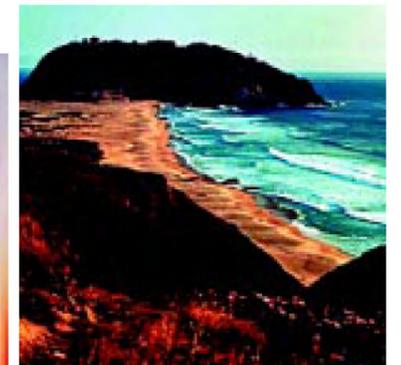
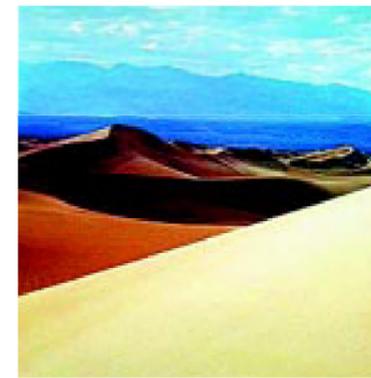


# AFRICA ENVIRONMENT OUTLOOK



## INTEGRATED ENVIRONMENTAL ASSESSMENT REPORTING: AN UPDATE



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# AFRICA ENVIRONMENT OUTLOOK

## INTEGRATED ENVIRONMENTAL ASSESSMENT REPORTING: AN UPDATE

A Report for the Special Session of the African Ministerial Conference  
on Environment (AMCEN)

Nairobi, Kenya

16 October 2001

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# Africa Environment Outlook Overview

A Report for the Special Session of the African Ministerial Conference on Environment (AMCEN)

Nairobi, Kenya  
16 October 2001

*The Africa Environment Outlook is the first attempt at a state of the environment report covering the continent, and therefore is a significant milestone in harmonisation and dissemination of integrated environmental and socio-economic data and information.*

## Introduction

The **Africa Environment Outlook** report is the first comprehensive integrated report on the state of the environment about the continent. It provides a detailed analysis of environmental status and trends in Africa, integrated with the impacts of policies, laws and regional agreements. The report also analyses trends in human vulnerability and security due to environmental changes; and proposes alternative policy options for the future. Concrete policy actions are recommended for follow-up at national, sub-regional and regional levels.

## Origins

The Eighth Session of the African Ministerial Conference on Environment (AMCEN) which was held in Abuja, Nigeria in April 2000 approved AMCEN's medium-term action programme, a key element of which was the production of the **Africa Environment Outlook** report. This decision was affirmed at the AMCEN Inter-sessional Committee, which met in Malmo, Sweden in May 2000. In response to this, the AMCEN Secretariat in collaboration with the

United Nations Environment Programme Division of Early Warning and Assessment (UNEP DEWA) embarked on a process to produce the **Africa Environment Outlook** report to be published in early 2002.

## Aims

The main purpose of the **Africa Environment Outlook** is to provide comprehensive, credible environmental information in a way that is relevant to policy making. The structure, which combines comprehensive environmental information with policy analysis, within an overall context of socio-economic conditions and development imperatives, is ideally suited to this purpose.

The **Africa Environment Outlook** has also been designed to provide useful information at a sub-regional level and in specific cases, contains information relevant at a national level. It provides recommendations for international cooperation and action and can be used by sub-regional organisations and national environment departments in developing national policies and implementing international agreements.

### **The AEO report responds directly to Agenda 21, Chapter 40, which states:**

*"While considerable data already exists, as the various sectoral chapters of Agenda 21 indicate, more and different types of data need to be collected, at the local, provincial, national and international levels, indicating the status and trends of the planet's ecosystem, natural resource, pollution and socio-economic variables. The gap in the availability, quality, coherence, standardisation and accessibility of data between the developed and the developing world has been increasing, seriously impairing the capacities of countries to make informed decisions concerning environment and development.*

*There is a general lack of capacity, particularly in developing countries, and in many areas at the international level, for the collection and assessment of data, for their transformation into useful information, and their dissemination. There is also need for improved coordination among environmental, demographic, social and developmental data and information activities."*

## Influence

The **Africa Environment Outlook** will provide the awareness and stimulus for action in the development of and responses to Multilateral Environmental Agreements, regional action plans and sub-regional cooperative arrangements. At the national level, AEO aims to influence policies and strategies such as National Environmental Action Plans, conservation strategies, and sustainable development strategies, and the establishment of environmental protection or management authorities.



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## Target Audience

While the AEO is mainly targeted at AMCEN and its member governments, it is equally important to the people of Africa and partners of the region in development. The report will appeal to various other African organisations and institutions at the regional, sub-regional and national levels. These include both inter-governmental and private organisations. It is critical to universities, colleges and schools, professional and community associations, women's organisations, trade unions, private sector, and the media. By providing such up-to-date information on sustainable development in Africa and its sub-regions, the aim is to encourage the region's various stakeholders to make informed decisions, and to act individually, collectively and/or multilaterally to put Africa on a sustainable development path.

## Significance of the Report

The AEO report is a unique report in several significant ways. It provides:

- A detailed analysis of the state and trends in major environmental sectors since environment first came onto the global agenda at the UN Conference on the Human Environment in Stockholm, Sweden in 1972.
- A valuable opportunity for AMCEN to take stock of policy

performance and effectiveness in response to the observed state, trends and impacts over the same period and more specifically since AMCEN was launched in 1985.

- An opportunity for AMCEN to look into the future and assess the various policy options for policy consideration at national, sub-regional and regional levels over the next 30 years.
- An opportunity to review and recommend achievable actions at national, sub-regional and regional levels and their implications for implementation at these levels.
- An opportunity for AMCEN to review options for reorientation of its medium-term programme in light of the findings and recommendations of the AEO report. AMCEN may also wish to consider establishing and supporting a comprehensive process for regular reporting on the state of the African environment.
- Inputs to the World Summit on Sustainable Development (WSSD) to be held in South Africa in September, 2002.

## Structure

The structure of the **Africa Environment Outlook** integrates environmental information with development priorities and policy development and implementation. This is set within the context of Africa's recent history, physical characteristics, natural resource base, cultural diversity, economic potential and progress, and governance systems.

Retrospective analysis from 1972-2002 and outlook from 2002-2032 provide an ideal setting for:

- Assessment of environmental trends and human-environment interactions;
- Monitoring of progress towards sustainable development;
- Visualisation of alternative development paths;

- Demonstration of the impacts of decision-making; and
- Providing recommendations to achieve development targets.

The links between environmental change and poverty are explored and appropriate responses identified. An analysis of the historical and current responses to environmental change and the impacts at regional, sub-regional, and national level are presented, with an assessment of their effectiveness.

## Context

The **Africa Environment Outlook** begins with an overview of the history of Africa, and the evolution of environmental awareness, integration of environment and development issues, and milestones in environmental policy and management, over the last 30 years. This is provided in terms of a decade-by-decade analysis, reflecting both Africa's internal development and the global context.

## Outlook

Building on this analysis, a series of scenarios for the future are presented. These illustrate science-based alternative futures derived from current driving forces and elaborate emerging issues, thus providing a stimulus for action by highlighting critical intervention points. The **Africa Environment Outlook** concludes with recommendations on the most appropriate interventions at these critical points, with particular attention to policy and institutional reform.

## Synthesis and Action

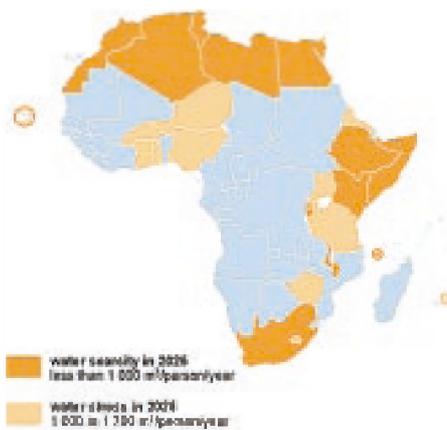
This chapter will be a synthesis of the various issues covered in the report making recommendations on policy responses critical to effective implementation of a sustainable environment and development agenda.

## SOE Policy Retrospective

Details are then given on the state of the environment, trends over the last 30 years, the driving forces behind environmental change, and the resultant consequences for social and economic development.

## Vulnerability

These consequences are presented both in terms of impacts on ecosystems, and vulnerability of people in Africa to floods, droughts, pests and diseases.



Source: UNEP 1999 (GEO 2000)

Lake Chad 1973 and 1997



Goddard Space Flight Centre 2001. *A Shadow of a Lake: Africa's Disappearing Lake Chad.* GSFC on-line News Releases. <http://www.gsfc.nasa.gov/gsfc/earth/environ/lakechad/chad.htm>

# AEO Contents and Highlights



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## Chapter 1 Environment and Development 1972-2002

### Chapter outline

This chapter gives an account, structured according to decades, of the social, economic, and political developments that have influenced attitudes, awareness, and management of natural resources. It covers the struggle for democracy and economic growth in the post-colonial era, establishment of sub-regional and regional organisations, participation in global environmental and development fora, and constraints to Africa's international competitiveness. Impacts of specific regional and global events are described to illustrate the background and pervading conditions facing African countries. Successes and failures of reforms and structural adjustment programmes are outlined. The purpose of the chapter is not to assess the specific environmental impacts of any of these individual events, but rather to set the scene and give an overview of the evolution of environmental awareness and governance, amid a myriad social and economic pressures. It also aims to present the progress made in terms of political commitment to national, regional, and international environmental agreements.

### Summary of findings

The paradigm of environmental management and cooperation in Africa was initiated by the Organisation of African Unity (OAU) which encouraged the conservation of natural resources, energy, environment and the control of hazardous wastes. The OAU Charter also called for the coordination and intensification of efforts among African States to achieve a better life for the people of Africa. This and the

resulting 1968 Algiers Convention were established well ahead of the global conference in Stockholm in 1972, demonstrating the awareness of African governments, recognition of the need for regional cooperation, and willingness to find African solutions.

Despite significant and varied constraints to implementation of these plans, African nations committed themselves to a range of multilateral environmental agreements and established AMCEN in 1985 to provide coordination and leadership in regional environmental matters.

The United Nations Conference on the Environment and Development (UNCED) in 1992 brought renewed vigour and focus to global environmental management. African countries have formed partnerships and alliances to effect policies and actions to meet the obligations of these agreements.

## Chapter 2 State of the Environment and Policy Analysis 1972-2002

### Chapter Outline

This chapter is divided into seven environmental themes, namely *atmosphere, biodiversity, coastal and marine areas, forests, freshwater, land, and urban areas*. These themes provide an overall framework for presenting the most pressing environmental issues, such as land degradation, forest and biodiversity loss, freshwater scarcity, climate change and pollution. Where it is practical, current environmental conditions and trends are also quantified, and linkages between issues are formed. The causes of environmental change are examined, particularly those related to policies and governance, and the impacts of environmental change on ecosystem

functioning, and social and economic development, are illustrated by means of examples and case studies. Selected responses at the regional, sub-regional, and national level are presented, with an overview of their effectiveness or limitations.

## Summary of findings

- Africa is extremely vulnerable to climate variability and climate change. While contributions to global emissions of greenhouse gases are on the whole negligible, with the exception of a few countries, activities such as deforestation, inappropriate coastal development, and poor land management contribute to worsening the impact of drought, desertification, flooding, and sea level rise.

Urgent action is required to develop alternative, clean, and renewable sources of energy to avoid increasing greenhouse gas emissions and to stem the widespread deforestation. The Kyoto Protocol makes provision for funding streams to facilitate this.

- Africa's biological resources are declining rapidly due to habitat loss, over-harvesting of selected resources, and illegal activities. Formal protection at the national and international level has been strengthened over the last 30 years, but additional measures are required, including additional research and documentation, particularly of indigenous knowledge, implementation of strategies for sustainable harvesting and trade, and wider involvement of stakeholders and benefit sharing.
- Coastal and marine habitats and resources are under threat from pollution, over-harvesting of resources, inappropriate development in the coastal zone, and poor inland land management. Oil pollution is a major threat to resources, habitats, and economies along

the African coastline. Policies and regulations for sustainable coastal development and use of marine resources are in place but require sustained resources such as trained personnel, equipment, money, and more effective policing, monitoring, administration and enforcement of punitive action.

- Africa has the fastest rate of deforestation anywhere in the world. In addition to ecological impacts, local communities are suffering from lost livelihoods and in particular loss of vital energy sources. Political commitment for protection of indigenous forests, sustainable harvesting practices, and community ownership need strengthening. Development of alternative energy sources is a priority.
- Freshwater availability and quality are the two most limiting factors to development in Africa, constraining food production and industrial activities, and contributing significantly to the burden of disease.
- Soil and vegetation resource degradation is largely a result of increasing population pressures, inequitable land access and tenure policies, poor land management, and widespread poverty. The result is declining agricultural yields, affecting economies and food security; desertification of arid areas, raising competition for remaining resources and increased potential for conflict. Land tenure reform, international cooperation, and integration of land resources management with development goals are required.
- Although currently most Africans live in rural areas, rates of urbanisation are among the highest in the world. Poor economic growth and low investment in infrastructure leave provision of housing and basic services in urban areas lagging far behind in-migration



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rates, resulting in a proliferation of informal settlements in urban Africa.

- Human health is suffering due to emissions from industries, transport, and domestic use of traditional fuels, as well as lack of sanitation and access to potable water. Solid waste generation is escalating, contributing to water, air and soil pollution. Many countries have implemented quality standards and pollution abatement regulations. However, integrated planning and investment in infrastructure development are priorities for urban areas.



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## Chapter 3

### Environmental Change and Human Vulnerability

#### Chapter outline

This chapter highlights the impacts of environmental change on people's lives, livelihoods, infrastructure, health, food security, and potential for economic development. It introduces the concept of vulnerability and the uniqueness of Africa, discussing different types of human vulnerability and trends over the last 30 years. The chapter links environmental change with social change and loss of traditional coping strategies. Case studies are used to illustrate the impacts of vulnerability and insecurity of African countries to break the poverty cycle and meet their social and economic development targets. It concludes with an assessment of existing strategies to mitigate and cope with environmental change and highlights the enormous potential of African countries to become self-sufficient.

#### Summary of findings

- Global environmental change and poor management of resources are increasing the frequency and intensity of natural disasters.
- Increasing frequency of disasters and limited resources

reduce recovery time, exacerbating the impacts of successive disasters on food availability, shelter, human health, and economic security.

- Widespread poverty and low investment in infrastructure development place millions of people at risk of the impacts of floods, droughts, and outbreaks of pests and diseases.
- Social changes contribute to rising vulnerability through loss of indigenous knowledge and traditional methods of environmental management and adaptation.
- Africa has a rich and diverse natural and human resource base from which to develop the necessary means of mitigating environmental change and improving human security and well being.
- Informed, decisive intervention is required to break the cycle of poverty, vulnerability, and dependency, for Africa to compete globally on equal terms.

## Chapter 4

### Outlook: 2002 – 2032

#### Chapter outline

The chapter builds on the information provided in the state of environment, policy and socio-economic retrospective analyses, by first identifying the driving forces in each of these areas that are likely to have the most significant impact on development over the next 30 years. Four scenarios are constructed, presenting various environmental and social situations that are likely to result from changes in these driving forces in conjunction with alternative policy interventions. These scenarios are not predictions of the future, but aim to illustrate the range of possible outcomes, and the complex interactions between current environmental and developmental conditions, existing driving forces, and management interventions. The scenarios are quantitative and



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qualitative evaluations of desirable and undesirable future trends. They provide understanding of the interplay of the driving forces that may shape environmental change with effects on human vulnerability and sustainable livelihoods at national, sub-regional, regional and global levels. The chapter concludes by highlighting major “branch points” for suitable policy interventions, and setting the scene for more detailed recommendations in Chapter 5.



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### Summary of findings

The identified driving forces most likely to shape the future are:

**demographics, economics including poverty, social, culture, environment, technology and governance.**

The **Market Forces** scenario presents market-driven global development, leading towards a dominant western-style economy. 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.



The **Policy Reform** scenario sees policy adjustments steer market forces towards poverty-reduction goals. While more significant progress is made in terms of social and economic development, it is largely at the cost of further exploitation of natural resources and environmental degradation.



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The **Fortress World** scenario is a future where socio-economic and environmental stresses mount, the world descends towards fragmentation, extreme inequality in power and socio-economic status exists, and widespread conflicts, both within Africa and between Africa and other regions occur.

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 integrative 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.

## Chapter 5 Analysis and Action

The production process for Chapter 5 will be initiated with the drafting of a short paper summarising the main findings of chapters 1 to 4 focusing on policy issues and their implications in terms of follow-up and possible implementation by national institutions and sub-regional organisations. The paper is expected to identify possible areas that require further investigation and analysis with a view to soliciting responses, innovative ideas and suggestions that need to be translated into “positive and realistic actions”.

The draft paper will then serve as a basis for a detailed brainstorming workshop of key experts whose aim is identifying specific areas or aspects that should be the focus of “achievable action items” for recommendation to policy officials and to AMCEN as a continental environmental body.

On the basis of the outcome of the key experts workshop, UNEP will facilitate the compilation of a draft Chapter 5 which will then be subjected to a rigorous review process comprising senior policy officials from across Africa as well as members of the Intersessional Technical Committee of AMCEN. A revision of the draft will then be undertaken and will incorporate comments and views from the review process.

The final version of the chapter will then be integrated with the other four chapters for a final review before publication.

# An African Process and Product

## AEO – a user friendly report

- Graphics, maps, and illustrations are used to support text and convey a more powerful visual message.
- In addition to a printed book, the **Africa Environment Outlook** will be available on CD-ROM.
- Most sections give an overview of the situation at a regional level and go on to highlight differences between sub-regions and eco-regions.
- An integrated reporting approach is used for the retrospective state of the environment and policy analysis, which discusses individual issues in terms of the causes, trends, impacts, and existing and recommended responses.
- The scenarios for the future are written as narratives, and are designed to engage the reader by being plausible and contextualised.
- Implications for decision-making and policy are integrated throughout the text.



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Representatives of collaborating centres and partners

## AEO Products

- The **Africa Environment Outlook** and related products will be published in English and French.
- A series of policy briefs will be produced, focusing on different elements of environmental policy-making and management.
- Thematic extracts will also be available, giving details on specific human-environment interactions, their causes and consequences, and

recommendations for improved integration in the development agenda.

- Regular Updates of the full report and related products are envisaged.
- The **Africa Environment Outlook** initiative may be expanded and established as an umbrella process for regular sub-regional, national and sub-national environmental reporting, providing coordination and harmonisation of reporting processes and products, and synthesis of information.
- A web site of the full report and related products will be maintained and regularly updated.

## The Process

**Partnerships.** The AEO report process has been based on wide consultation and participation involving UNEP and various partners in the Africa region. It therefore reflects a variety of sub-regional perspectives and priorities. The AEO process involves six collaborating centres (CCs) producing sub-regional state of the environment and policy retrospective reports for Central Africa, Eastern Africa, Northern Africa, Southern Africa, Western Africa and the Western Indian Ocean Islands. These centres engaged individual and institutional experts at the national and sub-regional level to contribute to the various sections.

Consultants at regional level were then brought into the process to integrate the inputs and produce drafts of the various chapters. Consultations with regional experts, representatives of governments, NGOs and youth groups were organised to review and enhance various aspects of the report.

Internal and external experts from

**Capacity Building.**  
*The AEO report process has successfully built capacity in state of the environment reporting, policy analysis, scenario development, and integrated environmental reporting, at national, sub-regional and regional levels in Africa.*

specialised organisations were also involved in the review process of the report to ensure sub-regional balance, scientific credibility, and comprehensiveness. They include;

The UN Economic Commission for Africa (ECA), Africa Development Bank (ADB), the Organisation of African Unity (OAU), Southern African Development Community (SADC), Intergovernmental Authority on Development (IGAD), Economic Community of West African States (ECOWAS), Permanent Interstate Committee for Drought Control in the Sahel (CILSS), AMU and the Indian Ocean Commission (IOC).

### Sources of Information

In compiling the sub-regional inputs, national level information and data sources were used. These data sources were then compared and harmonised with data available from regional sources such as the UN Food and Agriculture Organisation (FAO), UN Development Programme (UNDP), Africa Development Bank (ADB), The World Bank, the World Resources Institute and others. A meeting of experts from the collaborating centres took place to agree on harmonisation of

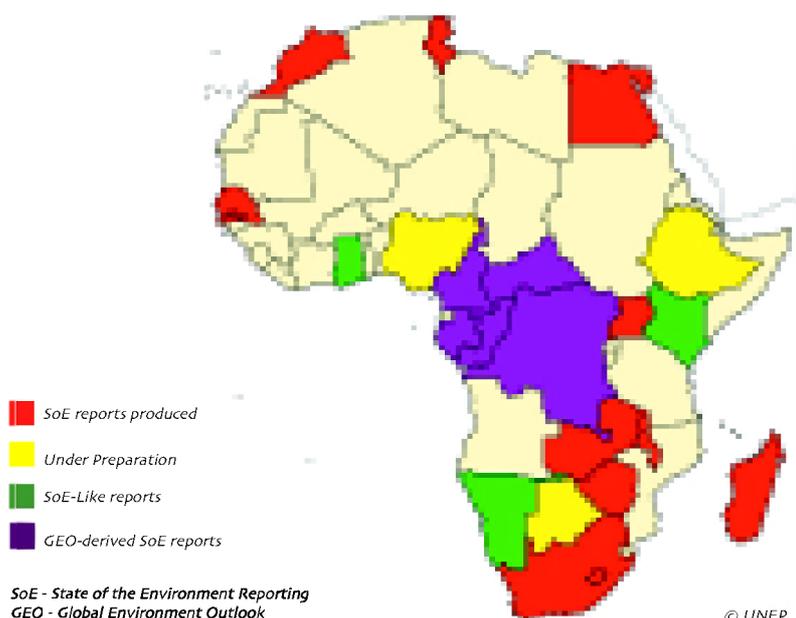
information and standardisation of data sources, to ensure consistency in the report.

Capacity-building workshops have been organised at sub-regional level for national participants on the methodologies of state of the environment/policy retrospective reporting using the State, Pressure, Impacts and Responses (PSIR) framework, including methods of data collection, analysis, and dissemination. The CCs and some regional experts were trained in scenario development and use as policy tools.

### Progress

- Sub-regional consultations undertaken through the six collaborating centres in Central, Eastern, Northern, Southern and Western Africa and the Western Indian Ocean Islands.
- Information and data gathered and four Chapters written.
- Materials produced for update on progress of AEO process to AMCEN Meeting on 16 October 2001.
- Preparations underway for key experts meeting for Chapter 5 to be held in 12-16 November, 2001 at UNEP.

### SoE Reporting in Africa



# Proposed Agenda for Future Action



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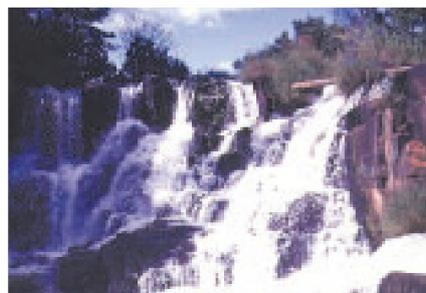
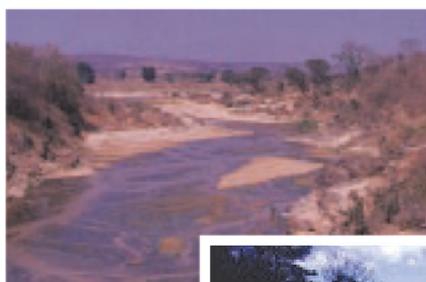
At the AMCEN meeting to be held at UNEP on October 16, 2001 a proposal will be made to the member governments to:

- Endorse the recommendation that UNEP, in collaboration with members of the AMCEN Secretariat and Delegation, develops a strategy for continuation, expansion, and formal establishment of the **Africa Environment Outlook** process, as an umbrella programme for regional environmental reporting.
- Endorse Integrated Environmental Assessment (IEA) as the most effective framework for assessing and reporting on the state of the regional environment.
- Support the adoption by African countries of the IEA framework for reporting on the state of the environment at sub-regional and national levels.

This programme would provide ongoing support to AMCEN through the following means:

- Expansion of the **Africa Environment Outlook** to include additional products.

- Regular updating of the **Africa Environment Outlook** and associated products.
- Establishment of environmental information provision and decision-support services to the AMCEN Secretariat and its members, through UNEP, the global authority on the environment.
- Harmonisation of sub-national, national and sub-regional environmental information.
- Standardisation and coordination of environmental reporting processes in Africa.
- Further capacity building in State of the Environment Reporting.



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## AEO Supports AMCEN Preparations for the World Summit on Sustainable Development (WSSD), Johannesburg, South Africa, September 2002

The findings of the *Africa Environment Outlook* are well aligned with the priorities proposed through the preparatory processes for the World Summit on Sustainable Development (WSSD) in Johannesburg, in September 2002. The AEO will therefore provide valuable information and recommendations for use in developing an African common position, as well as reference material for monitoring progress towards targets set during the Summit. The following table lists the priorities identified through sub-regional meetings of the WSSD preparatory process and the linkages with sections in the AEO.

Priority for WSSD	Supporting Information in AEO
Natural Resource Management Biodiversity Climate Change Coastal and Marine Ecosystems Land Degradation and Desertification Maritime and Industrial Pollution Waste Water Energy	<b>Chapter 2:</b> State of the Environment and Policy Retrospective (1972-2002) contains information on the current state and trends, causes and impacts of environmental change in each of these areas; Atmosphere, Biodiversity, Coastal and Marine Areas, Forests, Freshwater, Land and Urban Areas. Successes and failures in policies and management of these resources are also documented
Poverty Health Food Security Conflicts Peace, Security and Stability	<b>Chapter 3:</b> Environmental Change and Human Vulnerability illustrates the consequences of environmental and social change on lives, livelihoods, economic growth, food security, health, access to resources and empowerment, and conflicts/stability
International Trade Market Access	<b>Chapter 1:</b> Integrating Environment and Development (1972-2002) gives an overview of historical and current opportunities and constraints to international African trade. <b>Chapter 3:</b> highlights some of the social, economic and environmental problems resulting from inequitable trade and access to markets. <b>Chapter 5:</b> outlines some options for correcting trade imbalances and maximising new opportunities
Governance International Environmental Governance Financing Sustainable Development Mobilisation of Resources Regional Integration Capacity Building and Technology Transfer	<b>Chapter 4:</b> Outlook 2002-2032 describes some possible policy options and their impacts under alternative developments of existing driving forces  <b>Chapter 5:</b> Analysis and Action makes recommendations for enhancing governance and development, management of natural resources, and funding mechanisms to facilitate these recommendations.



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