



# Mainstreaming Environment and Sustainability in African Universities Partnership

(2004-2008 Report)

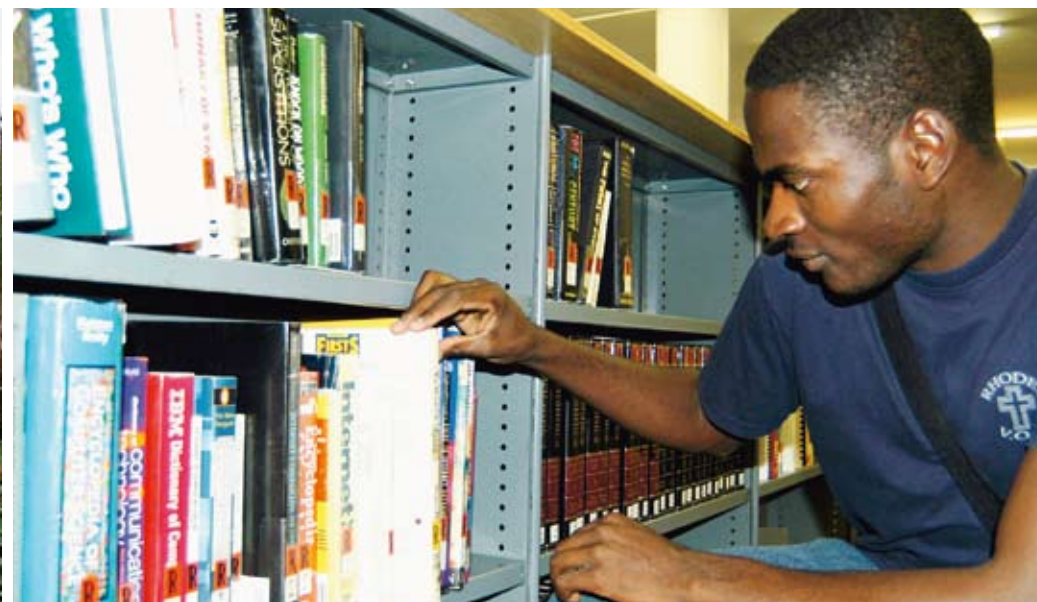


Supporting Universities to Respond to Environment, Sustainable Development and Climate Change Challenges



A UN Decade of Education for Sustainable Development Partnership Initiative





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**Africa** has an extraordinarily rich and diverse natural and cultural heritage. The environment in Africa provides a critical resource for development of the continent and for cultural and social well-being of current and future generations. Sustainable management and utilisation, as well as protection and care of the environment is, therefore, important to Africa's people now and in the future. At the start of the 21st century, Africa's universities are being called to help societies respond to various environment and development challenges, including the impacts of climate change. The Mainstreaming Environment and Sustainability in African Universities Partnership (MESA) was established in 2004 as a UN Decade of Education for Sustainable Development (UNDESD: 2005-2014) Partnership Initiative, led by UNEP and joined by other major organisations such as the African Association of Universities (AAU), UNESCO and many others. This report documents the growth, in participation in MESA since 2004, as well as the outcomes that are visible at university and regional levels following various activities that have taken place across the African continent to support universities to respond to climate change, and other environment and development challenges.

The report also provides insight into what mainstreaming of environment and development means in universities in Africa. This report, covering Phase 1 and the first year of Phase 2 of MESA (2004-2008) is designed to inform deliberations at the first International MESA Conference, the 2009 World Conference on Education for Sustainable Development, the 2009 AAU Conference on Sustainable Development and Higher Education, the 2009 World Conference on Higher Education and the 2009 World Environmental Education Congress. The report demonstrates that Africa's universities have much to offer the global community at a time when sustainability of society is at the top of the global political agenda. It invites even wider participation in MESA, particularly from leaders in African universities as well as lecturers, professors and students across the continent.



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# Foreword UNEP

Education is the key to steering the world on a more sustainable path. Unless people have the tools to understand and analyze the world around them, they will not be able to address the challenges that face our society and environment.

Part of the response to this challenge is UNEP's Mainstreaming Environment and Sustainability in African Universities Partnership (MESA). The project builds on a resolution by the UN General Assembly declaring 2005-2014 the UN Decade of Education for Sustainable Development (UNDESD).

As the environment conscience of the United Nations, UNEP undertook concrete steps to contribute to this Decade by among other things, strengthening its collaboration with the UNESCO secretariat for the DESD (the lead agency), and building partnerships with institutions of higher learning in Africa.

As shown in this report, the MESA Universities Partnership aims to boost the quality and policy relevance of university education in Africa by making environment and sustainability a key topic across curricula, research and community engagement activities in universities.

The aim is to create a scientific knowledge base on Education for Sustainable Development in Africa, enhance the quality and policy relevance of university education, and strengthen African scholarship and partnerships for sustainable development. Beyond that, the objective is to raise awareness and spread a new way of thinking of contemporary development problems from the environment and sustainability perspective.

The MESA Universities Partnership contributes to the work programme of the African Ministerial Conference on the Environment (AMCEN), which is an integral part of the Action Plan for the Environment Initiative of the New Partnership for Africa's Development (NEPAD).

There are numerous environmental challenges facing Africa, not least climate change, but also huge opportunities if only we can seize them. Universities are key partners in realizing this change, and I am happy to present this report on our MESA Universities Partnership project.

Achim Steiner,  
UN Under-Secretary General and Executive Director, United Nations Environment Programme



# Foreword UNESCO

The United Nations Decade of Education for Sustainable Development (UNDESD: 2005-2014), for which UNESCO is the lead agency, aims to integrate the values inherent in sustainable development into all aspects of learning to encourage changes in behaviour that allow for a more sustainable and just society for all.

UNESCO believes that Education for Sustainable Development (ESD) embraces a wide range of learning experiences and programmes, including the Mainstreaming Environment and Sustainability in African (MESA) Universities Partnership programme. Capacity development, one of the four thrusts of ESD identified in Chapter 36 of Agenda 21 as essential to support a sustainable future, is an important component of life-long learning. The development of training programmes to ensure that all people have the knowledge and skills necessary to live and perform their work in a sustainable manner is essential.

Universities should function as places of research and learning for sustainable development, and as initiators and poles of activity at national and community levels. They should also provide leadership by practising what they teach through sustainable purchasing, investments and facilities that are integrated with teaching and learning. All university students should acquire an understanding of the importance of sustainability. Thus, Higher Education should emphasize inquiry-based problem-solving approaches, interdisciplinarity and critical thinking as well as develop curricula that use relevant case studies and identify best practices.

We ask you to join us in promoting an education that is relevant to the key problems of living in the 21st century, that empowers people of all ages to assume responsibility for creating and enjoying a sustainable future, and to encourage all institutions and individuals to promote development which is socially desirable, culturally sensitive, economically viable and ecologically sustainable.



Mark Richmond  
Director, Division for the Coordination of UN Priorities in Education  
UNESCO

# Foreword AAU

The world is changing at a momentum driven principally by technology, globalisation and, ultimately, human actions. These forces have often tended to impact negatively on the physical environment, and general observations give a collective picture of a warming world whose repercussions, without appropriate and deliberate interventions, spell doom for all peoples on Earth. To rectify this situation, there is a general consensus that development should be sustainable and equitable within and across generations. There is equally a consensus that education at all levels is key to achieving sustainable development.

The numerous conferences and conventions, from the 1992 Rio Summit through to the 2000 Dakar Framework for Action, the 2001 NEPAD Environment Initiative and the 2002 World Summit on Sustainable Development (WSSD), all call for a more strengthened role of education, training and public awareness in achieving sustainable development. This call ultimately led to the establishment of the United Nations Millennium Development Goals (MDGs) and the United Nations Decade of Education for Sustainable Development (UNDESD: 2005-2014).

In Africa, the Higher Education sector is gradually gearing towards responding to the continent's myriad challenges of poverty, disease, land degradation, water security, climate change, conflicts, deforestation, natural disasters, and urbanization. UNEP's MESA programme, initiated with partner organisations, offers a further opportunity to universities and other Higher Education institutions in Africa to mainstream environmental and sustainability issues into their teaching, learning, research and community engagement activities, and thereby enhance their relevance as agents of change in society. The Association of African Universities is committed to promoting sustainable development in Africa through Higher Education. Indeed, its next General Conference, to be held in May 2009 in Abuja, Nigeria, has as theme: "Sustainable Development in Africa: The Role of Higher Education".

The success of MESA, as enumerated in this document attests to the optimism that the goals of the Decade can be met and that Higher Education institutions are, undoubtedly, at the forefront in advancing, creating, disseminating and providing relevant expertise to assist societies in meeting their overall developmental needs. MESA is to be replicated, with the same vigour, from the basic school up to the post-graduate levels to make education for sustainable development an agenda for life-long learning.



Professor Goolam Mohamedbhai  
Secretary-General  
Association of African Universities, Accra, Ghana

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“We shall only obtain decisive success over the long run if everyone on this planet is profoundly convinced that working for the preservation of his/her own environment is also to accomplish a duty on behalf of generations to come. And, herein lies the importance of environmental education.”

(Achim Steiner, November 2007)





# The African Continent, its People and Environment

Africa is a continent of stunning beauty and diversity. It is made up of rich cultures that are supported by a rich mosaic of forests and woodlands, mountains, deserts, coastal lands and freshwater ecosystems. It is the second largest continent on Earth after Asia and is currently considered a very strategic region in terms of global development opportunities. The 295 million people living in 54 countries on the continent live in close proximity with their natural resources and ecosystems. Their cultures, knowledge resources and development opportunities are intertwined with these natural riches. Today, Africa can also be singled out for having the lowest carbon footprint as it produces only four percent of global carbon emissions that are now impacting on the climate and the future of the planet and its people. Africa has the potential to circumvent harmful development

patterns if the creativity, ethics and knowledge of its youth and professionals can be harnessed in time.

Africa's people are culturally rich, diverse, resilient and determined, and in many communities there is still a strong ethic of social cohesion. In the past 100 years, Africa has managed to change the entire continent's governance system from colonial rule into a system of independent governance. Transforming the governance of an entire continent is not an easy task. While many gains have been made, in terms of political freedom, this massive social transformation process is still underway. There is much that still needs to be done to establish strong governance systems across the continent so that the well-being of current and future generations can be ensured.



*Soon Africa will be the continent with the youngest population on Earth, and in this youthfulness lies enormous creativity and change potential.*



Despite the rich array of cultural and natural resources, Africa today holds a marginal place in the world economy. Some countries are still affected by war and violence. Too many people across the continent are constantly plagued by persistent poverty and food insecurity. HIV/AIDS has left a devastating impact which is not over yet, and malaria still impacts on too many families each year. Ecological resources are being degraded and valuable ecosystem services are being lost. Many countries in Africa are struggling to meet the Millennium Development Goals.

Important sustainable development opportunities are constrained by lack of infrastructure, poor governance, inadequate quality and access to education and health services. Climate change is predicted to have substantive impacts on Africa's environment and the livelihoods of people. It will affect food production, health and security, and some of Africa's major coastal cities such as Lagos, Cape Town and Alexandria are threatened by sea-level rise.

Contemporary sustainable development challenges include establishing and sustaining a reasonably high economic growth rate that can alleviate poverty, benefit all people in equitable ways and sustain a growing population, while ensuring that the environmental and natural resource integrity of the continent is maintained. Establishing strong future oriented governance systems that take account of history and context is part of this challenge, as is strengthening of social cohesion. These challenges require added impetus and 'fast tracked' responses, in the light of new challenges posed by Africa's currently relatively low capacity for adapting to the consequences of global climate change. Effective strategies that reach current professionals, governors, communities and young people across the continent are needed.

In response to the pressing need to ensure sustainable development on the African continent, the African Ministerial Conference on the Environment (AMCEN) has taken various steps, often in partnership with the United Nations Environment Programme (UNEP), to strengthen

## Climate Change in Africa

"While Africa has contributed the least to the increasing concentration of greenhouse gases in the atmosphere, it is the most vulnerable continent to the impacts of climate change and has the least capacity to adapt".

"Africa's priorities are to implement climate change programmes in such a way as to achieve sustainable development, in particular, to alleviate poverty and realize the Millennium Development Goals with emphasis on the most vulnerable groups such as women and children. Given that Africa is the most vulnerable region with the least adaptive capacity, adaptation is the most immediate priority."

"Capacity building is needed to enable human resource development through, among other measures, focused training, mentoring and learning-by-doing approaches; and to empower relevant institutions at different levels; to enhance observation, research and knowledge management; and to strengthen communication, education and awareness-raising, at all levels, especially at local and community levels."

(AMCEN 12 decisions, 2008)



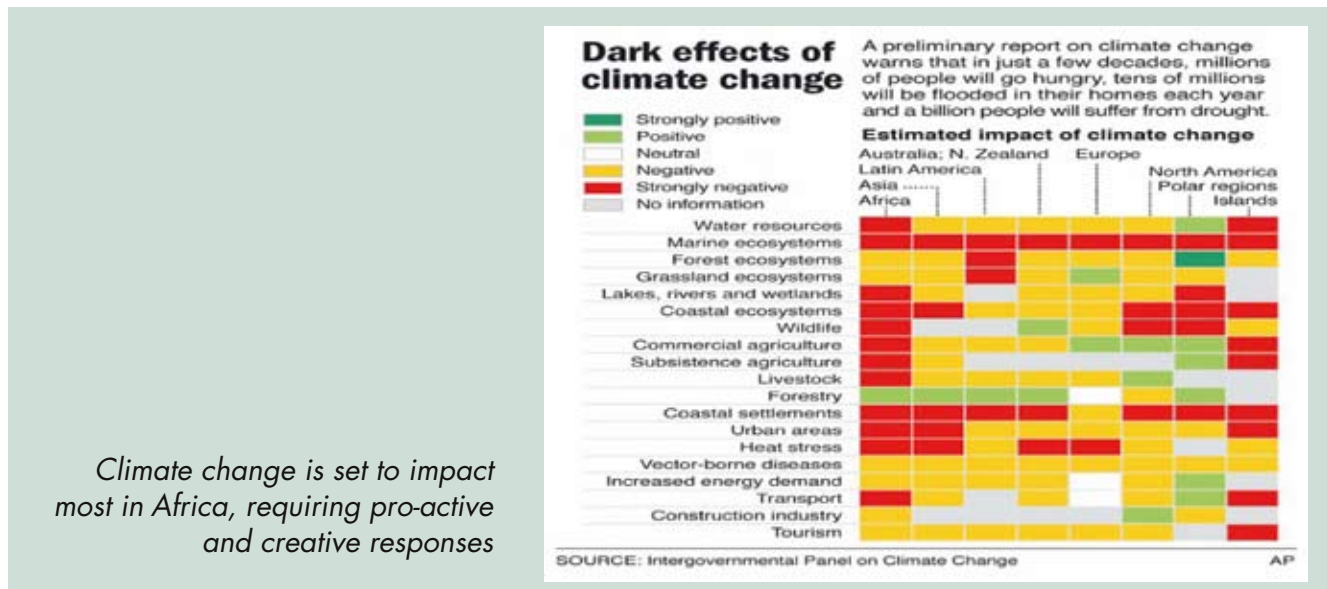
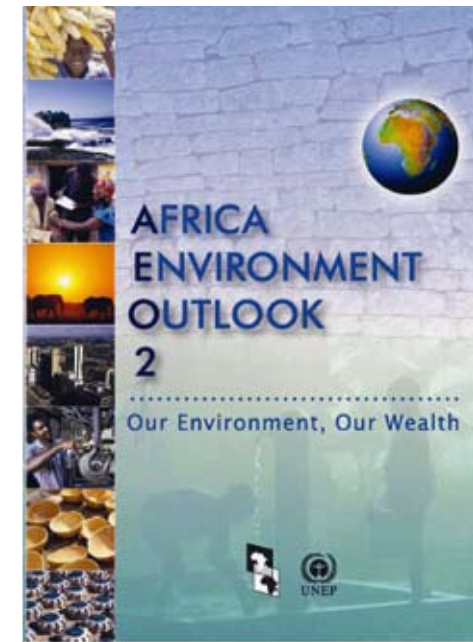


the development and use of environmental knowledge for sustainable development. Such initiatives include the production of the Africa Environment Outlook report, which emerged from the AMCEN Medium-Term Programme in 2000. This report has helped to highlight the most critical environmental issues facing the African continent. These include climate change, the decline of biological resources through deforestation, overharvesting of resources, soil degradation and, perhaps most significantly, the lack of, and low quality of freshwater.

Most recently, an AMCEN flagship publication, Africa: Atlas of Our Changing Environment, emerging from the Africa Environment Outlook process, was launched during AMCENs 12th meeting (AMCEN 12) in Johannesburg, South Africa. This has been produced by UNEP to provide further knowledge resources for sustainable development decision-making in Africa. These are

amongst many other such knowledge resources that are available to support learning and decision-making. The production of knowledge resources on Africa's environment (while crucial) is, however, not enough to ensure that people across Africa become involved in processes of sustainable development. As a result, AMCEN recently emphasised the importance of capacity building involving **environmental education and training and technology-enhanced learning** for ensuring sustainable development in Africa.

The AMCEN 12 decisions reflect a clear understanding that capacity building, education and training are critical for preparing communities to respond to climate change and other environmental challenges facing the African continent. AMCEN has requested governments, through their principal environmental authorities, to facilitate inter-ministerial cooperation to undertake, among other things, a number of key actions in



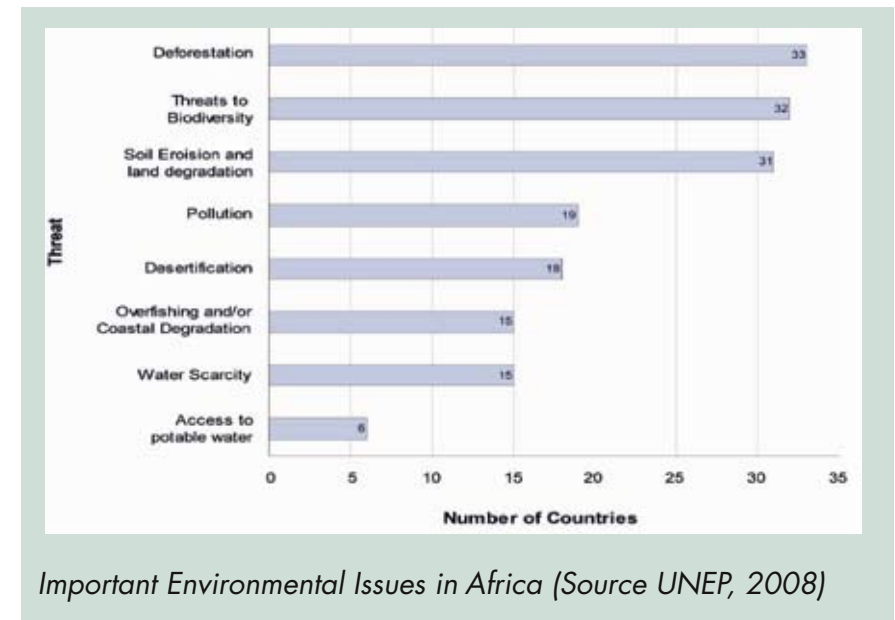
*Climate change is set to impact most in Africa, requiring pro-active and creative responses*





the area of Environmental Education and technology-enhanced learning. One such action is the development of a strategic approach to mainstreaming Environmental Education across all relevant governmental institutions, including the design of programmes suitable for the primary, secondary and tertiary education sectors and fostering cooperation with the non-formal Environmental Education sector.

The AMCEN decisions further strengthen commitment to the implementation of the NEPAD Environmental Action Plan which is aimed at addressing the region's environmental challenges while at the same time combating poverty and promoting socio-economic development. The NEPAD Environmental Action Plan also emphasizes the importance of **mainstreaming environmental education** and training for sustainable development. It is fortunate that a favourable global environment policy initiative exists for these regional commitments, in the form of the UN Decade of Education for Sustainable Development (UNDESD).





# Education for Sustainable Development

**E**ducation for Sustainable Development (ESD) has a long history associated with a UNEP/UNESCO partnership established in the early 1970's to strengthen Environmental Education internationally. Through a series of international Environmental Education conferences, programmes, educational policy and training initiatives and educational resource materials developed in the last thirty years, Environmental Education has expanded its reach to encompass a wider engagement with development issues under the banner of Education for Sustainable Development. A key outcome of the Rio Earth Summit's Agenda 21 in 1992 was wide-spread international commitment to strengthen **the role of education, training and public awareness in achieving sustainable development**. The Johannesburg Plan of Implementation at the World Summit on Sustainable Development in 2002, in seeking to further strengthen the contribution of education, training and public awareness to sustainable development, specifically called for the declaration of a Decade of Education for Sustainable Development.

In 2005, the United Nations launched a Decade of Education for Sustainable Development (2005-2014). The UN Decade of Education for Sustainable Development (UNDESD), adopted through Resolution

57/254 of the UN General Assembly, proposes that **all levels of the education and training system** need to be re-oriented towards a more sustainable model of development that meets the needs of the present generation, without compromising or jeopardizing the capacity of future generations to meet their needs. It calls for multi-sectoral and multi-stakeholder participation in re-orienting education, training and public awareness initiatives world-wide within a system of life-long learning. It implicates ministries and faculties of education, environment, health, economics, science and technology and social development (amongst others) in this task along with teachers, university professors, educational administrators, learners in all walks of life and all levels and phases of education systems world-wide.

**Education ministers** in Africa have shown commitment to Education for Sustainable Development. In 2006, African Ministers of Education signed a statement of commitment to implement the United Nations Decade of Education for Sustainable Development (2005-2014) in the context of the Second Decade of Education in Africa. In particular, they made a commitment to support the development of strategies for implementing the United Nations Decade of Education for

## THE CORE ISSUES OF ESD

(as defined by UNESCO in the International Implementation Scheme for the UNDESD, 2005)

**Environmental issues:**  
conservation of biodiversity and natural resources, transforming rural societies and environments, sustainable urbanisation and disaster prevention and mitigation

**Economic issues:**  
poverty reduction, greater corporate responsibility and accountability, a 'benign' market economy

**Socio-cultural issues:**  
fulfilment of human rights, promotion of peace and security, gender equality, good health, good governance, reinforcement of intercultural understanding, preservation of cultural diversity

**Cross-cutting complex issues:**  
climate change, urbanisation, sustainable consumption and production





Sustainable Development in their respective countries and to ensure that principles of sustainable development are included in educational development frameworks, programmes and activities at all levels. The Ministers also emphasised the need to ensure that African cultures, knowledge systems, languages and ways of life are integrated into frameworks, programmes and activities developed within the Decade.

A number of key ESD outcomes are already visible in Africa, notably the commitment that many African education ministries are making to integrate environment and sustainable development issues such as health, poverty alleviation, and indigenous knowledge in national curricula. A draft sub-Saharan Strategy for Education for Sustainable Development has been developed by UNESCO that provides guidance for African Ministries of Education and Training and practitioners seeking guidance on the UNDES in Africa. Core principles of the strategy include stimulating an endogenous process for a paradigm shift in education, taking a holistic approach, ensuring an inter-disciplinary and integrated approach to Education for Sustainable Development. It also emphasises participation and decentralisation, ensuring harmonisation and coherence, mainstreaming gender and highlighting the cross-cutting nature of Information Communication Technologies (ICT) through Education for Sustainable Development.

Under this framework, an innovative university focussed partnership initiative for Education

for Sustainable Development has been established across the African continent. Led by UNEP's Environmental Education and Training Unit, this partnership involves UNEP, UNESCO and the African Association of Universities (AAU), as well as a range of other partners such as the Southern African Development Community (SADC), the Nile Basin Initiative (NBI), the Global Virtual University (GVU), Leadership for Environment and Development (LEAD), the United Nations University (UNU), the International Centre for Research in Agroforestry (ICRAF) and its network, the African Network for Agriculture and Agroforestry Education (ANAFE), the Horn of Africa Regional Environment Centre and Network (HOA-REC/N) amongst others. This partnership supports the **mainstreaming of environment and sustainability in Africa's universities (MESA)**, creating a mechanism and supportive environment for universities to respond to environment, sustainable development and climate change challenges in Africa.

The vision of the UN Decade of Education for Sustainable Development is a world where everyone has the opportunity to benefit from quality education and learn the values, behaviour and lifestyles required for a sustainable future and for positive societal transformation.  
(UNESCO, 2005)



# Higher Education and Sustainable Development

Achieving sustainable development in Africa requires imagination, creativity, new knowledge development and various strategic contributions. It also requires the full participation of all those who are working and learning in Africa's education systems. The world's leading scientific bodies along with UNESCO and other key educational institutions which collaborate under the banner of the Ubuntu Commission, have identified Higher Education as a critical sector to work with in achieving the goals of Education for Sustainable Development. The role of Higher Education in sustainable development has been affirmed at a global level and also on the African continent.

In Africa, there are **54 countries** with over **300 universities**, employing **150 000 academics**

serving close to **five million students** in an estimated \$5 billion enterprise. The universities are the apex organisations in the Higher Education system, which in Africa consists of over **900 different institutions**, representing a powerful force for change.

Some nations have large numbers of universities while some have none and others have only a single institution. A few have lost their only university because of war, while others are rebuilding their universities after a period of war. The quality of university outputs across Africa differs widely and universities generally operate in a very fragile social ecology. The majority of universities in Africa can be described as being in a holding pattern of 'stable crisis'. Despite this, universities in Africa

The World Declaration on Higher Education for the 21st Century affirms the role of Higher Education in the 'consolidation of human rights, sustainable development, democracy and peace, in a context of justice' ... The African Association of Universities (AAU) Declaration on the African University in the Third Millennium (2001) calls for 'the revitalization of the African University, and for a renewed sense of urgency in acknowledging the crucial role it should play in the many problems facing the continent.' (NEPAD Council Commission of Education)









have a very significant role to play in leading development, as they produce the graduates that fill government offices and who make many of the major decisions about the continent's future and development path. They provide leadership to other institutions of learning such as teacher education colleges (which educate teachers who in turn educate all of the continent's children). In most countries, university academics participate in policy formulation and fulfil various advisory functions in society.

*To ignore the Higher Education sector in Education for Sustainable Development efforts would be to ignore the power of the youth in contributing to responsible, critical and effective decision-making in future.*

Involving the Higher Education sector in issues of sustainable development is not a simple or easy matter. The ESD Innovations Programme of MESA states that:

African Universities have been engaged in a long and complex struggle to establish themselves as knowledge generators and disseminators, as partners to the state and their communities, and as critical voices of and in society. Through this extended struggle, there has been an on-going and reflexive search for platforms that enable meaningful contributions to society. As Mamdani and

other African intellectuals warn, to continue with this project, does not simply involve an 'adoption' of institutional rhetoric on sustainable development, or development of new structures and projects in universities, but a deeper engagement with the remaining institutional legacies of colonialism (and neo-colonialism) in Africa. This includes an examination of the current institutional form of the university itself, and contemporary trends to marketise and privatise university services in society. It, therefore, involves a broader post-colonial intellectual project of reconceptualising African universities, their relationship to democracy and societies and environment in which they are embedded.

(UNEP, 2006)

Pro-active engagement with the multiple transformations taking place in African universities and African societies, and their meanings and modalities is necessary. Critical to this (amongst others), is coming to grips with the implications of globalisation; the emergence of knowledge-based economies in which intellectual capital is increasingly valued; increased use of technology in teaching, research and administration; changing student populations and their needs; and changes in the way that institutions are funded.

Within the above set of demands lies a broadly acknowledged view that Higher Education must play a role in development. This involves transforming harmful development strategies to contribute, meaningfully, to the well-being of Africa's people and environment.

This is not a matter only affecting the African continent, and the challenges posed by the environment crisis and sustainable development affecting universities around the world. Since 1972, there have been various initiatives, declarations, networks and alliances that have worked towards articulating what the implications of sustainable development are for university management, teaching, research and community engagement. As can be seen from Table 1 on the next page, the MESA Universities Partnership is a key contributor to this wider global process of re-thinking Higher Education in the context of global, national and local sustainable development challenges.

*Re-orienting universities to respond more effectively to equity, poverty alleviation and environmental degradation and risk requires the creative effort of all of Africa's Universities.*

**Table 1: On-going international initiatives emphasising the role of Higher Education in sustainable development**

1972 ... **Stockholm Declaration on the Human Environment** (UNESCO, ... emphasises the need for Environmental Education from grade school through to adulthood)

1977 ... **Tbilisi Declaration** (UNESCO-UNEP ... argues that Environmental Education should be integrated into all levels of education)

1990 ... **Talloires Declaration** (statement by university administrators pledging commitment to Higher Education for Sustainable Development (HESD))

1991 ... **The Halifax Declaration** (recognises the leadership role that universities can play in a world at serious risk from irreparable environmental damage ... challenges universities to contribute to sustainable development at local, national and international levels)

1992 ... **Agenda 21, Rio Earth Summit** (emphasises the need for re-orientation of all education and training, at all levels, towards sustainable development and encourages governments to respond pro-actively)

1993 ... **Koyoto Declaration** (The 9th International Association of Universities (IAU) Round Table calls for a clearer vision on HESD. IAU policy workplan highlights sustainability initiatives in universities).

1993 ... **Swansea Declaration** (involving representatives from 400 universities in 47 countries ... re-affirms previous calls for HESD and stressed equality amongst countries and support from universities in richer countries for HESD in less wealthy countries)

1994 ... **CRE Copernicus Charter** (developed by the Conference on European Rectors ... emphasises universities as leaders in sustainable development, and emphasises networking amongst universities)

1997 ... **Thessaloniki Declaration** (twenty-year follow-up to Tbilisi Declaration. Emphasised the re-orientation of university curricula and teaching practices)

2001 ... **Luneberg Declaration** (Alliance between Copernicus Campus, IAU and University Leaders for a Sustainable Future to address HESD issues at the World Summit on Sustainable Development)

2002 ... **Kasane Declaration** (First meeting of its kind held in Africa ... hosted by the University of Botswana prior to the World Summit on Sustainable Development)

2002 ... **Ubuntu Declaration** (11 foremost education and scientific organisations of the world call for an initiative to strengthen science and technology education for sustainable development)

2002 ... **Global Higher Education for Sustainability Partnership** (A type II partnership formed out of the World Summit on Sustainable Development involving all key HESD networks and initiatives: Copernicus Campus, ULSF, IAU and UNESCO).

2004 ... **MESA** (Mainstreaming Environment and Sustainability in African Universities) network and partnership (led by UNEP, UNESCO and AAU, to strengthen HESD in African universities) started.

2005 ... **UN Decade of Education for Sustainable Development** (develops an international implementation scheme highlighting the role universities in strengthening ESD in society)

2007 ... **Ahmedabad Declaration** (emphasises role of Higher Education in Environmental Education for sustainable development, and in responding to climate change and new development challenges of the 21st century, including poverty alleviation and sustainable livelihoods for all)

2008 ... **First MESA Conference in Africa** (hosted by UNEP to strengthen South-South and North-South dialogue on HESD ... prepares contributions from Africa for World Higher Education Conference (2009) and World Education for Sustainable Development Conference (2009), as well as the 2009 AAU conference focussing on HESD.



# Revitalising African Universities

*The revitalization of African universities is identified as a major agenda of the African Union in its plans for the Second Decade of Education in Africa. Education for Sustainable Development has a key role to play in revitalising African Universities, and is emphasised in the UN Decade on Education for Sustainable Development's international implementation scheme and the sub-Saharan Africa Strategy on Education for Sustainable Development.*



To contribute to sustainable and more equitable forms of development, universities will need to be multi-purpose institutions that, in the face of an increase in market dominance in Higher Education, explicitly invoke the public good. Africa is home to some of the world's most ancient universities with a consequent long history of intellectualism in African societies. Despite this, the modern university in Africa is essentially a post-independence phenomenon, as only a handful of universities were established and supported during the colonial era. These were essentially university colleges with curricula and institutional forms based on reproductive models, reproducing intellectual and knowledge creation patterns characteristic of British, French, Portuguese, Belgian and other colonial universities and epistemologies.

After independence, in the early 1960s, the forces of nationalism confronted the academic heritage of the colonial period and a rapid expansion of Higher Education institutions occurred as nation states invested in human resource development to strengthen emerging government institutions

and implement development priorities. Despite the key role that universities were envisaged to play in the development of society, funding to these institutions was reduced in favour of basic education. The result of this severe funding crisis was the expansion of numbers of students with insufficient resources to service their needs. Insufficient funding also led to weakening research and unmotivated lecturers. Due to high levels of dependence on government funding, the academic system was vulnerable to the pressures of political conformity, self-censorship and a significant brain drain, which together had negative consequences for intellectual development in African universities and the associated sustainable development of society.

Against this background, a new role for African universities to be more socially, environmentally and economically relevant is currently being defined. In its Plan of Action 2004-2007 as well as Strategic Framework for Deadline 2015, the revitalization of the African university is identified as a major agenda of the African Union. In responding to the challenges facing Higher Education, the African Union (AU), with NEPAD, has instituted an initiative to ensure the renewal of Higher Education in Africa. A NEPAD Council Commission of Education has been



formed to strengthen African universities and give opportunities for African scientists and scholars to develop their research skills as part of the efforts to reduce poverty, stimulate and ensure sustainable economic, social and political development in Africa. Priorities identified in the AU's proposal for the renewal of Higher Education in Africa include:

- To transform African universities into 'development universities' which respond to local and regional needs while also enhancing the continent's competitiveness in the global knowledge economy,
- To position African universities as partners and resources for regional co-operation and integration of Africa, and
- To mobilise all stakeholders in a concerted effort to share responsibilities and create synergies in the renewal of African universities.

The MESA Universities Partnership's main contribution to revitalizing Higher Education in Africa is the **mainstreaming of environment and sustainability concerns** into universities in Africa to respond to the Millennium Development Goals, the AMCEN and NEPAD commitments to sustainable development in Africa. It also hopes to address **the scientific and knowledge gap** that exists between Africa and the rest of the world, as shown in the figures below in Table 2.

"This (the MESA Universities Partnership) has provided a broader context for our work and has opened opportunities for collaboration more widely in Africa. This is **essential** if we are to find African solutions to Africa's environment and development challenges, especially with new risks associated with climate change and its projected impact on Africa"  
(MESA Professor, 2004)

"I very much appreciate the opportunity given to me to participate in this MESA e-Learning course and in the e-Learning process. I think I would now find my way to register for it to learn it properly. It is a big way of learning how to develop our course content to address sustainable development issues in Africa ... it is not only useful, but **needed** in my institution and in all African universities"  
(MESA Professor, 2007)





**Table 2: Why the MESA Universities Partnership is needed**  
(Source: OARE, May 2007)

Researchers	Africa: 71,038 Canada: 80,000 USA: 962,700 Asia: 4,483,881
Patents	Developed countries: 86% (USA = 40%) Rest of the world: 14%
Series Title (ISSN records)	Africa: 7094 Latin America: 27,842 USA: 161,031
National Library Collections	Africa: 3 million Asia: 46 million Europe: 300 million





**MESA creates access to a pool of professionals ....**

“When I had to put up a Climate Change consultative meeting at short notice, the MESA network became handy to assist in identifying relevant participants from SADC”  
(MESA Professor, 2007)





# Mainstreaming Environment and Sustainability into African Universities



**Mainstreaming** involves the systemic integration of environment and sustainability concerns into a wide range of disciplines, faculties, programmes and courses in universities, as well as integration of these concerns into university policies, management practices and student activities.

Responding to the need to strengthen the role of Higher Education in sustainable development in Africa, UNEP in keeping with its mission to inspire, inform and enable nations and people to improve their quality of life without compromising that of future generations, facilitated by the establishment of a network of universities to mainstream environment and sustainability into African universities. To start the process, UNEP commissioned a baseline study on MESA in African universities and consulted with senior academics from across the African continent on mainstreaming environment and sustainability into university education. The first MESA network meeting was held in 2004 at the UNEP Headquarters in Nairobi, and through subsequent participatory processes, the focus and direction of the MESA Universities Partnership was developed. A critical aspect of this process was developing an understanding of what mainstreaming means.

## Clarifying mainstreaming

**Mainstreaming** encompasses all three core functions of a university: teaching, research and community engagement and includes management and partnerships.

**Mainstreaming** of environment and sustainability concerns is values-based, and involves transformative learning processes and new ways of

thinking about teaching, research and community engagement. This represents a transformative agenda and is change-oriented at institutional and societal levels.

**Mainstreaming** cannot be prescriptive, and thus requires a participatory process of co-definition of what can/ought to be mainstreamed and how this might best be done in different universities, countries and institutional frameworks.

## The aims of the MESA Universities Partnership

**Long term objectives** include:

- Building broad-based multi-disciplinary capacity for responding to environmental and sustainability issues in African universities and the broader education system which is influenced by universities,
- Reversing negative environmental trends on the African continent,
- Maximizing the development opportunities provided by Africa's environment in a sustainable manner,
- Enhancing the preparedness of African societies to respond to the projected impacts of global climate change, and
- Revitalising Higher Education systems in Africa by building competence to address

21st century science, technology, society and sustainable development challenges as envisaged by the AU and NEPAD.

Addressing environmental and sustainable development concerns in universities requires multi-disciplinary, trans-disciplinary and integrated responses as environment and sustainability encompasses all aspects of human endeavour. Both re-active and pro-active responses to complex issues such as poverty, ecological degradation, loss of ecosystem services and climate change are needed and involve scientific, sociological, psychological, educational, medical, cultural and technological approaches at the same time. The change necessary is not only content-related but requires approaches to teaching and learning that are transformative, community-engaged and relevant to contemporary and future societies. Such change needs to be infused by values and ethics that are counter-hegemonic and different to the 'norm'.

The MESA Universities Partnership supports university teachers to better utilise development tools such as information communication technologies and on-line learning, as well as to engage locally with communities in response to community-related issues and concerns. This is aligned with the African Union's Second Decade on Education and aims to revitalise Higher Education in Africa. The MESA Universities Partnership also encourages universities to 'seek out the future' and engage with risk, uncertainty, and the generation of new and different development solutions. It supports individual and institutional change and development, and encourages universities to involve their business

communities and local government systems in their initiatives for change.

## Baseline information on MESA (2004)

At the start of the MESA Universities Partnership, a baseline study was commissioned by UNEP (in 2004). This study found that in **most African universities environment is still mainly taught as a separate course (25%)**, or as a **fringe aspect** of a limited number of disciplines such as ecology, hydrology, climatology or geography amongst others with the main emphasis being on the sciences (30%). Few teacher education faculties, law faculties, engineering faculties, humanities faculties etc. had integrated environment and sustainable development issues. Only around 5% of the universities had a special institutional framework (e.g. a centre, institute or school) evolved to address the inter-disciplinary nature of environment and sustainability issues.

The baseline study reported that HESD and Environmental Education was slow to evolve in Africa given the other challenges being faced by the continent from the mid-1960's onwards when the environmental movement was gaining prominence in international circles. This was a period of intense change in Africa when most countries were in the process of achieving independence from colonial rule. Priorities for education were access to education for all people, educational infrastructure and new

*The overall aim of the MESA Universities Partnership is to enhance the quality and policy-relevance of university education in Africa in the context of sustainable development and achievement of the Millennium Development Goals*





national curricula. Resources were limited for Higher Education as most resources were allocated to basic education, and few were earmarked for Environmental Education *per se*.

The baseline study also indicated that **the continuous conceptual evolution of environment** has also influenced the slow uptake of Environmental Education in African universities, given that rapid and flexible systems are required to continuously adapt to changing concepts. **Intensification of poverty** also affected the uptake of Environmental Education, as did a general **deterioration of economic performance** under structural adjustment programmes which left little room for new ventures and initiatives such as the incorporation of new thinking and trends into education and training systems. In examining the issues internally within universities, the study found that:

- There were significant **misconceptions** and **low rating** of Environmental Education and training at undergraduate level in universities which affected subject choices (i.e. students did not choose environmental options) and participation in environmental qualifications. This was attributed to a range of interconnected factors including inadequate career counselling, poor knowledge of environmental options in relation to career choices and market values, poor orientation and advocacy for environmental choices in Universities and a lack of latitude to 'experiment' with interesting options.
- These problems affected post-graduate

studies in environmental fields and environment was **not seen as an esteemed career opportunity** as it had not been promoted as such by universities or the wider society. A lack of sustainable job opportunities was also cited as a factor influencing poor participation in environmental qualifications at post-graduate level.

- Various issues within the university administration and academic system also hampered Environmental Education and training in universities. These included: a **lack of research** to keep abreast of the continuous evolution of the environmental sciences and disciplines; the difficulties of maintaining multi and inter-disciplinary research and teaching for sustainable development; **inadequate co-ordinating frameworks** to allow for experimentation; inadequate programmes of continuous **capacity building** for university staff to keep abreast of a newly-developing field; inadequate promotion of research into the human-development-environment relationship due to **disciplinary boundaries**. Other related factors were identified as being a **poor system of partnership formation** between universities, government, private sector and communities.

*"In general, for most universities [in Africa], Stockholm, Rio Earth Summit, WSSD, the MDGs, the NEPAD and forthcoming DESD do not ring intellectual bells, yet. It is 'business as usual, in creaking ivory towers. For them, partnerships with government and communities for mutually sustaining programmes are not yet the norm. And environmental education and training is a vague notion of low priority"* (MESA baseline study, 2004)



*Failure to address the poor 'status quo' of environment and sustainability in African universities is dangerous as universities will continue to churn out functionally environmentally illiterate graduates who are the managers of tomorrow's development efforts ... This is serious for a continent already seething with a complex of environmental crises and with a deepening poverty syndrome.*

*(MESA baseline study, 2004)*



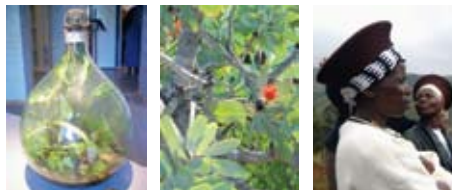


The baseline study recommended:

- **Strengthening policy relevance of university education** within the framework of the UN Decade on Education for Sustainable Development and in response to Africa's commitment to the Millennium Development Goals and various multi-lateral environmental agreements. The UN Decade Education for Sustainable Development was identified as a critical opportunity to promote **mainstreaming** of environment and sustainability into African universities.
- Establishment of a **partnership orientation** to mainstreaming to build closer relationships between universities, communities, the private sector and government. The partnership orientation should include the wider formal education sector so that school going learners could develop an interest in an ethical concern for the environment and an interest in environmental careers.
- Development of a **workable 'bottom up' strategy and action plan** (conceptualised with university partners) to integrate environment and sustainability concerns into university education. This should not only take account of, and respond to traditional structures and systems, but also promote innovation and change. The strategy should also consider an African **network** of universities that could promote Environmental

Education and training across the Higher Education system in Africa.

- It was recommended that **UNEP play a facilitative role** in the mainstreaming process, and that UNEP should also involve other critical partners at regional and international levels.



## MESA Universities Partnership Phase 1 (2004 – 2007)

The MESA Universities Partnership Phase 1 was established as a contribution to the UN Decade of Education for Sustainable Development. The first group of MESA partners met at UNEP Headquarters in Nairobi in 2004 to discuss the baseline study and the question of **mainstreaming** environment and sustainability in universities. At this meeting, the MESA network was established and plans were put in place to establish a strategy for the network and initiate a capacity building programme for participants in the network. Key partners were identified and early partnerships were formed.

Subsequently, various activities took place over a three year period, as outlined in Table 3 on the next page. These were supported by various forms of partnership support. The

partners committed approximately \$300000 to Phase 1 of the project.

### Participation

Phase 1 involved 65 Universities in 32 countries in Africa namely: Lesotho, Kenya, Malawi, Nigeria, Botswana, Namibia, Mozambique, Swaziland, Egypt, Uganda, South Africa, Zimbabwe, Liberia, Mauritius, Zambia, D.R. Congo, Rwanda, Cote d'Ivoire, Ghana, Cameroon, Sudan, Rwanda, Tanzania, Burkino Faso, Gabon, Mali, Senegal, Chad, Benin, Ethiopia, Burundi, Morocco. This represents **21%** of Africa's 300 Public and Private Universities.

Active MESA partners included UNEP (who were facilitating the initiative), UNESCO, the Association of African Universities (AAU), the Nile Basin Initiative Transboundary Environmental Action Project (NBI-NTEAP), the Southern African Development Community Regional Environmental Education Programme (SADC-REEP), Environic Foundation International (EFI), the Global Virtual University (GVU), the United Nations University (UNU) and the Africa Integrated Environmental Assessment and Reporting Network (AFINET). Supporting Organizations included: The UNU-Institute for Natural Resources in Africa (INRA), the African Network for Agro-Forestry Education (ANAFE), the African Forum for Leadership and Development, the Global Higher Education for Sustainability Partnership (GHESP) and NEPAD.

## MESA University Partnership Awards

The first MESA University Partnership awards were presented at the World Environmental Education Congress in 2007 to the University of Gondar in Ethiopia for the creation of a Department of Development and Management Studies and to Kenyatta University, Kenya for their Education for Sustainable Development Undergraduate and Postgraduate Courses.



Above: Aline Bory-Adams from UNESCO hands over the MESA award to Ayub Ndarugaa from Kenyatta University.

## Mechanism and approach

In Phase 1, the MESA Universities Partnership operated through four **key mechanisms** that were designed by university partners in the MESA network through a participatory approach to achieve its results:

- **Partnership and networks:** Partnerships provided access to resources that were not available through UNEP. Networking provided a mechanism for knowledge exchange, for monitoring progress, for encouraging on-going participation and for results-sharing.
- **Guideline resources:** Guideline resources provided conceptual and practical support needed for the process of mainstreaming. These included an ESD Innovations Tool-kit, ICT-based materials and support for ICT-based materials development.
- **Capacity building:** Capacity building opportunities provided for professional development of university academics, leaders and students to undertake change-oriented mainstreaming initiatives in universities. It also exposed MESA project participants to knowledge resources, research partnerships and opportunities to strengthen mainstreaming

activities in universities.

- **An awards framework:** An awards framework enhanced participation, motivation and a results-based orientation to the project.

These four support mechanisms proved to be effective in: a) mobilising active participation in MESA; b) supporting change initiatives in universities; and c) ensuring high level results in short time spans. The four key mechanisms were used to guide a range of different MESA activities (see Table 3) involving a wide range of partners and a range of different kinds of partnership support (including funding and support in kind). A key focus throughout was **innovation** and universities were encouraged to introduce new courses on environment and sustainability and review existing curricula.







First MESA Leaders Seminar at UNEP Headquarters, May 2006





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**Table 3: MESA Universities Partnership Activities Phase 1 (2004 – 2007)**

**June 2004** ... First consultative expert meeting with senior academics in African universities on mainstreaming environment into university education, Nairobi, Kenya

**June 2004**... Development of e-Learning materials and training programmes with Global Virtual University, creates exposure to e-Learning for MESA network

**May 2005** ... Programme framework deliberation meeting to develop a Tool-kit and action plan for MESA in Nairobi, Kenya

**November 2005** ... ESD Innovations Tool-kit deliberation meeting hosted in partnership with the SADC-REEP in Howick, South Africa

**March 2006** ... Development of MESA Tool-kit with SADC-REEP and MESA professors and lecturers

**March 2006** ... Launch of the UNDESD in Africa at the Association for the Development of Education in Africa (ADEA) conference with the signing of a Ministerial Statement of Commitment to the UNDESD

**May 2006** ... First MESA ESD Innovations training sessions at UNEP Headquarters with university-based innovation programmes launched for the rest of Africa

**May 2006** ... First MESA Leadership Seminar involving senior leaders of the UNU, UNESCO, the AAU, Vice-Chancellors and university policy structure representatives

**May 2006** ... First MESA public lecture, Kenyatta University, Nairobi, Kenya in partnership with UNU and Global Virtual University

**May 2006** ... Second MESA ESD Innovations training sessions at UNEP Headquarters with university-based innovation programmes launched for the Francophone countries by UNEP in collaboration with the Nile Basin Initiative (NBI-NTEAP)

**July 2006** ... UNEP invited to join the Ubuntu Alliance

**August 2006** ... Education and Training unit of UNEP identified by the Horn of Africa as one of the potential partners for the Regional Environment Centre in setting up the Gulele Botanical Gardens in Ethiopia.

**November 2006** ... Translation of the MESA Tool-kit into French with UNESCO and IDRC support

**November 2006** ... AAU declares African University Day theme on Education for Sustainable Development

**December 2006** ... Approval of three MESA-linked Regional Centres of Expertise for ESD by the Ubuntu Commission and the United Nations University

**December 2006** ... Training programme on On-line Education for Sustainable Development in Africa in partnership with the Global Virtual University, Nairobi, Kenya

**December 2006** ... MESA business campus initiative launched to raise private sector partner awareness of MESA

**May 2007** ... First MESA ESD Innovations programme run in French for Francophone countries, led by UNESCO, the International Development Research Centre (IDRC) and the Network of Sustainable Development in Africa (NESDA), Cotonou, Benin

**July 2007** ... First MESA Awards at the World Environmental Education Congress, Durban, South Africa, MESA workshop held at the World EE Congress, MESA featured in partnership with AAU in Plenary Sessions

**August 2007** ... AEO/MESA Module Planning Workshop to strengthen and support the use of UNEP's AEO materials in Universities, Nairobi Kenya

**August 2007** ... MESA sub-regional workshop for southern African MESA participants in partnership with SADC-REEP, Lusaka, Zambia

**October 2007** ... MESA presentation at the Conference of Rectors, Vice-Chancellors and Presidents of African Universities (COREVIP), Tripoli, Libya

**November 2007** ... MESA Partners meeting to review MESA Phase 1 and planning meeting for Phase 2



First MESA ESD Innovations Course Participants visit Lake Naivasha, May 2006



## Review and outcomes

At the end of 2007, a Phase 1 review was undertaken through a participatory process involving key MESA university partners and participating universities. Key outcomes of MESA Phase 1 were identified as:

- **Changes in curriculum and teaching practice:** At least 50 university courses were being revised and re-oriented towards sustainable development in African Universities, within a broader mainstreaming orientation. New courses and research programmes were also being initiated, although these were still in their infancy due to the time required to make more substantive systemic changes.
- **Networking:** A regional network of 90 academics from 65 African Universities in 32 African countries existed for mainstreaming environment and sustainability into African universities.
- **Partnership contributions:** A partnership framework involving 14 partners had been established with funded support, conceptual support and in-kind support.
- **Professional competence and confidence:** Participating lecturers were more confident, committed and knowledgeable about environmental and sustainability issues (i.e. professional development had taken place).
- **Some country-level mobilisation:**

Some country-level mobilisation involving national networks of universities was taking place, although these were all in the 'start-up' phase.

- **Inter-country networking:** Sub-regional mobilization involving inter-country networking at sub-regional level was also taking place.
- **Community level outcomes:** Participating lecturers were reporting evidence of community level outcomes resulting from a new approach to teaching and research.
- **Increased engagement with e-Learning:** There was evidence that universities had benefitted from exposure to various e-Learning initiatives, most notably, the course design support from the Global Virtual University.
- **Synergies with other UN and UNEP initiatives:** The MESA Universities Partnership ensured synergistic development processes with other UN Decade initiatives, such as the implementation of the UNESCO Education for Sustainable Development Strategy for sub-Saharan Africa, and the United Nations University (UNU) Regional Centres of Expertise programme. By the end of Phase 1, four UNU Regional Centres of Expertise for Education for Sustainable Development had been established in Africa all linked to the MESA Universities Partnership.

## Community level outcomes: Some examples in MESA Phase 1

The University of Goma reported lower frequencies of intestinal worms as a result of their research into environment and health.

The University of Malawi reported success with a mushroom production research programme and farmer training for diversification of livelihoods.

The University of Swaziland reported community level outcomes related to soil management, water pollution, poverty alleviation, vegetation depletion mitigation (amongst others) as a result of their curriculum changes.

(MESA Participants, 2007)



At the end of Phase 1 of the MESA Universities Partnership, **impacts** were, therefore, mainly visible at the level of **partnership and networks, individual professional development and course and programme development levels**. The review identified the need to strengthen systemic integration of these initiatives at university level, and within wider university policy systems in Africa. It also supported the concept of sub-regional MESA networks to facilitate wider networking.

Of significance is the **participatory strategy** adopted by the MESA Universities Partnership in Phase 1. This participatory strategy allowed for social mobilization at a local level with regional level support and networking. It also allowed for collective and self-defined innovations, and self management of university-driven processes for sustainability. Phase 1 promoted ownership by both partners and participants, and led to a wide range of different results in different contexts, as



### Inter-country networking outcomes in MESA Phase 1

In North Africa, universities from Algeria, Tunisia and Morocco were briefed on the MESA Universities Partnership project, and interest is developing to take part in the MESA initiative.

In southern Africa, a MESA training programme for southern African universities was run in August 2007 in Zambia. This has been extended to a funded MESA network for three years involving universities in the SADC region.

In West Africa, a network of institutions in Francophone African countries was established in 2007. Since then, a West and Central African MESA network has been established.





**Table 4: Extracts from some university reports, showing diverse MESA achievements after only 1 year of implementation**

<p><b>Zimbabwe Open University</b>            The department agreed to oversee development of a university environmental policy reflecting ESD principles.            The department, with support from the faculty, will act as a Secretariat for a UN Regional Centre of Expertise (RCE) to be developed by the Zimbabwe Environmental Education Consultative Forum.</p>	<p><b>University of Swaziland (UNISWA)</b>            3 of the 18 activities in the university MESA action plan have been implemented: holding a planning meeting, consultations with the Vice-Chancellor and establishment of the UNISWA Steering Committee for the implementation of MESA.            Development of a proposal to audit existing courses on ‘sustainability elements’ within the university.</p>
<p><b>Egerton University, Kenya</b>            Development of a Masters Degree in Environmental Science based on UNEP MESA material.            Expansion of the botanical garden.            Establishment of an environmental week, and Dean’s committee seminars in two faculties.</p>	<p><b>Mekelle University, Egypt</b>            All courses in the department of land resources have included a chapter on sustainable development as part of their courses.            Tree planting with the land resource management and environmental protection and environmental club to raise student awareness on environmental issues.</p>
<p><b>University of Buea, Cameroon</b>            Establishing a national network with other universities for ESD.            Establishing a regional network with universities in Chad, Central African Republic, Gabon and Republic of Congo for ESD training.            Utilising adapted case studies to consider ways of integrating sustainability into various degree programmes.            On-going revision of existing university syllabi to include ESD.</p>	<p><b>Obafemi Awolowo University (OAU), Nigeria</b>            Establishment of OAU-MESA workshop group.            Training of Trainers (ToT) programme for OAU-MESA Working Group.            Partnership with Environic Foundation International (a UNEP-MESA partner). Review of case studies using MESA ESD Innovations Tool-kit.            Support gained from the National University Commission (NUC) for MESA Universities Partnership project. Stakeholder meeting held.</p>



MESA Partners Review Meeting,  
Nairobi, Kenya

*“Domestic action, supported by a regional framework, is in my mind the key”  
(MESA Professor, 2007)*



## MESA Universities Partnership Phase 2 (2008-2010)

### Mechanisms and approach

The Phase 1 review informed Phase 2 of the MESA Universities Partnership. It was decided to retain the key operating mechanisms that had proven to be successful in Phase 1 of MESA with some key changes:

- More **capacity building** initiatives were needed, involving a wider range of capacity building opportunities that focussed on a range of university activities necessary for mainstreaming (leadership, curriculum change, community engagement and research).
- A stronger **systems-approach** needed to be developed in MESA to support systemic changes in universities, so that innovations were not only dependent on individual efforts and **university leaders** needed to become more involved.
- **Sub-regional networks** were needed to provide for more localised networked interactions and for stronger integration with **university policy systems**.

Of significance was the on-going support for local-level innovations in universities, by the participating universities. The links between local level initiatives in universities and a regional network with a range of interaction opportunities was seen to be the key to the

success of the MESA Universities Partnership, as were the on-going and diverse forms of involvement by MESA partners. Phase 2 of MESA, therefore, continued to focus on a) strengthening local level innovations in universities and b) exposure to regional links, capacity building opportunities, partnerships and resources.

Further momentum in the first year of Phase 2 of the MESA Universities Partnership developed through:

- Establishment of stronger links with UNEP divisions which allowed for greater exposure to and use of UNEP materials and resources;
- The development of an International Training Programme (ITP) in partnership with SIDA, Ramboll Natura, three Swedish Universities and two African Universities which allowed for South-North and South-South dialogue and knowledge exchange;
- Development of guideline resources and tools for assessing sustainability in universities and university policy systems and curriculum materials for use in universities;
- Extended partnerships at sub-regional level, allowing for more diverse MESA networks and activities and sub-regional level networks;
- Expansion of the UNU Regional Centres of Expertise linked to the MESA Universities Partnership.
- Advocacy engagements with universities on environment and sustainability through a university public lecture series.



## Establishment of Regional Centres of Expertise in ESD and sub-regional MESA networks

At the start of Phase 2, 11 Regional Centres of Expertise in Education for Sustainable Development had been approved by the Ubuntu Commission and the United Nations University. All were linked into the MESA Universities Partnership and were strongly linked with participating MESA universities. One of the MESA partners (the SADC-REEP) had raised funding to support the establishment of a further 10 Regional Centres of Expertise across the southern African Region, as well as funds to support a sub-regional MESA network. In West and Central Africa, similar initiatives were underway to extend the Regional Centres of Expertise in ESD and sub-regional MESA networks. East and North Africa were also involved in a similar process.

A key focus in Phase 2 of the MESA Universities Partnership is to strengthen and extend these RCE and sub-regional networking processes. One of the components of the NEPAD Environmental Action Plan is to identify and strengthen **centres of excellence** on specific issues on the continent. Early evidence suggests that the MESA / UNU Regional Centres of Expertise in Education for Sustainable Development Network could prove to be a valuable resource for strengthening the education and training component of the NEPAD Environmental Action Plan and the Environmental Education and technology-enhanced learning initiative of AMCEN.

## A systems approach to change initiatives in universities, supported by MESA research

Another key focus of Phase 2 activities is the development of a **systems approach** to mainstreaming in participating universities. To support this process Rhodes University, in partnership with UNEP and Ramboll Natura have developed an auditing tool to assist universities to assess the status of ESD in their institutions. This Unit-Based Sustainability Assessment Tool (USAT) is adapted from other international tools such as the Auditing Instrument for Sustainability in Higher Education and the University Leaders for a Sustainable Future Sustainability Assessment Tool. It has been adapted for use in African universities and focuses on a unit-based assessment system allowing universities to assess sustainability initiatives at departmental, research unit, student activity, management and policy levels.

The development of the USAT tool has been the focus of a PhD study at Rhodes University, in South Africa - which is also the first PhD to focus on the MESA Universities Partnership and its activities in Africa. The USAT has been pilot-tested by participating universities in the MESA-linked International Training Programme and will be revised following critical feedback for future use. The USAT also assists participating universities to identify relevant change projects, which in Phase 2 of MESA, have been supported by an eight-month long International Training Programme on ESD in Higher Education (implemented in partnership with Ramboll Natura) involving the development of change projects in participating institutions.



The Makana RCE at Rhodes University, South Africa



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These change projects are based on principles of reflexivity and engagement with institutional level changes, through enhancing professional development and exposure to new concepts, ideas and contexts. This model of institutional change is the subject of research by a team of MESA participants which will be presented at the 2009 World Environmental Education Congress in 2009.

**Policy-relevance and contributions to the 2nd Decade on Education in Africa**

A third focus of MESA Phase 2 activities is to clarify and articulate the policy-relevant outcomes of MESA activities from an environment and sustainable development perspective (i.e. the AMCEN and NEPAD



agendas) and to demonstrate that MESA has a clear contribution to make to the revitalisation of Higher Education in Africa, thus addressing the objectives of the 2nd Decade on Education in Africa. To this end, the first Biennial MESA International Conference is being hosted by UNEP, with outcomes that will feed into the World ESD Conference, the African Association of Universities Conference in 2009 and the World Conference on Higher Education in 2009. Earlier strategies involving participatory monitoring and feedback will be taken forward to extend knowledge of the policy relevance and impact of MESA in Phase 2.

**Extending MESA resources and technology-enhanced environmental learning**

New resources have been developed through MESA to facilitate and extend technology-enhanced environmental learning. A key resource produced by UNEP for the MESA Universities Partnership is the 'Sustainable Societies Africa: Modules for Sustainable Development' e-Learning materials in partnership with the Environic Foundation International (EFI). This flexible resource makes it possible for all universities to offer a foundation course in 'Sustainable Societies in Africa' to all students. It uses the African Environmental Outlook (AEO) report as a core resource and addresses the issues critical to sustainable development identified by the World Commission on Sustainable Development (WSSD). A number of e-Learning materials, as well

**An ESD assessment of some teaching departments at the University of Botswana**

(using USAT indicators for curriculum, teaching approaches, research and community engagement)

Department of Environmental Health is leading with 92%, Department of Architecture and Planning with 81.25%, Department of Languages and Social Science Education with 43.75%, Department of Business with 42.5%, Mathematics and Science Education with 20%



The USAT tool, developed for MESA through PhD studies into systems-based approaches to sustainability in African universities.

as a training programme for using e-Learning technologies for environmental management have also been developed through a MESA Global Virtual Universities partnership and are available through the GVU (<http://www.gvu.unu.edu>). The MESA ESD Innovations Tool-kit has been made available on the UNEP website ([www.unep.org/training](http://www.unep.org/training)) and is proving to be a popular support resource. Despite being available electronically, the ESD Tool-kit is about to be re-printed for a third time through Share-Net, a low cost sustainable publishing centre in South Africa.

*Technology-enhanced environmental learning enables globalised, open, flexible, lifelong learning in international networks*  
(GVU, 2007)



## Expanding participation and investment in MESA

Phase 2 of the MESA Universities Partnership is building on the foundation established in Phase 1. The first MESA workshop involved 9 universities, and 5 partners. In 2008 (the start of Phase 2) there were 77 universities participating with 29 partners. This represents a significant increase in participation (see Figure 1 below). Financial investment in Phase 2 included the SIDA/Ramboll Natura partnership funding for the development of an International Training Programme. All-inclusive partnership funding support received for Phase 2, so far, is approximately \$570 000. This brings the total financial investment of partners in MESA to \$870 000 to date.

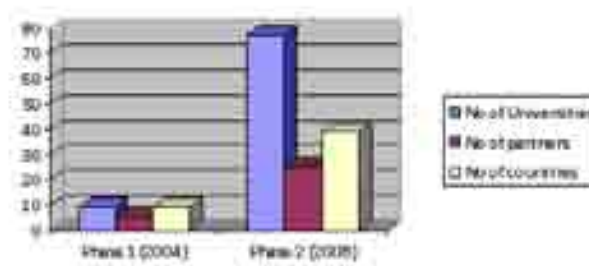


Figure 1. Increased participation in the MESA Universities Partnership

As can be seen from the overview of MESA Phase 2 activities in Table 5 below, MESA workshops, run by MESA participants and national partners such as the National Environmental Management Authority in Uganda and the National Universities Commission in Nigeria, are beginning to emerge

at national level. To date, MESA workshops have been held at national level in Uganda, Nigeria, Cameroon, Malawi and at sub-regional level in the Francophone countries. If this trend continues, participation in MESA is likely to increase in Phase 2 of the partnership. One of the challenges will be to document this participation and the associated outcomes.





**Table 5: Phase 2 MESA Universities Partnership Activities (2008 – 1st year of phase 2)**

**December 2007** ... Approval of seven new MESA-linked Regional Centres of Expertise in ESD by the Ubuntu Commission and the United Nations University (a total of 11 RCE's now exist in Africa, all linked to MESA)

**April 2008** ... National MESA workshop for Vice-Chancellors in Uganda

**May 2008** ... First MESA International Training Programme in partnership with SIDA, Ramboll Natura, Uppsala University, Chalmers University, Stockholm University in Sweden, Rhodes University in South Africa and Obafemi Awolowo University in Nigeria

**May 2008** ... MESA-linked pre-conference seminar on Mainstreaming e-Learning for Environment at the 3rd International Conference on ICT for Development, Education and Training, Accra, Ghana

**May 2008** ... MESA public lecture with the University of Nairobi, Kenya

**July 2008** ... Launch of the West and Central African MESA network in Nigeria

**July 2008** ... National MESA workshop for universities in Nigeria involving the National Universities Commission

**July 2008** ... MESA public lecture with Rhodes University, South Africa

**September 2008** ... MESA public lecture with Egerton University, Kenya

**September 2008** ... MESA public lecture with Strathmore University, Kenya

**September 2008** ... Planning meeting to extend MESA-linked International Training Programme to a global initiative involving African and Asian universities

**November 2008** ... MESA Southern African network meeting – planning of MESA activities and establishment of MESA UNITWIN network

**November 2008** ... MESA sub-regional networks meetings – planning of MESA activities for 2009-2010

**November 2008** ... First International Biennial MESA Conference, Nairobi, Kenya focussing on university responses to environment and development challenges and climate change in Africa. Preparation of contributions to AAU Conference, World ESD Conference, World Conference on Higher Education and World Environmental Education Congress in 2009

**November 2008** ... Second MESA Awards at the MESA Conference, Nairobi, Kenya

**November 2008** ... Inauguration of the Network for Environmental Education and Sustainable Development Innovations in West and Central Africa (NESDI-WECA)

**November 2008** ... UNEP, in partnership with Environic Foundation International (EFI): Launch of the Sustainable Societies in Africa: *Modules on Education for Sustainable Development*. This publication utilized a number of UNEP's scientific materials in its production.

*It is hoped that by the end of the UNDESD (2014), at least half or more of Africa's Universities will be fully engaged in mainstreaming environment and sustainability into their teaching, research and community engagement programmes, with positive outcomes for people and the environment, and ultimately, the well-being of Africa's current and future generations and the sustainable development of the continent.*



## Plans for MESA Phase 3 (2011-2014)

As indicated, the MESA Universities Partnership is a UN Decade of Education partnership initiative, facilitated initially by UNEP and increasingly being owned and supported by a range of partners involved in MESA. 2014 marks the end of the UNDESD and a summative evaluation process at the end of 2014 will no doubt be necessary. Phase 3 will, however, have to be built on a review of MESA Phase 2 at the end of 2010. On-going reflexive monitoring is, therefore, a critical dimension of MESA, and Phase 3 will, to some extent, be dependent on this process.

Following trends established in Phase 1 and the emphasis being taken in Phase 2, MESA Phase 3 will, however, probably continue to strengthen system wide mainstreaming in universities and will continue to provide capacity building opportunities, as well as networked links and access to knowledge resources for



mainstreaming. Should the AMCEN technology-enhanced environmental learning initiative be taken forward, a number of MESA universities will no doubt be able to benefit from this in Phases 2 and 3 of MESA. In Phase 2, the MESA-linked International Training Programme will extend to a global initiative providing universities in Africa with more opportunities for North-South and South-South links. This, will hopefully, be strengthened and extended in Phase 3.

If the synergistic partnership between MESA, UNESCO and the UNU continue to flourish, more Regional Centres of Expertise in Education for Sustainable Development will exist across the African continent and stronger links to the teacher education system will exist with more support for Francophone and Lusophone countries. With continued momentum, and strong support from the African Association of Universities, MESA Phase 3 would also be able to continue contributing to the revitalisation of Higher Education in Africa and will, therefore, also hopefully make a substantive contribution to the 2nd Decade on Education in Africa.





# University ESD Innovations and Evidence of Change

The MESA Universities Partnership story indicates that a viable participatory mechanism based on local level innovation, regional interactions, exposure to new knowledge resources and partnerships has been established to support mainstreaming of environment and sustainability in African universities. As can be seen from the participation profile, more universities are participating in the initiative, and a stronger partnership network is developing in the context of sub-regional networks and a system of Regional Centres of Expertise. Access to environmental knowledge resources is improving and

specialised courses and tools are being made available to support the task. Use of technology-enhanced learning is also increasing.

But what are universities actually doing, and what are the 'real outcomes' on the ground? How is the MESA Universities Partnership actually impacting on the ground? And what is being gained from the engagements? Is a difference visible and how should on-going impact be established? At this stage (mid-way through the UNDESD) there are some strong indicators of changes taking place in universities.

## Environmental change interventions

The African Environmental Outlook report, and the NEPAD Environmental Action Plan has identified a range of critical environmental issues affecting Africa's Development. AMCEN have recently emphasised the need for continent-wide responses to climate change. There is evidence that the university participants in MESA are taking up some of these issues in their teaching and research.



Here are some examples of how universities are addressing environmental change and sustainable development through local level innovations and curriculum changes:

#### **University of Cape Town, South Africa**

Restructuring of the environmental law curriculum to ensure a wider perspective on environmental law (previously the faculty concentrated mainly on coastal and marine law), as well as access to environmental law modules for more students at more levels in the university. This has involved raising the profile of environmental issues in the faculty, reforming the LLB and LLM curricula to include principles of environmental law, natural resources law, pollution law and land-use planning law.

#### **Universities of Abomey-Calavi (Benin), Abobo-Adjame, Cocody (Cote d'Ivoire), Ouagadougou, International Institute of Environmental and Water Engineering (Burkina Faso) and the School of Technology (Cameroon)**

These universities, working through a sub-regional partnership approach, have developed a four credit course entitled Sustainable Development, Environmental Education and Ecosystem Approach to human health at Masters Degree level. A research action project has also been established on domestic waste management involving decision-makers, researchers, civil society and municipalities.

#### **University of Nairobi, Kenya**

The Department of Agricultural Economics in the University of Nairobi has re-oriented the curriculum to include a stronger focus on environmental sustainability as the curriculum was previously biased only towards the economic and some social aspects of agriculture. The new curriculum includes aspects such as climate change and adaptation, environmental valuation policy, natural resource economics and management and national and international protocols and agreements, as well as contemporary issues.

#### **Obafemi Awolowo University, Nigeria**

At this university, sustainable development issues are being mainstreamed into four programmes in the Humanities namely Religious Studies, Philosophy, History and Sociology. The focus is on considering values and ethics associated with sustainability issues, integrating environmental sustainability issues into the curriculum, introducing concepts of campus stewardship, and community service initiatives that address environmental sustainability issues. Problem-solving approaches and motivation to contribute to social change are approaches that are being integrated into these curricula.

#### **The University of Mauritius, Mauritius**

The Engineering faculty at the University of Mauritius is researching sustainable technologies for composting paper waste and also for providing more sustainable energy resources for Mauritius. This is part of a broader Eco-Campus initiative that also involves development of a General Environmental Management module for all students.

#### **University of Botswana, Botswana**

The University of Botswana is introducing a Masters Degree in Environmental and Sustainability Education. Research into the degree indicated the need to include critical environmental topics such as water management, climate change, ecosystem services management, mining, and biodiversity, and to investigate educational responses to these issues at different levels of the education and training system.

#### **Zanzibar University, Tanzania**

Zanzibar University is introducing a module on sustainable development into the Development Studies curriculum, and is also re-orienting the law curriculum to integrate community issues relevant to sustainable development issues. Sustainable development issues on the island of Zanzibar include management of ecosystem services, poverty alleviation and sustainable livelihoods.

#### **Suez Canal University, Egypt**

The Suez Canal University in Egypt is re-orienting its agricultural science curriculum to include a focus on sustainable development. This is to make the agricultural curriculum more relevant and responsive to changes in rural areas that address the nexus of sustainable livelihoods, sustainable intensification of integrated production systems, and integrated natural resources management and management of ecosystem services.

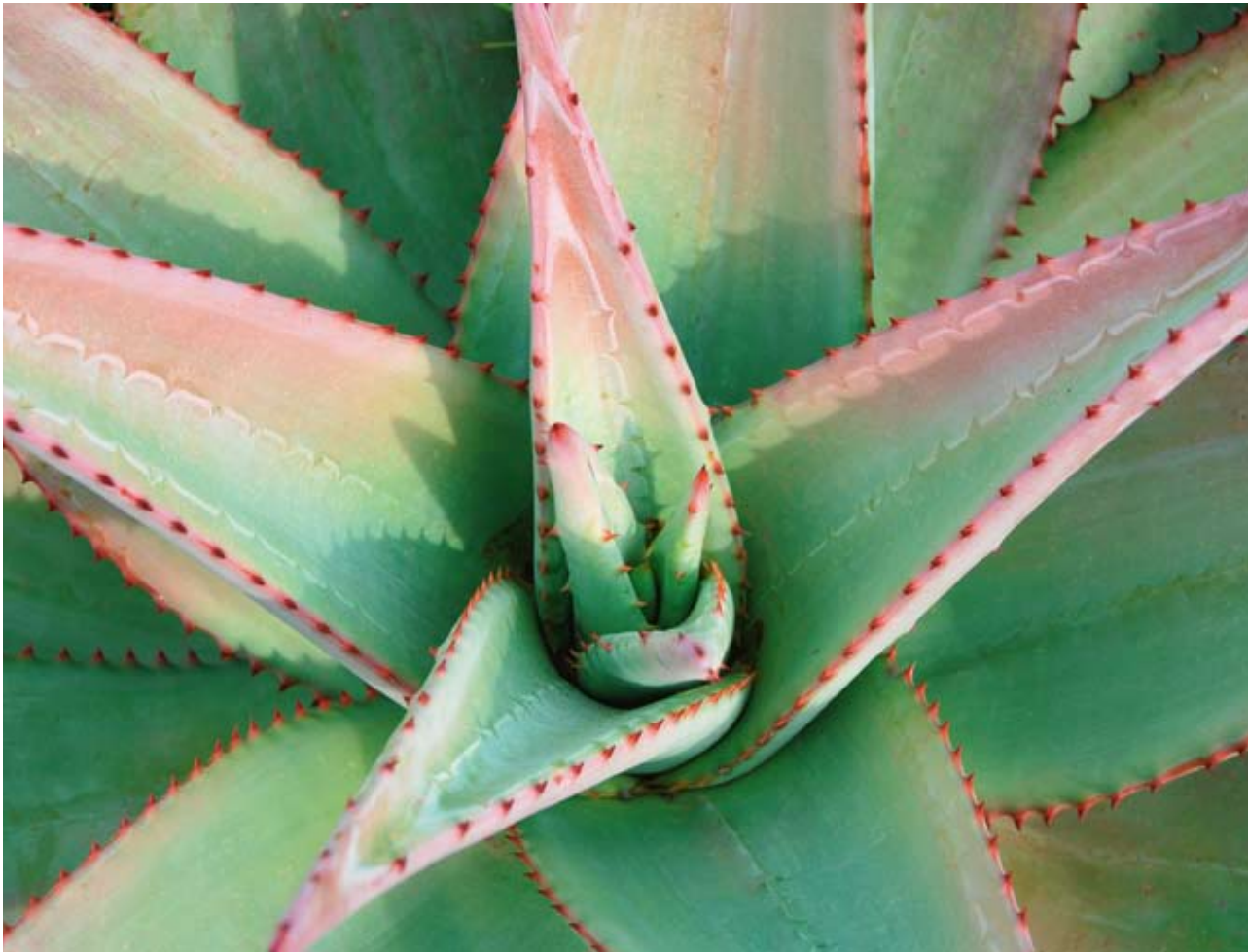


As can be seen from the above, a wider range of university disciplines are getting involved in the mainstreaming process. Faculties that have participated in the MESA Universities Partnership to date include: Education, Law, Engineering, Science, Humanities, Agriculture, Business, Commerce, Technology, Theology, and Economics (amongst others). This is building understanding of the multi- and inter-disciplinary nature of environment and sustainability issues, and in many universities partnerships are being formed across faculties. For example, at Rhodes University in South Africa links exist between the Education Faculty, Science Faculty and Business School. At the University of Swaziland, a strong ESD partnership exists across the Geography Department and the Education Department. At Botswana University, links are being made between the Education and Environmental Science Faculties. Similar trends have been reported in many of the other participating universities. This is extending capacity for addressing environment and sustainability issues.

### *Department level curriculum changes*

*“Well, from the beginning, my intention was not to introduce a new course at this stage, but at least to introduce a chapter in all courses concerning the link between the course and environmental management. In this regard, I am successful, since all courses in the department of Land Resource Management and Environmental Protection have now introduced such a concept”*  
(MESA Professor, 2007)







## Changes in teaching, learning, research and community engagement

Not only is new content being introduced into courses in universities, but changes are taking place in teaching approaches, learning processes and in engagement with communities, as shown by these examples of university actions. One of the main challenges that ESD and mainstreaming of environment and sustainability introduces to universities is the building of closer links between local, regional, global and community-based knowledge and experience. New epistemologies and methods are needed for this to take place effectively.

Various **changes in teaching practice** are occurring, for example:

- Rhodes University MESA participants in South Africa are experimenting with a curriculum framework that is oriented towards social transformation and integration of scholastic and community-based knowledge in the context of sustainability practices. This is challenging traditional ways of thinking about knowledge in universities. A research programme on indigenous knowledge in education has been established, and new forms of assignments are being implemented that encourage students to integrate theory with community engagement and

- changes in practice. At Mbarara University of Science and Technology in Uganda, teaching strategies for pre-service science teaching have been re-oriented. The focus of this work is to make teaching at secondary school level more relevant to community needs. A study was undertaken to establish what factors are limiting interaction between schools and their neighbouring communities. New modules and materials are being introduced that have a stronger focus on local issues and indigenous knowledge and experience.
- The University of Nairobi in Kenya has incorporated Environmental Education for sustainable development into the 'Contemporary Legal Problems Course'. The course now has an environment and development component in which students are required to understand the practical application of laws in sustainable development. Students reported positively on the development, indicating the value of a stronger practical applications focus to their curriculum.

**Research** is also informing change processes and mainstreaming. For example the African Network for Agriculture and Forestry Education (ANAFE) network undertook research to identify critical weaknesses in current agricultural education. It identified that objectives for programmes were not well articulated, that limited resources and training of educators is influencing the quality

Increasingly, universities have to draw on and contribute to the global knowledge base in order to customise and elaborate knowledge to benefit the local/regional community which supports it. In this situation, it is the responsibility of the university to facilitate the creation of a new generation capable of contributing better to sustainable development of their own societies as well as the world community.

(Hans van Ginkel, former Rector of the UNU, May 2006 at the 1st MESA Leadership Seminar)



of agricultural education, that there is a poor understanding of the integrative nature of land use disciplines, particularly the links between farming and conservation. It also identified poor conceptual orientation related to industrial and business aspects of agricultural education, and a lack of focus on women and local innovation.

Some MESA participants are undertaking research into the 'status quo' of ESD in their institutions to inform mainstreaming. For example, at Bahir Dar University in Ethiopia, MESA participants have used the USAT tool to research ESD practice at this university, and have found that sustainable development issues are covered both directly and indirectly in their curriculum, but that some aspects such as ethical issues could be highlighted further. Despite having a focus on sustainable development they found that teaching approaches did not develop critical thinking, or a sense of responsibility amongst students. They have indicated that curriculum revisions should be undertaken to strengthen these approaches.

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Other research initiatives are building the scientific base of environment and sustainability in Africa. For example, MESA participants in Cote D'Ivoire are contributing directly to new research on environmental health, while MESA participants in Malawi are beginning to train young scientists to undertake carbon sequestration monitoring in order to address climate change issues and to ensure that carbon trading benefits reach Africa's communities. A number of universities are researching ecosystems, ecosystem services and their links to human well-being.

*The MESA Universities Partnership is leading to a new kind of teaching and research in African universities which is aimed at community development and problem-solving. This permeated all disciplines involved in the MESA Universities Partnership Project. Participating universities have expressed a need for greater support for this kind of work and for forums to share experience and publish the results of this work.*  
(Phase 1 MESA Review, 2007)

The MESA initiatives are also showing improved **community engagement** outcomes. The Department of Chemistry at the University of Nairobi revised their syllabus in order to contribute to the sustainable development objectives of Kenya. Community involvement and consultation was at the core of this process. At Uganda Martyrs University, the Faculty of Agriculture expanded its curriculum to include concepts of Eco-Tourism in order to involve students in practical community-based learning activities. The community outreach programme, at this university, was expanded to include all teaching departments. The mission and vision of the outreach programme was being expanded and revised to reflect this development. In Liberia, the Director-General of Higher Education has launched a MESA Universities Partnership initiative to mainstream environment and sustainability concerns into research and community engagement in Liberia. Under this initiative, students will be assigned to various communities to work and mobilise resources and

human knowledge in addressing sustainable development issues during their junior and senior years. The project also aims to create awareness amongst rural communities on sustainable living and development.

### New approaches to learning using e-Technologies

The MESA Universities Partnership has made e-Learning a key focus of its activities. Throughout the four year start-up period of MESA, various initiatives were undertaken to strengthen e-Learning. This involved a partnership with UNEP's OARE which provides on-line access to research in the environment; a partnership with the Global Virtual University which provided training for MESA participants to learn to design and develop e-Learning courses, and a partnership with the Environic Foundation who developed a 'Sustainable Societies Africa' e-Learning programme with MESA using UNEP's scientific materials for use in African countries. This was presented to and is being considered by the Nigerian National Universities Commission as a key initiative to use in training all students in all universities in Nigeria.

Through this process, knowledge of Environmental Education and technology-enhanced learning has been gained and a number of participating universities have implemented e-Learning programmes on the environment. For example, at Kenyatta University, MESA was introduced into the Department and School of Environmental





Studies and Health Studies, and e-Learning programmes were introduced into the Environmental Sciences programme using constructivist approaches. The University of Malawi was investigating the possibility of incorporating e-Learning from the Global Virtual University in their courses. The University of Buea in Cameroon have implemented an e-Learning programme to train environmental scientists.

The development work has also contributed to an assessment of Environmental Education and technology-enhanced learning by UNEP, which was put forward to, and discussed at the AMCEN agenda influencing the AMCEN decision to focus on Environmental Education and technology-enhanced learning.

### Using and developing up-to-date teaching and learning materials

Changes are also visible in the area of materials development and use. A number of the MESA participants have used the MESA ESD Innovations Tool-kit to guide the design of new materials and have made use of UNEP MESA materials such as the Africa Environment Outlook report in their teaching. The ANAFE Network is launching a large project called 'Strengthening Africa's Strategic Agricultural Capacity for Impact on Development'. A key activity of this project is to provide support for agricultural scientists in Africa to develop relevant learning resources based on African



MESA professors work with the Environic Foundation International to develop e-Learning materials



## Professional Development Outcomes

“My knowledge base has been greatly expanded, I am better placed to contribute to policy formulation, my teaching and research has taken an international approach, and I am more passionate in contributing to solving societal environmental problems through my profession”

“It has exposed me to other intellectuals, it has raised my environmental awareness, it has increased my interest in research”

“So many lessons have been learned from the MESA experiences which have contributed to my professional development. Being part of the MESA formulation process provided me an opportunity to learn from experiences of academics from Africa and abroad. I have also acquired new and innovative ways of approaching my analysis of ESD issues and delivery of ESD within the local university curriculum. Moreover, I have learnt about the relevance of networks and collaborative work within the academic areas of action i.e. teaching, research and community outreach. The explanations cannot be exhausted”

(MESA Professors, 2007)





knowledge and experience. ANAFE is a key partner in the MESA Universities Partnership and will contribute valuable knowledge to the MESA network on materials development and curriculum change as they engage with over 100 agricultural learning institutions on the African continent.

The SADC-REEP, another MESA partner, has developed a Tool-kit to support MESA participants to develop course materials, and also to think through how to use course materials in different ways. Various other capacity development initiatives have provided support for MESA partners to use up-to-date materials being produced by UNEP and other scientific organisations on Africa's sustainable development challenges.

Another example, which also shows the 'double impact' of MESA is the initiative of the Ecole Nationale Supérieure in Madagascar, where MESA participants are developing a teaching kit for teacher

education, which can also be used in primary and secondary schools to integrate Environmental Education concepts into the curriculum. This shows the multiplier effect of supporting educators that educate other educators.

### University teachers' learning

As mainstreaming is a key focus of MESA, capacity building of all university staff has become a key target of many of the MESA participants' work. This involves building knowledge of MESA amongst colleagues and managers in universities. For example, an initiative is underway to build the capacity of teachers to mainstream environment and sustainable development in teaching and research in the University of Yaoundé II in Cameroon. This involves a series of workshops in Cameroon to involve teachers in adopting transformative approaches to learning. As part of the project, a

provisional support centre is being set up to provide information services, access to reference materials, a 'think-tank' and lobby task force to strengthen collaboration on sustainable development and ESD.

Such initiatives are also being taken up at national level in some countries. For example, in The Gambia, a capacity building programme for ESD is being launched for staff in the Higher Education Directorate. A programme involving six modules has been designed for this programme which includes: understanding sustainable development; providing leadership and management for ESD; management ethics for ESD as well as other related modules such as quality assurance and systems approaches.

Such initiatives, conceptualised by MESA participants to support others in their communities of practice to participate in MESA, illustrate the multiplier effect of supporting key individuals with passion and motivation for MESA to work with others. The on-going professional development of university teachers, through the various MESA initiatives, represents another critical outcome of the MESA Universities Partnership as shown in feedback from lecturers participating in the programme.







## Changes in university systems and management

There have also been various outcomes that have addressed a wider systemic approach to mainstreaming, involving university systems and management. These include:

### Involving university leadership and engaging policy-makers

At the University of Swaziland, a university strategy was developed for ESD involving a number of different departments, and with the full support of the Vice-Chancellor. This is leading to new policy, structures and programmes in the university. In Nigeria, the National Universities Commission has been involved in the MESA Universities Partnership. Through this policy making structure, an initiative is underway to mainstream environment and sustainability into all 90 Nigerian universities. The strategy being used is development of a prototype curriculum on environment, economy and social sustainability issues as well as establishment of a training programme for university teachers in ESD pedagogy. This is being done through meetings, workshops and fine-tuning of the curriculum. In Uganda, a MESA workshop was held for all Vice-Chancellors who agreed that the MESA partnership was timely but that there will be a need to build the capacities of university lecturers to mainstream environment and sustainability issues into their curricula, teaching and research. A task force was set up to work with the National Environmental Management Authority (NEMA), Uganda, on how to build the capacity of university





lecturers. The Vice-Chancellors committed themselves to contribute to the programme through leading changes in their universities. The Chief Executive Officer of NEMA, Uganda also supported the MESA initiative, noting that the programme was “long overdue”.

### New institutions and structures

Various new institutions and structures have been established to help with the process of mainstreaming. These include, for example, development of university policies, new networks and partnerships between participating universities. Here are some examples:

*University policies:* Changes have been made and are being made to a number of university policies and in some cases specific ESD policies are being developed. For example, the University of Juba in Sudan developed a university policy on ESD to address sustainable development issues in a post-conflict situation. The focus of the policy was to encourage all departments in the university to include sustainable development in the curricula and other teaching activities.

*New networks and partnerships:* In West and Central Africa, regional ESD MESA networks have been established. The COPES-AOC (Community of Practice for West and Central Africa) network has been established to focus on an ecosystem approach to human health with support from the International Development Research Centre (IDRC). Another

network links universities in Nigeria, Liberia and the Gambia (amongst others), focussing on ESD in Higher Education. Universities from Nigeria have already visited the Association of Liberian Universities. As part of its MESA activities, the National University of Lesotho formed a comprehensive partnership programme with Durham University, Lesotho Durham Link (an NGO) to strengthen and implement ESD in the Lesotho University context. This includes links to the National Teachers College who are working in partnership with the National University of Lesotho and Durham University to build capacity for ESD in Lesotho. As part of its MESA activities, Rhodes University in South Africa, together with other interested partners in the southern African region such as the University of Zambia, are forming a research partnership with Uppsala University in Sweden to research climate change education approaches with a focus on enhancing capability for adaptation to climate change.

*New staff appointments and degree programmes:* At a number of participating universities new staff have been appointed to teach expanded environment and sustainability education programmes. The University of Zambia, for example, introduced a Bachelors Degree in Environmental Education and have appointed new staff into the Faculty of Education. At the University of Cape Town, a new staff member has been approved to strengthen the re-designed and extended Environmental Law programme that resulted from MESA participation.

*“No longer can universities see themselves as only part of a national system, protected by the State which had set rules ... on the programme to be provided and research to be done. Increasingly, universities must rely on their own individual performance to secure sufficient funding for higher quality programmes of teaching and research. Increasingly, they will find themselves unprotected in a highly competitive world”*

*(Hans van Ginkel, former Rector of the UNU at the first MESA Leadership Seminar, May 2006)*



*New centres and institutes:* There are also a few examples of where new institutional structures are being created for ESD. For example, at Rivers State University in Nigeria, a project has been set up to investigate the establishment of a Life-long Learning Centre for Sustainable Development, which aims to provide for re-training of government staff, communities and corporate organisations towards meeting their social and environmental responsibilities as they relate to sustainable development, capacity building and empowerment. At Obafemi Awolowo University (OAU) in Nigeria a Sustainable Development Centre is being established for promoting ESD processes. The centre aims to co-ordinate and promote research and innovation in the field of sustainability, plan and implement sustainable

practices throughout OAU, encourage staff participation in ESD principles and practices, and provide inter- and trans-disciplinary research that integrates social science, the humanities and natural sciences, and to create a forum for national and international ESD practice and policy dialogue.

*New communities of practice:* The formation of working groups within the universities was reported to be a successful strategy for starting the process of mainstreaming. The activities of such groups have included using and sharing the MESA ESD Innovations Tool-kit, and linking mainstreaming activities with industry and other stakeholders. In some instances, these working groups are focussed on specific mainstreaming activities (such as course design changes) while others are focussed on the establishment of new units.

### Involvement of students

There are also various initiatives that are strengthening student involvement in environment and sustainability issues. For example, at Obafemi Awolowo University in Nigeria a 'Students as Change Agents for the Environment' organisation called GRECAM has been established to support and build a 'Green Campus Movement'. This is a student-driven initiative with the following objectives: reduction of consumption of resources and improved management of the university grounds and facilities; encouraging attitudinal change to sustainability issues and accepting responsibility for actions and organisation of skill acquisition programmes for members as well as workshops using case studies. Since the establishment of the initiative, another student organization at the College of Health Sciences, Churchill Cardio Care, has partnered with GRECAM and has approached Guaranty



Launch of the West and Central Africa MESA Network at OAU in Nigeria



Trust Bank for funding for Dustbins for the university campus and the immediate environment, Ile-Ife. At Rhodes University in South Africa, a mix of up to eight different student organisations addressing different dimensions of sustainable development exist, and environment and sustainability issues are fully represented on the Students Representative Council. At the Suez Canal University in Egypt, an active student-centred programme exists for mainstreaming environment and sustainability issues into the life of the university. Many other student-based initiatives are being established such as tree planting activities and waste management activities on campus. Most of the MESA public lectures have been held in collaboration with student campus groups. The First Biennial International MESA Conference has a strong student component.

## **Building knowledge of mainstreaming**

Not all of these changes are visible in every participating university. In most cases, a small cluster of these changes are visible. However, the collective 'capital' that is being developed across the different universities is serving to develop knowledge of mainstreaming and the many different facets of mainstreaming environment and sustainability into African universities. The MESA Universities Partnership, purposefully, works with actors involved in a wide range

of these different dynamics of mainstreaming to facilitate cross pollination of ideas and a broadening of understanding of the concept of mainstreaming. Thus, in one capacity building programme, it is possible to find someone working on student projects, another on university policy and another on establishing a MESA network at national or sub-regional level while others concentrate on their own disciplines or curriculum changes.

Various research papers have been generated out of the MESA Universities Partnership on the process of mainstreaming. Key amongst these are a paper for a special edition on Education for Sustainable Development in Teacher Education (Lotz-Sisitka, Lupele & Ogbuigwe, 2006), the 2006 October Edition of the Research Africa Magazine carried an article on MESA, as did the Sep-Oct 2006 Newsletter of the Association of African Universities. More recently, a chapter on MESA has been included in an international book on Sustainability in Higher Education (Scott & Gough, 2008). A journal paper on the USAT tool has also recently been produced for an internationally accredited journal (Togo, 2008). This process is beginning to build knowledge of mainstreaming environment and sustainability into African universities, a process which is necessary to enhance such practice. One of the objectives of the UNDESD International Implementation Scheme is to stimulate ESD research.



## *Business-university-community partnerships*

*The MESA Universities Partnership has also been supporting strategies to form partnerships with local business at university level. A workshop involving 15 business partners and MESA professors was held in December 2006 to discuss strategies for building stronger links between universities and the business community. A funding proposal has been developed to promote the links between private sector and universities.*





# African contributions to the global context

For so long, Africa has been seen as ‘the poor / under-developed continent’ that ought to be the recipient of goodwill and models of progress designed elsewhere. Major externally funded development aid projects and initiatives have been launched and billions of dollars are spent on bringing development concepts and models to Africa. Conversely, and perhaps ironically, little attention is given to how Africa can contribute to development in a global context.

The MESA Universities Partnership, designed and developed in Africa, by Africa’s professors and university teachers, has something to offer the rest of the world. It has exemplary practice, models of process, knowledge of social learning, and a sophisticated partnership concept that has been and can be shared more widely in the UN Decade of Education for Sustainable Development.

## Partnership building and knowledge exchange

The MESA Universities Partnership has been built on a principle of partnership building and knowledge exchange. A critical dimension of this partnership building

process has been its **open framework** i.e. anyone with something relevant to contribute can become a MESA partner. Partnerships are not based on money only, but also on in-kind support, intellectual resources or materials that might be useful for the universities involved in mainstreaming initiatives. This has not always been easy to manage as different partners have different expectations.

## Emphasising ‘individual and institution’ in institutional development

The MESA Universities Partnership emphasises both **the individual and institution** in institutional development. Here, a focus is on individual capacity or innovation in institutional context, in networked environment. Critical to the MESA Universities Partnership is work with individuals who have an interest and commitment to the focus of the initiative, and then to support them to engage with changes at institutional level through forming networks and partnerships within their institutions and with others in the wider MESA network. Individuals who take their responsibilities seriously, and who are making institutional changes, are also drawn on to provide

support to others participating in the partnership so as to share experience and strengthen innovation.

## Systemic and networked approaches

The MESA Universities Partnership combines systemic and networked approaches through its emphasis on **systemic approaches** to mainstreaming in universities, and through providing MESA partners with access to networks of support and knowledge exchange.

## Change-oriented reflexive professional development with institutional impact

Professional development programmes in the MESA Universities Partnership are based on **self-defined change projects**. All those participating in the professional development programmes are working on university-based change projects, and draw support and new knowledge from the professional development experience. This allows for continuity and stronger institutional impact. Phase 2 of MESA is piloting a change-based professional development

model in partnership with Ramboll Natura in Sweden who is supporting a SIDA-funded ESD International Training Programme for Higher Education within the MESA Universities Partnership. This model of professional development is based on research undertaken at Rhodes University in South Africa and in the SADC Regional Environmental Education Programme, illustrating a case of productive South-North knowledge building and exchange.

## Change oriented institution and professional development model

1 year period of implementation support (implementation is on-going after that)

Phase 1:	Phase 2:	Phase 3:	Phase 4:	Phase 5:
<p>Institutional audit and defining of change project in institutional context. Institutional workshop 1.</p> <p>Use of MESA Unit-based Sustainability Assessment Tool (USAT) to conduct institutional audit.</p>	<p>International exchange and professional development presentation of change project.</p> <p>Use of MESA Tool-kit, and exposure to other university ESD practices.</p>	<p>Work on change project in own institution with colleagues.</p> <p>Use of MESA Tool-kit in own work context and development of new practice.</p>	<p>Regional exchange and professional development.</p> <p>Presentation of change project and production of materials to support change project.</p> <p>Use of MESA Tool-kit and exposure to new practice.</p>	<p>Implement, evaluate and report on change project through institutional workshops or other forums.</p> <p>Reports submitted to the MESA Awards framework.</p>

*Adapted from Ramboll Natura ESD in Higher Education International Training Programme Orientation, and based on Rhodes University and SADC-REEP educational research*





## International training programmes and North-South dialogue

Through a partnership, with SIDA and Ramboll Natura, MESA has contributed to and benefitted from a North-South knowledge exchange process through participation in the design and development of an ESD International Training Programme for Higher Education in Africa. This allowed MESA participants to learn from ESD knowledge and practices in a selected number of Swedish universities, and to undertake university exchange on the African continent. The programme will extend its reach in 2009 to include universities on the African and Asian continents thus fostering South-South collaboration and knowledge exchange across continents. The programme is based on the change-oriented professional and institutional

development model outlined above, and is closely linked with other MESA Universities Partnership activities.

### *Community engaged teaching and research*

*A key insight to be gained from the MESA Universities Partnership is that ESD promotes and supports community engaged teaching and research. Almost all of the reports from participating MESA lecturers on their initiatives indicate a stronger engagement with community-based issues and the various challenges of environment, sustainable development and climate change.*

## Community-engaged teaching and research

At the Federal College of Education in Kano, Nigeria, a MESA change project involving teachers is being implemented. The project aims to strengthen vocational skills amongst teachers, contribute to sustainability through conservation of natural aquatic life, avoid environmental pollution through proper disposal of fish pond waste, foster entrepreneurial skills and initiative and contribute to the alleviation of poverty through fish farming.



MESA participants from the Federal College of Education in Nigeria, working on their change project





## Research collaborations

The MESA Universities Partnership is also showing signs of being an effective way of strengthening research collaborations. In the Southern African region for example, a MESA-linked research programme into ESD and Educational Quality has been established through the SADC Regional Environmental Education Programme involving 5 southern African Universities and the University of Bath in the UK. Research collaborations are also beginning to emerge from the international exchange experiences. Some research links have also been established between MESA Professors and UNEP's scientific base thus beginning to expand the scientific base for environment and sustainable development research in Africa.

## Challenges and Next Steps ...

While much has been achieved in the MESA Universities Partnership over the past four years, a number of challenges continue to exist. These all signal 'next steps'.

## Stronger systems approaches to mainstreaming

There is still a need to develop stronger, more systemic approaches to mainstreaming environment and sustainability into African universities, as the MESA Universities Partnership still relies heavily on committed individuals to initiate and sustain changes being made. University leaders need to become more involved in providing sustained support to the MESA process and initiative.



## Stronger policy support and involvement of University policy structures

While the AAU is a supportive partner in the MESA Universities Partnership, there is a need to engage university policy-makers to provide stronger policy support within university-based policy networks. The example of national policy level involvement of policy-makers in The Gambia, Liberia and Nigeria is showing that involvement of policy-makers in the university system is crucial for creating a more enabling environment for mainstreaming in the universities themselves. Greater involvement of university policy-makers is, therefore, needed to maximise the contribution of MESA to the revitalisation of universities in Africa.

## Sustained commitment from MESA partners

Sustained commitment from partners is needed. Evidence in the MESA Universities Partnership, so far, indicates that those partners who have retained a strong involvement in the MESA Universities Partnership over the past four years are now beginning to see stronger outcomes and mutually beneficial results which are not possible within shorter time frames. The MESA Universities Partnership is a UN

decade-long initiative, and requires a ten-year partnership investment from participating organisations and participating universities. Key partners such as UNEP, UNESCO, the United Nations University, the SADC Regional Environmental Education programme, the Global Virtual Universities and others all have a key role to play in helping to sustain the momentum of the first few years of the MESA Universities Partnership. A newcomer to the MESA Universities Partnership is the Horn of Africa Regional Environmental Centre / Network which is already proving to be a real asset.

## On-going critical and reflexive assessment and monitoring of MESA Universities Partnership outcomes and results

There is a need for on-going critical assessment and monitoring of the MESA Universities Partnership. As the partnership and MESA network expands with more diverse activities, such monitoring becomes more complex. A regular system to facilitate on-going and sustained monitoring of MESA Universities Partnership activities at university level, and at networked levels, is needed if the full impact of the MESA Universities Partnership is to be understood in relation to the baseline data and the need for strengthening



university responses to environment, sustainable development and climate change in Africa. As indicated in the MESA Tool-kit, the MESA process is intertwined with the post-colonial project of re-defining universities, scholarship and the role of the university in relation to the public good in Africa. Monitoring and evaluation should, therefore, not only focus on MESA activities, outcomes and results but also adopt a wider, more critical social change perspective. MESA professors should be encouraged to contribute to dialogue on the wider meaning and contribution of MESA to the project of re-defining and revitalising universities in Africa in the 21st Century. African scientific organisations such as the Council for the Development of Social Science Research in Africa (CODESRIA) and others, should be approached to participate in and support some of this dialogue.

## 58 Extended scope and focus of mainstreaming activities

Most mainstreaming initiatives in the MESA Universities Partnership have been focussed on changes in curriculum and teaching practices. More effort needs to go into supporting research-based mainstreaming work, management changes and student involvement.

### Sustaining an open-ended movement for change

The baseline study recommended that UNEP play a **facilitatory role** in supporting

African universities to begin the process of mainstreaming environment and sustainability into teaching, research and community engagement functions across a range of university disciplines. The baseline study also recommended a **bottom up, participatory process** for establishing MESA. These two approaches to the MESA Universities Partnership have established a partnership process that is essentially an open-ended movement for change, where those that wish to participate become involved and make various contributions within their spheres of influence. The MESA process has shown that this involves changes in own teaching practice and can be as wide as influencing an entire university policy system at country level, or it can support university changes at regional level.

Experience in the MESA Universities Partnership, so far, has identified various contributions to the mainstreaming process that are:

- Teaching practice focussed (with emphasis on pedagogical practice and changing teaching approaches and methods, for example using e-Learning or introducing critical thinking)
- Curriculum change focussed (with emphasis on changes in own discipline)
- Curriculum change focussed (at departmental or faculty-wide level)
- University wide changes (across departments, or initiatives to establish new centres or institutes)
- University-community linked changes (which focus on stronger links between community, private sector and university)

- Specific university-based initiatives (focussing on students, or particular management practices)
- University policy changes (at university level or at national level)
- Sub-regional network development (to support universities interacting with each other on the question of mainstreaming)
- Regional networks and partnership formation (through UNEP, UNESCO, ICRAF and AAU support at this level) that allows for interaction and knowledge exchange across the African continent
- Regional-global networking and knowledge exchange (for example through UNESCO, the UNU Regional Centres of Expertise Network, and the Ramboll Natura International Training Programmes).

Various individual and institutional partners in the network are involved in various of these dimensions of mainstreaming, collectively contributing to **an open-ended, creative movement for change on the African continent**, with real outcomes in the way universities are able to respond to environment, development and climate change challenges facing the continent.

Sustaining this movement for change will require on-going participation from all partners, expanded networks, open communication systems and extended support from partners who can build capacity, knowledge and support systemic changes in universities. It will also require on-going knowledge building of what it means to mainstream environment and sustainability into African universities.



# Acknowledging partner contributions to MESA ....

**UNEP** have played a facilitatory role in establishing and supporting the MESA Universities Partnership. This was done in the context of their special focus on Africa and under the auspices of their education and training strategy for the UN Decade of Education for Sustainable Development. UNEP have funded a number of the MESA Partners meetings, they co-funded the MESA Tool-kit, and have provided support through making various UNEP materials and products available for use in the MESA Universities Partnership. Through their various divisions, UNEP have contributed up-to-date knowledge of environmental issues in Africa and have supported processes

to make this available to universities for teaching and research. UNEP is hosting the First International MESA Conference (24-28 November 2008, Nairobi, Kenya).

The **Association of African Universities** have played a facilitatory role, working closely with UNEP. They have helped with communications with the university system in Africa, have foregrounded ESD in their work programmes, and have supported engagement with university leaders.

**UNESCO** has supported the MESA Universities Partnership as a key UN Decade partnership initiative with UNEP and have funded the translation of the MESA Tool-kit for use in Francophone countries. They have

also supported integration of MESA priorities into other Higher Education processes and structures in Africa.

The **United Nations University** has supported the establishment of a number of Regional Centres of Expertise (RCE's) in Education for Sustainable Development in Africa, and have ensured that these RCE's are linked with the MESA Universities Partnership. They have also contributed intellectual and conceptual resources to the MESA training processes and have supported RCE participants to participate in MESA activities.

The **Global Virtual University** has actively supported MESA through helping







to strengthen and develop an e-Learning focus within MESA. They have developed training programmes and have offered training to MESA lecturers to understand and start working with e-Learning. They have also supported the MESA Leadership Seminar, and are a key founding partner.

**Ramboll Natura** in Sweden has, through **SIDA** funding, supported MESA by developing an ESD International Training Programme for Higher Education in Africa. This has contributed to strengthening the capacity building model in MESA and has allowed MESA participants to participate in North-South dialogue and knowledge exchange, as well as South-South dialogue and knowledge exchange.

The **SADC Regional Environmental Education Programme**, through **SIDA** funding, has supported the development of the MESA ESD Innovations Tool-kit and various training opportunities, including a cluster of southern African university teachers to participate in the ESD Innovations Training. A southern African MESA network has been established in partnership with the SADC-REEP. The southern African Course Development Network provided valuable conceptual and intellectual resources for the design and development of the MESA ESD Tool-kit.

The **Nile Basin Initiative** has supported the running of a number of MESA ESD Innovations training programmes, and has supported university professors from the Nile Basin to participate in, and benefit from the MESA Universities Partnership.

The **LEAD Network** in Africa has provided conceptual and intellectual resources to the MESA Universities Partnership, and have integrated MESA activities into their work programme.

The **Network for Sustainable Development in Africa** (NESDA) with the IDRC, has provided conceptual and intellectual support for translation of the MESA ESD Tool-kit into French and has also supported the Francophone countries to participate in the MESA Universities Partnership.

The **African Network for Agriculture and Forestry Education** (ANAFE) has contributed conceptual and intellectual resources to the MESA Universities Partnership and has made valuable contributions to various MESA Universities Partnership activities. ANAFE are also providing specific ESD support to over 100 Agricultural training programmes in Africa.

The **Horn of Africa Regional Environmental Centre / Network** is one of the newer partners, but are already playing a key role in the planning of the First MESA International Conference. They are supporting components of the conference and are facilitating the participation of their network members' to the conference. A co-operation agreement is under discussion to enable stronger and more effective collaboration.

Links are also being sought with other significant ESD programmes working with universities in Africa, such as the **ACP EduLink** initiative, which supports research in agriculture and health for sustainable development and North-South links and partnerships.



There have also been a number of individual universities that have put in extra effort to support the MESA Universities Partnership and its sustainability. These include:

- **Kenyatta University** hosted the first MESA lecture in 2006 attended by University leaders and students.
- **Makarere University** in Uganda contributed conceptual and intellectual resources in the initial development, design and writing of the MESA ESD Tool-kit.
- **Obafemi Awolowo University** in Nigeria contributed conceptual and intellectual resources to the MESA Universities Partnership and has supported sub-regional university exchange and conceptual development of the ESD International Training Programme.
- **Rhodes University** in South Africa, contributed intellectual and conceptual resources to the MESA Universities Partnership. Rhodes University has also supported research that has contributed to the development of the MESA Universities Partnership and has supported sub-regional university exchange and conceptual development of the ESD International Training Programme.
- **Strathmore University** in Kenya is providing conceptual and intellectual support as well as institutional support for the next phase of the ESD International Training Programme and recently hosted a MESA Public lecture.
- **Université d'Abobo-Adjame** in Cote D'Ivoire has provided conceptual and intellectual support for the Francophone

network and has ensured that Francophone country universities are participating in MESA.

- **University of Buea** in Cameroon has provided conceptual intellectual support for the start-up and development of MESA, and has helped to support a sub-regional networking process.

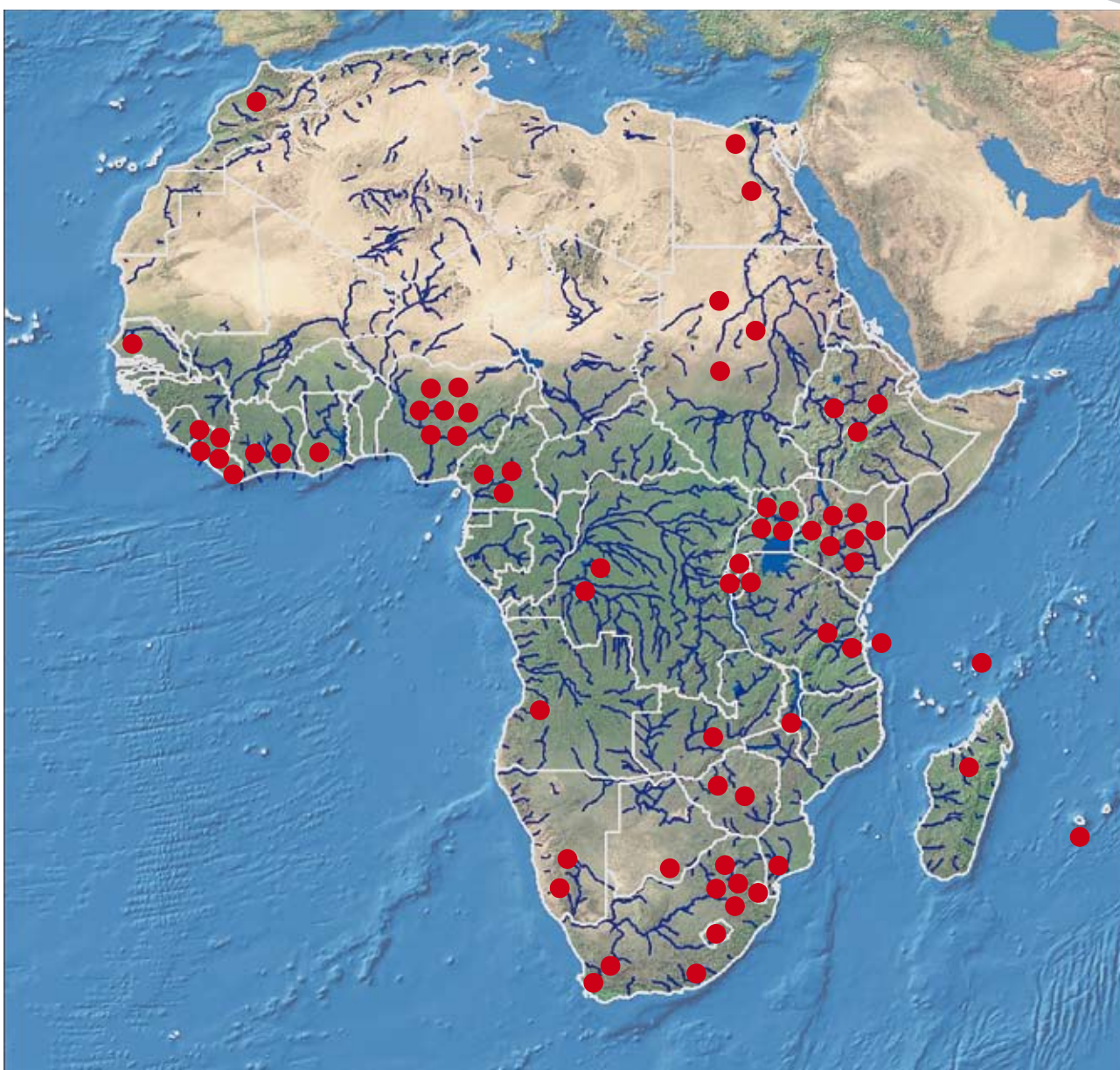
Besides these specific university contributions, a large number of individuals, in a wide range of universities across the African continent, are all contributing their time, effort and energy into MESA initiatives in universities and university communities. Through this work and through various ways of participating in MESA activities, they are all contributing to knowledge of mainstreaming environment and sustainability in African universities, each one being a precious and significant contribution in its own right. An active MESA partner or small MESA community of practice can be found in each one of these universities on the African continent. These include:

Addis Ababa University, Ethiopia  
 Africa University, Zimbabwe  
 Aga Khan University, Kenya  
 Ahia University, Sudan  
 Bahir Dar University, Ethiopia  
 Bayero University, Nigeria  
 Cairo University, Egypt  
 Catholic University, Kenya  
 Cuttington University, Liberia  
 Daystar University, Kenya  
 Delta State University, Nigeria  
 Ecole Normale Superieure, Madagascar  
 Eduardo Mondlane University, Mozambique

Egerton University, Kenya  
 Federal College of Education, Nigeria  
 Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya  
 Kenyatta University, Kenya  
 Kigali Institute of Science and Technology (KIST), Rwanda  
 Kwame Nkrumah University of Science and Technology (KNUST), Ghana  
 Makerere University, Uganda  
 Maseno University, Kenya  
 Mbarara University of Science & Technology, Uganda  
 Mekelle University, Ethiopia  
 Mzumbe University, Tanzania  
 National University of Lesotho, Lesotho  
 National University of Rwanda, Rwanda  
 Obafemi Awolowo University, Nigeria  
 Omdurman Ahlia University, Nigeria  
 Rhodes University, South Africa  
 Rivers State University of Science and Technology, Nigeria  
 Salem University, Liberia  
 Seychelles University, Seychelles (still in formation, but an active MESA partner!)  
 St. Augustine University of Tanzania, Tanzania  
 Stella Maris Polytechnic, Liberia  
 Suez Canal University, Egypt  
 Uganda Martyrs University, Uganda  
 Uganda Pentecostal University, Uganda  
 United Methodist University, Liberia  
 Universidad de Lusiada of Angola, Angola  
 Université Cheikh Anta Diop, Senegal  
 Université d'Abobo-Adjame, Cote d'Ivoire  
 Université de Ngozi, Burundi  
 Université du Burundi, Burundi  
 University Hassan 1st, Morocco  
 University of Agriculture, Nigeria



- University of Botswana, Botswana
- University of Buea, Cameroon
- University of Cape Town, South Africa
- University of Education, Ghana
- University of Gondar, Ethiopia
- University of Ilorin, Nigeria
- University of Juba, Sudan
- University of Kinshasa, DRC
- University of Kisangani, DRC
- University of Law and Political Science, Cameroon
- University of Liberia, Liberia
- University of Malawi, Malawi
- University of Mauritius, Mauritius
- University of Nairobi, Kenya
- University of Namibia, Namibia
- International University of Management, Namibia
- University of Pretoria, South Africa
- University of South Africa, South Africa
- University of Swaziland, Swaziland
- University of the Western Cape, South Africa
- University of Yaoundé II, Cameroon
- University of Zambia, Zambia
- University of Zimbabwe, Zimbabwe
- Vaal University of Technology, South Africa
- Zanzibar University, Tanzania
- Zimbabwe Open University, Zimbabwe



# MESA hotspots



Not only have universities in Africa contributed, but increasingly more universities from other continents are linking up to the MESA Universities Partnership in different ways. These include:

- The University of Bath, UK
- Uppsala University, Sweden
- Chalmers University, Sweden
- Stockholm University, Sweden
- Melbourne Institute of Technology (MIT), Australia
- Florida Gulf University, USA
- Portland State University, USA

### Network partners

Other partners have contributed to the MESA Universities Partnership through various forms of networked activity support.

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Their contributions have been conceptual and intellectual, as well as social in the sense that they have made their networks and networking structures available to the MESA participants. These include:

- The Global Higher Education for Sustainability Partnership (GHESP)
- The University Leaders for a Sustainable Future (ULSF)
- The Partnership for the Development of Environmental Law and Institutions in Africa (PADELIA) Network
- The UNESCO International ESD Teacher Education Network

- The Environmental Education Association of Southern Africa
- The World Environmental Education Congress Network
- The Earth Charter Network
- Environic Foundation International, USA
- Commonwealth of Learning
- The UNU-RCE Network

### Higher Education and Government partners

A number of national government partners have participated in and have started contributing to the MESA Universities Partnership. These include:

- The Nigerian National Universities Commission
- The Ministry of Higher Education in The Gambia
- The Ministry of Higher Education in Liberia
- The National Environmental Management Authority, Kenya
- The National Environmental Management Authority, Uganda
- The National Institute of Public Administration, Zambia
- The South African National Biodiversity Institute, South Africa (through the Cape Action for People and the Environment Programme)





# How to Participate in the MESA Universities Partnership ...

Participation in the MESA Universities Partnership is an open process. Anyone with an interest and commitment in mainstreaming environment and sustainability into African universities may participate in the MESA Universities Partnership. There are various ways of participating:

- **University teachers and researchers** can begin the process of mainstreaming by changing what they teach and how they teach their subjects. All disciplines can include a focus on Africa's environment, sustainable development and climate change challenges. Small communities of practice focussing on mainstreaming can be established in individual departments, faculties or universities.
- **Students** can participate by forming student-based organisations that address environment, sustainable development and climate change challenges.
- **University leaders** can support university staff and students to engage in these issues in cross-campus initiatives and forums. Changing university policy to include environment and sustainable development concerns is taking place in universities around the world.
- **University communities** can support universities to integrate environment and sustainable development concerns in their teaching by providing sites for teaching and research, sharing knowledge of issues and forming partnerships for contributing to local sustainable development.
- **Business partners** can support ESD innovations in universities and can help to build knowledge of ESD in African university communities.
- **Knowledge partners** can make their knowledge resources available to universities and students to provide



up-to-date and contextually relevant information on environment and sustainable development issues on the African continent. Particularly, knowledge on how to adapt to climate change, circumvent outdated technological development, and development of innovative solutions to issues will be needed.

- **Network partners** can make their network structures and conceptual resources available to MESA participants to ensure knowledge exchange and social learning.
- **Government partners** can ensure that enabling environments exist for universities, to undertake the task of mainstreaming environment and sustainability into African universities.
- **Global partners** can share knowledge and experience with African universities, and help to strengthen research and learning about sustainable development in Africa through North-South and South-South dialogue and knowledge exchange opportunities.
- **Development partners** can provide funding support for various MESA activities.

To link into the MESA Universities Partnership network, send your e-mail contact, and an outline of how you or your organisation plan to participate in the MESA Universities Partnership to [env.edu@unep.org](mailto:env.edu@unep.org) with a copy to [Akpezi.Ogbuigwe@unep.org](mailto:Akpezi.Ogbuigwe@unep.org). Outline what contribution you can make, and how you plan to do this.

The MESA Universities Partnership is not a funded partnership and activities within the MESA Universities Partnership are variously supported, most notably by the participating universities as part of their regular budgets and activities. As such, the MESA Universities Partnership is constituted through the contributions of all its partners. Every contribution is equally valuable and valued. The MESA Universities Partnership is, therefore, as active as those that contribute to it. Developmental agencies are welcome to fund the partnership.

UNEP hosts an electronic networking forum known as the MESA Forum, which has the capacity to send out communications to the MESA Universities Partnership, making a range of opportunities available to those participating in the network.





EDUCATION FOR  
SUSTAINABLE  
DEVELOPMENT  
INNOVATIONS

PROGRAMMES  
FOR UNIVERSITIES IN  
AFRICA



Mainstreaming Environment and Sustainability in African Universities

The MESA Tool-kit and other documents can be downloaded from  
[www.unep.org/training](http://www.unep.org/training)

## African Professors for Change

A continent in crisis?  
Or a continent with boundless  
Potential and resources?  
We – Professors, PhD's and Teachers  
Must play a role  
Why – It's our products that run governments  
The policy-makers and implementers learn from us

Now is the time to reflect  
What have we done?  
Where did we go wrong?  
What can we do better?  
We, one and all  
Are distinguished men and women of Africa  
Why then is Africa not as great as it could be?

My brother, My sister  
Let us take the bull by the horn  
The time is now – let's not delay  
Let us reconsider our ways – our methods  
Let us swallow our pride  
For change – we must!  
Let us learn to share  
Let us learn to work together  
As my progress is your progress as well  
My failure, your failure  
Our success, Africa's success

Let us not focus on the differences amongst us –  
Language – culture – colour – sex  
Let us come together and bind ourselves  
With the cords of unity  
And make Africa great again  
For it is in sharing we grow  
And in Unity we conquer

*Dedicated to participants at the Consultative Expert Meeting with Senior Academics in African Universities on Mainstreaming Environment and Sustainability into University Education Nairobi, Kenya 10 & 11 June, 2004 (first MESA meeting)*

# References

Lotz-Sisitka, H.B., Lupele, J. and Ogbuigwe, A. 2007. Translation processes in the design of an education for sustainable development innovations course for universities in Africa. *Journal of Education for Teaching*. 33(2) 157-177.

OARE, 2007. Presentation at the MESA workshop, December 2007. Nairobi, Kenya.

Scott, B. & Gough, S. 2008. *Higher Education and Sustainable Development: paradox and possibility*. London. Routledge.

Togo, M. 2008. Sustainability assessment using the Unit-based Sustainability Assessment Tool: The case of three teaching departments at Rhodes University, South Africa. *Southern African Journal of Environmental Education*. 25.

UNEP 2008. Africa: Atlas of Our Changing Environment. <http://www.na.unep.net/AfricaAtlas/>

68 UNEP. 2006. Africa Environment Outlook: Our environment, Our Wealth.

UNEP. 2006. Education for Sustainable Development Innovations for African Universities. [www.unep.org/training](http://www.unep.org/training)

UNESCO, 2005. International Implementation Scheme for the UN Decade of Education for Sustainable Development. [www.unesco.org/education](http://www.unesco.org/education)







**For more information on MESA visit  
[www.unep.org/training](http://www.unep.org/training)**



**Africa** has an extraordinarily rich and diverse natural and cultural heritage. The environment in Africa provides a critical resource for development of the continent and for cultural and social well-being of current and future generations. Sustainable management and utilisation, as well as protection and care of the environment is, therefore, important to Africa's people now and in the future. At the start of the 21st century, Africa's universities are being called to help societies respond to various environment and development challenges, including the impacts of climate change. The Mainstreaming Environment and Sustainability in African Universities Partnership (MESA) was established in 2004 as a UN Decade of Education for Sustainable Development (UNDESD: 2005-2014) Partnership Initiative, led by UNEP and joined by other major organisations such as the African Association of Universities (AAU), UNESCO and many others. This report documents the growth, in participation in MESA since 2004, as well as the outcomes that are visible at university and regional levels following various activities that have taken place across the African continent to support universities to respond to climate change, and other environment and development challenges.

The report also provides insight into what mainstreaming of environment and development means in universities in Africa. This report, covering Phase 1 and the first year of Phase 2 of MESA (2004-2008) is designed to inform deliberations at the first International MESA Conference, the 2009 World Conference on Education for Sustainable Development, the 2009 AAU Conference on Sustainable Development and Higher Education, the 2009 World Conference on Higher Education and the 2009 World Environmental Education Congress. The report demonstrates that Africa's universities have much to offer the global community at a time when sustainability of society is at the top of the global political agenda. It invites even wider participation in MESA, particularly from leaders in African universities as well as lecturers, professors and students across the continent.



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