

The Status and Challenges of Ethiopian Higher Education System and its Contribution to Development

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Abstract: The importance of educating people to ensure a country's continuous competitiveness and sustainable development is unquestionable. Expanding and reforming higher education and research in Ethiopia will contribute to significantly alleviating problems of suffering from relatively slow social and political progress, and becoming increasingly marginalized in the world economy. It will put the country in a sustainable path to development and improvement of the livelihood of the population. Higher education is no longer a luxury but essential for survival in the global knowledge-based era. Several studies and reports from many parts of the world show that there exists a positive correlation between increasing higher education access and economic growth, as expressed by increasing per capita income and/or human development index (HDI). Investment in human resource development improves technology-driven productivity gains, thereby having a contribution to improving the currently low HDI which stands around 0.359 in 2004. Ethiopian higher education is relatively young. With its gross enrolment ratio of about 1.5% and student population of 125-150 per 100,000 inhabitants, its contribution to the development and competitiveness of the country is limited. It needs to (re)focus on four central missions in order to be relevant and be active participant in the country's socio-economic development efforts. Expansion and reform to meet the demand of the growing economy is stipulated in the several policies and strategies of the country and the higher education capacity building program of the country. This provides an opportunity and increasingly requires higher education institutions to sustain and further the emerging responsive and proactive stance towards addressing the needs of the country and the people by producing competent graduates and undertaking relevant research and studies.

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Introduction

The purpose of development is to create an enabling environment for people to enjoy long, healthy and creative lives, and that is why we say the real wealth of a nation is its people. However, this simple but powerful truth is too often forgotten. Many reports stress on the need to invest in people, an investment in the future of each of us, our children and the nation as a whole. The importance of educating people to ensure a country's continuous competitiveness and sustainable development is, therefore, unquestionable. Without more and better education, it will be increasingly difficult to utilize available resources effectively for national development and to benefit from the global knowledge-based economy. Education, therefore, is a major political priority.

As knowledge and technology become more important so does higher education and research. Neglecting higher education and research will tend to result in suffering from relatively slow social and political progress, becoming increasingly marginalized in the world economy and finding it ever more difficult to catch up. Progress is most likely in countries that develop a clear vision so that the higher education system can effectively contribute to the public and national interest. Experience, time and again, shows that countries which have been able to provide education to high proportion of their population and engaged in higher education and research have been in the forefront of development. Higher education is no longer a luxury but essential for survival in the global knowledge-based era. Ethiopia's Sustainable Development and Poverty Reduction Program (MOFED, 2002) envision a key role for the education sector. Progress toward universal primary education, production of trained work force that is responsive to the demand for educated labor force in the country's modernizing economy and social development are expected from the education sector.

Higher education provides the human resources required for leadership, management, business and professional positions that are important for economic and social development. The institutions also serve as the major research establishments that generate, adopt and disseminate knowledge. By giving people access to knowledge and the tools for increasing and diversifying their knowledge, higher education expands people's productivity, as well as national capacity and competitiveness. Today, as the world becomes increasingly interconnected, more interdependent and

increasingly a globalized village, higher education is critical for the achievement of economic progress, political stability and peace, as well as for building democratic culture and society.

Ethiopia's vision to become a middle income country in 20-30 years is taking shape with the several conducive policy and strategy directions. The Rural Development Strategy, the Capacity Building Strategy, the Industrial Development Strategy, as well as the Education and Training Policy and Strategy clearly indicate the need for large number of knowledgeable and skilled human capital in several areas of specialization. To transform the agricultural sector, to develop the rural economy and livelihood, to make the country competitive in the global economy or market, and to build overall capacity, it is imperative to have large number of qualified human resource (Teshome, 2003). These strategies focus on the need for knowledgeable, skilled and civic human resource for the success and sustainability of achieving development and poverty alleviation goals.

Role of Higher Education And Research to Human Development

Higher Education and research have significant role to economic growth and poverty reduction, which ultimately ensures success in human development. Implementation of development strategies and policies will succeed if higher education institutions through their functions of teaching, training, research and services play their essential roles as a factor in sustainable development. Furthermore, higher education and research have a critical role in developing democratic cultures and improving national productivity, having a direct influence on poverty reduction and laying foundations of good governance. The training of competent and responsible citizens, as well as the support to national innovation system through research is crucial to determine a country's competitiveness and living standards.

Higher education benefits individuals and the economy as a whole. Data from many countries show a positive correlation between increasing higher education access and economic growth as expressed by increasing per capita income and/or human development index (UNESCO/OECD, 2003). In Indonesia, for example, a person with tertiary education earns an average of 82 percent more than one with only secondary education. In Paraguay, the difference is as high as 300 percent. The same study shows that the link

between human capital and economic growth has been the strongest in emerging economies such as Argentina, Chile, Jamaica, Malaysia, Peru, the Philippines and Uruguay over the past two decades, and in 1990s, for Brazil, Indonesia, Thailand and Zimbabwe. The strong correlation between schooling and growth performance in Argentina, Chile, Malaysia and Uruguay suggests that high levels of upper secondary and tertiary attainments are important for human capital to translate into steady growth (UNESCO/OECD, 2003). Investment in human capital over the past two decades may have accounted for about half a percentage point in the annual growth rate of these countries.

Investment in human resource development improves technology-driven productivity gains. An increase in higher education enrollment ratio has been shown to have a positive impact on economic growth as translated by higher per capita income in countries such as China, Mexico, Vietnam and Ireland (table 1). This, however, does not mean that higher education is the only factor that has brought the boost in economy in these countries. There is a strong suggestion, however, that we need to develop higher education provision and research in order to bring about a sustainable increase in economic and social development.

Table 1: Higher education as a factor of economic development in selected countries

	1985	1995	2000
China: Higher Education Enrolment (%)	2.9	5.3	12.7
Per capita income (\$)	280	520	900
Mexico: Higher Education Enrolment (%)	15.5	15.3	20.5
Per capita income (\$)	2180	3800	5550
Vietnam: Higher Education Enrolment (%)	1.9	4.1	9.7
Per capita income (\$)	110	250	410
Ireland: Higher Education Enrolment (%)	22.3	39.6	47.3
Per capita income (\$)	5340	16140	22950

Source: Internet Search.

Data also shows that there is a positive relation between the growth in gross enrolment ratio (GER) and economic as well as social growth of countries. As shown in some countries, the human development index (HDI) has increased as the GER in tertiary education increases. The HDI focuses on three measurable dimensions of human development, referring to (1) ,longevity or life expectancy at birth (2)knowledge or adult literacy and combined GER in primary, secondary and tertiary education, and (3)decent standard of living or GDP per capita.

Between 1995 and 2002, an increase in HDI is registered from 0.696 to 0.745 in Tunisia, from 0.465 to 0.505 in the Sudan, 0.776 to 0.802 in Mexico, from 0.742 to 0.768 in Thailand, from 0.751 to 0.773 in Brazil, and from 0.649 to 0.961 in Vietnam with an increase in tertiary enrollment, as one of the factors of development, from 13 to 21, 4 to 6, 15 to 21, 20 to 38, 12 to 21, 4 to 9, respectively in Tunisia, the Sudan, Mexico, Thailand, Brazil and Vietnam during the same period (UNDP, 2004).

During the same period the HDI in Ethiopia has increased from 0.319 to 0.359, although the GDP and GER in higher education have not increased. Furthermore, this increase in HDI is not significant and there needs to be more effort to increase both the HDI and the GDP, and one of the factors contributing to such development is expansion of the human resource base.

Status and Challenges of Higher Education and Research in Ethiopia

Participation

Ethiopian higher education is relatively young, a little over 50 years old. Currently there are eight universities and a college under the direct auspices of the Ministry of Education. In addition to these, there are over a dozen private and other governmental higher education institutions. Higher education in Ethiopia is not well developed, and faces problems associated with the quality and relevance of programs of studies and research, equity, resource constraints, and inefficient resource utilization. The universities' contribution to the development of the country, particularly by producing large numbers of the human resources required for development and undertaking relevant and quality research, is not significant. Until very recently and in its over fifty years existence, annual intake capacity of the

higher education sector in Ethiopia, was not more than 3 thousand, and consequently the number of graduates who could change the livelihood of the nation and its people was insignificant.

The system as a whole (private and public) has a total student population (degree and diploma) of about 172,522 in the 2003/4 academic year. About 23% of these students are enrolled in private and non-governmental institutions. Out of these, about 101 thousand (88% in public and 12% in private institutions) students are enrolled in degree programs. The annual intake capacity of degree students has increased from around 3 thousand in 1996 to about 30 thousand in 2004. However, the gross enrolment ratio (GER) is still around 1.5%, which is extremely low compared to many countries with comparable population size and even by Sub-Saharan standard that is around 3% (table 2). Due to the low student population, the system is not able to meet the demand from the economy. In 2001/02, the student population per 100,000 inhabitants is estimated at about 125 to 150, showing critical shortage of highly trained human resource and poor competitiveness. This is below the nearly 200 student's average value for countries with comparable GDP.

Ethiopia spends about 2.8% of its GDP on education sector development. This is lower than the Sub-Saharan Africa average which is around 3.9%. The annual budget allocation to the education sector has increased over the past few years, from about 9% in 1997 to about 14% in 2002. However, this is still low compared to the African average of 20%. Of the total education budget, on average about 15% is allocated to higher education. In real terms, the capital budget investment for higher education in Ethiopia has increased from a little over 100 million Birr in 1996 to over 600 million Birr in 2004. During the past few years the government of Ethiopia has invested significantly in its higher education sector towards increasing access, improving quality and relevance, and making the universities and colleges more responsive to the needs of the country.

Table 2: Total Population, Higher Education Students Number and Gross Enrolment Ration (GER) in Selected Countries

Country	Total Population in 2002 (Millions)	No. of Students (2002)	GER
Algeria	32.7	456,358	15
Egypt	70.1	2,447,088	38
Ethiopia	69.6	101,829	1.5
Iran	79.7	1,048,093	20
Philippines	80.0	2,467,267	31
South Africa	47.8	658,588	17
Sudan	30.9	200,538	7
Thailand	62.0	2,155,334	37
Tunisia	10.1	226,102	23
Vietnam	82.5	784,675	10
Zimbabwe	12.8	59,582	6
Algeria	32.7	456,358	15
Sub Saharan Africa	668	-	3

Source: World Bank (2000); UNESCO (2003).

Research in Higher Education Institutions

Although there are few institutions involved in relevant research, generally many of the higher education institutions in Ethiopia are not actively engaged in research activities. Even the few research undertakings have critical problems of transparency and their findings have limited disseminations to the relevant community. The research works are in many cases undertaken for scholarly prestige, catering for individual and donor interests and lack the required capacity in solving institutional and national or societal problems. Many are also characterized by lack of transparency with respect to the selection of researchable topics, participating researchers, fund utilization and modes of accountability. Results are not, for instance, feeding back to the teaching and learning system, improving the curricula and are not disseminated to relevant stakeholders who might have direct or indirect relevance and be influenced by the results.

Institutional ownership of research undertakings, fund utilization and disbursements and dissemination of results is weak. There are even problems in involving graduate and undergraduate students in the study and

in many cases these also depend on the good will of the principal researchers rather than having institutional arrangements. Many staff members are not involved in research and studies as part of their assignments. One important problem associated with the low level of research undertakings in many institutions is the lack of earmarked research budget.

Policies and Strategies for Conducive Environment

A succession of new policies and strategies were designed and implemented in Ethiopia over the past few years, with an eye to setting Ethiopia on a new course of development and poverty alleviation. The Agriculture Development Led Industrialization (ADLI) strategy is the basis that sets the direction for the overall socio-economic policies and strategies. Provisions in the education and training policy, rural development policy and strategy, capacity building strategy and programs, and the Ethiopian sustainable development and poverty reduction program are discussed below.

The Education and Training Policy (TGE, 1994) has been the major framework for higher education reform and transformation. The policy stresses issues of quality and relevance in educational programs; quality of teaching staff and facilities; improvement of learning process towards a focus on students; improvement of management and leadership; introduction of financial diversification, including income generation and cost-sharing by students; and improvement in the system of evaluation, monitoring, autonomy and accountability. The policy is sufficiently precise to guide decision-making and the allocation of resources necessary for the improvements and steady strengthening of the sector.

The policy and its strategies are consistent with the aspirations and the needs of national development in all its forms. They emphasize the development of problem-solving capacities and culture in the content of education curricula structures and approach. Along with this, they direct that there would be appropriate nexus between education, training, research and development through coordinated participation among relevant stakeholders. The policies require higher education at diploma, degree and graduate levels to be practice oriented, enabling students to become problem-solving professional leaders in their fields of study and in overall

societal needs. The policy outlines clearly selected goals, means and decisions. It defines to what ends education should be directed, what should be taught and how, decisions as to organization, facilities and administrative arrangements, as well as coordination amongst its several elements. Above all, it has spelt out the need for an effective and efficient delivery system. With the provisions of the policy and its strategy, the government and the higher education community have begun a concerted effort to design detailed strategies outlining the reform and the future directions of higher education in Ethiopia. The problem in higher education institutions is that they do not consciously address the issues stipulated in the policies in their activities and more importantly do not research and contribute for its refinement and successful implementation.

The education sector in Ethiopia is guided by a program, referred to as Education Sector Development Program (ESDP). This is probably a pioneer approach in the region. Donors, partners and relevant stakeholders were involved in the preparation and endorsement of the ESDP which had activities spanning over five years. The first ESDP has ended in 2002, and the second will expire by June 2005. Higher education is one of the major components of the sector development programs.

The Rural Development Policy and Strategies (FDRE, 2001) emphasize the need to make the rural agriculture development as the core and pillar instrument to bring about quick and sustainable development of the country, to ensure that each citizen benefits equitably from the development, to enhance the economic status of the country to come out of poverty and to develop free market economy that leads towards capital accumulation and ultimately development of trade and industry and the overall economy. It further stresses the importance of harnessing the potential we have with respect to human and land resources to ensure sustainable and quick development.

The development of the agricultural sector is clearly linked to development in the education and health, in infrastructure development, as well as financial, trade and industry sectors. The human resource we have shall be educated and trained at different levels, shall have access to potable water, health services and technological inputs and services, financial and market information and services. The utilization of our land, livestock and water resources wisely and sustainably is essential. It is imperative to identify

land use potentials and the best ways of using these resources. It is also important to meet requirements for the provision of technological inputs through adoption, research and innovation. All these ultimately require the development of skilled and responsible citizens at primary, secondary and tertiary levels. Higher education institutions, therefore, have a significant role to play in these fronts.

The Capacity Building Strategy and Programs (FDRE, 2002) addresses the need to coordinate the several efforts undertaken to further the country's socio-economic development, create democratic systems, and ensure good governance. It also stipulates the identification and prioritization of initiatives, within the Agricultural Development Led Industrialization Strategy of the government development agenda. The capacity building strategy defines capacity as involving human resource development, creating and strengthening institutions, and establishing effective working systems, as well as ensuring that there is a strong mechanism in place to address these simultaneously.

The strategy clearly emphasizes "*the creation of a capacity for capacity building*". This focuses on establishing and strengthening the training, studies and research arm. It has clearly set the direction for higher education as *producing and fulfilling the requirements of the country for high level professionals and researchers by producing citizens capable of playing leadership role and people who can generate knowledge in different disciplines*. It also spells out that higher education institutions shall be institutions of relevant and up to the standard education, training and research. Improvement of quality, strengthening the financial system and efficiency, and expanding equitable access are indicated as areas for policy consideration and direction. One critical issue addressed by the capacity building program is building information and communication technology (ICT) capacity in the country. In relation to education and training, it requires all educational institutions, including higher education institutions, to be in a position to leap frog in harnessing the widely available opportunities of the technology.

The Ethiopian Sustainable Development and Poverty Reduction Program (ESDPRP) (MOFED, 2002) is built on four building blocks, viz. ADLI, justice systems and civil service reform, decentralization and empowerment, and capacity building in public and private sectors. One of the components of the

program is education which includes all its sectors, i.e., primary, secondary, TVET and tertiary levels. The ESDPRP emphasizes that poverty reduction is the core objective of the government and people of Ethiopia. The fundamental development objective encompasses the building of free-market economic system enabling rapid development of the economy, extricate the country from dependence on food aid and benefit the poor people. The program expects to halve the current poverty level by 2015, through maintaining annual average GDP growth of 7.7%, agricultural growth rate of 7.5%, industrial growth of 7.8%, and maintaining inflation no more than 5%.

The ESDPRP has also given clear directions and roles to higher education in Ethiopia, on the basis of a Higher Education and Training Capacity Building Program document that is developed as one of the major national capacity building programs. Higher education is expected to reach annual intake capacity of 30 thousand in the undergraduate and intake capacity of 6 thousand in the graduate programs by 2004/05. The goal set for undergraduate level is actually achieved in the current (2004/05) academic year. The document focuses on reforming and reorienting the leadership, management and overall system of the sector and on expansion and strengthening of institutions and their programs. The economy requires highly qualified, visionary, competent and committed professionals and leaders at all levels. The higher education expansion and reform activities are expected to have a significant contribution to the overall social and economic development of the country, and to the ultimate goal of alleviating/reducing poverty in a relatively short period of time.

Reform Towards Transformation

Of the many important economic and social growth initiatives of the government of Ethiopia, perhaps one that holds great promise and possibility of large scale and sustainable returns is the effective expansion of higher education in the country (Teshome, 2003). The impact of higher education encompasses not only the economic sector, but also will produce greater social impact contributing to a just, democratic, peaceful and enlightened society. The initiative to transform higher education through relevant expansion, improving the systems' efficiency and effectiveness, and providing a conducive environment for the sector has demonstrated the commitment and competence of the leadership of the entire endeavor of

change. At all echelons of the leadership of the government as well as to a large extent the governance of higher education institutions, keen interest and support has been observed and cultivated.

Although its contribution in the last fifty years was laudable in many respects, higher education in Ethiopia was and is not earnestly and fully participating in the development efforts of the country. With their out of date orientation and worn out traditions, higher education institutions in Ethiopia have deprived our country of the opportunity of getting out of poverty and underdevelopment. This mainly refers to their less than ideal and expected involvement and lack of concerted efforts towards changing the underdevelopment, poverty and undemocratic situations of our countries, particularly in the last three decades.

A recent report (UNESCO, 2003) has shown that although enrolments have grown significantly in Sub-Saharan Africa, several challenges still remain, related mainly to resource constraints and a consequent decline in the quality of education and research. Higher education in Ethiopia is going through a decisive phase of reform and expansion. As a system it is increasingly required to respond and gear adequately to the development needs of the society and the country. This change is taking place through a government-led radical review of the system's status and challenges, and by devising mechanisms of consensus building, as well as ownership and overcoming the resistance to change (Teshome, 2003).

The higher education sector in Ethiopia needs to (re)focus on four central missions in order to be relevant and be active participant in the country's socio-economic development efforts. These are (a) equipping students with core values needed to live and function as responsible citizens laying the foundation to build democratic and socially cohesive societies, (b) producing competent, adaptable and skilled human resource in the required number and quality, (c) supporting innovation and appropriate development by generating new knowledge, and accessing and adapting knowledge from global stores to local use through studies and research, and (d) undertaking its functions and activities in a cost effective and accountable manner.

Bringing about change, particularly in higher education settings, is a difficult task. In the past few years, however, encouraging and significant reforms

have started to take place. This is mainly due to the involvement of institutions' heads and community in many of the institutions by building consensus on purpose before embarking on new ventures. The implementation of reforms before anyone discusses what they are for is one of the major reasons for the resilience and resistance of particularly the academic community. It is recognized that it is important to secure the greatest possible consensus of the higher education community and relevant stakeholders to support any worthwhile ventures targeted on improving education quality and relevance, access and efficiency. There is a strong need to ensure that the implications of the reform decisions are properly understood and implemented by every one concerned. Therefore, teamwork and proper consultation, both vertically and horizontally, were fostered from the early days of the reform, including a permanent twice a year consultative meetings with heads of institutions and faculties.

When the initial reform and expansion agenda was put forward in the mid-1990s, there were mixed opinions and attitudes by the academia, the leaders of higher education institutions, and even a few in the government itself. The reform and expansion required not just a simple change but a serious transformation in the system together with significant expansion of access. Many were pessimistic in that they concluded, without giving alternatives, that expansion would be a compromise to educational quality maintained by the university system existing at the time. However, even with the elitist system of limited enrollments at the time, the quality of higher education had been in decline for over a decade. Issues of political partisanship were overwhelmingly influencing academia. At its initial stage, the reform agenda was seen by many as a purely political issue, rather than as a development objective. The difficulty resided mainly in the silence and indifference (neither openly opposing it nor expressing support) of many in the higher education community towards the reform.

The major challenge relates to the inadequate capacity, lack of transparency and participatory approach of the leadership and management at sector level and in the higher education institutions. Over the years, we have come to realize that consensus reached at the level of top management does not necessarily transpire effectively to the institution community. Although there are leaders who are visionaries in their participation, a few were indifferent and they provided little inputs in the form of strengthening the reform or, if and where necessary, outlining alternative options. This has caused a delay

in pacifying the policy and reform agenda to the stakeholders, mainly staff and students. In some areas leaders have played a significant role in perpetuating the idea that the status quo is the best option by not owning and explaining the benefits and of course the drawbacks and challenges of reform on which at least consensus was reached at the levels of the leaders of institutions. The higher education community – and in particular the leadership – were required to invest the time and energy necessary to halt the negative trends in the higher education system and to own the agenda.

The higher education institutions are increasingly required to sustain the emerging undertakings and moves so that the expansion and reform initiatives will succeed. Through ongoing internal and external evaluations of the institution based on the implementation of planned activities, the role of leaders, members of the community, and students as major stakeholders has started to lead institutions to become more responsive. Many visionary and daring institution leaders and the higher education community, have worked hard so that the process of renewal and reform can begin to take root within the institutions by seizing the initiatives and the opportunities themselves. The major constraint was not a lack of knowledge or a sense of what was required, but rather the inability and lack of willingness to take the necessary action.

Threat to Human Capital Formation

Brain drain in form of human capital overseas flight and internal mobility, as well as HIV/AIDS have become serious threats in human capital formation, and have the potential to offset or undermine several years' efforts in human resource development.

Our universities as well as several public and private institutions loose their skilled labor through brain drain. After long years of investment (from childhood up to university education and training) many young professionals and future leaders leave the country. Mechanisms to curb the problem of human capital flight do not currently exist as individuals' freedom of movement is enshrined in the UN Universal Declaration of Human Rights and the FDRE Constitution. This is also reinforced by globalization and free market that dictates free movement. Thousands of experts from abroad are often employed through bilateral and multilateral technical cooperation programs. On the other hand, a good part of the national skilled workforce in

several hundreds and thousands are lost to developed countries. The serious shortage of staff in many departments of universities of Ethiopia is partly a result of such brain drain. These losses remain most hard to compensate and the depletion is often difficult, if not impossible, to replace.

The most effective strategy would be to involve incentives and change the brain drain into a brain gain. The focus of the incentives mainly involves targeting keeping skilled individuals within the country: improvement in the working and living conditions of these individuals. Another important strategy is to utilize the skills abroad by mobilizing the Diaspora to contribute to the development of its country. Dialogue on nation building and the role that the Diaspora can play and the role the nation/government can play in realizing such endeavors needs to be strengthened and widened. One should not, however, forget that we all have a debt to pay the nation and the people of Ethiopia. With visionary leadership of the Diaspora and the focused, transparent and accountable commitment of the government, the Diaspora with its immense potential for the country can be mobilized.

The toll of HIV/AIDS may soon change the landscape of tertiary education institutions. As quoted in a World Bank report (2002), at the University of Nairobi, an estimated 20 to 30 percent of the 20,000 students are HIV positive, and in South Africa infection rates for undergraduate students have reportedly reached 33 percent. Although a systematic study is not available, the prevalence of the pandemic in Ethiopian universities is becoming a threat that we could not shy away. A preliminary observation in Jima university has revealed that not less than 10% of students are living with AIDS. Students, the faculty and administration are suffering from the pandemic. HIV/AIDS has a potential to rob institutions of their instructors and other personnel, crippling them and further reducing the country's development opportunities, let alone their capacity to produce future leaders, civil servants and trained intellectuals.

It is, therefore, necessary and need urgent intervention to make HIV/AIDS awareness, prevention and care for victims as an integral part of any capacity building programs. All higher education institutions shall develop institutional policies and implementation modalities to address the threat of HIV/AIDS to the staff as well as the students.

Future Directions of Higher Education and Research

Without a significant increase in participation/access in higher education as well as all the other levels of education and training, Ethiopia will not be able to develop the broad base of labor capacity needed for sustained economic growth and a place in the global economy. In addition to striving to fulfill the Millennium Development Goals of universal primary education, a strategy of catching up with the rest of the global economy needs more than doubling the tertiary education participation rate. Human capital plays a stronger role in the growth process once the level of human capital reaches a critical threshold. Coupled with other favorable factors many countries were able to have a take off in their economic growth when the higher education participation rate is significantly high, some suggesting a minimum of 12-15%. With the increasing secondary school students population and the ever growing demand from the economy, there is a need to further expand higher education access in Ethiopia. Both the public and the private providers shall develop skilled and able teachers, administrators, managers, accountants, bankers, lawyers, engineers, health professionals, and public as well as private sector leaders.

Accommodating about seven percent of the age cohort, by 2009 it may be necessary to increase the total student population in the regular programs to reach over 360 thousand in the higher education institutions. With a possible attainment of 10% and 12% participation, there will be a need to cater for over 520 and 630 thousand students in the sector, respectively. This can only be met by expansion of the sector both by government and private providers. The achievement of at least 10% participation may forward the country's vision of reaching the level of middle income countries. Therefore, there needs to build capacity to accommodate at least 100 thousand students annual intake at a national level in the next five years. This requires strengthening of the existing institutions by building capacity to have a total student population of about 20-25 thousand in each university at undergraduate level. It also requires the establishment of 8-10 new institutions that will eventually grow to a university level in different parts of the country.

Private provisions shall also be encouraged to develop in order to complement public institutions, to increase diversity of training programs and broadening social participation in higher education. The Private and

non-governmental higher education institutions can respond efficiently and flexibly to changing demands and increase educational opportunities with little or no additional public funding. This emerging sector is introducing healthy competition, innovation and managerial efficiency. The resulting diversification may encourage the growth of systems that are more closely attuned to labor market demand and development needs. However, the expansion need to put effective mechanisms of ensuring quality and relevance both by internal and external assurance. Quality assurance also applies to the expanding public higher education institutions.

The world of work is constantly changing and being radically redefined. The skills needed to run business and institutions, and the way they utilize human capital is also changing. The aims and modalities of teaching and learning in higher education institutions shall be readjusted according to this ever changing world of work. It is, therefore, imperative that we develop student-centered approach and effectively use ICT in teaching and learning. Initiatives aimed at the renewal of learning and teaching must reflect developments enhancing inter- and multi-disciplinarity, a stronger commitment to life long learning, a focus on current and future world of work, as well as student-centered and effective methods of delivery. As higher education moves towards mass enrolment and that graduates will have to accept the need to keep changing jobs, update their knowledge and learn new skills, the world of work is increasingly dictating the growth and diversification of higher education. Preference should be given to subjects and teaching methodology which develops student's intellectual capacity and allows them to deal judiciously with technological, economic and cultural changes and diversity, equip them with qualities such as initiatives, an entrepreneurial attitude and adaptability, and allow them to function with greater confidence in modern work environments.

Research in higher education institutions shall be undertaken not only for reasons of scholarly prestige or for economic considerations but also as part of the overall renewal and development of learning, teaching and public service activities, including the dissemination of knowledge. Researchers should also look at how their findings can be included in the curricula and retraining programs. One important strategy could be to strengthen the research wings of universities and embark upon expanded graduate studies. Furthermore, it is essential that research be compulsory and counted in the assessment of each academic staff. No system of higher education can

fulfill its mission and be a viable partner for society in general unless some of its teaching staff and organizational entities also carry out research.

Conclusions

Education and research have critical role to ensure economic growth, poverty reduction, and in general for sustainable human development. Higher education and training institutions must be at the forefront of the development and poverty alleviation efforts of Ethiopia. They have the responsibility of contributing to the achievement of economic progress, political stability and peace, and striving as exemplary institutions to building democratic culture and society. They have to produce competent and civic citizens and undertake studies and research that alleviates problems of the society and the country. The education and research undertakings must develop both responsive and proactive attitudes towards the needs of the society and the country that brings sustainable human development and local problem solving contributions. The sector is expected to produce graduates who can be not only job seekers but also successful entrepreneurs and job creators, at all levels.

The overall education sector-wide country capacity building drive brings an excellent opportunity to meeting the demand for educated and trainable workforce, entrepreneurial skills and developing a local knowledge. It also facilitates, encourages and cultivates initiatives and innovation. A higher education capacity building program in Ethiopia is following a strategy to provide good quality higher education to larger numbers, equitably but with diminishing dependence on public resources on the longer term. In order to be a viable partner to society in general higher education shall involve in relevant and quality research that needs to be undertaken in a transparent and cost effective manner.

An environment permitting a pragmatic approach to the task of improving higher education needs to be strengthened by promoting and sustaining political, social and economic awareness about the expansion and reform. This could be achieved primarily through ownership of the agenda by the leadership at all levels of institutions (both public and private), higher education institution community, academic staff and students, as well as the whole community. It requires commitment, initiative and a recognition of the

decisive contribution good education can make to the badly needed overall development, poverty reduction, and progress of the country.

References

- FDRE, Federal Democratic Republic of Ethiopia (2002). *Capacity Building Strategy and Programs*. February 2002, Addis Ababa, 295 pp.
- FDRE, Federal Democratic Republic of Ethiopia (2001). **Rural Development Policy and Strategies**. November 2001, Addis Ababa.
- MOFED, Ministry of Finance and Economic Development (2002). *Ethiopia: Sustainable Development and Poverty Reduction Program*. Addis Ababa, July 2002, 201 pp.
- Teshome Yizengaw (2003). Transformations in Higher Education: Experiences with Reform and Expansion in the Ethiopian Higher Education System. Keynote address to "A training Conference on Improving Tertiary Education in Sub-Saharan Africa: Things That Work, September 2003.
- TGE, Transitional Government of Ethiopia(1994). *Education and Training Policy*. EEP 86, Addis Ababa April 1994, 33 pp.
- UNDP (2004). Human Development Report 2003.
- UNESCO (2003). *Enrolment Numbers And Gross Enrolment Ratio at Tertiary Level by Country And Gender*; UNESCO Institute for Statistics.
- _____, (2003). *Recent Developments and Future Prospects of Higher Education In the 21st Century*. Follow up to the World Conference on higher education, Meeting of higher education partners, Paris 23-25 June, 2003, 24 pp.
- _____/OECD, (2003). *Financing Education- Investments and Returns*. UNESCO Institute for Statistics. 230 pp.
- World Bank, The (2002). *Constructing Knowledge Societies: New challenges for Tertiary Education*. 204 pp.
- _____, The (2000). *Higher Education in Developing Countries: Peril and Promise*. The Task force on higher education and society. 135 pp.