



# Africa Environment Information Network (AEIN)

Strengthening  
environmental  
assessment and  
reporting



## Background

The implementation of the Africa Environment Information Network (AEIN) initiative to support the Africa Environment Outlook (AEO) reporting process is now underway with 13 countries fully involved in the pilot phase and the whole region participating in capacity building activities. The goal of AEIN, which is being coordinated by the UNEP Division of Early Warning and Assessment (DEWA), is to enhance accessibility to more reliable environmental data and information at national level for the environmental assessment and reporting in the region.



The strategy involves facilitating greater networking among national institutions and others at sub-regional and regional levels as well as building their capacity where such needs exist. The network is more about people and agencies, promoting cooperation and partnerships in environmental data and information sharing, and less about equipment even though this is an essential component.

The AEIN initiative was mandated by the African Ministerial Conference on the Environment (AMCEN), which in July 2002 requested UNEP's assistance to implement it to **"build capacity for integrated environmental assessments and reporting"** in Africa.

Recent studies in Ghana, Lesotho, Ethiopia, and Angola, for example indicate that lack of empirical evidence, consistent research and inadequate environmental information systems, management, analysis and reporting activities make it difficult to undertake environmental assessment and reporting.

## Mandate

The AEIN initiative is a direct outcome of the Africa Environment Outlook (AEO) preparation process which was also mandated by AMCEN "to build capacity for establishing the essential data foundation needed to support country-level sustainable development initiatives, focusing on the *environmental aspects*."

### Declaration 13 of 9th AMCEN session

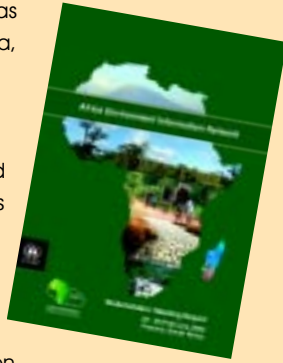
*Endorse the proposal for the establishment of a comprehensive environmental information network to promote access and harmonization of data in the African region and act as a basis for tracking environmental changes using quantitative indicators focusing on national needs*

### Declaration 19 of 10th AMCEN session

*Note with appreciation the implementation of the Africa Environment Information Network at national, sub-regional and regional levels, to strengthen access to reliable environmental data and information in Africa*

## Status of AEIN Implementation

The AEIN implementation process was launched in February 2003 in Pretoria, South Africa, during a stakeholders' workshop. An international steering committee has been established to ensure interlinkages and harmonized implementation with similar initiatives in the region. A framework document and an implementation strategy with guidelines were adopted during the workshop. The framework document has since been published.



Implementation guidelines have also been drafted and circulated to stakeholders for comment and use in implementing AEIN at the national level. The guidelines are also to ensure consistency of the methodology across the region. They are adaptable to allow diversity from country to country, taking into account specific national priorities.

The guidelines are organized in six parts, each of which requires its own sub-strategy (Figure 1), with the objective of highlighting and differentiating specific needs and issues relating to information **management**, information **systems** and information **technology**:

- The need for a **vision** for environmental management information, which sets the strategic context and provides a policy orientation clearly demonstrating the crucial importance of information to the organization's mandate.

- The information requirements for environmental management on the basis of environmental management practice and reporting obligations, involving an assessment of **information resources**, i.e. knowing the organization's information assets.
- The process of **managing** the information resources, maintaining and auditing information as a strategic asset within environmental organizations to support the "core business" of managing the environment.
- The **systems** needed to handle the information to support organizational activities, dealing with the various *interrelated components* that collect, manipulate, and disseminate data and information, and facilitate knowledge sharing to meet environmental policy and management objectives.
- The information and communications **technology** that would provide the mechanisms to implement desired information handling, including the deployment and management of appropriate technology, and ensuring that the technology itself works efficiently and effectively.
- Managing the **change** associated with the introduction of new policies, technology and procedures, including the variety of issues such as organizational culture and training.

The guidelines recognize that countries are at different stages of development.

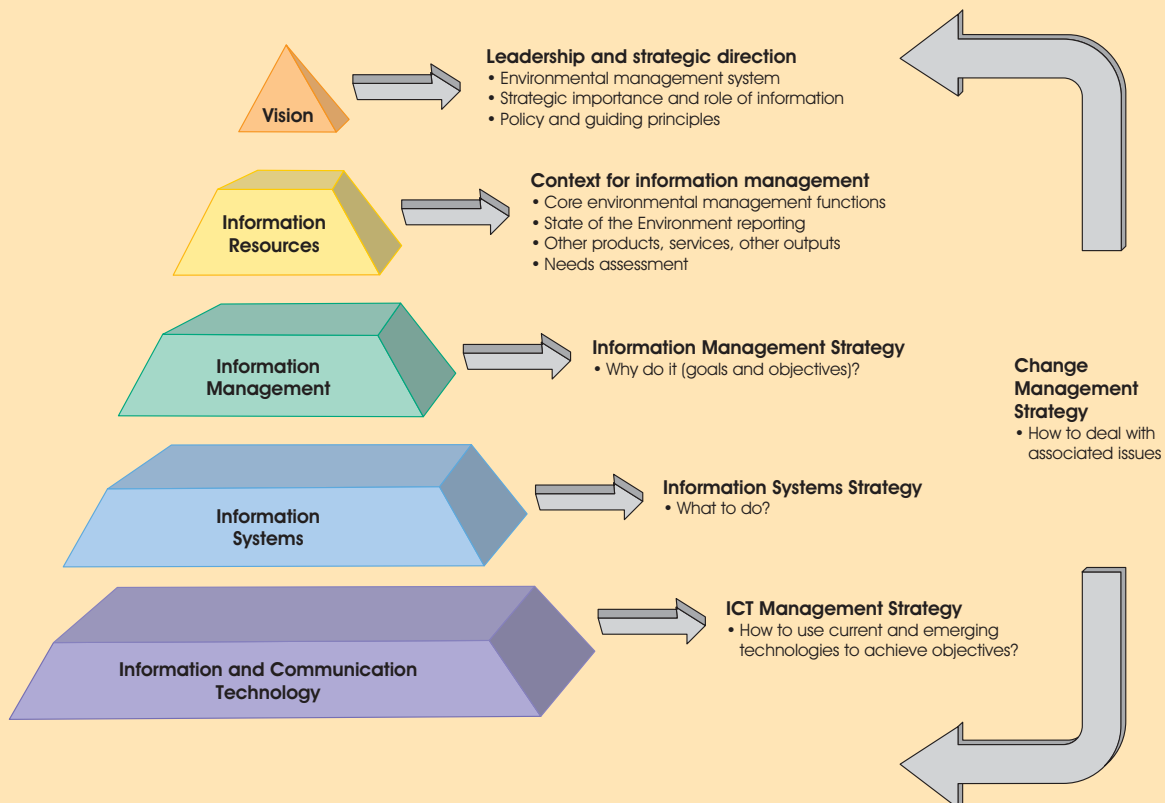


Figure 1: Framework for guidelines development

## Outcomes of Phase I Implementation

The focus of the first phase is to develop common tools to support the integrated environmental assessment and reporting process in the region and to test these tools in the pilot countries and Collaborating Centres before region-wide replication commences. The following are the main activities:

- A preliminary EIS assessment has been undertaken in three countries, Lesotho, Ghana and Ethiopia and the findings were used to develop **AEIN implementation guidelines**. The results of this preliminary assessment indicate that there is need to ensure close integration between the needs of the environmental agency(ies) and the activities of the network. This model has been adopted in Lesotho and seems to be a good approach to keep a network active and responsive to the needs of its members.
- **National Environment Outlook Reporting guidelines** have been developed and will be tested in the AEIN pilot countries during the process of producing national environment outlook reports.
- **Policy analysis guidelines and workbook guidelines** have been developed in close collaboration with the United Nations Development Programme (UNDP) and are aimed at enhancing the effectiveness of the AEO as a policy and advocacy tool for AMCEN to promote the sustainable development agenda in Africa. A regional training

workshop has since been held for AEO collaborating centres and representatives of AEIN national focal institutions to help sharpen policy analysis in environmental assessment and reporting.

- Five (5) sub-regions in Africa have each already developed **workplans/strategies** which will guide the AEIN implementation. The implementation process at the sub-regional level will be led by the AEO collaborating centres (CCs) which are located in each of the sub-regions.
- Training workshop for AEO collaborating centres and the AEIN national focal persons on harmonized approaches for data and information management to support integrated environmental assessment and reporting at national, sub-regional and regional levels.

The main achievement of AEIN so far is the establishment of an institutional network comprising six sub-regional GEO/AEO collaborating centres and 13 national focal institutions, (Figures 2 and 3), identified by the individual governments. The active role being played by governments in Africa indicates their commitment to the AMCEN decision and interest to improve access to environmental data and information in Africa. The national focal institutions are currently preparing customized national environment information network implementation strategies with the support of the CCs.



Figure 2: AEIN Pilot Countries

**Environmental information is a key factor in building policy consensus among ourselves as AMCEN.**

*During my tenure of office, 13 pilot countries from all the sub-regions of the continent have participated in strengthening environmental information collection and dissemination through the Africa Environment Information Network initiative.*

*Col. Kahinda Otafire, Minister for Water, Lands and Environment, Uganda, and Outgoing President of The African Ministerial Conference on the Environment (AMCEN), 10th Session, Sirte, Libya (2004)*

*Ghana regards this initiative as one that will deepen its networking and capacity building in information dissemination and reporting for regional cooperation.*

*Prof. Kasim Kasanga, Minister of Environment, Science and Technology, Ghana (2003)*

*We are sincerely proud of the nomination of Mauritius as one of the pilot countries in charge of implementing the AEIN project. Our satisfaction is justified as far as we are at the mid-term of implementation of our environmental information systems. Some shortcomings resulting from the lack of this instrument much needed for a sound environmental management have been highlighted in our ten (10) year Action Plan on Environment, ending in 2010.*

*Minister of Environment and National development, Mauritius and outgoing Vice-President, African Ministerial Conference on the Environment (AMCEN), May 2004*

## Some recommendations from AEIN sub-regional start-up workshops

Sub-regional and national AEIN workshops have been held to get an overview of the baseline situation and strategize on implementation. Two-day workshops have been held in virtually all the sub-regions, to introduce the AEIN framework and concept and also to identify linkages with on-going initiatives in these sub-regions. The workshops have adopted some recommendations aimed at strengthening the initiative across the region (see box below).

### Recommendations of the AEIN sub-regional start-up workshops in Eastern Africa, Northern, Southern and Western Africa, and Indian Ocean Islands

- AEIN, which is in line with the SADC Regional Indicative Strategic Development Plan (RISDP), be introduced in SADC structures by way of presenting the concept framework at appropriate SADC fora.
- AEIN be linked to overall SADC information framework for sustainable development to provide information for monitoring implementation of the RISDP. Broaden the scope of the Communicating the Environment Programme (CEP) to include environmental information management, particularly in relation to integrated environmental assessment and reporting in the SADC region.
- Efforts should be made to get on board all countries in Africa as soon as can be done. It has been proposed that this be done during Phase II.
- There is need to involve policy makers and regional political bodies such as SADC, IGAD, ECOWAS, IOC in the process using environment outlook reporting processes in, for example, SADC, IGAD, and SIDS.
- There is need to undertake an assessment at the sub-regional level to supplement and strengthen the outcomes of national level assessment so that all data sources and users are captured. This should be done in close collaboration with policy makers and political bodies in the region.
- There is need to undertake an assessment of the on-going initiatives that have similar goals and objectives in order to identify key areas in which such initiatives can synergize with AEIN.
- The network will be stronger if a network product such as National Environment Outlook Reports (NEOR) can be defined as an incentive for continued participation in the network.
- Within the context of capacity building, the network could catalyse the process of producing sectorial/thematic reports. This will act as a direct incentive to the network partner institutions to continuously provide input into NEOR which ultimately feeds into sub-regional environment outlook reports and the AEO report.
- The national environment outlook reports (using the integrated environmental and assessment and reporting methodology) must always be linked to achievement of key national development goals such as PRSPs, just like the AEO is linked to, for example, NEPAD, MDGs, WEHAB, and the Johannesburg Plan of Implementation. In that way, their relevance to national objectives is demonstrated. This is a key strategy for the sustainability of the network(s).

## UNEP Commitment to AIEN

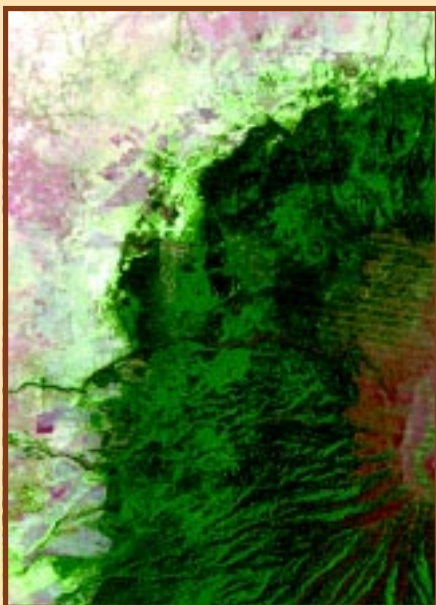
In addition to coordinating AEIN implementation and working closely with funding partners, UNEP is also distributing a total of 1 340 images of Landsat satellite data to all countries in Africa. These images are an invaluable record of land cover and land cover change, provided in a consistent manner that allows for use in a wide range of activities, including mapping, environmental assessment, planning, land management, resource stewardship and many Earth science research activities.

Remotely sensed data collected from satellites provide a unique source of information for the assessment and monitoring of changes in the environment, as well as the early warning of emerging environmental threats. Satellites, some in orbit for decades, have for example documented the rapid shrinking of Lake Chad, the spread of the water hyacinth in Lake Victoria, forest fires, the destruction of rainforests, the deadly effects of oil spills and other major environmental changes. However, the costs associated with acquiring and preparing satellite data for use at national level can be prohibitive, limiting the capacity of governments in developing regions to analyse and respond promptly to environmental change that may exacerbate human vulnerability in their countries.

The UNEP mission in providing these data to each government is to ensure that all the countries have access to satellite technology as stipulated in the World Summit for Sustainable Development (WSSD) Plan of Implementation. The distribution of these images is not an end in itself, but a commitment by UNEP as part of its support to Africa, to enhance access to relevant and up-to-date data and information for effective environmental assessment and reporting at different levels - from regional to national. It is also a commitment to build capacity in the area of environmental data and information management as highlighted in the AEIN framework. The support and full engagement of African governments in these various initiatives is critical to better understanding by policymakers of the state of the national and regional environment.

These data sets to African governments and other stakeholders in the region were a result of a generous donation in May 2001 by the United States government. They were made available to UNEP through a partnership of the National Aeronautics and Space Administration (NASA), US Geological Survey (USGS) and the Global Land Cover Facility of the University of Maryland, along with UNEP's commercial partner, EarthSat, Inc.

*Africa is one of UNEP's five core areas. For this reason, UNEP has developed and will continue to implement a comprehensive programme tailored to the needs of African countries spread across all its divisions. We will respond to the priorities spelled out by your Conference. UNEP is fully committed to assist in implementing the Action Plan of the Environment Initiative of NEPAD.*  
*Dr Klaus Toepfer, Executive Director, United Nations Environment Programme (UNEP) and Under-Secretary-General of the United Nations, 10th session of AMCEN, Sirte, Libya, 29 June 2004.*



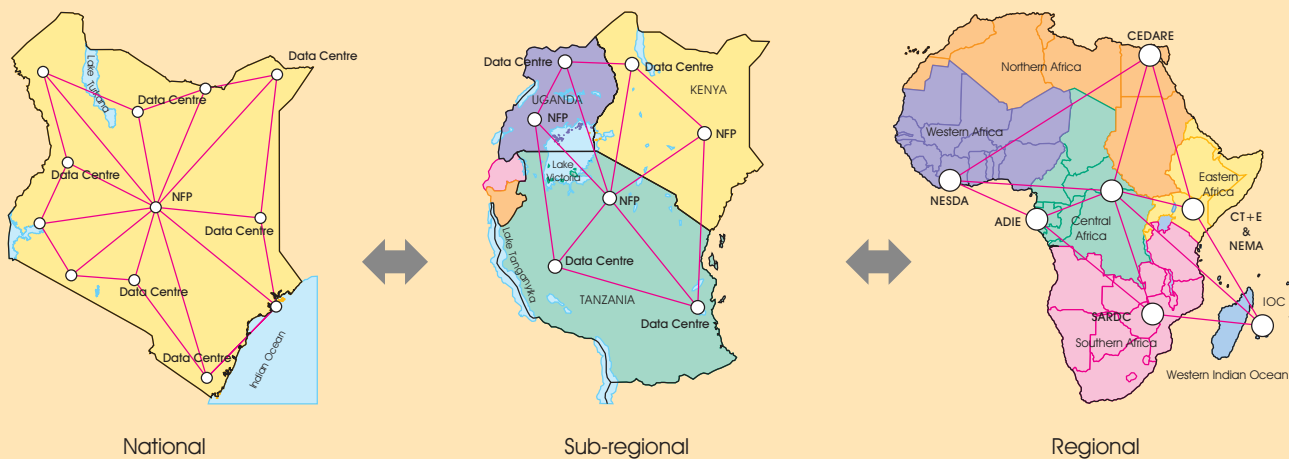
Landsat, 1976



Landsat, 2000

*Conversion of indigenous forest to plantations, Mt. Kilimanjaro, Tanzania*





**Figure 3: AEIN network structure**

UNEP's Division of Environmental Policy Implementation (DEPI) in close collaboration with UNEP-DEWA compiled an inventory detailing institutions working on disaster and environmental risk reduction in Africa under the AEIN framework. The main thrust of this exercise was to identify existing centres/institutions in Africa involved in disaster management and their interlinkages with others at the regional, sub-regional and national levels. For more information visit the website: <http://www.unep.org/depi/dm/index.asp>

## Financing the DEWA-Africa Programme

Both the Africa Environment Outlook and Africa Environment Information Network are financed primarily by donors and the UNEP Environment Fund. Various elements of the production of the first AEO and other materials were funded by the Governments of Denmark, Belgium, Luxembourg, Norway and the UNEP Environment Fund, and the Government of the Netherlands in terms of capacity building, particularly under the Global Environment Outlook (GEO) process. Early commitments to the second AEO-2 report process have been given by the Governments of Belgium and the Netherlands. The pilot phase of AEIN is supported by the Governments of Ireland and Norway, the UNEP Environment Fund as well as the United Nations Development Account.

While AMCEN and UNEP have made considerable progress in improving environmental information systems in the region, particularly under AEIN, a lot more still needs to be done, particularly since the pilot phase of AEIN mainly covers

only 13 countries. Many of the remaining 40 countries in Africa need just as much capacity building in environmental information systems to build a more comprehensive picture on the state of the regional environment. UNEP, together with its collaborating centres and the AEO Data Working Group, is developing a GEO Africa Data Portal to support the AEO process. This system will enable AEO partners and many others involved in integrated environmental assessment to access environmental information at different levels. The data aggregation at regional and desegregation at sub-regional and national levels is time consuming and, therefore, costly. The need for funding support cannot be overemphasized.

UNEP together with AMCEN welcome support from old and new partners, and donors to support the increasingly wide range of activities, which have become the hallmark of the DEWA-Africa Assessment Programme, and the AEO process in particular.

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