establish three system support agencies, mount new courses, and triple enrolments. Reforms introduce increased institutional autonomy, curriculum revisions, new funding arrangements and student contributions by means of a graduate tax. This article analyses current higher education reform efforts in Ethiopia. It begins by sketching the social context in which higher education is situated and describing the country's higher education system. An assessment of tertiary education financing follows. Management capacities and efficiency in the use of these resources are then discussed, noting the particular challenges posed by HIV/AIDS. Educational quality and relevance are subsequently addressed. Analysis points out potential weaknesses in the reform programme but concludes that enrolment expansion targets are likely to be met. However, the dynamics of expansion may well generate difficulties in maintaining educational quality.

Résumé

L'Éthiopie s'est engagée dans un vaste programme de développement et de réforme de l'enseignement supérieur. Le volet développement inclut la création de nouvelles universités, et de trois agences de suivi, la mise en place de nouveaux cours et l'instauration du système d'inscriptions triples. Les réformes permettront une plus grande autonomie, ainsi que la révision des programmes, l'établissement de nouveaux systèmes de financement, et l'introduction du système de contributions des étudiants, par le biais d'une taxe sur la formation supérieure. Cet article analyse les efforts déployés pour la réforme de l'enseignement supérieur en Éthiopie. Tout

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d'abord, il fournit un aperçu du contexte social de l'enseignement supérieur, ainsi qu'une description de ce système. Il s'ensuit une évaluation du financement de l'éducation tertiaire. La communication évoque ensuite les capacités de gestion, ainsi que l'utilisation efficace de ces ressources, en mentionnant le défi majeur posé par le SIDA. La question de la qualité et du caractère adapté de l'éducation est ensuite abordée. L'analyse présentée souligne les faiblesses du programme de réforme, mais conclut en ajoutant que les objectifs d'élargissement du système d'inscription pourraient bien se réaliser. Cependant, la dynamique d'élargissement de ce système risque fort de porter atteinte à la qualité de l'enseignement fourni.

Background

Ethiopia possesses a 1,700-year tradition of elite education linked to the Orthodox Church. But secular higher education was initiated only in 1950 with the founding of the University College of Addis Ababa. During the following two decades, half a dozen specialised technical colleges were established. These institutions hosted an educational culture that was heavily influenced by its long informal association with the Orthodox Church (Wagaw 1990). In their academic organisation, they were somewhat more American and less British than higher education systems in the former British colonies of East Africa. Strikingly, tertiary enrolments totaled only 4,500 in 1970 out of a national population of 34 million. The resulting tertiary enrolment ratio of 0.2 per cent was among the very lowest in the world. The skilled human resources available to guide development in one of Africa's largest and poorest countries were therefore miniscule in relation to the enormity of the task.

The nation's new higher education institutions strove, with considerable early success, to maintain international standards. But the cost was high, with wastage rates approaching 40 per cent in the late 1960s (Wagaw 1990). Awareness of the need for reform began to grow. Unfortunately, these incipient reforms were truncated by political events.

In 1974, a socialist military coup overthrew the monarchy of Emperor Haile Selassie and established an oppressive regime known as the 'Derg' (i.e., committee). Government intervention in university affairs expanded, including security surveillance, repression of dissent, mandated courses on Marxism, prohibition of student organisations, appointment of senior university officers and control of academic promotions. Three notable outcomes ensued over the following two decades: Intellectual life atrophied on campuses, academic brain drain soared and the country's education system became largely isolated from the western world.

As the twentieth century drew to a close, Ethiopia found itself with a higher education system that was regimented in its management, conservative in its intellectual orientation, limited in its autonomy, short of experienced doctor-

ates among academic staff, concerned about declining educational quality, weak in its research output and poorly connected with the intellectual currents of the international higher education community. The reform pressures that had begun to build in the 1960s, only to be suppressed by the Derg in the 1970s and 1980s, returned to the fore with the establishment of elected government in 1994. This time higher education reform was embraced as a critical national need by the government of the day.

The Reform Agenda

Ethiopia is currently engaged in a highly ambitious effort to re-align its higher education system in more direct support of its national strategy for economic growth and poverty reduction (Yizengaw 2003). Its achievements over the past five years have been impressive. The reforms have targeted all levels: the overall system, the institutions and the academic programmes.

At the *system* level, eight public universities now stand in the place of the previous two-university 'system.' An aggressive expansion policy designed to raise the country's insignificant tertiary enrolment ratio to more respectable levels is producing results.¹ Total tertiary enrolments in universities and non-university tertiary institutions, both public and private, surged from 43,843 in 1997–98 to 147,954 in 2002–03 (Ministry of Education 1998, 2003), more than tripling in just five years. The annual enrolment growth rate of 28 per cent was possibly the highest in the world during this period. Private provision of tertiary education has been permitted by the government as a key component of this expansion strategy, and private tertiary institutions now host 24 per cent of all tertiary students (Ministry of Education 2003:7). The government introduced student cost-sharing in September 2003 through a deferred payment taxation mechanism for all future graduates. All of this—and more—has been ratified in a new *Higher Education Proclamation* approved by Parliament in June 2003 (Government 2003).

At the *institution* level, the proclamation awards substantial autonomy to universities. Future recurrent funding will come in the form of block grants defined by a funding formula. University boards and staff will choose their own institutional leaders, and non-academic staff have been de-linked from the civil service. Strategic planning, income diversification and information and communications technology (ICT) development are being encouraged to meet the fiscal, space and instructional requirements of the on-going expansion.

At the level of *academic programmes*, degree courses have been reduced from four to three years in length, with much of the former 'freshman' year subject matter being transferred to the secondary school level. New degree

courses are being introduced in response to anticipated labour market needs that underpin the nation's economic development strategy and to prepare its citizens for democratic participation in civic and social affairs. Graduate programme enrolments are rising rapidly in an effort to boost the supply of academic staff for the expanding system. All existing diploma programmes (50 per cent of public enrolments in 2003) are being transferred to technical colleges over the coming two years so that universities may concentrate on degree training. A major review and upgrading of university curricula has just been completed, adding courses in civics, ethics, communication skills, community outreach, and entrepreneurship, among others. A new oversight agency will monitor both the quality and the relevance of academic programmes. To shore up quality in the classroom, national and local pedagogical resource centres are being set up to encourage instructional innovation and to assist less experienced lecturers.

These reforms will constitute remarkable achievements if they are implemented as legislated. Ethiopia clearly understands that economic growth in the twenty-first century will be driven by the nation's performance in raising its levels of national productivity in comparison to its economic competitors, and it is determined to make up the ground lost over the past two decades because of political instability and economic stagnation.

When the vision outlined by the new proclamation is compared with prevailing conditions in Ethiopian higher education, the massive scale of the reforms now underway becomes apparent. Until now, the government has appointed university presidents and vice-presidents. All non-academic staff are classified as civil servants managed by the national civil service commission rather than by university executives. Line item budgets prevail, and institutional allocations have been increased incrementally from one year to the next with little or no relation to enrolments or educational quality. Additional income generated by institutions has been deducted from their government subventions, thereby creating a strong disincentive for income diversification. Quality assurance has yet to become an explicit concern. Prior to the proclamation, students paid no tuition fees and also received free food, lodging and medical care as part of their university admission. The vision of reform communicated by the proclamation is both necessary and overdue, but the challenges of its implementation remain daunting.

Analysis of present higher education reform efforts in Ethiopia begins with a sketch of the demographic, economic and social context in which higher education is situated. It then reviews the links between higher education and Ethiopian development and describes the country's higher education system. An assessment of tertiary education financing follows. The next item discussed

is the management capacities and efficiency in the use of these resources, noting the particular challenges posed by HIV/AIDS. Educational quality and relevance issues are subsequently addressed. Analysis then turns to the crucial question of how this rapid system expansion will be staffed and concludes with some observations on the sustainability of the reforms now underway.

Context: Demographic, Economic, Social

Ethiopia's total population of 67.7 million persons is growing at 2.4 per cent per year. (Statistics in this section are from the Ministry of Finance and Economic Development 2002). Eighty per cent of the labour force is engaged in agriculture, much of which is of a subsistence nature. Just 8 per cent of workers are employed in industry, and the remaining 12 per cent are occupied in government and services. This distribution suggests a relatively modest labour market for university graduates, although there is no recent research to support this conclusion.

Ethiopia's gross national product (GNP) per capita currently stands at US\$110 compared to US\$480 for sub-Saharan Africa as a whole. Average GDP expansion for the 1992–2002 decade was 5.5 per cent annually. However, agriculture grew at a much slower rate of 2.5 per cent. Income is more evenly distributed in comparison to other sub-Saharan Africa countries, with a Gini coefficient of 0.28. Coffee accounts for 60 per cent of export earnings. Per capita exports were only US\$15 in 1999 compared to an average of US\$163 for sub-Saharan Africa. At present, Ethiopia hardly participates in the global economy.

The government currently pursues an economic growth strategy based on agriculture-led development. This agricultural thrust is complemented by efforts to enhance overall labour productivity through better education and health services, to foster an emergent private business sector, and to reform aspects of the civil service. For this strategy to be successful, the country's higher education system will have to produce graduates with the technical knowledge and research skills to support economic diversification, and this is one of the drivers of the present reform.

Poverty is a major drag on the possibilities for economic expansion. The 2000 census indicates that 44 per cent of the national population live in poverty, i.e., on a per capita income of one dollar per day or less. The very low levels of family resources mean that completion of secondary education requires a major financial effort for each child, and that the potential for cost-sharing at the university level is sharply limited.

Ethiopia's educational performance is consistent with its economic indicators. Only 24 per cent of the adult population has completed primary education.

Primary education enrolls 64 per cent of the relevant age group, secondary education 12 per cent, and tertiary education just 0.8 per cent (World Bank 1998a).

Health needs within the population compete with education for scarce public resources and also affect educational achievement directly. Life expectancy is just 44 years. HIV/AIDS prevalence in 2000 was 13.7 per cent in urban areas (where most universities are located), and an estimated 2.6 million persons are currently living with AIDS (Discovery Consultants 2003). AIDS orphans are expected to pose a particular challenge for the country's education system in the years ahead.

The government of Ethiopia emphasises that human capacity development at all levels is one of its most important development objectives. The newly created Ministry of Capacity Building has committed US\$100 million over the coming five years to strengthen the skills of civil servants, semi-skilled workers, and private sector entities through skill development partnerships. Expansion and qualitative improvement of university level education is seen as a critical component of this overall capacity transformation in the country (Ministry of Capacity Building 2003).

Higher Education and Development

To address the social needs outlined above, the government launched an Education Sector Development Programme for academic years 2002–03 through 2004–05, commonly referred to as ESDP-II. For the higher education portion of the education sector, ESDP-II intends at the tertiary level to more than double regular undergraduate enrolments (from 35,000 to 80,000) and to quadruple graduate enrolments (from 1,350 to 6,000) during the three-year period.

Over the past three years, government has boosted its financial effort on behalf of education. Public investment in education has risen as a share of GDP from 3.2 per cent to 4.5 per cent. This level of financial effort is higher than the 3.9 per cent registered for sub-Saharan Africa as a whole. (See Table 1.) Education expenditure has also increased as a proportion of the overall government budget from 9.5 per cent to 16.8 per cent, largely at the expense of military expenditures. Such increases still fall short of reaching the general range of 20 per cent to 25 per cent for most developing countries, suggesting that scope remains for further increases in the government's education financing effort over the coming years. At the same time, the share of the education budget devoted to higher education has risen from 14.9 per cent to 23 per cent in response to the recent rapid expansion of this sub-sector. This is slightly higher than the 15 per cent to 20 per cent range used as a World Bank (2002) guideline, but not unreasonable as a temporary measure in light of the significant tertiary capital expansion programme currently underway.

Table 1: The Government of Ethiopia's Educational Funding

	1995–96	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02	2002–03
Education's share of GDP	2.5	2.5	2.5	2.6	2.5	2.8	3.4	4.3
Education's share of Ethiopian budget	14.5	14.3	15.6	12.0	9.5	14.4	16.8	18.8
Higher education's share of ed. budget	15.0	15.8	na	na	14.9	18.0	18.0	23.1

Source: Ministry of Finance and Economic Development (2002); World Bank (1998b).

Until recently, the private and social returns to education investment have been substantial in Ethiopia at all levels, including higher education, thereby justifying the government's increased financial commitment to the sector. This was confirmed through an analysis of earnings functions conducted in 1996 (World Bank 1998b). Earnings more or less doubled with each school level achieved. The rates of return to education by level of education, calculated at that time, were roughly equivalent. Private rates of return for primary, secondary and tertiary education were approximately 25 per cent, while social returns were about 14 per cent. It should be noted that these calculations are now almost a decade old and may have lost some validity in light of the huge enrolment expansion effort currently underway.

System Size and Configuration

Until 2000, Ethiopia's higher education system was comprised of just two universities, seventeen colleges, a total of 31,000 students, and a small supervisory department in the Ministry of Education. Today, it embraces eight universities, nine technical colleges, five teacher training colleges, thirty-seven private tertiary institutions, and three system oversight agencies (the Higher Education Strategy Institute, the Quality and Relevance Assurance Agency, and the National Pedagogical Resources Centre). Total tertiary enrolment in 2002–03 was 147,954 students. Of these, 39 per cent were regular residential students, 35 per cent were non-residential evening students, and 26 per cent were private students. The largest public institution is Addis Ababa University (AAU) with 17,433 undergraduate degree and 1,720 graduate students.

Private Tertiary Education

Private tertiary education is a rapidly expanding part of Ethiopia's higher education system, increasing by 43 per cent in the past year alone and now accounting for 24 per cent of all tertiary enrolments. Private tertiary institutions in Ethiopia are a relatively new phenomenon; virtually all of them have been established within the past five years. The majority of these institutions enroll 500 students or fewer and offer training in specialised areas such as accounting, business administration or information science.

All of the private colleges offer diploma programmes, a half dozen of them have mounted degree programmes and one has initiated a master's degree programme. These private institutions offer educational programmes often not available in the public institutions, provide access to growing numbers of students who might otherwise not be admitted to tertiary education, enable a significant expansion of tertiary enrolments at very little additional cost to government, provide client-oriented instruction focused on the shifting needs of the job market and attract a high proportion of women students (almost 50 per cent). Tuition fees run from Birr 2,500 to 3,500 a year (US\$300–450).

As evidenced in the above paragraphs, private providers are making a substantial contribution both to the ministry's expansion targets for higher education and to the government's goal of economic growth induced by human resource development. For example, private tertiary institutions educate important portions of students in certain disciplinary areas. They teach three out of four business students, three out of four computer science students and half of all law students.

But in spite of these contributions, the government has been ambivalent in its support of private higher education. Holdover aspects of socialism in the current government's political philosophy include government ownership of all land and a reluctance to use public resources in support of private-sector development. This means that the expansion of private higher education is dependent upon the government's willingness to grant leasehold access to land and that private institutions encounter difficulties in their efforts to obtain bank financing since they have little to offer in the way of loan collateral (Tamrat 2003). Likewise, these institutions are dependent upon government relief from tax duties on textbooks, computers, software and teaching equipment that must be imported. Although available in theory, these concessions reportedly work less well in practice.

Tertiary Education Indicators

Access. Ethiopia's tertiary-level gross enrolment ratio (GER) of 0.8 per cent in 2000 places it among the lowest ranking countries of the world, as does its

ratio of 62 tertiary students per 100,000 inhabitants. In comparison, the current tertiary level GER for sub-Saharan Africa is 4 per cent with a regional average of 339 students per 100,000 persons. As a result, professional and technical capacities of all types have been extremely limited in Ethiopia, stunting previous development prospects.

Unit Expenditures. Annual recurrent expenditures per university student are roughly Birr 7,457 (US\$860) when government-provided food, lodging and health care are included, and Birr 5,500 (US\$636) when student welfare subsidies are excluded.² This latter level of educational investment is low in comparison to sub-Saharan Africa (US\$1,500) and to neighboring nations like Kenya (US\$1,800), Tanzania (US\$3,236) and Uganda (US\$800).³ Experience indicates that it is extremely difficult to provide higher education at an acceptable standard for less than an annual per-student expenditure of US\$1,000 (Association of African Universities and the World Bank 1997).

Financing. The Government provides virtually all of the financing used to run the public tertiary system. This includes the provision of free non-academic services to regular students: meals, lodging and health care. Full-time students (39 per cent of all students) pay no significant tuition fees, although part-time and private students (the majority of the total enrolled) do pay. Part-time students are charged tuition of Birr 30 to 50 per credit hour, or Birr 90–150 (US\$10–17) for the normal three credit course load taken each semester. Some institutions charge evening students additional fees of Birr 26 to 58 per credit hour for laboratory courses.

Student welfare subsidies and fee-free higher education are increasingly at odds with prevailing practice in other African countries, especially in the Anglophone sphere, where various forms of student cost-sharing are emerging (Johnstone 2003). The government has recognised this by indicating in the new *Higher Education Proclamation* that cost-sharing will be a key component for the future financing of tertiary education development. University officials confess that not only is the provision of food and housing a significant burden on their budget (15 per cent of all recurrent expenses), but it also raises a serious social equity issue since 99.2 per cent of the population (of generally poorer youth) are excluded from this welfare subsidy. In response, the government introduced a university graduate tax in September 2003 designed to re-coup gradually the cost of meals and lodging, together with a small portion of tuition costs.

Gender. Cultural and social impediments to women's education are reflected in enrolment percentages: only 17 per cent of full-time students (largely residential) in public universities are female whereas 24 per cent of part-time (non-residential) public students are female. Notably, 44 per cent of *private* tertiary

students are female, a difference that is likely due to the fact that most private institutions are located in Addis Ababa where women students can more easily live at home, thereby allaying the possible protectionist concerns of parents. More worrisome is the fact that just 7 per cent of academic staff in public tertiary institutions are women, thus depriving the tertiary education system of a fully proportionate share of the country's best female intellects and its women students of sufficient role models for mentoring and guidance. In comparison, the sub-Saharan average for women's participation in degree programmes is roughly 30 per cent and the proportion of women academic staff is about 18 per cent.⁴

Internal Efficiency. The drop-out rate among higher education students has been between 10 per cent and 15 per cent in recent years, with the largest losses occurring in the first year of study (Abebayehu 1998). This phenomenon is reportedly due to difficulties in adjusting to campus life away from home.

Regional Access. In the effort to nurture a greater sense of national identity, the government has adopted a policy of admitting a representative mix of students from the country's eleven administrative regions to each university campus. Because this policy often requires students to study at a site at some distance from their home, the government has decided to maintain its policy of providing food and lodging to regular residential students, while gradually recovering this cost by means of a graduate tax. Although system-wide data are not available on the effects of government efforts to promote regional access to higher education, intake data for the country's largest university (AAU) for the 2002–03 academic year indicate rather wide variation in access rates by region. However, the proportion of entrants by region is approximately equal to the proportional distribution of Grade 12 students across regions. It is probable, therefore, that these disparities reflect differences in population size, access to secondary education and quality of education among the different regions rather than any gross failing of the current higher education access policies.

Equity Issues. The very limited data available on this subject suggest that the Ethiopian higher education system is characterised by inequitable access similar to that found in other African countries. The National Household Income, Consumption and Expenditure (HICE) Survey of 1999 indicates that 71 per cent of university students come from households with the highest 20 per cent of incomes. Given significant differences in income and education attainment levels across regions in Ethiopia, access to higher education often favours students from upper-income homes, especially those from urban areas in the most prosperous regions. These regional imbalances in access hold serious long-term implications for the development of high level leadership in under-

served areas and consequently for their ability to participate fully in the political life and social policymaking of the country. If these inequities are left unattended, the seeds of political unrest may begin to germinate.

The government has demonstrated its concern with this potential problem through recent actions. The creation of four new universities in 2000 was an explicit effort to move higher education away from the capital city and into the various regions. The two additional universities created in 2004 (Arba Minch and Gondar) will continue this decentralisation process. In addition, government has proposed to include increased enrolment of disadvantaged populations as one of the factors in the new funding formula for universities expected to go into effect in 2005. Also, it has resisted recommendations to introduce up-front cost-recovery fees for university students as a way of helping to finance the current expansion because of its concern with the equity impact of such a policy on less advantaged regions and households.

Supply and Demand for Tertiary Graduates

Supply. The total number of degree graduates produced by Ethiopia's tertiary education system has tripled from 1,472 in 1992 to 4,749 in 2003. As shown in Table 2, the disciplinary distribution of degree students has shifted somewhat over the past decade. Enrolment shares of business/commercial/social science disciplines have risen at the expense of agriculture, natural sciences and (to a lesser extent) engineering. Much of this shift reflects the recent aggressive entry of private colleges into the former areas.

By 2006, the government expects to have at least eight public universities that enroll 10,000 residential degree students apiece. Strong demand for higher education is evidenced by the 47,453 students who are taking evening courses on a part-time, fee-paying basis. In addition, the output of secondary graduates suggests that competition will not be lacking for any additional places. Some 48,130 graduates of the two-year secondary education preparatory course for university admission took the higher education entrance examination in 2004. Due to a steady rise in the number of qualifying students from secondary schools, the admission rate of degree applicants to higher education institutions has fallen from 45 per cent in 1997 to 26 per cent in 2001. Tertiary admission is clearly becoming more competitive, even in the face of rapid expansion.

Brain drain has been an endemic problem within Ethiopia's higher education community for nearly two decades and could continue to undercut efforts to increase the country's stock of university graduates. The combination of poverty, economic stagnation and periodic political repression has generated strong incentives for academics to seek employment outside the country. It is estimated that as many as half of all academic staff were lost to brain drain

Table 2: Percentage of Tertiary Enrolment Distribution by Discipline

Discipline	1992–93	2001–02
Commercial/social science	25	43
Agriculture	17	9
Engineering/technology	16	12
Education	14	15
Natural sciences	14	5
Health/medical sciences	11	8
Law	—	3
Other	3	5*
Total	100%	100%

Source: World Bank (1998a); Ministry of Education (2002a, 2003).

*Roughly half of this amount is computer science.

during the 1990s (Aredo and Zelalem 1998), an exodus that may have been exacerbated by the government's dismissal of 40 professors from Addis Ababa University in April 1993. In this context, capacity building in Ethiopia has been a double-edged sword, as numbers of well-educated Ethiopians continue to leave the country in pursuit of higher paying, more attractive jobs in the region and abroad. The government will need to take measures that not only focus on expanding the supply side but that also address the demand side by retaining and using effectively those who are trained.

Demand. A 2001 survey of 192 employers in seven regions of Ethiopia (Budu 2002) found that they encountered the greatest difficulty recruiting new employees in the areas of business administration, engineering, computer science and law. A separate ranking of disciplinary demand on the basis of the actual number of advertised vacancies indicated a high demand for teachers, agriculture and forestry, health services, business administration and computer science. With regard to public sector employment, the Ministry of Capacity Building (April 2003) issued a National Capacity Building Plan for the coming five-year period. Training priorities in the public sector are related to civil service reform, decentralised service delivery, information and communications technology development, justice system reform, tax reform and urban management.

But the Ethiopian labour market for university graduates will remain limited in an economy where 80 per cent of the labour force is engaged in agriculture and in which the civil service appears amply staffed. Unfortunately, no systematic study of graduate employment has been undertaken for some time, although anecdotal reports suggest that graduate unemployment may be rising along with increased university output. Only steady economic growth will provide the financing required both to expand the system and to improve opportunities for gainful employment for the rising numbers of graduates.

In this regard, it is worth noting that roughly a century ago, many of Europe's industrialised countries had tertiary enrolment ratios similar to those of Ethiopia today. In contrast to Ethiopia, however, they—with the exceptions of Italy and Russia—already had less than 50 per cent of their labour force engaged in agriculture and they all had achieved universal primary education (Fredriksen 1984). The implication is that a rapid expansion of access to education at all levels may not by itself stimulate economic growth unless it is accompanied by productivity-driven structural changes in the economy. The latter is yet to occur in Ethiopia.

HIV/AIDS

HIV/AIDS holds the potential to undermine the country's substantial investments in education. When it affects teachers, it reduces the supply of education services. When it affects students and family financial resources, it weakens the demand for education. AIDS now exists within all regions of Ethiopia. The estimated national infection rate is 10.6 per cent (UNAIDS 2003). This rate is substantially above the 5.0 per cent level at which infection tends to expand rapidly and exponentially. Tertiary education communities are particularly vulnerable to HIV/AIDS due to their age group (which constitutes the peak period for sexual activity and consequent risk of HIV infection), close physical proximity, relative autonomy from adult or community supervision and inclination towards sexual networking. This vulnerability introduces a sizeable risk to the expected returns on investments made by families and government in the education of tertiary students. Indeed, AIDS now constitutes a new and irreversible form of 'brain drain' in Africa.

In spite of this risk, universities in Ethiopia have not yet established institutional policies or programmes for the management and prevention of HIV/AIDS. Institutional policies for the management of HIV/AIDS cover a range of important actions, from establishing a management information data base (on absenteeism, health centre visits, medical benefit expenditures, student drop-outs, etc.) to a review of regulations on sick leave, confidentiality and the rights of persons living with AIDS, from student counseling services to aware-

ness programmes and from curriculum content to testing facilities. (For a fuller survey of present university policies on HIV/AIDS in Africa, see Otaala 2003.)

Little is known about the status of AIDS on university campuses. The sole reference point is a recent study by Jimma University which estimates that 12.2 per cent of students are HIV positive (Ministry of Education 2004). However, results from a major study of HIV/AIDS in the Ethiopian education sector suggest what awaits higher education (Discovery Consultants 2003). The study estimates that some 10,000 school teachers are HIV positive, that 22 per cent of teacher attrition is due to AIDS and that teacher recruitment will need to increase by 16 per cent annually to achieve education policy goals in the presence of HIV/AIDS.

The implications for universities, while not spelt out in this report, are clear. First, an overproduction of graduates will be required to offset anticipated losses of secondary school teachers and graduates working in other sectors. Second, Ministry of Education and university officials need to develop an integrated strategy for the dissemination of new HIV/AIDS awareness materials and need to create university courses that are designed to equip students and academic staff not only with knowledge but also with the skills and values to protect themselves.

Tertiary Education Financing

Any national tertiary system would be hard pressed to substantially expand enrolments while maintaining levels of educational quality. Ethiopia faces a double challenge in that it seeks to accomplish this goal while also introducing major reforms in institutional governance, management and curriculum. If the bold vision contained in the *Higher Education Proclamation* is to have any chance of success, the solution to this double challenge will have to be found in the financing strategy that underpins these reforms. Here the prospects are less than encouraging.

Expenditure Patterns. Budgetary allocations among the universities are currently related quite closely to enrolment size, although with some exceptions. On the one hand, Addis Ababa University housed 19 per cent of enrolments but received 41 per cent of the tertiary budget (Ministry of Education 2002a). It is unlikely that such a discrepancy can be explained purely by the special needs of the AAU's graduate programmes. On the other hand, Debu University hosted 14 per cent of enrolments but received just 9 per cent of the tertiary budget. Most of the remaining institutions received a budget share that was slightly smaller than their share of enrolments. Such possible inequities are expected to be addressed by the new funding formula scheduled for introduction in 2005.

Table 3: Expenditure per FTE Student by University, 2001–02

University	Regular Enrol.	Evening Enrol.	Grad Enrol.	FTE Students	Budget Allocation (000,000)	Est. Evening Fees	Total revenue (000,000)	Expense per student ^a
Addis Ababa	6,403	8,284	1,165	9,808	111.7	6,213,000	117,913,000	12,022
Alemaya	2,877	1,814	140	3,450	22.2	1,360,500	23,560,500	6,803
Bahir Dar	3,108	6,098	—	4,328	24.7	4,573,500	29,273,500	6,764
Debu	3,839	1,415	—	4,122	29.2	1,061,250	30,261,250	7,341
Jimma	3,720	1,629	—	4,046	34.0	1,221,750	35,221,750	8,706
Mekelle	2,791	3,335	—	3,458	27.1	2,501,250	29,601,250	8,560

^aTo calculate U.S. dollar equivalents, divide by 8.4 which represents the dollar-to-Birr exchange rate for 2002.

^bAAU budget allocation reduced by Birr 24 million earmarked for Black Lion Hospital (university teaching hospital).

Source: Ministry of Education (2002a).

The mix of academic programmes provided by institutions varies considerably from one to the other, and it is well known that the costs of instruction tend to be higher in some disciplines (e.g., engineering, medicine, sciences) than in others (e.g., education, business administration, social science). This difference suggests that institutional allocations should not only consider enrolments as a reference point but also consider the distribution of enrolments among the different academic programmes and the respective costs of each programme. Such unit costs have not yet been calculated in Ethiopia, but they will soon be needed if the proposed new funding formula is to be effective.

The previous point notwithstanding, it is possible to calculate the average recurrent expenditure per student for the tertiary system as a whole, and also for each institution. This calculation provides a very rough indicator of potential quality and management efficiency. As such, it may point out the possibility of certain problems, but it cannot by itself constitute evidence that these problems exist. For that, more investigation is needed.

To calculate per student allocations, enrolment numbers were first converted into an estimate of full-time equivalent (FTE) students to enable standardised comparisons.⁵ Per-student calculations were undertaken for each of the six main public tertiary institutions. The results are presented in Table 3. They show that even when student numbers are standardised and evening fee income is included, significant differences in expenditure per student remain apparent among institutions. The best endowed institution, Addis Ababa University, is able to spend almost double the amount available to the least endowed institutions. Since the number of graduate students has been weighted additionally and any graduate fee income excluded from consideration, the explanation for this sizeable difference must be sought elsewhere. To estimate the *academic* expenditure per student, the unit expense figures for each institution can be reduced further by Birr 2,000 which represents the estimated feeding, lodging and medical services costs for each student.

Analysis of how institutions employ the resources provided to them can help to determine how effectively they focus on their main mission of teaching and research and how efficiently the institution is managed. University recurrent budgets in 2002–03 were composed of salaries (40 per cent), student feeding (15 per cent), educational materials (10 per cent), other supplies (11 per cent), services (9 per cent), maintenance (5 per cent), and small capital expenditures (10 per cent) (World Bank 2003). No major misallocations in the composition of university spending are apparent. The share for student welfare is large but not excessively so in comparison with other African countries that provide this benefit to students.

Salaries versus Non-salary Items. When resources are in short supply, as in Ethiopia, institutions often concentrate them on maintaining staff in the assumption that they are the core resource for teaching. In doing so, however, they may deprive staff of the educational materials, equipment maintenance, and other inputs they need in order to teach effectively. In many African countries, the economic crisis of recent years has led universities to concentrate an unnecessarily high portion of their budgets on staff remuneration, sometimes as much as 65 per cent or more. Budgetary analysis carried out during the recent Public Expenditure Review indicates that Ethiopian universities have spent a fairly reasonable 40 per cent of their budgets on salaries since 2000–01. It is noteworthy that the salary portion in institutional budgets has evolved favourably downwards from its 59 per cent share in 1995–96.

Teaching/Research Versus Student Support/Nonacademic Expenses. However, the universities spend 15 per cent of their budgets on student feeding, which is not a true educational expense. They also provide student housing and medical services out of their recurrent budgets. Analysis conducted under the Ethiopia Country Status Report (CSR) on education indicates that these combined student welfare expenditures may consume as much as 20 per cent of the recurrent budget of universities (World Bank 2004b). These resources might be better used to increase the amounts spent on educational materials (currently just 10 per cent), to provide greater support for research (amounts not readily discernible but reportedly quite small), and to expand access to information technology on campuses. In recognition of this priority, the graduate tax introduced in September 2003 includes these non-academic costs in calculating the amount charged to students.

Staff Salaries and Remuneration Policies. Until the advent of the *Higher Education Proclamation*, academic staff were hired on two-year contract terms and their salaries were oriented by civil service pay structures. Non-academic staff were employed directly by the civil service. These arrangements made it extremely difficult to reward non-academic staff for good performance or to penalise them for non-performance. They also made it almost impossible for universities to compete with the national labour market for professional skills in short supply, creating disincentives that encouraged brain drain. The proclamation now enables university management to employ staff directly and to determine their salaries and conditions of service. However, university managers have not yet taken advantage of this opportunity.

Revenue Trends. Total university spending in the 2001–03 budget was planned at Birr 681 million (US\$79 million). Of this amount, 36 per cent was allocated to capital investments. This rather large share is the result of the substantial construction programme associated with the current expansion of

enrolments. The recurrent budget for universities has also grown rapidly in recent years, doubling since 1999–2000. To a large extent, this is due to enrolment increases, and to the incorporation of new institutions into the budget (e.g., the Black Lion Hospital, with annual running costs of Birr 24 million, now included with Addis Ababa University).

Income Generation. University income-generation activities supplement the public funds received from government. Revenues from university income-generation activities are difficult to document due to inadequate record-keeping, likely encouraged by the former government practice of reducing university budget allocations by the amounts of income generated. The main sources of revenue appear to be the evening courses and contracted short courses. Addis Ababa College of Commerce reportedly produces 32 per cent of its recurrent budget from such fees, but Addis Ababa University generates only about 7 per cent. In addition, it is estimated that the agricultural colleges at Jimma and Debu universities may cover one fifth of their recurrent budget from agricultural production earnings (Kastbjerg 1999). In the future, expanding interest in the delivery of distance education courses may become a further source of university income. In the effort to stimulate more aggressive income-generation efforts by universities, the government has proposed to include certain incentives to this end within its new funding formula for higher education. However, bookkeeping in this area will have to improve considerably before this aspect of the formula can be introduced.

International development assistance constitutes another important source of revenue for the higher education system. The government's ESDP-II programme is supported by multiple bilateral and multilateral donors, including the World Bank. Committed external resources to the education sector in 2001–02 totalled US\$154 million. Donor contributions are expected to grow slightly over the next three to five years until they stabilise at about 35 per cent of the sector budget. In the near future, the majority of donors, including the World Bank, will be providing resources for basic and secondary education through budget support for the government's poverty reduction strategy. However, overall foreign assistance for the education sector is surprisingly low as a proportion of total development aid to Ethiopia, comprising just 7–10 per cent over the past five years (World Bank 2003).

The level of donor support for higher education in Ethiopia is minimal. Over the past five years, the World Bank has been the largest contributor of development assistance to the higher education sector, providing a relatively modest US\$11.7 million through its ESDP credit (i.e., US\$2.3 million per year). That amount will rise to US\$10 million per year in 2005–10 if a World Bank credit for postsecondary education is approved as planned in September 2004.

Cost Sharing and Sub-Sector Expansion

The financial reforms now being introduced in the Ethiopian higher education sector are both necessary and overdue. The mechanism of cost-sharing via a 'graduate tax' deserves recognition for its innovativeness both in Ethiopia and more generally.⁶ If it works as planned, it should make the higher education system gradually more accessible, more equitable, and more efficient in the allocation of social resources. It should also have positive spill-over effects on the internal managerial efficiency of institutions, which in turn will allow for greater access. However, potential pitfalls are also present in how this scheme is currently structured, both at the conceptual level and at the level of implementation. Yet this initiative merits watching, since it represents one of the first attempts by a developing country to employ a graduate tax.

Bruce Chapman (2003) notes that in Ethiopia, questions of ideology and political principle seem to influence policymaking more than in some other countries. As a result, design and implementation of the graduate tax will need to take into account more than financial or administrative pragmatism. He stresses that, in an imperfect system, it may be more efficient to proceed on the basis of up-front fees complemented by scholarships for needy students.

Cost-sharing based on the current 'graduate tax' will not immediately relieve the financial pressures on the system produced by rapid enrolment expansion. Its contributions will not begin until 2007 because it takes a minimum of four years for enrollees to graduate and start repaying through the proposed cost-sharing recovery scheme. If one assumes a tax of 10 per cent of income for up to 15 years (as indicated in the Higher Education Cost-Sharing Regulation approved by the Council of Ministers), with some 35 per cent of graduates (e.g., teachers) exempt for incentive reasons, then cost-sharing would reduce the budget share of higher education in total public education spending by only 1 percentage point in 2008 or 2009. This appears to be true in any scenario regarding growth of enrolment or growth of GDP (World Bank 2004a).

While cost-sharing does not help much in the short run, if implemented at the level of a minimum of 10 per cent of income and under the above-stated assumptions, it does have an acceptable impact in later years. By the year 2020, for example, the share for higher education in total education spending would be some 4 to 5 percentage points lower with cost-sharing than without it (e.g., 18 per cent as opposed to 23 per cent, or 16 per cent as opposed to 21 per cent, depending on other assumptions). The income from cost-sharing would then represent a significant and fairly reasonable 20 per cent of the total cost of running the higher education system in the outlying years, say towards 2015.

Management Capacities and Efficiency

As a poor country, Ethiopia has a particular incentive to manage its scarce resources with the greatest efficiency possible. With this need in mind, this section will look at some of the more common areas for efficiency savings, including staff/student ratios, proportion of non-academic staff and the contracting for non-academic services. The discussion will then assess the extent to which capacities for efficient management currently exist and what steps might be necessary in order to make them more robust in the future.

Because staff salaries usually comprise the bulk of university budgets, efficiency-improving efforts often begin by looking at staff numbers and their utilisation. A common indicator of efficiency in this area is the ratio of academic staff to students. In comparison to regional staff/student ratios, those in Ethiopia would suggest room for improvement, i.e., that academic staff teaching loads could be a bit higher when compared with other African universities. (See Table 4.) This measure implies that academic staff numbers may not be the most immediate constraint on enrolment expansion. But this situation will change quickly as enrolments continue to rise. In fact, overall staff/student ratios are gradually becoming more efficient as enrolments expand more quickly than staffing. Ratios have improved from 1:8 in 1995 to 1:15 in 2003.

Staff/student ratios also vary among academic programmes within the tertiary system. This is appropriate as some disciplines are more labour-intensive than others. In 2001–02, the following ratios characterised the main academic programmes within the system: social sciences (1:55), business studies (1:18), education (1:11), law (1:15), health sciences (1:9), sciences (1:11), engineering (1:9), and agriculture (1:12). Two conclusions can be tentatively drawn from these data. First, the ratio in the social sciences programmes is too high for effective teaching. This may be the result of recent rapid enrolment expansion in this particular area. Second, the ratio for education is somewhat on the low side and might be brought up to 1:18 in the interests of greater efficiency.

The ratio of academic staff to non-academic staff can be used as another indicator of efficiency. If non-academic staff numbers are proportionately high, perhaps too many persons have been hired to undertake non-academic tasks and the university may be playing an employment-generation role for the surrounding community. Although no clear guidelines exist on this matter, many knowledgeable observers believe that the ratio of academic staff to non-academic staff should fall between 2:1 and 3:1. On this basis, the following ratios for Ethiopian universities suggest that more careful justification of non-academic staff numbers may be in order, especially at Alemaya and Addis Ababa universities: Addis Ababa University (1:2), Alemaya University (1:3), Bahir Dar University (1:1), Mekelle University (1:1), and Jimma University (2:1).

Table 4: Comparative Staff/Student Ratios, 2001–02

Institution	Staff/Student Ratio
Jimma University	9
Debub University	11
Alemaya University	12
Mekele University	14
Addis Ababa University	13
University of Nairobi	15
Bahir Dar University	16
University of Ghana	19
University of Ibadan	19
Makerere University	20
University of Khartoum	21
Cairo University	28

Source: Ministry of Education (2002a); World Bank (2004a).

In addition, the very low ratio between non-academic staff and students has remained surprisingly constant throughout the recent process of enrolment expansion. Whereas this ratio was 1:6 in 1999, it had risen to only 1:8 in 2003. This ratio suggests that managers have been hiring non-academic staff almost as fast as student numbers increase. In the process, they overlook opportunities for cost-savings and work performance improvement.

The permanent employment of large numbers of non-academic staff is costly and inefficient for Ethiopian universities. The contracting out of the non-academic services needed by the university is increasingly frequent in Africa. Among the more common contracted services are the following: provision of student meals, management of residence halls, computer maintenance, campus security, university vehicle maintenance and repair, care of the grounds and gardens and minor facilities maintenance. These arrangements facilitate university management by lessening the supervision burden for university staff, reducing the non-academic workforce with its associated personnel management responsibilities and social benefits, improving performance levels (poorly

performed contracts are not renewed) and introducing greater flexibility in the application of university funds. The University of Dar es Salaam is a particularly good example of achievement in this area (Mkude 2003).

The new *Higher Education Proclamation* will decentralise much of the administrative, budget and other authority to individual universities in the interest of greater institutional autonomy, flexibility and responsiveness. In order to realise these benefits, as well as the gains identified above, decentralisation will require extensive management training for university presidents and many senior administrators. In addition, it will also necessitate the introduction of new administrative tools for budget monitoring, control and financial planning. Such decentralisation will be a major undertaking within an institutional culture characterised by a tradition of highly concentrated authority and centralised decision-making within the Ministry of Education. Indeed, the need for such a 'paradigm shift' in institutional culture and management behavior is identified as a major requirement for success of the higher education reform effort (Ministry of Education 2004).

Educational Quality and Relevance

In the mid-twentieth century, UNESCO recommended an international guideline encouraging national higher education systems to strive towards a 60:40 distribution of their enrolments between sciences/technology and arts/humanities. At present, Ethiopia's tertiary enrolments fall short of this goal. As shown in Table 5, 31 per cent of students pursue science and technology disciplines, while the remaining 67 per cent are enrolled in the arts and humanities. The recent elevation to university status of the Arba Minch Water Technology Institute and the Gondar College of Medical Science should help to rectify this imbalance.

Some disciplinary specialisation can be discerned among the different institutions. The main social science enrolments occur at Addis Ababa University and Mekele University. Addis Ababa also predominates in the sciences and serves as the centre for national graduate education. The primary sites for education students are Bahir Dar and Debu universities. Health science enrolments characterise Jimma and Gondar universities. Most agricultural enrolments are concentrated at Alemaya and Debu universities. Engineering and technology students tend to be located at Arba Minch and Bahir Dar.

The job description for academic staff communicates the expectation that they spend 25 per cent of their time in research activities. Over the years, Ethiopian academics have produced a substantial body of research on agriculture, engineering technology, health sciences, natural sciences, social sciences, and education. However, research output and quality in recent years is not well

Table 5: Distribution of Tertiary Enrolments by Academic Programme, 2001–02

	Social Science	Business/Economics	Educ	Law	Health	Science	Tech/Engineer	Agriculture	Other*	Total
Public degree	3,164	1,774	3,935	661	1,975	2,445	4,530	2,948	347	21,779
Public diploma	0	2,556	3,865	88	2,065	175	906	1,691	299	11,645
Evening	976	10,846	16,088	1,024	1,779	768	4,547	1,924	1,252	39,204
Private	0	15,271	30	730	123	0	875	85	1,977	19,091
Total	4,140	30,447	23,918	2,503	5,942	3,388	10,858	6,648	3,875	91,719
<i>Per cent</i>	5	33	26	3	6	4	12	7	4	100

Source: Ministry of Education (2002a).

*Roughly half of these are studying computer technology.

documented. Research funding is provided mainly by donors, especially from Sweden, the Netherlands, and the United Nations. Although reliable data are not available on the role of donors in supporting research, their contributions are reported to constitute the bulk of available research monies (Wondimu 2003).

Universities recruit their own staff based on standard academic qualifications. Academic salaries range from US\$150 a month for a lecturer to US\$400 a month for a full professor. Lecturers are supposed to be evaluated at the end of each semester by their peers, students and the head of the department. Favourable assessments are required in order to continue employment. Contracts are supposed to be renewed every two years, but such reviews reportedly do not often take place. This may be due to the fact that such evaluations became suspect and discredited following a government attempt in 2002 to add political considerations to staff evaluation criteria.

As the tertiary system has expanded, the proportion of academic staff possessing a PhD has declined from 28 per cent in 1995–96 to just 9 per cent in 2002–03. However, the percentage of PhD staff at Addis Ababa University has stayed fairly constant at about one third. But only 4 per cent of academic staff hold PhDs at Debu and Jimma universities, and only 8 per cent at the Gondar College of Medical Science. Mekelle and Bahir Dar universities are in a slightly better condition with 12 per cent of their teaching staff holding doctoral degrees (Ministry of Education 2003). This downward trend will surely impede the government's stated intention of raising the quality of higher education and will also retard efforts to revitalise university research.

In the absence of standardised testing of tertiary students (which very few countries carry out), it is extremely difficult to determine the current level of educational quality within Ethiopia's universities. However, three points of information combine to raise the possibility that educational quality may presently be at risk. First, it is always difficult for any nation to maintain quality standards in the midst of rapid enrolment expansion, and the Ethiopian higher education system is currently in the midst of a very rapid expansion. Second, the current level of spending per student on academic expenses is quite low from both a regional and an international perspective, varying from US\$550 to US\$1,158 within the system. Third, the proportion of academic staff with PhD. degrees has been declining and may possibly decline further as rapid enrolment expansion proceeds.

In response to rising concerns regarding educational quality from inside and outside the higher education system, the government has recently established a Quality and Relevance Assurance Agency to monitor learning achievement and shore up sagging standards when they are detected. Some, however,

believe that these efforts may be directed more towards private universities than public ones (Tamrat 2003). Of equal importance, the government has also established a National Pedagogical Resources Centre to concentrate specifically on the improvement of teaching skills, methods and materials. Leadership and initiative in these two new agencies have so far been slow to manifest themselves. The future development of these agencies, as service-oriented resource organisations for the higher education system will be a critical variable in the struggle to maintain and improve quality.

In the course of enrolment expansion, the challenge of educating less well-prepared students will become more apparent. As higher education moves beyond enrolment limited to the best prepared 1 per cent of the age cohort, it will confront new obstacles relating to curriculum and student readiness for campus academic life. The Government has recently sought to address this problem (and perhaps its growing financial constraints as well) by reducing university degree programmes from four to three years while shifting many 'freshman' courses to university preparatory programmes at the secondary level. Anecdotal reports indicate that this change is yet to achieve its desired objectives (Haileselassie 2004). In the future, additional forms of academic support and student counseling will likely be necessary to confront the academic challenges posed by progressive massification of enrolments.

Will there be enough academic staff to support expanded enrolments? This question addresses the potential for academic staff shortages to become a major constraint on the country's higher education expansion endeavor. Perhaps the most daunting challenge to the implementation of Ethiopia's higher education reform is the sheer physical numbers of academic staff who will need to be recruited and trained over the coming years. If the system is to reach public enrolments of 130,000 students by 2007 (120,000 undergraduate plus 10,000 graduate students) and we assume a more efficient staff/student ratio of 1:20, some 3,608 new academic staff will be required. This figure represents a 125 per cent increase in just five years over the current contingent of 2,892 academic staff. If the proposed qualifications guidelines (30 per cent PhDs, 50 per cent master's degrees) are applied, this would mean 1,082 new PhD holders and 1,804 new master's degree recipients.

At present, just 30 PhD students are registered at Addis Ababa University and only 4 doctoral degrees were awarded in 2003 (Ministry of Education 2003), thereby indicating the enormity of this particular challenge. AAU, with 46 graduate programmes and 1,690 graduate students in 2002–03, constitutes nearly 90 per cent of the country's capacity to provide graduate education. Any strategy for generating the academic staff necessary to support a doubling of undergraduate enrolments will therefore depend heavily on the

AAU's capacity to produce a much larger number of successful master's and PhD. degree holders, which totaled 391 graduates in the same year. For this reason, the government's higher education capacity-building programme has proposed the ambitious goal of 6,000 graduate enrollments by 2005.

After averaging roughly 300 graduate admissions yearly for much of the past decade, Addis Ababa University has sought to respond to this challenge. It increased its graduate admissions to 490 in 2001–02, and doubled this amount to 951 in 2002–03. Nevertheless, it fell well short of its projected 2002 admissions target of 1,700 under the higher education expansion programme. The shortage of qualified applicants explains much of this shortfall. In spite of this underperformance, the graduate admissions goal for 2003–04 has been set by government at 3,000. As an interim response to this shortfall in the supply of academic staff, the ministry has stepped up its use of expatriate academic staff, recruited mainly from India, Nigeria and the United Kingdom. Between 2002 and 2003, their numbers more than doubled from 150 to 397 (Ministry of Education 2003).

The pure logistics of this staffing challenge will certainly require much more than the system's existing capacity in order to manage these staff recruitment, placement and relocation activities. In addition, the supply of bachelor's degree holders from which to recruit these numbers may not be sufficient. The public higher education system is currently producing 4,700 bachelor's degree holders a year. Of these, only 829 appear to have specialised in education and another 106 in technical education. Assuming that 2,600 new qualified secondary school teachers and 1,100 qualified technical education teachers would have to be recruited in order to reach ESDP II enrolment goals for secondary and technical education, this would mean that secondary education teacher recruitment needs would absorb 26 per cent of *all* higher education graduates over the next three years. If this occurred, then roughly 35 per cent of the remaining degree graduates would need to be recruited as higher education academic staff over the next three years in order to get them started on the necessary graduate training programmes. In other words, the Ministry of Education alone would have to hire 60 per cent of the country's total degree-holder output from public institutions over the near term. This seems improbable.

Conclusion

In pursuing needed higher education expansion and reform, Ethiopia is seeking to do many of the right things (e.g., autonomy, revenue diversification, funding formula, system support agencies). But the impact of these actions is yet to be seen—and may not be. These reforms face a formidable challenge in that many of them will require substantial changes in the existing institutional

culture of 'command and control' that characterises the Ministry of Education and the government in general. Will effective institutional autonomy be possible in an environment where the government has sought to inject political criteria into the academic staff evaluation process (2002) and directly appointed a new president, academic vice president and administrative vice president for Addis Ababa University (2003) when the previous incumbents resigned in protest over this violation of academic freedom? Will new courses in civics prepare students for democratic practice when student government is suspended, when the student newspaper is banned, when security forces are stationed on campus, when student admissions and placement are directed by the Ministry of Education, when union organising among staff is prohibited and when freedom of the press is circumscribed (Human Rights Watch 2003)? Will new courses in ethics produce more responsible citizens when student protests of the above impositions are met with slaughter, mass arrests, and torture (Human Rights Watch 2003)?⁷

Evidence that the new *Higher Education Proclamation* signals a meaningful shift in the prevailing government mind-set has been slow to materialise. To date, the Ministry of Education has provided little in the way of guidance, regulations or procedures about how institutional autonomy will be operationalised in practice. Unsure of where the limits are and mindful of past punishments, university leaders have been reluctant to test the proclamation's possibilities for revamping hiring practices, remuneration packages and budgeting processes. In short, the political will so clearly manifested in the government's approval of the *Higher Education Proclamation* has yet to be demonstrated in the implementation of its authorised reforms.

On balance, the ambitious enrolment expansion goals of Ethiopia's higher education reform programme seem likely to be achieved. Supported by truly massive government investments in the construction of classrooms, libraries and dormitories at the six recently created universities, public degree enrolments numbered 58,026 in 2002–03 and appear within reach of the government's target of 80,000 in 2005.

Achieving the reform's quality objectives, however, remains problematic. Expenditure per student is already very low and is likely to be pushed lower by rapid expansion. As noted above, a substantial shortfall in the numbers of academic staff available to support this expansion seems inevitable. More than a year after its creation, the new Quality and Relevance Assurance Agency still exists in name only. The recent disruptive shift from a four- to a three-year degree programme intensifies the challenges of maintaining (let alone increasing) educational quality.

Moreover, it is unclear where the funds will come from to equip the many new classrooms, laboratories, libraries and dormitories that are nearing completion. The Ministry of Education is simultaneously engaged in an aggressive expansion of technical and vocational education while maintaining its longstanding commitment to 'education for all' at the primary level. And as expanding access at the primary level translates into increased demand at the secondary level, the latter will also become a claimant for budgetary relief. Although the government's commitment to human resource development remains impressive, its multiple initiatives in this sphere require a budgetary balancing act that will be increasingly difficult to sustain.

Notes

- 1 Adopting the precedent established by the Organisation for Economic Co-operation and Development (1998:14), 'tertiary' is used in preference to 'higher' education because 'higher' often connotes university. Use of the latter term risks excluding important postsecondary alternatives to universities such as technical institutes, teacher training colleges, and distance education programs.
- 2 All public enrollments were first converted into full-time equivalent (FTE) student numbers using a factor of 1.0 for regular students, 0.2 for evening students, and 1.5 for graduate students. This yielded an FTE of 44,217 students for 2001–02. The recurrent budget for education tertiary in 2001–02 of Birr 324 million was added to income from evening student tuition fees assumed to be 50 Birr per student. Student welfare costs were estimated to be 2,000 Birr per student.
- 3 Taken from various World Bank project documents.
- 4 UNESCO (2003) statistics supplemented by World Bank data.
- 5 For FTE calculations, all regular residential students were assumed to be full-time students carrying an academic load of 15 credit hours per semester and therefore represented 1.0 FTE. All evening students were assumed to be carrying a course load of 3 credits and therefore constituted 0.2 FTE apiece. Graduate students were assumed to represent 1.5 FTE apiece in recognition of the generally higher cost of graduate education.
- 6 The graduate tax was introduced in the 2003–04 academic year. It covers government's full costs for student meals, accommodation and health services, plus 15 per cent of estimated tuition costs. The total amount is Birr 1,700 per year (US\$196). Payments will take place at a flat rate, regardless of income category, until the individual's agreed share is fully recovered.
- 7 On 11 April 2001, some 45 students from Addis Ababa University were injured by security police during a student protest of the prohibitions and suspensions noted above. On 17 April 2001, a student demonstration against this police action triggered the killing of 41 persons (mostly students), the detention of

more than 2,000 students, the arrest of 330 students, and the documented torture of this latter group while in custody. On 30 April 2001, police returned to campus to arrest additional students (Human Rights Watch 2003).

References

- Abebayehu, A., 1998, 'Problems of Gender Equity in Institutions of Higher Learning in Ethiopia,' in A. Asgedom et al., eds., *Quality Education in Ethiopia: Visions for the 21st Century*, Addis Ababa: Institute for Educational Research, Addis Ababa University.
- Aredo, D., and Zelalem, Y., 1998, 'Skilled Labour Migration from Developing Countries: An Assessment of Brain Drain from Ethiopia,' in S. Seyoum, A. Seyoum, eds., *Human Resources Development in Ethiopia*, Addis Ababa: Ethiopian Economics Association.
- Association of African Universities and the World Bank, 1997, *Revitalising Universities in Africa: Strategy and Guidelines*, Washington, DC: World Bank.
- Budu, J., 2002, *Final Report on Strategic Planning Study in Ethiopia: Consultant's Report*, Addis Ababa: Ministry of Education.
- Chapman, B., 2003 April, *Income Contingent Loans for Higher Education: International reform*. Draft paper presented at a World Bank Workshop. Washington, DC: World Bank.
- Discovery Consultants, 2003, *Report of the Study on the Impact of HIV/AIDS on the Education Sector and the Status and Problems of HIV/AIDS Education in Ethiopia*, Addis Ababa: Ministry of Education.
- Fredriksen, B., 1984, 22–25 February, *Main Trends in Norwegian Higher Education since 1960*. Paper prepared for a conference on the Historical Development of Higher Education in Eastern and Southern African Countries organised by the Eastern and Southern African Universities Research Project (ESAURP), Lusaka, Zambia. Publication no. 293 (B) of the Norwegian Institute of International Affairs, Oslo.
- Government of Ethiopia, 2003, *Higher Education Proclamation*. No. 351/2003. Addis Ababa: Negarit Gazeta.
- Haileselassie, A., 2004, 23 May, 'The Looming Disaster in Higher Education,' *Fortune Newspaper*, Vol. 5, No. 212.
- Human Rights Watch, 2003, *Lessons in Repression: Violations of Academic Freedom in Ethiopia*, London: Human Rights Watch.
- Johnstone, B., 2003, 23–25 September, *Higher Education Finance and Accessibility: Tuition Fees and Student Loans in Sub-Saharan Africa*. Paper presented at the Africa regional training conference: 'Improving Tertiary Education in Sub-Saharan Africa: Things that Work!', Accra, Ghana.
- Kastbjerg, G., 1999, *Financing Higher Education in Ethiopia*. Sponsored by the European Development Fund. Addis Ababa: Ministry of Education.

- Ministry of Capacity Building, 2003, *National Capacity Building Plan: 2003/2004–2007/2008*. Addis Ababa: Ministry of Capacity Building.
- Ministry of Education, 1995, *Education Statistics Annual Abstract 1993/94*, Addis Ababa: Education Management Information Systems, Ministry of Education.
- Ministry of Education, 1996, *Education Statistics Annual Abstract 1994/95*, Addis Ababa: Education Management Information Systems, Ministry of Education.
- Ministry of Education, 1997, *Education Statistics Annual Abstract 1995/96*, Addis Ababa: Education Management Information Systems, Ministry of Education.
- Ministry of Education, 1998, *Education Statistics Annual Abstract 1996/97*, Addis Ababa: Education Management Information Systems, Ministry of Education.
- Ministry of Education, 1999, *Education Statistics Annual Abstract 1997/98*, Addis Ababa: Education Management Information Systems, Ministry of Education.
- Ministry of Education, 2000, *Education Statistics Annual Abstract 1998/99*, Addis Ababa: Education Management Information Systems, Ministry of Education.
- Ministry of Education, 2001a, *Education Statistics Annual Abstract 1999/00*, Addis Ababa: Education Management Information Systems, Ministry of Education.
- Ministry of Education, 2001b, *Education Statistics Annual Abstract 2000/01*, Addis Ababa: Education Management Information Systems.
- Ministry of Education, 2002a, *Education Statistics Annual Abstract 2001/02*, Addis Ababa: Education Management Information Systems, Ministry of Education.
- Ministry of Education, 2002b, *Higher Education Capacity Building Programme: Main Document*, Addis Ababa: Ministry of Education.
- Ministry of Education, 2003, *Education Statistics Annual Abstract 2002/03*, Addis Ababa: Education Management Information Systems, Ministry of Education.
- Ministry of Education, 2004, 27 May, *Higher Education Systems Overhaul: Report of the Committee of Inquiry into Governance, Leadership and Management in Ethiopia's Higher Education System*. Draft. Addis Ababa: Ministry of Education.
- Ministry of Finance and Economic Development, 2002, *Ethiopia: Sustainable Development and Poverty Reduction Programme*. Addis Ababa: Federal Democratic Republic of Ethiopia.
- Mkude, D., 2003, 23–25 September, *Contracting Non-Academic Services to Private Providers: The Dar es Salaam Experience*. Paper presented at the Africa regional training conference: 'Improving Tertiary Education in Sub-Saharan Africa: Things that Work!', Accra, Ghana.
- Organisation for Economic Co-operation and Development, 1998, *Redefining Tertiary Education*, Paris: OECD.
- Otaala, B., 2003, 23–25 September, *Institutional Policies for Managing AIDS in Africa*. Paper presented at the Africa regional training conference: 'Improving Tertiary Education in Sub-Saharan Africa: Things that Work!', Accra, Ghana.

- Tamrat, W., 2003, 26 July, *A Glimpse of Private Higher Education Institutions in the World and in Ethiopia*. Proceedings of the First National Conference on Private Higher Education Institutions in Ethiopia, St. Mary's College, Addis Ababa.
- Yizengaw, T., 2003, 23–25 September, *Transformations in Higher Education: Experiences with Reform and Expansion in the Ethiopian Higher Education System*. Keynote speech presented at the Africa regional training conference: 'Improving Tertiary Education in Sub-Saharan Africa: Things that Work!' Accra, Ghana.
- UNAIDS, 2003, *AIDS Epidemic Update, December 2003*, Geneva: UNAIDS and World Health Organisation.
- UNESCO Institute for Statistics and the Organisation for Economic Co-operation and Development, 2003, *Financing Education—Investments and Returns: Analysis of the World Education Indicators*, Paris: UNESCO.
- Wagaw, T. G., 1990, *The Development of Higher Education and Social Change: The Ethiopian Experience*, East Lansing: Michigan State University Press.
- Wondimu, H., 2003, 'Ethiopia,' in D. Teferra, P. Altbach, eds., *African Higher Education: An International Reference Handbook*, Bloomington: University of Indiana Press.
- World Bank, 1998a, *Ethiopia: Social Sector Report*, Washington, DC: World Bank.
- World Bank, 1998b, *Ethiopia Education Sector Development Project: Project Appraisal Document*, Washington, DC: World Bank.
- World Bank, 2002, *Constructing Knowledge Societies: New Challenges for Tertiary Education*, Washington, DC: World Bank.
- World Bank, 2003, *Public Expenditure Review: Public Spending in the Social Sectors—Ethiopia*, Washington, DC: World Bank.
- World Bank, 2004a, *Higher Education Development for Ethiopia: Pursuing the Vision*, Washington, DC: World Bank, Human Development Department, Africa Region.
- World Bank, 2004b, *Country Status Report: Ethiopia*, Washington, DC: World Bank, Human Development Department, Africa Region.

