

# SUSTAINABLE PATHS IN HIGHER EDUCATION

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Theme: *Sustainable Development in Africa: The Role of Higher Education*

Sub-theme: *Engaging the Community*

### Summary

According to Mohamedbhai (2008) the greatest challenge facing African higher education institutions is that they need, through their teaching, research and community engagement, to address the pressing local development problems while at the same time trying to understand the global challenges facing humanity such as sustainable development and climate change, and participate in international efforts to overcome these.

Within the ambit of sustainable development, some African Higher Education Institutions (HEIs) have gained the tools to redesign their educational structures. Some of these institutions are presenting answers to the environmental challenge and to the developmental needs.

**This paper outlines some successful experiences that are being developed in the African context.** We aim to share and debate ideas in order to enrich our vision of the relevant social role that higher education is called upon to play toward sustainable development in the region. All these examples of good practice could be found at the Global University Network for Innovation's Observatory.

### Sustainability

In its report "Our Common Future", the World Commission on Environment and Development (Brundtland, WCED, 1987) connected the challenges of saving the environment and the fight against poverty. The Brundtland Report defined 'sustainable' as **'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'**.

The 1960s was an era of rising environmental consciousness, linked to growing awareness of the human-made risks of scientific and technological development. By the 1970s, **it became clear that university curricula needed to respond to this onslaught of knowledge.** The term environment became an umbrella under which new research and teaching programmes began to cluster. It was clear by the 1992 Earth Summit in Rio de Janeiro, Brazil, that new conceptual tools for understanding environmental

phenomena on a planetary scale—such as sustainability, vulnerability, and precaution—required unprecedented collaboration among all fields of knowledge. Environmental studies took place in contexts where disciplinary perspectives predominated, and conservatism with respect to cross-cutting appointments and promotions raised barriers against scholars working on problem definitions that were not rooted in traditional disciplines (Jasanoff, 2008).

In this regard, the United Nations is promoting a **Decade for Education for Sustainable Development (DESD 2005-2014)**, with the overall aim of integrating the values of sustainability in all aspects of learning. A key objective of the Decade is to develop the competencies required to create a more sustainable and just society for all parts of the world. On the other hand, in the African Preparatory to the World Conference on Higher Education (WCHE+10), the **UNESCO Regional Bureau for Education in Africa (BREDA)** concluded on the need to focus on ensuring ‘that Higher Education fosters democratic values, sustainable development as well as the Millennium Development Goals’.

HEIs around the world are attempting to respond to these emerging challenges. The **Global University Network for Innovation** conducted research in 80 countries in a Delphi poll of 214 experts and practitioners **soliciting** their views on the contribution HEIs make to human and social development. Almost 90 percent of participants affirmed that ‘universities are a central institution in the knowledge society’. In terms of the most frequently identified challenges, in the analysis by regions, **the African participants suggest** ‘Contributing to poverty reduction stood out as the human and social development challenge that is the highest priority for HEIs (selected by 77% of African participants).’ (GUNI 2008).

Poverty reduction is a key challenge **in achieving the goal of sustainable developed societies in Africa**. It demands a sound analytical understanding of what drives human and social development reform, drawing lessons from **examples of good practice** that have yielded successful results and replicating them elsewhere, with due attention to the underlying dynamics of each context.

As the conceptual framework of the AAU 12<sup>th</sup> General Conference argues, more than any other region of the world, Africa remains unprotected and at risk of being exploited without due recognition and remuneration of its resources. There is also the fact that **Africa’s sustainability problems hinge on threats to food security, poverty, disease, land degradation, water security, climate change, conflicts, deforestation, natural disasters, and urbanization**.

In this sense the **United Nations Environment Programme (UNEP)**, for instance, drawing on experience gained from previous programmes of working with universities in Africa, is supporting a partnership program to mainstream environment and sustainability concerns into the teaching, research, community engagement and management of universities in Africa. This programme, called **MESA (Mainstreaming Environment & Sustainability into African) Universities Partnership**<sup>ii</sup>, includes an Education for Sustainable Development (**ESD**) **Innovations** short course developed and implemented by partners (to strengthen capacity to establish ESD innovations in universities); **Pilot programmes** linking universities, communities and business and industry in sustainable development partnerships, etc.

## **Curriculum in higher education institutions**

According to Jansen (2008), HEIs must recognize the necessity and urgency of sustainable development, be convinced of the role of higher education in sustainable development and support initiatives to integrate sustainable development in higher education. In a framework of vision and strategy, curricula and graduation conditions should be adapted to new realities and adequate educational forms, methods and resources should be developed.

In this context, **many universities in Southern African Development Community (SADC) region** participate in a network of institutions aiming to include sustainable development aspects in their curricula. The experience “**SADC Regional Environmental Education Programme (REEP)**” supports Environmental Education (EE) processes through enabling decentralised networking of EE practitioners within the SADC region.

REEP has established a broad decentralised regional environmental education network which consists of the SADC Food, Agriculture and Natural Resources directorate, National Network Representatives, the Regional EE Centre and other environmental education practitioners in the region. Many SADC countries are establishing or have established national EE committees with a co-ordinating role at a national level (e.g. Botswana, Namibia and Zambia).

An important dimension of this networking has been the formation of partnerships with existing regional initiatives such as the IUCN Regional Office Southern Africa (ROSA) and the Rhodes University Environmental Education Unit. Many national initiatives such as Ecological Youth of Angola, WWF-Zambia, Department of Labour and Vocational Training (Malawi), Swaziland National Trust Commission, Ministry of Environment and Transport (Seychelles) to name a few, have undertaken environmental education initiatives within this good practice involving sustained partnerships.

Another important experience is the **Regional Centres of Expertise (RCEs) on Education for Sustainable Development (ESD)** promoted by the **United Nations University**. An RCE is a network of existing formal, non-formal and informal education organizations, mobilized to deliver ESD to a regional community. A network of RCEs worldwide will constitute the Global Learning Space for Sustainable Development. RCEs aspire to **achieve the goals of the UN Decade of EDS, by translating its global objectives into the context of the local community in which it operates.**

As of April 2008, there were fifty-five RCEs globally –many of them are based in local universities, of which **ten are in Africa: Ghana, Kenya, Malawi, Mozambique, Nigeria, South Africa, Swaziland and Uganda.** Actually the SADC Regional Environmental Education Programme is working with the RCEs and it has been directly involved in establishing RCE Swaziland, RCE Malawi, and RCE Mozambique.

In the area of gender, it is worth highlighting **The Institute of Women, Gender and Development Studies (IWGDS)**, part of the **Ahfad University for Women, in Sudan.**

For more than two decades since 1986 IWGDS has worked with women and men from throughout Sudan and around the world to help emancipate Sudanese women through education, extension, intervention and advocacy.

Another example that develops its curricula focused on ESD is the **University for Development Studies (UDS), Ghana**, West Africa. It was established in 1992 by the Government of Ghana to “blend the academic world with the community in order to provide constructive interaction between the two for the total development of northern Ghana, in particular, and the country as a whole”. UDS works to integrate concepts such as sustainability, community engagement, development, and poverty alleviation strategies transversally in all university. In terms of problem-oriented curriculum developing, UDS have created ‘a pro-poor community-based university’.

## **Science and Research for Sustainable Development**

Most of the implications of science and research with regard to sustainable development can be grouped under one or more of these three aspects: **ethical, environmental and social**. In relation to science and research, universities have responded to changing perceptions of them as social institutions, and of their shaping functions in society. “To meet the challenges head on, universities will need to develop a fuller, more historically informed sense of their own institutional missions, not only as incubators for the production of new scientific knowledge and technological know-how, but also as sites of capacity-building for social analysis, critical reflection and, not least, democratic citizenship” (Jasanoff, 2008).

Research as the production of knowledge must include both new-to-the-world discoveries and inventions and situation-specific inquiries in order to apply knowledge to development. Increasing the capacity of researchers and of knowledge users is an essential element of research development in developing countries. The political and social contribution of knowledge must take into consideration the uniqueness of a society and its stage of development, including the population’s level of education, the knowledge capital and infrastructures, national competitiveness and indigenous values. The role of higher education institutions has to be appropriate and responsive to different societal needs (Suwanwela, 2008).

In this sense, in **Madagascar**, the **University of Fianarantsoa (UF) - Biodiversity conservation trough bioprospecting** project is worth noting at this point. Its function to explore of the medicinal plants in a Coastal National Reserve called Manombo was initiated in 2007. It focuses on **antimalaria and anti HIV/AIDS** phytochemical compounds from the reserve plants, plant-derived chemical compounds with potential health-promoting properties. It also intends to contribute to vegetation conservation and to the general improvement of the well-being of the people living in the area. The first part of the study is being done at the University of Fianarantsoa – identification of plants, collect and, phytochemical screening – and the follow up will be done **at University of KwaZuluNatal (UKZN), in South Africa**. Despite the acute funding challenge they are getting important results for the Manombo reserve project.

Another experience to consider is the **Sub Saharan Africa Participatory Research Network – REPAS**. It aims to promote participatory research or community based research in the African Region. It brings together community members, decision makers

and researchers, in a reflection-action process that help them better understand basic community problems and therefore, provoke the desired changes and create **new knowledge**. It often collaborates with the following research institutes: IFAN, West African Research Centre and have representatives in Mauritania, Gambia, Mali, Guinea and Togo.

Moreover, the **University of Cape Town (UCT), South Africa**, has been developing some successful experiences such as: **AIDS and health care modelling in the Centre for Actuarial Research**. The Centre is a research and teaching unit. The primary focus of the work involves maintaining and developing a model that projects the demographic impact of the AIDS epidemic in South Africa. The outputs of the unit are also used to assess the impact of vaccines. The unit provides information to government and civil society organizations and helps them interpret information (Favish, 2005).

As for the environmental issue, the UCT is developing the **Green Campus Initiative (GCI)**. It was started by a handful of students and staff to address issues of sustainability on UCT campus. This volunteer-run organization's numbers have now increased to over 500 members and its influence has extended to several key projects that seek to make UCT carbon-neutral. The GCI is action-based, and is poised to make a lasting impact on the UCT way of life.

These and other UCT programmes, such as **The Children's Institute and The case of the Industrial Health Research Unit**, engage with issues of sustainability, economic growth, health related challenges, urban and regional development, human rights, justice, social reconstruction and identity, political empowerment, and employment creation.

In addition, the **UNESCO/Hewlett-Packard project to Reverse Brain Drain to Brain Gain in Africa** aims to help reduce brain drain by providing grid computing technology to universities in **Algeria, Ghana, Nigeria, Senegal and Zimbabwe**. Technology represents a powerful tool in facilitating brain gain or brain circulation. It has the potential to help create environments for the sharing and exchange of knowledge among scientists who remain in their home country and those in the Diaspora. But more importantly the **access to joint research and developing collaboration** could prove to be a strong incentive for experts to continue to work in their home country.

On the other hand, focusing on such pressing practical and policy questions in health, environment and science the **Knowledge, Technology and Society (KNOTS) team** at the **Institute of Development Studies** from the **University of Sussex** (Brighton, UK) are working on such issues as sociological perspectives on Science, Technology and Sustainability. Some of the KNOTS Team programmes are: **Vaccination in West Africa**; Good Practice in the Development of PRSP Indicators and Monitoring Systems (**Strategic Partnership with Africa**); **Sustainable Livelihoods in Southern Africa**: Natural Resources, Governance and Policy Processes, and so on.

An important project worth considering comes from **Rwanda**, from a context of the post-civil war time. In order to address some of the needs of this particular time, the **Kigali Institute of Science, Technology and Management (KIST)**, the country's first publicly owned technological institute, was set up in 1997. The Institute is responsible for identifying social needs and problems to which it gives solutions through its various

areas of knowledge. For instance, the experience of **Technology Transfer to the Community - development of biogas and waste management plants for penitentiary institutions.**

This is a time of renewed enthusiasm with higher education and research as the way forward to world development, with the establishment of millennium centres and science academies in Africa and other such initiatives in developing regions (Vessuri, 2008).

### **The link with civil society**

A critical review of the processes shaping the human development agendas would suggest that HEIs have been mostly followers of this discourse, rather than its creators or champions. Of course, many individual scholars have contributed immensely to shaping these ideas; their contributions must be acknowledged. Nevertheless, in national and transnational debates on these issues, the new player has been civil society. Citizen groups, associations, NGOs, not-for-profit research institutes and independent think tanks (as civil society actors) have been very active in identifying, analysing and articulating these issues of equity, justice, inclusion and rights (Tandon, 2008).

Some civil society organization and universities around the world are working together on this issue, responding to these opportunities. For instance, **THETA** is a **Ugandan** NGO initiated through a partnership between The AIDS Support Organization (TASO), Uganda Ltd and *Médecins sans Frontières* (MSF) in Kampala, Uganda. The success of this project was then transformed into an organization working with Traditional healers in HIV/AIDS and with some courses and projects with: Makerere University school of Public Health, University of Witwatersrand in South Africa, University of Nairobi, Kenyatta University, and University of Kwazulu Natal. Their areas of work cover education, counselling and improved patient care. THETA is indeed a mutually respectful collaboration between Traditional Healers (TH) and Biomedical Health Practitioners (BHP) in the fight against AIDS and other diseases. THETA is also member of the Board Secretariat of the **Global Initiative for Traditional Systems (GIFTS) of Health** at the Oxford University, UK.

Finally, other example of successful good practice that links university with civil society is **The Abul Latif Jameel Poverty Action Lab (J-PAL)**. It was started in 2003 by three economists at the Massachusetts Institute of Technology. J-PAL seeks to substantively improve the lives of millions of the world's poorest people by providing the development community – **including international organizations, national and local governments, and development-focused NGOs** – with concrete, scientifically-tested information about which poverty alleviation strategies have real and substantive impacts on the lives of the poor.

One of its projects is the **Africa Program for Education Impact Evaluation (APEIE)**. In June 2008, J-PAL launched the APEIE in **Abuja, Nigeria** with the objective of improving the ability of countries in the region to meet the Millennium Development Goals in education. The APEIE program is designed to strengthen and support the education sector's plans in the Education For All Fast Track Initiative.

## Conclusion

Even as several of the examples of good practice illustrated different forms of social commitment they all reflect a strong interest on the part of the academics involved to determine HEIs activities in relation to the needs of the African continent. Some of the experiences highlight institutional models that are based on ethical criteria, community ties or a reformulation of the knowledge generation and transfer model. African HEIs have made some real positive strides in the area of sustainability education and in many cases are an example to the rest of the world.

However, HEIs need to develop an integrated institutional policy framework for sustainability and human and social development; integrating the concept of sustainability transversally into their institutions as well as with a transdisciplinary approach. Changes in these and other areas need to be taken into account in working out long-term strategies for development.

GUNI is aware of the need to improve its bank of experiences and examples of good practice for being able to facilitate best resources for the region. Its participation in Abuja will give GUNI an **insight into practical experience on the ground** which will help its Observatory in its commitment to finding and bringing together relevant examples of good practice; facilitating the required knowledge exchange and the scaling up of successful experiences to bring about change within higher education institutions in Africa and around the world.

Moreover, further research is urgently required now how to promote, transfer and scale up good practice. In order to gain a better knowledge of African experiences, GUNI is starting a collaborative research in partnership with some regional and international organizations. It aims to identify the extent to which sustainability is developed in Sub-Saharan Africa universities, as well as to map the progress of their experience and examples of good practice.

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<sup>i</sup> GUNI was set up by UNESCO, the United Nations University (UNU) and the Technical University of Catalonia (UPC), which hosts the Secretariat. GUNI's mission is to contribute to the strengthening of higher education worldwide by putting into practice the decisions taken at the World Conference on Higher Education (WCHE, Paris 1998) regarding quality, innovation and social commitment. In sum, GUNI was created to connect higher education networks and institutions in the world in order to promote quality, innovation and social commitment.

<sup>ii</sup> UNEP web site. Retrieved February 20, 2009 from: <http://www.unep.org/Training/features/mesa.asp>