

African State of Environment Report

Introduction

The Eighth Session of the African Ministerial Conference on the Environment (AMCEN), held in Abuja, Nigeria in April 2000, approved AMCEN's medium-term programme, a key element of which was the production of an African environment outlook report.

In response to this, the AMCEN Secretariat and the United Nations Environment Programme Regional Office for Africa (ROA), in collaboration with the Division of Early Warning and Assessment (DEWA), embarked on a process to produce the African Environment Outlook report. The *Africa Environment Outlook* (AEO) was released in July 2002.

The report involved hundreds of experts and is the most comprehensive and authoritative assessment of the continent's environment ever produced. The report traces environment and development trends since the 1972 United Nations Conference on the Human Environment (UNCHE) and provides a comprehensive analysis of status and trends of the environment in Africa integrated with the impacts of policies, laws and regional agreements. It proposes alternative policy options for the future as well as recommending concrete policy actions for follow-up at national and sub-regional levels.

Klaus Töpfer, Executive Director of UNEP, sees the AEO report as a substantive tool for African policy makers to use in their assessment of the pressing environmental issues facing the region.

He said that, 'The right decisions cannot be made without the right facts. We have those here ... [it] chronicles where Africa has been, where it is now and possible directions for the future with an array of positive and negative consequences. At the beginning of this new century we have all the resources, both financial and technological, to build Africa and the lives of its citizens and to conserve its astonishing biological richness and diversity.'

Some of the findings

The study notes that growing populations, wars, high levels of national debt, natural disasters and disease have all taken their toll on the people and the rich natural environment in the past thirty years.

Over the coming three decades new and emerging threats, including climate change, the unchecked spread of alien, introduced species, uncontrolled expansion of cities, and pollution from cars and industry are likely to aggravate levels of poverty, environmental decline and ill-health.

Although African countries are now attempting to address some of the root causes of environmental degradation, through initiatives such as the New Partnership for Africa's Development (NEPAD), the report stresses that a far bigger effort, by countries both within and outside the continent, is needed to steer a prosperous, environmentally sustainable course.

Necessary actions include bigger cuts in Africa's debt burden, a boost in overseas aid, the empowering of local

communities, enforcing environmental agreements, introducing green and clean technologies and allowing African countries fair access to international markets for their goods and services. Without this, the report says that Africa is unlikely to develop in a way that benefits its people, environment and, ultimately, the world.

With regard to *climate* the report notes that the continent is heavily dependent on rain-fed agriculture. However, records since 1900 show that Africa's annual rainfall has been decreasing since 1968, possibly as a result of global warming due to man-made emissions.

There is also evidence that natural disasters, particularly drought in the Sahel, have become more common and more severe. Droughts and floods are increasing pressure on fragile lands and leading to the displacement of people and wildlife as well as increasing soil erosion and the silting of rivers, dams and coastal waters.

Emissions of carbon dioxide, the main global warming gas, have risen eight-fold since 1950 in Africa to 223 million metric tons of carbon. (However, those are still less than the emissions of a developed country such as Germany or Japan.) South Africa accounts for 42 per cent of these emissions. Egypt, Nigeria and Algeria together account for 35.5 per cent.

Despite contributing very little to global greenhouse gas emissions, Africa is extremely vulnerable to the impacts of *global warming* as a result of its dependency on agriculture and lack of financial resources to offset these impacts.

With regard to *air pollution*, Africa has the highest rate of urbanisation in the world. This, alongside taxes that encourage dirty fuels, a sharp rise in the import of older model cars and outdated, inefficient industrial plants, is increasing levels of air pollution. A study of transport in Senegal found that the health costs associated with vehicle emissions were among the factors costing that country the equivalent of 5 per cent of its gross domestic product (GDP).

In northern Africa, especially where there are refineries and coal power stations, many cities experience levels of sulphur dioxide double the World Health Organisation (WHO) standard. The use of wood as a fuel can increase health risks for women and children in the home. In Tanzania, for example, children under five who die from acute respiratory infections are three times more likely to have been exposed to the burning of such fuels, the report says.

Many countries have brought in air quality standards and regulations to control pollution, although currently the lack of resources makes enforcement difficult.

With regard to *biodiversity*, the report notes that Africa has some of the most species-rich areas in the world, ranging from the Mediterranean Basin Forests of the north to the Guinean Forest, the Western Indian Ocean Islands and the Succulent Karoo of South Africa and Namibia. The latter is the world's richest desert where 40 per cent of its over 4800 plant species are unique and found nowhere else on the globe. ➔

Economic pressures to boost timber, crops and mineral exports and a lack of awareness of the value of biological resources and inadequate enforcement of conservation laws, *inter alia*, are putting increasing pressure on the continent's wildlife. A total of 126 animal species are recorded as now being extinct, with 2018 threatened. Over 120 plants are now recorded as extinct, with 1771 threatened.

Concerning the threat to *coastal and marine environments*, the report states that an estimated 38 per cent of coastal ecosystems, such as mangrove swamps and coral reefs, are under threat from developments such as ports and the growth of coastal settlements and their sewage discharges. It notes that 40 per cent of Nigeria's mangrove swamps – important fish nurseries, buffers against erosion-causing waves and sources of construction materials – had been lost by 1980.

The damming of the Nile River at Aswan has reduced the level of nutrients so much that the sardine catch in the Nile Delta has slumped from 22,618 million tons in 1968 to under 13,500 million tons, and is still declining.

Over-harvesting of fish by local and foreign fleets is leading to a decline in stocks. The shrimp catch in the west and central Gulf of Guinea, for example, is estimated at 4700 tons, which is deemed unsustainable. In some countries, for example Ghana and Liberia, the average diet contains less fish protein now than it did during the 1970s.

The report notes that regional and sub-regional programmes and action plans, such as UNEP's Regional Seas Programme, are providing the framework for a more holistic management of Africa's coastal zones. However, there is a desperate need for more trained staff, finance, equipment, research, monitoring, surveillance and enforcement of regulations.

Outlook 2002-2032

Focusing on the next three decades, the AEO considers a number of policy options that are likely to have the most significant impact on environment and socio-economic development.

Four scenarios are presented, based on different environmental and social situations that are likely to result from alternative policy interventions. These scenarios are not predictions of the future, but aim to illustrate the range of possible outcomes based upon four policy choices and their interface with environment and developmental conditions, driving forces and management interventions. The driving forces identified as most likely to shape the future are demographics, economics (including poverty) society, culture, environment, technology and governance. The four scenarios are:

- Market forces;
- Fortress world;
- Policy reform; and
- Great transitions.

The report states that the *market forces* scenario presents market-driven global development, leading to a dominant Western-style economy. It says that the environmental impact of this style of development in Africa

will be a series of gains tempered by further environmental and social problems, and continued low economic growth.

Potential outcomes of this scenario include, *inter alia*, an increased incidence of drought and floods; reduction in agricultural production, increased health problems due to continued depletion of the ozone layer; and further decrease in the availability of freshwater.

The *policy reform* scenario sees policy adjustments steer conventional development towards poverty reduction goals. While more significant progress is made in terms of social and economic development, the study says that it is largely at the cost of further exploitation of natural resources and environmental degradation.

Potential outcomes of this scenario are seen to be, among other things, the gradual decline in atmospheric pollution, expansion of the tourist industry in Africa, more energy choices and hence less dependence on biomass for fuel.

The *fortress world* scenario is a future where socio-economic and environmental stresses mount and the world descends towards fragmentation and extreme inequality in power and socio-economic status, resulting in widespread conflicts, both within Africa and between Africa and other regions. The report states that potential outcomes of this scenario include increased vulnerability to climate change; decline in urban air quality and higher incidence of respiratory diseases; declining productivity of grazing and agricultural land and over-exploitation of water, land, forest and pasture resources.

The *great transitions* scenario describes new development paradigms emerging in response to the challenges of sustainability, new values, pluralism and planetary solidarity. As this new ethical code is translated into policies that are in turn implemented in an integrated fashion, social and political stability permeate throughout Africa. Renewed ecosystem health and vitality ensure abundant resources and services, sustaining the lives and livelihoods of new generations.

The report lists the potential outcomes of this scenario to include improved urban air quality and energy use efficiency, increased equitable access to land, a decline in biodiversity losses and strengthening of ecosystem integrity.

Conclusions

The report states that the key aim of the AEO is to identify achievable action items for recommendation to policy officials and to AMCEN, as Africa's environmental body. Urgent actions necessary to reverse the current trends in environmental degradation in Africa have been derived from the recommendations and analyses presented in the 404-page report. The report stresses that the key issues for action are poverty reduction and reversal of the direct causes of environmental degradation, by addressing environment and development together. There are also a number of cross-cutting issues that affect Africa's quest for sustainable development.

The actions are detailed in a 31-point list. They are summarised in a matrix presented in one of the Annexes. Actions are grouped into the following categories:

- reducing poverty;

- arresting environmental degradation directly;
- promoting cross-cutting actions.

Implementation of the recommended actions is seen to be principally the responsibility of African governments, with technical assistance from AMCEN and sub-regional organisations. In turn, African governments, AMCEN and the sub-regional organisations may enter into partnerships with sub-regional, national and international organisations in order to facilitate implementation.

The report concludes that although African governments have taken the first steps to halt environmental degradation, initiatives are now required for more effective implementation of policies and strategies that have been adopted. If Africa is to catch up with the rest of the world, the AEO states that African countries need, among other things, to:

- reduce poverty;
- improve the state of the environment;
- improve management systems;

- reduce vulnerability to adverse environmental changes;
- promote regional and sub-regional cooperation;
- mobilise additional financial resources; and
- create an effective institutional structure to holistically manage the environment on a region-wide basis.

The report stresses that African governments must show greater political will and commitment to solving environmental problems, and must be prepared to devote their own financial and human resources to practical environmental action. It notes that they must also address the issue of corruption if they are to utilise resources more efficiently, and they must embrace the democratic process to achieve better governance.

The international community is also urged to support the efforts of the national governments, sub-regional organisations and AMCEN, in the spirit of the New Partnership for Africa's Development.

For more information, see www.unep.org/aeo. (MJ)

