

Sustainability for Africa

Promoting sustainability in Africa through higher education



All the economic, social and human development indicators show that Africa, in particular Sub-Saharan Africa (SSA), is the worst developed region of the world. Poverty, malnutrition, food insecurity, early childhood death, HIV/AIDS, war and conflicts are all having ravaging effects on the lives of the millions who live in Africa. Added to these is the impact of global warming and climate change on Africa, causing desertification, land degradation and natural disasters. Achieving sustainability in Africa is crucial for global sustainable development.

Education, at all levels, is an important tool for achieving sustainable development, and higher education has a particularly important role. Higher education trains teachers, professionals and future leaders; carries out research that can find solutions to social and technical problems; undertakes community service and can reach out to vulnerable sections of the society; creates an informed and engaged citizenry leading to the creation of a democratic culture; and promotes understanding and tolerance which helps to alleviate conflicts.

This paper looks briefly at some of the major challenges impacting on sustainability in Africa, and examines how higher education institutions can help to meet those challenges.

Development professionals

To further its development, Africa is in dire need of professionals such as doctors, engineers, nurses, technicians and economists. Compared to other regions, the stock of development professionals in Africa is extremely low. Brain drain has worsened the situation. Considerable efforts have been made by African higher education institutions to increase their student enrolment, which in many cases has doubled or trebled over the past couple of decades. However, SSA still has a tertiary education enrolment of only about 5 per cent, which is by far the lowest of any other world region. There is a need to develop a strategy to increase tertiary enrolment, which should include a diversified higher education system that ensures graduates are appropriately trained to solve the developmental problems of Africa.

New approach to teaching

To promote sustainable development, higher education institutions should adopt a new pedagogical approach. The lecturer should not 'teach' by transmitting facts, instead they should encourage the students to 'learn' by understanding and analysis rather than memorising facts. All teaching should encourage teamwork, critical

and systems thinking, creativity and innovation. Sustainable concepts should be mainstreamed in all the curricula and it should be ensured that all programmes adopt an inter- or intra-disciplinary and holistic approach and introduce the concepts of values, ethics and social responsibility.

Teacher training

Higher education can make an important contribution to promoting sustainable development and achieving the Education For All (EFA) goals by training teachers for other levels of education. Statistics show that there has been a significant increase in the number of teachers at pre-primary, primary and secondary levels in SSA over the last decade. The major challenge for higher education is to produce an even greater number of teachers and to re-train the existing ones. It has been estimated that SSA would need well over a million teachers merely to achieve Universal Primary Education by 2015. This is a mammoth task and it would not be possible to attain the targeted numbers by using the traditional face-to-face mode of education. It would be necessary to resort to distance education and e-learning to achieve it. Also, sustainable development should be mainstreamed in teacher-training curricula as the best approach to promoting sustainable development is to introduce it at primary and secondary schools.

Gender

Educated girls and women can play a major role in achieving sustainable development. This is acknowledged in both the EFA targets and the Millennium Development Goals (MDGs). Yet, although progress has been made lately, there is still significant gender inequity in student enrolment in most African higher education institutions, especially in the areas of science and technology. Women are also under-represented among the staff of the institutions. Higher education institutions in Africa need to pay more attention to the issue of gender inequity. They also need to adopt a holistic approach and incorporate gender issues in all their main activities of teaching, research and community engagement. Several institutions in Africa have already done so and have even created gender institutes for that purpose.

Research for development

Higher education institutions can make an important contribution to sustainable development by undertaking research to study and

find solutions to Africa's development problems, and to guide policy-makers on sustainable development issues. However, most higher education institutions in Africa are currently overwhelmed by teaching and devote little time and resources to research, the result being a very meagre research output. The little research that is done is often either of limited relevance to the real development issues in Africa, the objective being to publish in internationally refereed journals; or it remains on library shelves as theses and dissertations, inaccessible to policy-makers. It is urgent and imperative that higher education institutions in Africa take the necessary steps to significantly increase their research output and to ensure that the research is of direct relevance to Africa's needs.

Poverty alleviation through rural development

Currently, about 70 per cent of the population in SSA live in the rural areas. It is in the rural areas that poverty is worse and where the main development challenges in Africa are to be found. By promoting rural development, higher education can assist in alleviating poverty and contribute towards achieving the first of the MDGs. The emphasis on rural development should in fact be mainstreamed in all areas of higher education. Furthermore, since agriculture is the main rural activity, higher education can play a key role in promoting rural agricultural development. However, most agriculture departments of higher education institutions focus on crop and animal production, and hardly touch on the problems of rural development and food security. Also, agriculture graduates tend to seek employment in urban rather than rural areas. Higher education institutions need to re-orientate their teaching, research and community outreach activities in agriculture toward the needs of the rural communities, including a greater involvement in lifelong learning for farmers and agricultural extension workers. The issue of gender also needs to be addressed as nearly three-quarters of the agriculturalists in Africa are women.

Conflict resolution

The development of SSA has been seriously hampered by armed conflicts, undermining the countries' efforts to attain economic prosperity and social stability. Although the situation has improved since the beginning of the 21st century, the conflicts have left long-lasting scars of human rights abuses, physical destruction, social and political upheavals and economic setbacks from which it will take decades for the affected countries to recover. And armed conflicts still persist in SSA. Higher education institutions in Africa have responded to the challenge. Several institutions have created UNESCO Chairs as well as special centres or institutes dealing with peace, refugee studies or conflict resolution. In almost all the subregions of Africa, postgraduate peace-related programmes or undergraduate modules now exist in higher education institutions. But more needs to be done. For example, teachers, especially at primary school level, need to be trained to inculcate values and attitudes that foster tolerance, understanding and respect for diversity among students. And university students should be encouraged to undertake community service in conflict-ridden areas, for example by providing assistance to refugees.

However, higher education institutions in Africa currently face a number of constraints and challenges. They are poorly equipped in infrastructure, and short of financial and human resources. They have to cope with massive student enrolment. And they have yet to fully appreciate their role in promoting sustainability in Africa.

There is a need therefore for higher education institutions in Africa to adopt a series of strategies to make them more effective in promoting sustainability. They need to be reformed, a process that has already started, resulting in positive improvements. The academic structure of the institutions should be modified to facilitate multi-disciplinarianism, and faculty must be trained to use the sustainable development approach. New postgraduate programmes in sustainable development, either of a generic nature appropriate for graduates in any field or specialist ones, should be introduced. Similarly, continuous education programmes should be run for informing and updating development professionals. And greater emphasis should be given to research and community engagement. In all these activities, higher education institutions should involve the wider community and the policy-makers and they should equally link up with institutions in other regions that have experience in promoting sustainable development. Finally, African higher education institutions need to practice what they preach. They must ensure that they operate in a peaceful, eco-friendly, democratic and conflict-free environment, the campus being conducive to learning for both staff and students.

The Association of African Universities (AAU) has taken several measures to sensitise higher education institutions to their role in promoting sustainability. It chose sustainable development as the topic for the annual Africa University Day in 2008. The theme for its 12th General Conference held in May 2009 is *Sustainable Development in Africa: The Role of Higher Education*, and sustainable development will form part of AAU's core programme activities over the next four years. The AAU is also partnering the United Nations Environment Programme in its programme on Mainstreaming Environment and Sustainability in African Universities (MESA).

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