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Report on implementation of Decision-6 (AMCEN-12)

Background

This report summarizes progress made on the implementation of Decision 6 (Environmental Education and Technology-supported Learning) which was endorsed at the 12th Session of AMCEN (see Annex I). Paragraph (f) of this decision called for an interim report to be presented to AMCEN-13 in 2010 with the final report due for presentation to AMCEN-14 in 2012. The report explicitly covers both the environmental education (Section 3) and eLearning (Section 4) components of Decision 6 whereas other sections of the report combine both aspects in an integrated manner.

Overall, a considerable amount of progress has been made in the two-year period since AMCEN-12. A major survey on the status of environmental education and technology-supported learning was conducted and the findings are presented in section 1. A number of strategic partnerships have been established (see section 2) and some progress has been made in the area of South-South collaboration (see section 3).

Building upon the results of the survey, UNEP developed programmes to strategically take forward environmental education and Education for Sustainable Development in Africa. This was through capacity building, curriculum review, development of new courses, research and South - South collaboration amongst African universities themselves as well as linkages with Asian and Caribbean universities. The UNEP's Mainstreaming Environment and Sustainability in African (MESA) Universities Partnership, has been a major springboard in this process.

The backbone of the Pan-Africa eLearning for Environment Network has been established (see section 4.1 and Annex II) and 18 countries are participating in the network. Capacity development and training has been conducted as described in section 4.2. Many awareness-raising activities have been carried out as outlined in section 4.3.

However, the issue of donor support for the implementation of the broad spectrum of activities embraced by the decision continues to be the main challenge facing African countries, UNEP, international partners and other stakeholders collaborating to implement various aspects of this important decision. One case study focused on Kenya showing the impact of the decision at national level is presented in Annex III and this example demonstrates the potential impact that the decision can have in other African countries.

Section 1: Pan-African Survey

The survey was undertaken in response to para (a) (i) of Decision 6 (see Annex I for full text of decision).

Action (a) To encourage Governments, through their principal environmental authority, to facilitate interministerial cooperation to undertake, among other things, the following key actions in the area of environmental education and technology-supported learning:

(i) An assessment of existing environmental education strategies, needs and challenges facing Governments in the area of technology-supported learning;

UNEP and the Common-Sense eLearning consultancy conducted an online survey to assess the current status of environmental education and technology supported learning within African institutions working in the areas of environmental protection and sustainable development. The survey was made available online in two languages:

English (<http://www.surveyconsole.com/console/TakeSurvey?id=526331>), and
French (<http://www.surveyconsole.com/console/TakeSurvey?id=544404>).

The survey was conducted for four months from early February to May 2009 and by the end of the survey, the online questionnaire was viewed 2380 times. In total, 550 complete responses were received from 45 countries, 370 responses in English and 180 responses in French.

1.1 Key Findings of Pan-African survey

The main findings of the survey are summarized below. The results were presented in UNEP's preconference workshop at the eLearning Africa Conference in Dakar, Senegal on 27th May 2009 and helped to revitalize and strengthen relevant strategies, programmes and action plans, and establish new initiatives on environmental education and technology supported learning. The results of the survey can be found online in the following link:

http://www.unep.org/mentor/Africa/Selected_Survey_Results.pdf

Environmental Education (EE) Findings

- The survey results showed that there were a large number of activities in the field of environmental education on all education levels (primary through tertiary and informal) throughout Africa.
- The results showed further that a large number of the organizations offering such activities had an Environmental Education Strategy in place.

Technology Supported Learning (TSL) Findings

- The results showed that there were only minor differences between francophone and Anglophone regions, apart from eLearning/TSL activities carried out at that time. Here, the francophone regions were trailing behind.
- In the Anglophone regions, roughly 50% of all responding organizations were conducting online or eLearning/TSL activities. In francophone regions, roughly 30% conducted online or eLearning/TSL activities.
- The responding organizations used eLearning/TSL for different target audiences. It was mostly used for staff development (internal target audiences and outreach).
- More than 70% of all responding organizations had no eLearning/TSL strategy in place.

- Most organizations did not have their own eLearning/TSL teams and required outsourcing of activities.
- To further support the development and deployment of eLearning/TSL activities, African organizations required further assistance in the field of technology, strategy and programme implementation.
- Most eLearning/TSL activities were funded internally. For sustainable eLearning/TSL measures, African organizations for environmental training needed more sustainable funding sources.

The results of the survey were used to guide the following two actions called for in Decision 6.

Action (a)(ii) - *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 education sector*

Action (a) (iii) – *The development of an action plan for technology-supported learning in conjunction with the Human resources, Science and Technology Department of the African Union (including e-learning) in follow-up to the strategic approach.*

Paragraph (b) of Decision 6 calls upon UNEP to provide strategic guidance and technical advisory services on the implementation of the aforementioned activities. (To request the Executive Director of the United Nations Environment Programme to provide strategic guidance and technical advisory services on the implementation of the above-mentioned activities and multilateral development partners to provide financial and technical assistance to build the capacities of African countries in this respect)

Section 2: International strategic partnerships

The following strategic partnerships were developed during the reporting period.

InWEnt (Capacity Building International, Bonn)

In 2008 a general framework agreement was signed between UNEP and InWEnt. Technology supported learning and support to Africa is one component of this agreement. Under the agreement, a number of basic eLearning training courses have been conducted in East, West and Southern Africa. The agreement has also supported both North-South and South-South collaboration in that InWEnt support KeLC and NOLnet who are also UNEP partners.

International Conferences, Workshops and Exhibitions (ICWE, Berlin)

No framework agreement has been signed with ICWE but a number of smaller contracts have been agreed and executed. UNEP's collaboration with ICWE centres on support to two major eLearning conferences – eLearning Africa and Online Education. As of 2009 an environment track has been embedded in both conferences. With effect from 2009, alumni that have undergone training and contributed substantially to the implementation of Decision 6 have been invited as speakers and have made presentations in the environment track at eLearning Africa. In addition, a special 1-day pre-conference seminar on the development of the Pan-Africa eLearning for Environment Network has been integrated with eLearning Africa with effect from 2008.

United Nations Educational, Scientific and Cultural Organisation (UNESCO, Paris)

In April 2009 a framework agreement was signed between UNEP and UNESCO and one component of this agreement is focused on environmental education and technology-supported learning. UNESCO has the lead within the UN system on eLearning as a result of the 2003/5 World Summit on the Information Society. UNESCO also assisted UNEP in conducting the survey referred to in Section X above of this report.

Centre for Environment and Development in the Arab Region and Europe (CEDARE, Cairo)

UNEP has a long history of collaboration with CEDARE under various agreements. In addition to being a centre of excellence on environment and development, the Centre has expertise in the development of eLearning content and the delivery of eLearning courses in Arabic, English and French. CEDARE is the designated hub for North Africa in the Pan-Africa eLearning for Environment Network.

Section 3: Environmental Education component of Decision 6

3.1 United Nations Decade of Education for Sustainable Development (UNDESD)

UNEP has strengthened its collaboration with UNESCO and the United Nations University in promoting the UNDESD in African countries. This collaboration includes the development of an ESD implementation strategy in Kenya, Capacity building programmes for university leaders Uganda in collaboration with the National Environmental Protection Authority; training for representatives of 93 Nigerian universities on ESD in collaboration with the National University Commission. In collaboration with the Swedish International Development Agency (SIDA) and Ramboll Natura, UNEP offered the 2nd International Training Programme (ITP) on Education for Sustainable Development in Higher Education to 28 participants from 12 African countries.

As a result, alumni to the programme are offering technical support to their co-participants in the programme as they implement their change projects. For instance, Multimedia University is now offering support to the Mbarara University of Science and Technology, Uganda as they re-orient teaching strategies for pre-service science teachers towards achieving Education for Sustainable Development. Jomo Kenyatta University of Science and Technology (JKUAT) in Kenya assisted by the National Environment Management Authority (NEMA, Kenya) developed the university's draft ESD policy that seeks to integrate environment and sustainability into all aspects of university activities. The policy has been approved by the university senate and is awaiting approval by JKUATs University Council.

To strategically mainstream ESD in universities, and in collaboration with Southern African Development Community Environmental Education Programme (SADC-REEP), 3 MESA Professorial Chairs have been established as follows:

- a. University of Botswana MESA Chair will focus on Curriculum and Development and Policy issues in ESD.
- b. University of Swaziland MESA Chair will be working in the area of community service. Community here is defined to mean rural and industry entities i.e. activities in ESD outside the universities.
- c. University of Zambia MESA Chair will be dedicated to Teacher Education in ESD.

The Chairs will also promote UNEP's thematic areas.

3.2 Mainstreaming Environment and Sustainability

As an offshoot of UNEP's MESA partnership programmes, the University of Botswana is introducing a Masters Degree in Environmental Education, the University of Zanzibar has added a module on sustainable development into the Development Studies curriculum, and is re-orienting the law curriculum to integrate community issues relevant to sustainable development issues. The University of Cape Town has restructured the environmental law curriculum to ensure a wider perspective on environmental law as well as access to environmental law modules for more university students. The Department of Agricultural Economics in the University of Nairobi has re-oriented the curriculum to include a stronger focus on environmental sustainability, as it was previously based only on economic and some social aspects of agriculture.

At the Obafemi Awolowo University sustainable development issues are being mainstreamed into four programmes in the Humanities and the University of Seychelles is in the process of establishing a core module on Sustainable Development of Small Island States. The University of Seychelles was recently established and the module on Sustainable Development of SIDS and those in Africa in particular has been developed and will be offered as the university expands.

In addition, the Engineering faculty at the University of Mauritius is researching technologies for composting paper waste and providing more sustainable energy resources for Mauritius. The Zambian National Institute of Public Administration (NIPA) is using a Trainer of Trainer approach for their staff to introduce sustainability criteria into curricula and pedagogy for certificate and diploma programmes and to promote research activities and develop training in pedagogical innovation on sustainability for teaching staff.

Through technical support from UNEP, the Rivers State University of Science and Technology, Nigeria, held a training workshop for 12 higher education institutions in their localities. The workshop was attended by the Vice Chancellors, Rectors and Heads of educational institutions in Rivers State, Nigeria. The participating institutions committed to developing an environmental policy for teaching, research, community engagement and administration for their institutions. A copy of the UNEP Toolkit on Education for Sustainable Development innovations for African universities was reproduced for all the participating institutions, at their own cost, to make it responsive to Nigerian needs.

Subsequently, UNEP and its partners held the First Sustainability Generation workshop to provide a forum for college students in Africa to engage creatively and innovatively with students from other regions on current environment and sustainability challenges as well as to contribute to the realization of MESA objectives. The outcome was the development of policy recommendations for the incorporation of environmental sustainability in institutions of higher learning with a focus on climate change. As an offshoot of the InterVarsity Environment Network that was launched at the Sustainability Generation Workshop, the African Youth Initiative on Climate Change (AYICC)¹ was set up as an umbrella initiative of all youth organizations in Africa working on climate change, to link, and share knowledge, ideas, experiences, skills and strategies on youth action around the continent on climate change mitigation. Universities were identified as key partner institutions in translating scientific and indigenous knowledge into concrete actions/projects.

3.3 South-South Collaboration

UNEP/Tongji Institute of Environment for Sustainable Development in Shanghai China has commenced a Master's and Doctorate programme on Environmental Management and Sustainable Development. Key beneficiaries are African Countries. The Center also promotes south south collaboration through linkages with members of the MESA partnership. In addition UNEP environmental education programme continues to create fora that bring together African universities to share and exchange best practices as well as collaborate on research and the development of new courses and tools. Examples are the Climate Change Education Project which brought together universities from Africa and Sweden⁵ to

¹ http://unfccc2.meta-fusion.com/kongresse/090601_SB30_Bonn/downl/090610_Mwaura.pdf

develop an educational programme on climate change and to frame a research programme for these universities on the same topic. Papers from the workshop will be published in the Southern African Journal of Environmental Education in March 2010. This programme was hosted by the University of Zambia in February 2010.

Further in response to the decision, Kenyatta and Nairobi Universities, (Kenya), University of Stellenbosch (South Africa and University of Ghana (Ghana), in collaboration with UNEP, UN-Habitat, UNESCO, United Nations University (UNU), Asian Institute of Technology as well as Tokyo and Yokohama national universities in Japan, are collaborating to develop Master of Science in Community Innovations for Sustainable Urban Livelihoods (ESDA Course). It is being developed as a hands-on/learning-by-doing Master's programme, with environmental sustainability at the urban community level as its main theme.

Section 4: eLearning Component of Decision 6

Section 4.1: Network Building

Sub-regional hubs

UNEP's Capacity Development Branch based in the Division of Early Warning and Assessment (DEWA) was responsible for catalyzing, supporting and coordinating all proposed actions under paragraph (a) (iii) of Decision 6. As proposed in paragraph (d) UNEP has been supporting the development of strategies to mainstream technology supported learning and development of terms of reference and action plans for the hubs and national centres (See Annex II). Finally, paragraph (h) of the decision provided an overarching framework for multilateral institutional cooperation on eLearning across Africa and UNEP has engaged several international partners to support the sub regional hubs and the national centres.

a (iii) The development of an action plan for technology-supported learning in conjunction with the Human Resources, Science and Technology Department of the African Union (including e-learning) in follow-up to the strategic approach.

(d) To constitute a small group of members of the African Ministerial Conference on the Environment to undertake, on a trial basis, the development of 1–2 year pilot action plans for technology-supported learning.

(h) To invite countries to establish an African environmental e-learning network to share expertise, best practices and content and to identify a coordinating hub.

For the purpose of coordinating and implementing programme activities, UNEP has divided Africa into 6 sub-regions namely Northern Africa, Western Africa, Eastern Africa, Central Africa, Southern Africa and the Western Indian Ocean Islands. In addition, Africa has four major linguistic groups – English, French, Arabic and Portuguese – therefore it was important that collectively the sub-regional hubs can also cover these four languages.

The sub-regional hubs are responsible for developing sub-regional networks as shown schematically in the map below. The hubs are supporting mechanisms for national eLearning centres in the sub-regions.

National eLearning centres

Region	Country	Name of Institution	Regional Hub/National Centre
North Africa	Egypt	Center for Environment and Development for the Arab Region and Europe (CEDARE)	Sub-regional
Central Africa (Francophone)	Cameroon	Centre for Biodiversity and Sustainable Development (CBSD)	Sub-regional
		Ministère de l'Environnement et de la Protection de la Nature (MINEP)	National
West Africa (Anglophone)	Ghana	Environmental Protection Agency (EPA)	Sub-regional
	The Gambia	Environmental Protection Agency (EPA)	National
West Africa (Francophone)	Senegal	Centre Suivi Ecologique (CSE)	Sub-regional
	Nigeria	Ministry of Environment	National
	Mali	Technique Permanent du Cadre Institutionnel de la Gestion des Questions Environnementales / Ministère de l'Environnement et de l'Assainissement (STP/CIGQE/MEA)	National
	Liberia	Environmental Protection Agency (EPA)	National
	Guinea	International Education Resource Network	National
	Sierra Leone	Environmental Protection Agency	National
Eastern Africa	Kenya	National Environment Management Authority (NEMA)	Sub-regional
	Uganda	National Environmental Management Authority (NEMA)	National
Southern Africa	Namibia	Namibia Open Learning Network Trust (NOLNet)	Sub-regional
	Zambia	National Environmental Council of Zambia	National

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