



# United Nations Environment Programme

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ПРОГРАММА ОРГАНИЗАЦИИ ОБЪЕДИНЕННЫХ НАЦИЙ ПО ОКРУЖАЮЩЕЙ СРЕДЕ

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## **ACTION PLAN OF THE ENVIRONMENT INITIATIVE OF THE NEW PARTNERSHIP FOR AFRICA'S DEVELOPMENT (NEPAD)**

**June 2003**

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## Acronyms

ACCNNR	(African Convention on the Conservation of Nature)
ACCS	(Africa's Climate Change Strategy)
ADB	(African Development Bank)
AEO	(Africa Environment Outlook)
AFREC	(African Energy Commission)
AMCEN	(African Ministerial Conference on Environment)
AMCOW	(African Ministerial Council on Water)
AMU	(Arab Maghreb Union)
ANER	(National Agency for Renewable Energy)
APAI	(African Protected Areas Initiative)
ASP	(African Stock pile Program)
CBD	(Convention on Biological Diversity)
CBOs	(Community Based Organizations)
CBWG	(CITES Bushmeat Working Group)
CDM	(Clean Development Mechanism)
CEMAC	(Communaute Economique de l'Afrique Centrale)
CIFOR	(Center for International Forest Research)
CILSS	(Comite Permanent Inter-Etats de la Lutte contre la Secheresse dans le Sahel)
CITES	(Convention on International Trade in Endangered Species)
CPF	(Collaborative Partnership on Forests)
EAC	(East Africa Cooperation)
ECA	(Economic Commission for Africa)
ECOWAS	(Economic Community of West African States)
FAO	(Food and Agricultural Organization)
GDP	(Gross Domestic Product)
GEF	(Global Environment Facility)
GHS	(Green House Gaze)
GIS	(Geographical Information Systems)
GMOs	(Genetically Modified Organisms)
GPA	(Global Programme of Action)
GPS	(Global Positioning System)
GRASP	(Great Apes Survival Project)
GroWR	(Global Review of Wetland Resources)
GWP	(Global Water Partnership)
IAS	(Invasive Alien Species)
IBAR	(Inter-African Bureau for Animal Resources)
ICAM	(Integrated Coastal Area Management)
ICARM	(Integrated Coastal Area River Basin Management)
ICCP	(Inter-governmental Committee for the Cartegena)
IGAD	(Intergovernmental Authority on Development)
INRM	(Integrated Natural Resources Management)
ISWC	(Indigenous Soil and Water Conservation)

IUCN	(World's Conservation Union)
IWRI	(International Water Research Institute)
LMOs	(Living Modified Organisms)
MDG	(Millenium Development Goals)
MIKE	(Monitoring of Illegal Killing of Elephants)
MSP	(Medium Sized project)
NAP	(National Action Programme)
NAPA	(National Adaptation Programme of Action)
NEPAD	(New Partnership for Africa Development)
NGOs	(Non Governmental Organization)
NWPD	(National Wetlands' Policies and Plans)
OAU	(Organization of African Unity)
ODA	(Official Development Assistance)
POPs	(Persistent Organic Pollutants)
RAP	(Regional Action Programme)
REIM	(Regional Environment Information Project)
RIAA	(Regional Implementation Annex for Africa)
ROOMFSA	(Regional Operation Observing Monitoring and Forecasting System in Africa)
SADC	(Southern African Development Community)
SFM	(Sustainable Forest Management)
SIDs	(Small Islands Development States)
SRAP	(Sub-Regional Action Programme)
TPN	(Thematic Programme Networks)
UNCCD	(United Nations Convention to Combalt Desertification)
UNDP	(United Nations Development Programme)
UNEP	(United Nations Environment Programme)
UNFCCC	(United Nations Framework Convention on Climate Change)
UNMD	(United Nations Millennium Declaration)
WCD	(World Commission on Dams)
WSSD	(World Summit on Sustainable Development)

## Executive Summary

### *Introduction*

1. The African region offers significant potential for human, social and economic development but is facing enormous challenges. Rapid population growth, rising levels of poverty and inappropriate development practices are the main factors influencing the state of the environment in Africa. Other factors that have led to continued environmental degradation include the impact of drought and other natural disasters, disease, ineffective development policies, unfavourable terms of international trade and the debt burden.

2. In adopting the United Nations Millennium Declaration in New York in September 2000, the heads of State representing the international community, specifically agreed to “take special measures to address the challenges of poverty eradication and sustainable development in Africa, including debt cancellation, improved market access, enhanced Official Development Assistance and increased flows of Foreign Direct Investment, as well as transfers of technology.”

### *New Partnership for Africa's Development*

3. The New Partnership for Africa's Development (NEPAD) adopted by the African Heads of State and Government is an initiative in the context of which the leaders agreed, based on a common vision and a firm and shared conviction, that they have a pressing duty to eradicate poverty and to place their countries, both individually and collectively, on a path of sustainable growth and development, and at the same time to participate actively in the world economy and body politic. NEPAD recognizes that the range of issues necessary to nurture the region's environmental base and sustainable use of natural resources is vast and complex, and that a systematic combination of initiatives is necessary in order to develop a coherent environmental programme.

4. NEPAD calls for the development and adoption of an environment initiative - a coherent action plan and strategies - to address the region's environmental challenges while at the same time combating poverty and promoting socio-economic development. The action plan of the environment initiative of NEPAD covering the first decade of the twenty-first century is a response to such challenges. It has been prepared through a consultative and participatory process under the leadership of the African Ministerial Conference on Environment (AMCEN). The plan relates to Africa's common and shared sustainable development problems and concerns. It is a body of collective and individual responsibilities and actions that African countries adopt and will implement to maintain the integrity of the environment and ensure the sustainable use of their natural resources through partnerships with the international community. It provides an appropriate framework for the establishment of a strong partnership for the protection of the environment between Africa and its partners based on the commitments contained in the United Nations Millennium Declaration.

5. The Plan of Implementation adopted at the World Summit on Sustainable Development, held in Johannesburg, from 26 August to 4 September 2002 provides that “The New Partnership for Africa's Development is a commitment by African leaders to the people of

Africa. It recognizes that partnerships among African countries themselves and between them and with the international community are key elements of a shared and common vision to eradicate poverty, and furthermore it aims to place their countries, both individually and collectively, on a path of sustained economic growth and sustainable development, while participating actively in the world economy and body politic. It provides a framework for sustainable development on the continent to be shared by all Africa's people". The Johannesburg Plan of Action contains 47 recommendations aimed at ensuring the promotion of sustainable development in Africa in the framework of NEPAD.

6. Under the leadership of AMCEN and in close cooperation with the secretariat of NEPAD and the African Union as well as with the support of the United Nations Environment Programme (UNEP) and the Global Environment Facility (GEF), the action plan for the environment initiative of NEPAD has been prepared in two phases:

- (a) A framework of an action plan of the UNEP/GEF medium-sized project;
- (b) The conduct of thematic workshops and a consultative meeting/workshop with civil society groups.

7. The development of the action plan for the environment initiative of NEPAD has been a consultative process lead by African experts and based on a sound methodology for the prioritization of the root causes of environmental degradation, and the identification of the most effective projects, from an environmental, institutional and financial perspective. In this regard, eight thematic workshops were held early in 2003 which were attended by about 800 African experts whose goal was to finalize the action plan. The workshops were held in the following countries: Algeria, on desertification; South Africa, on invasive species; Mali, on poverty and environment; Cameroon, on forests; Kenya, on wetlands; Senegal, on health and environment; Nigeria, on marine and coastal environment and freshwater resources; and Morocco, on climate change. In addition, a consultative meeting was held with civil society groups in Nairobi. The result of the workshops and the consultative meeting was a plan of action to implement the environment initiative of NEPAD, together with over 200 proposed projects to tackle some of the most pressing environmental issues in Africa.

8. The reports of the eight thematic workshops as well as the revised action plan were reviewed by the Steering Committee held in Maputo, from 23 to 24 April 2003. It is noteworthy that the outcome of the consultative meeting with civil society groups was also taken into account by the Steering Committee. At the meeting of the Steering Committee held in Maputo, the draft action plan of the environment initiative of NEPAD was reviewed. Notable among the achievements at this meeting was the prioritization of the projects (in terms of categories) under the programme areas.

9. The special session of AMCEN held from 9 to 10 June, 2003 considered the draft action plan of the environment initiative of NEPAD and endorsed it subject to some suggested amendments. The revised draft action plan for the environment initiative of NEPAD is to be submitted to the Summit of the African Union scheduled to be held in Maputo in early July 2003. A fifth meeting of the project steering committee on capacity-building for the implementation of the action plan for the environment initiative will be held in Cairo in October 2003. At the invitation of the Government of Algeria, a meeting of donors will be held in Algiers, in December 2003, to consider the funding of the projects identified in the action plan.

10. It is worth recalling that the process has been overseen by a project steering committee, comprising representatives of the five members of the Bureau of AMCEN, and the five founding members of NEPAD, who met on four occasions between January 2002 and May 2003 – in Pretoria, Algiers, Dakar and Maputo. The first stage of the process was to prepare a framework for the action plan, which was endorsed by AMCEN at its ninth session held in Kampala from 1 to 5 July 2002, and subsequently by the African Union at its Summit held in Durban from 8 to 11 July 2002.

### ***Environment Action Plan***

11. A coherent, strategic and long-term programme of action has been prepared to promote Africa's sustainable development. This is consistent with NEPAD's emphasis on measures that will ensure that the continent is able to confront its short-term economic growth challenges without losing sight of the long-term environmental, poverty eradication and social development imperatives. Sustainable development is about the long-term and can only be achieved through investments in the future. Thus the proposed NEPAD environment programme of action takes a long-term approach. It is about processes, projects and related activities that are aimed at enlarging Africa's economic prospects through sustained environmental management.

12. The proposed action plan is integrated in the sense that it takes full consideration of economic growth, income distribution, poverty eradication, social equity and better governance as part and parcel of Africa's environmental sustainability agenda. Chapter 8 of NEPAD on the environment initiative cannot be implemented in isolation from the overall objectives of NEPAD and will therefore be implemented in harmony with the other components of NEPAD.

13. The action plan is organized in clusters of programmatic and project activities to be implemented over an initial period of 10 years. The programmatic areas cover the following priority sectors and cross-cutting issues as identified in the environment initiative of NEPAD: combating land degradation, drought and desertification; wetlands; invasive species; marine and coastal resources; cross-border conservation of natural resources; climate change; and, cross-cutting issues. The plan of action builds upon the related problems of pollution, forests and plant genetic resources, wetlands, invasive alien species, coastal and marine resources, capacity-building and technology transfer.

14. The implementation of the action plan of the environment initiative of NEPAD will be a challenge which will require the support and or active participation by all African countries and our development Partners. As an immediate step for the implementation of the action plan, the steering committee decided to convene its fifth meeting in Egypt in October 2003 at the level of ministers to finalize a project proposal on building the capacity of the African countries for the implementation of the Action plan on the environment component of NEPAD. The multi-million projects will be submitted to the donor meeting to be held in Algiers, Algeria during the first week of December 2003 with a view to starting the implementation of this strategic project under the aegis of AMCEN in early 2004.

## Introduction

1. At the beginning of the new millennium Africa is characterised by two interrelated features: rising poverty levels and deepening environmental degradation. Africa is the poorest region of the world. It has the largest share of people living on less than US \$1 per day. Almost 40% of the people in Africa live below the poverty line. At least one-third of Africa's population is undernourished and that number is also growing. Africa is the only region of the world where poverty is projected to rise during this century if adequate measures are not urgently taken. Of the 45 countries on the UNDP list of Low Human Development Indicators, 35 are in Africa. Indeed two-thirds of the 48 countries included in the list of Least Developed Countries are in Africa.
2. In adopting, in New York in September 2000, the United Nations Millennium Declaration, the Heads of States representing the international community, committed themselves to "support the consolidation of democracy in Africa and assist Africans in their struggle for lasting peace, poverty eradication and sustainable development, thereby bringing Africa into the mainstream of the world economy". More specifically they agreed to "take special measures to address the challenges of poverty eradication and sustainable development in Africa, including debt cancellation, improved market access, enhanced Official Development Assistance and increased flows of Foreign Direct Investment, as well as transfers of technology."
3. Related to the rising poverty is the degradation of the environment and increasing loss of the region's natural resources. UNEP's *Africa Environment Outlook* (AEO) report launched by HEM Yoweri Museveni, President of Uganda, on 2 July 2002 at the margins of the ninth meeting of AMCEN observes that conditions in natural habitats and fragile ecosystems have been deteriorating resulting in diminishing biodiversity. There are high rates of exploitation of such resources as freshwater, forests, and coastal and marine stocks continue to be used at rates beyond their viable rates of replacement. Land degradation, natural as well as human-induced environmental disasters and invasive alien species continue to be major problems in Africa. Natural disasters, such as floods, droughts, earthquakes and landslides cause considerable human suffering and economic damage in the continent. On the whole, environmental degradation undermines prospects of fighting poverty, economic growth and sustainable development in Africa. The vicious circle between poverty and degradation of the environment needs to be addressed in a comprehensive manner.
4. The New Partnership for Africa Development adopted by the African Heads of State and Government is an initiative in which the leaders pledged "based on a common vision and a firm and shared conviction, that they have a pressing duty to eradicate poverty and to place their countries, both individually and collectively, on a path of sustainable growth and development, and at the same time to participate actively in the world economy and body politic." NEPAD recognises that the range of issues necessary to nurture the region's environmental base and sustainable use of natural resources is vast and complex, and that a systematic combination of initiatives is necessary in order to develop a coherent environmental programme.

5. The New Partnership for Africa's development recommends the development and adoption of an environment initiative - a coherent action plan and strategies - to address the region's environmental challenges while at the same time combating poverty and promoting socio-economic development. This Environmental Action Plan for the first decade of the 21<sup>st</sup> century is a response to address such challenges. It is prepared through a consultative and participatory process under the leadership of the African Ministerial Conference on Environment (AMCEN). The plan is about Africa's common and shared sustainable development problems and concerns. It is a body of collective and individual responsibilities and actions that African countries adopt and will implement to maintain the integrity of the environment and ensure the sustainable use of their natural resources through partnerships with the international community. It provides an appropriate framework for the establishment of a strong partnership for the protection of the environment between Africa and its partners based on the commitments contained in the United Nations Millennium Declaration.
6. Chapter 8 on Sustainable Development for Africa of the Johannesburg Plan of Implementation adopted at the World Summit on Sustainable Development, held in Johannesburg, South Africa from 26 August to 4 September 2002 provides that "The New Partnership for Africa's Development is a commitment by African leaders to the people of Africa. It recognises that partnerships among African countries themselves and between them and with the international community are key elements of a shared and common vision to eradicate poverty, and furthermore it aims to place their countries, both individually and collectively, on a path of sustained economic growth and sustainable development, while participating actively in the world economy and body politic. It provides a framework for sustainable development on the continent to be shared by all Africa's people". The Johannesburg Plan of Action contains 47 recommendations aimed at ensuring the promotion of sustainable development in Africa in the framework of NEPAD. The recommendations are contained in Annex III.
7. The Heads of State and Government of the Eight major industrialised countries meeting in Kananaskis, Canada on 25-27 June 2002 with the African leaders reaffirmed their commitment to build a new partnership between the countries of Africa based on mutual responsibility and respect. To demonstrate their support, they agreed to support the implementation of NEPAD including its environment component. The participants to the high-level plenary meeting of the United Nations General assembly, in adopting on 16 September 2002 the "United Nations Declaration on the New Partnership for Africa's Development" urged "the United Nations system and the international community, in particular donor countries, to assist with the implementation of the new Partnership." The participants of the Global Ministerial Environment Forum, held in Nairobi on 5<sup>th</sup> February 2003 discussed the Environment Component of NEPAD. The meeting was held with the participation of the President of the Republic of Senegal, H.E. Maitre Abdoulaye Wade and the Vice President of the Republic of Kenya, H. E. Mr. Kijana Wamalwa. The participants called for the urgent finalisation of the Action plan on the environment initiative of NEPAD and urged the international community to support its implementation. These developments have been fully taken into account during the preparation and finalisation of the Action Plan for the environment initiative of NEPAD.

8. Under the leadership of AMCEN and in close co-operation with the Secretariat of NEPAD and the African Union as well as the support of UNEP and the Global Environment Facility, the Action Plan for the Environment Initiative of the New Partnership For Africa's Development has been prepared in two phases. During the first phase (September 2001-July 2002) a Framework of an Action Plan was prepared by the Steering Committee of the UNEP/GEF Medium Sized Project comprising the representatives of the five members of the Bureau of AMCEN as well as the five initiating countries of NEPAD. Three meetings of the Steering Committee were convened in Pretoria, Algiers and Senegal. The last meeting was held at the level of ministers. The Steering Committee was co-chaired by the representatives of the President of the African Union and the President of AMCEN. The Framework of the Action Plan was adopted by the ninth meeting of AMCEN held in Kampala, Uganda on 1-5 July 2002. During the second phase (September 2002-May 2003), the nine following thematic workshops were convened for the finalisation of the Action Plan: Desertification (19-20 January 2003, Algiers, Algeria); Invasive Species (23-24 January 2003, Pretoria, South Africa); Poverty and Environment (23-24 January 2003, Bamako, Mali); Consultative meeting with Non Governmental Organisations (1 February 2003, Nairobi, Kenya); Wetlands (10-11 February 2003, Nairobi, Kenya); Forests (13-14 February 2003, Yaounde, Cameroon); Health and Environment (17-18 February 2003, Dakar, Senegal); Marine and Coastal (24-25 February 2003, Abuja, Nigeria) and Climate Change (26-27 February 2003, Rabat, Morocco). The workshops have been convened to further elaborate the activities contained in the framework of the Action Plan and to identify project proposals. These workshops were held with the active participation of more than 786 African experts and resulted in the identification of 200 project proposals falling within the programme areas of the Action Plan. The reports of the nine thematic workshops as well as the revised Action Plan were reviewed and endorsed by the Steering Committee held in Maputo, Mozambique on 23-24 April 2003 at the level of ministers. The Action Plan was submitted to the special session of AMCEN held in Maputo, Mozambique on 9-10 June 2003. The list of project proposals under the Action Plan identified by the NEPAD thematic workshops is contained in Annex II of the Action Plan. The fifth meeting of the Steering Committee at the level of Ministers will be held in Cairo, Egypt in October 2003 to finalise the Strategic Plan to Build Africa's Capacity. The Action Plan was unanimously adopted by the Special Session of AMCEN held in Maputo, Mozambique, 9-10 June 2003. H.E. President Joaquim Chissano of Mozambique attended the meeting. The decision of the meeting is contained in Annex IV.
9. The environment is a crosscutting issue although the action plan has been developed to address Chapter 8 of NEPAD, it is important that environmental considerations should be duly taken into account during the implementation phase of all programmes of NEPAD. To this end an environmental and social impacts assessments should be carried out for all projects falling within the other programmes of NEPAD.

## Section 1: The Environment in Africa: Status and Trends

10. Africa has a wealth of natural resources, including minerals, land biological diversity, wildlife, forests, fisheries, and water. It has the largest tropical rain forests and the second largest freshwater lake in the world. The region offers significant potential for human, social and economic development but is facing enormous challenges. Rapid population growth, rising levels of poverty and inappropriate development practices are the main factors influencing the state of the environment in Africa. Other factors that have led to continued environmental degradation include the impact of drought and other natural disasters, disease, ineffective development policies, unfavourable terms of international trade and the debt burden. The issues of concern include, but are not limited to: widespread land degradation and desertification; loss of biodiversity; deforestation and loss of arable and grazing land; declining soil productivity; pollution and depletion of freshwater resources; and deteriorating air quality. These have wider implications on food security, sustainable natural resources management, human health and efforts towards poverty eradication.
11. Land is an important resource on which Africa's economies are based. Agriculture contributes about 40 per cent of regional GDP and provides livelihoods of about 60 per cent of the population. In addition to providing subsistence crops for a large proportion of Africa's population, there are increasing demands on land to produce cash crops for export, facilitating economic growth. Africa contains the world's largest expanse of drylands, covering roughly 2 billion hectares of the continent or 65 per cent of Africa's total land area. One third of this area is hyper-arid deserts, while the remaining two thirds consists of arid, semi-arid, and dry sub-humid areas - home to about two thirds of the continent's population. Approximately 22 per cent of the total land area are under forest, 43 per cent is characterised as extreme deserts and 57 per cent is vulnerable to desertification. Twenty one per cent is suitable for cultivation. Although reliable data is lacking, it is estimated that some 500 million hectares of land in Africa has been affected by soil degradation since 1950, including as much as 65 per cent of agricultural land. Approximately 50 per cent of land degradation in Africa are from overgrazing and 24 per cent from activities related to crop production, 14 per cent from vegetation removal and another 13 per cent from over-exploitation of the land. Wind and water erosion is extensive in many parts of Africa with about 25 per cent of the land prone to water erosion and about 22 per cent to wind erosion. Information regarding rates of soil loss in Africa are varied and country specific, with estimates ranging from 900 t/km<sup>2</sup>/yr to 7,000 t/km<sup>2</sup>/yr. Likewise, studies of the economic impacts of soil loss are localised and varied, but are estimated to reach up to 9 per cent of GDP.
12. Africa has a large heritage of biodiversity forming the region's natural wealth on which its social and economic systems are based. The continent currently holds six of the world's 25-biodiversity hotspots, including the Guinean hotspot, which ranks first in mammalian diversity and is home to half of Africa's known mammalian species. These resources also have global importance for the world's climate and for the development of agriculture or industrial activities. The region has more than 50,000 known plant species, 1,500 species of birds and 1,000 mammals. The biological diversity found in any one area or country varies depending on physical size, local climatic conditions, topography, and vegetation and soil types. For example, South Africa has an estimated 20,000 plant species, Kenya has at least 8,000 and Cameroon

has more than 15,000. Other African countries such as Madagascar and the Democratic Republic of Congo are known for their rare internationally recognised plant and animal species.

13. A significant proportion of these biodiversity resources is either endangered or under threat of extinction. The major threats to Africa's biodiversity reserves come from natural habitat loss; loss of species and sub-species; invasion by alien species; over-harvesting of natural resources and lack of recognition of indigenous knowledge and property rights. Logging accounts for 79 per cent of forest loss in Africa, while agriculture and energy and other infrastructure development account for 17 and 12 per cent of biodiversity loss respectively. Recent estimates show that a total of 126 species have become extinct (or extinct from the wild) in African and that there are 2,018 threatened animal species across the region. Some 125 plants are recorded as extinct and 1,771 are threatened. Loss of species means loss of economic opportunities, both now and in the future. Wetlands cover about 1 per cent of Africa's total surface area and are found in almost every country. African Wetlands also have rich biological diversity, with many endemic and rare plant species. They are among the most biologically productive ecosystems in Africa and provide important seasonal habitat for migratory bird species. Lake Malawi, Africa's third largest after lakes Victoria and Tanganyika, contains the largest number of fish species for any single lake in the world, with almost 500 species from 10 families.
14. The African coastal region is equally diverse, with more than 4,000 species of fish. The diversity of flora and fauna of wetlands in Africa is immense and in many places unknown, with many endemic and rare plant species. Despite their high value and contribution to livelihood support systems, wetlands in Africa are faced with the danger of desiccation emanating from drought as a result of climate change due to natural and human causes. The African coastline is vast and traces a variety of habitats. Diversity of fish species is high, with more than 4,000 species reported. Marine and coastal ecosystems contribute significantly to the economies of its countries. It is estimated that over 40 per cent of Africa's population derive their livelihoods from coastal and marine ecosystems and resources – a percentage that will continue to increase with current migration and demographic patterns. Ecosystems are coming under increasing stress from a wide array of anthropogenic impacts, and the struggle against poverty often leaves no ready alternatives to continued overexploitation of resources. The main problems and threats to coastal, marine and freshwater resources in Africa include: pollution, coastal change and modification, stress on ecosystems, threats to the availability of water for use, invasive aquatic species, fisheries and biodiversity degradation, water quality degradation urbanisation and population growth and global issues of climate change and sea-level rise. The situation in some of Africa's small island states, which largely depend on development and use of coastal zones, is of particular concern.
15. Africa's water resources are characterised by extreme spatial and temporal variability. While Africa uses only about 4 per cent of its renewable freshwater resources, water is becoming one of the most critical natural resource issues. The continent is one of the two regions in the world facing serious water shortages. Average water availability per person in Africa is 5,720m<sup>3</sup>/capita/year compared to a global average of 7,600m<sup>3</sup>/capita/year. The wet equatorial zone produces 95% of Africa's total flow, while the arid and semi-arid zones produce only 5%. Recent studies indicate that more

than 300 million people in Africa lack access to safe water. In sub-Saharan Africa about 51 per cent of the population have access to safe water and 47 per cent to sanitation. In term of the surface water bodies, Africa has 17 rivers with catchment areas greater than 100 000 km<sup>2</sup>. It has more than 160 lakes larger than 27 km<sup>2</sup>, most of which are located around the equatorial region and sub-humid East Africa highlands within the Rift Valley. In addition to fresh water resources in rivers and lakes, the continent is endowed with transboundary aquifers. Agriculture is the largest use of water in the region. Water used for irrigation purposes represents 69 per cent of the total water use in the region.

16. Africa contains about 650 million hectares of forests, defined as 10 per cent tree cover or greater, corresponding to 17 percent of the world total. African forests amount to 0.85 ha per capita on average, which is close to the world average, but the variation around this average is large. Africa has 14 different types of forest. Most African forests are located in the tropical zone, and Africa has about one-quarter of all tropical rain forests. Only 1 percent of the forest area is classified as forest plantations, mostly in South Africa. Forests and woodland ecosystems have high productivity rates and support rich and diverse services at global, regional and local levels. The moist tropical forests of Africa support an estimated 1.5 million species, which in turn support the local communities in terms of their food, shelter, utensils, clothing, and medicinal needs. By far the most dominant use of woodland resources domestic energy needs, mainly from woodland and charcoal. In sub-Saharan Africa alone, traditional fuels accounted for 63.5 per cent of total energy use in 1997. In addition to tangible benefits, forests and woodlands have been important for cultural, spiritual and religious purposes. At the national level, the commercial exploitation of African forests and woodlands is an important source of income, foreign exchange and employment. The general status of Africa's forest resources is one of overall decline. The net change of forest area in Africa is the highest among the world's regions, with an annual net loss, based on country reports, estimated at -5.3 million hectares annually, corresponding to around -0.78 percent annually. It is estimated that Africa has lost 66 million hectares between 1980 and 1995 with 65% of this deforestation during the 1990s. The decline has resulted mainly from the rising demand for agricultural land, timber and other non-timber forest products.
17. Africa is faced with three major issues where the atmosphere is concerned, namely: climate variability, climate change and air quality. Africa's contribution to the global pool of greenhouse gas emissions is still relatively low. It is estimated that the region contributed to only 3.57 percent of the world's total carbon dioxide emissions in 1988. Despite this Africa is considered to be more vulnerable to the impacts of climate change because of factors such as widespread poverty, recurrent droughts, inequitable land distribution, and over-dependence on rain-fed agriculture. Although there is much experience to date of coping with climate variability and disasters from which useful lessons for adaptation can be drawn. However the projected pace of climate change could shorten the timeframe available for adaptation to less than existing social and economic systems can cope with.
18. Climate change impacts on the countries will be varied, irreversible and long-term. They include: severe climate variability, severe drought, increased erosion and sedimentation of dams leading *inter alia* to changes in patterns of hydro-electric production; sea-level rise, endangering coastal zone and small island economies; shifts

in agro-climatic zones which would affect biomass production patterns; and general changes in habitats affecting both human and animal population patterns. These impacts could generate irreversible economic and socio-political problems with severe impact on the food security of the continent already affected by a serious food deficit

19. Air quality has emerged as an increasingly important issue over the past few decades, particularly in large urban areas, which are polluted by emissions from industry, households and vehicles. Major pollutants from these sources include sulphur dioxide, carbon dioxide, particulate, lead and organic compounds. In most countries, economic pressures to increase industrial output have contributed to rising levels of pollution, and this trend is likely to continue if current development patterns persist. In both urban and rural areas, the toxins produced from domestic combustion of wood, coal, paraffin, crop residues, and refuse pose a major health issue. Use of these traditional energy sources is driven by lack of investment in rural electrification and high costs of electricity and electric appliances.
20. There is a rapid urbanisation process in Africa, though the majority of Africans live in rural areas. African cities are undergoing rapid population growth accompanied by rapid development pressures with high demands for housing and infrastructures. Some of these cities are doubling in population and concentration in the urban areas has led to the deterioration of the human environment caused by the increasing gap between economic growth on one hand, population growth and concentration on the other. This urbanisation has led to deteriorating human settlements, depletion of natural resources and increased discharged of unprocessed wastes into the environment, which is resulting in severe health problems. Consequently, there are problems of overcrowding, inadequate water supply and sanitation, poor drainage, road transport and high unemployment levels, which are now common to most African cities.

## **Section 2: Africa's Environmental Challenges and Responses**

### **2.1 Overview of environmental challenges**

21. Africa is experiencing an array of serious environmental challenges and problems. Unsustainable exploitation and degradation of forests, soils, wildlife, fresh water, and other natural resources threaten to undermine the region's economic development prospects. For example, the continent is most severely affected by desertification that threatens more than 33 percent of Africa's land area particularly in the Sudano-Sahelian region, Southern Africa and Mediterranean Africa. Recurrent droughts are largely a manifestation of land degradation in the region.
22. Africa's Small Island States (SIDS) have their own particular vulnerabilities and characteristics, and they face severe and complex difficulties in the pursuing of environmentally sustainable development. The Section 7 of World Summit on Sustainable Development (WSSD) Plan of Action aware of their peculiar and fragile ecosystems calls for actions to promote sustainable development of small island developing states. Small islands are characterised by high degree of endemism and levels of biodiversity, however small numbers of the various species impose high risks of extinction and demand actions for protection. On the other hand, the biological resources on which small island developing states depend are threatened by the large-scale exploitation of marine and terrestrial living resources. Due to small size,

isolation and fragility of island ecosystems, their biological diversity is amongst the most threatened in the world. This requires that in pursuing of development special attention be paid to protect the environment and people's livelihoods. Climate change, climate variability and sea level rise are issues of great concern for Small Island developing states and will be addressed within this action plan. The action plan will also assist the small island states initiatives to sustainably manage their environment.

23. One of the most important environmental challenges facing Africa is to reconcile its development needs with the sustainable management of its natural resources. There is an urgent need to break the so-called "cyclical and downward spiral" of the poverty – environment nexus. Throughout Africa, poverty remains the main cause and consequence of environmental degradation and resource depletion without significant improvement in the living and livelihoods of the poor, environmental policies and programmes will achieve little success. Environmental problems must be addressed within a broader perspective that addresses the root causes of environmental degradation. To this end, a thematic workshop on the relation between poverty and environment in the context of the environment initiative of NEPAD was held in Bamako, Mali on 23-23 January 2003. The meeting organised with the co-operation of the World Bank identified 8 project proposals. The list of the project is contained in Annex II.
24. Indeed for African countries, alleviating poverty is the overriding goal and priority of their development policies. Therefore the main objective of this Action Plan is to assist African countries to integrate environmental considerations into poverty reduction policies and strategies. An enabling environment and sound guidelines have to be established in order to ensure smooth implementation of the Action Plan of the Environment Initiative of NEPAD and to achieve its ultimate goals of reducing poverty and environmental degradation. There is therefore an urgent need to assist the African governments integrate environment issues into their poverty reduction strategies. African countries need to prepare their own mix of policies to reduce poverty, reflecting national priorities and local realities. Choices will depend on the economic, socio-political, structural, and cultural context of individual countries and communities. The poor are the main actors in the fight against poverty and must be brought centre stage in designing, implementing, and monitoring antipoverty strategies and programmes. The development and implementation of strategies and programmes in the programmatic areas identified in the Action Plan are aimed at reducing poverty and environmental degradation and thereby ensuring sustainable development on the continent. Recognising that poverty reduction depends on good stewardship of the environment, AMCEN will play a key role in achieving NEPAD's goal "to implement national strategies for sustainable development by 2005 so as to reverse the loss of environmental resources by 2015."The natural resource base on which much of poverty eradication depends also supplies many of the needs for substantial numbers of African communities including medicine, food and building materials, few, if any, of which are recorded in Government statistics on income and poverty levels. The effective implementation of Chapter 8 of NEPAD is inextricably linked to effective and long-term poverty eradication.

## 2.2 Responses to environmental challenges

### 2.2.1 Regional Conventions

25. Despite growing recognition of the importance of natural resource conservation and numerous governmental commitments to environmental protection dating back to 1960, Africa's environment continues to deteriorate. Existing national, sub-regional and regional environmental laws, plans, policies, and institutions have proven inadequate to arrest current trends, including the lack of adequate financial resources.
26. An overwhelming majority of African countries have signed and ratified all the main regional environmental conventions. One of the earliest conservation treaties on Africa was the 1900 London Convention for the Protection of Wild Animals, Birds and Fish in Africa. The aim of the treaty was to prevent the uncontrollable massacre and to ensure the conservation of diverse wild species in Africa, which are useful to man.
27. The African Convention on the Conservation of Nature and Natural Resources negotiated under the auspices of the Organisation of African Unity (OAU) was adopted in Algiers in 1968. The Algiers Convention aims to "ensure conservation, utilisation and development of soil, water, flora and faunal resources in accordance with the scientific principles and with due regard to the best interests of the people." This treaty anticipated by over two decades many of the sustainable development principles that are embodied in Agenda 21 adopted at the United Nations Conference on Environment and Development in 1992 in Rio de Janeiro. It sought to link natural resource use to conservation and contains many of the elements reflected in global treaties such as CITES (Convention on International Trade in Endangered Species), CMS (Convention on Migratory Species of Wild Animals) and its instruments, Ramsar and the Convention on Biological Diversity.
28. The implementation of the Algiers Convention has been limited because of inter alia the absence of appropriate financial resources. In 1985, in collaboration with IUCN, attempts were made by the OAU to revise the Convention. In collaboration with UNEP and IUCN, the OAU has finalised the revision of the Algiers convention to adjust it to the new developments. The revised text was discussed at the Ninth meeting of AMCEN held in Kampala, Uganda on 1-5 July 2002. In addition more specialised regional agreements were adopted. These included the 1985 Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region adopted as a protocol to the 1985 Nairobi Convention for the Protection, Management and Development of Marine and Coastal Environment of the Eastern African Region.
29. The protocol committed parties to "take all appropriate measures to maintain essential ecological processes and life support systems, to preserve genetic diversity, and to ensure the sustainable utilisation of harvested natural resources under their jurisdiction." The protocol provides for meetings of the parties to review the implementation of the protocol, assess the need for further measures and adopt or amend annexes. But these institutional measures were not adequate to meet the goals of the protocol for a variety of reasons. Implementing the goals of the protocol required additional finances, technological knowledge and human capacity as well as

national and regional policy efforts to address the root causes of environmental degradation.

30. Other regional environmental agreements include the 1985 Nairobi Convention for the Protection, Management and Development of Marine and Coastal Environment of the Eastern African Region, the Abidjan Convention, the 1973 Convention Establishing a Permanent Inter-State Drought Control Committee for the Sahel, the 1991 Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa, and the 1994 Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora. One of the main achievements of these agreements has been the formulation of regional and national actions on environment issues. But inadequate financial resources and lack of adequate human and institutional capacities have hampered their effectiveness.
31. In addition to the environmental agreements or treaties, sub-regional and regional bodies such as the African Union, AU (formerly the Organisation of African Unity, OAU), the Southern African Development Community (SADC), the Economic Commission of West African States (ECOWAS), the East Africa Co-operation, the Economic Commission for Africa (ECA), Economic Community of Central African States (CEMAC) and the Intergovernmental Authority on Development (IGAD) have established environmental programmes or added environmental concerns onto their political and development agendas. The African Ministerial Conference on Environment (AMCEN) established in 1985 is the main policy forum that provides the region with an opportunity to address its common environmental problems. The revitalised AMCEN arising from the Abuja Declaration adopted in April 2000 is expected to play a leading role in the future.

### **2.2.2 International environmental conventions and programmes**

32. An overwhelming majority of African states are parties to many of the international environmental conventions. African countries have ratified the Basel Convention on the control of transboundary movements of hazardous waste and their disposal, the Stockholm Convention on POPs and the Rotterdam Convention PIC. African countries have ratified the Ramsar Convention on Wetlands, the Convention on International Trade in Endangered Species (CITES), the Convention on Migratory Species, the World Heritage Convention, the United Nations Convention to Combat Desertification and Drought, the Convention on Biological Diversity, and the United Nations Framework Convention on Climate Change. They are now participating in international efforts to implement these conventions. It must be noted that African Countries played a leading role in the negotiation and now in the implementation of the Convention to Combat Desertification. They played also a major role in the negotiation and adoption of the Cartagena Protocol on Biosafety. The implementation of the Kyoto protocol offers an opportunity for the Africa continent in particular through its Clean Development Mechanism. However, as the negotiation related to the implementation and further elaboration of these treaties are becoming more and more technical, the participation of the African countries will need to be enhanced in order to ensure that the Africa interests are promoted.

### **Section 3: Environment Action Plan for the First Decade of the 21<sup>st</sup> Century**

33. A coherent, strategic and long-term programme of action is required to promote Africa's sustainable development. This is explicit in NEPAD's emphasis about measures that will ensure that the continent is able to confront its short-term economic growth challenges without losing sight of the long-run environmental, poverty eradication and social development imperatives. Sustainable development is about the long-term. It can only be achieved through investments in the future. Thus the proposed NEPAD environment programme of action takes a long-term approach. It is about processes, projects and related activities that are aimed at enlarging Africa's economic prospects through sustained environmental management.
34. The proposed action plan is integrated in the sense that it takes full consideration of economic growth, income distribution, poverty eradication, social equity and better governance as part and parcel of Africa's environmental sustainability agenda. Chapter 8 of NEPAD on the Environment Initiative cannot be implemented in isolation with the overall objectives of NEPAD, which in turn depends on the health and good stewardship of the Environment. The Environment Initiative will be implemented in harmony with the other components of NEPAD.
35. The Action Plan takes fully into account the relevant recommendations on NEPAD contained in the Johannesburg Plan of Implementation adopted by the World Summit of Sustainable Development as well as the recommendations agreed upon during the discussion on the environment component of NEPAD held in Nairobi on 5<sup>th</sup> February 2003 at the Global Ministerial Environment Forum. The Action Plan is organised in clusters of programmatic and project activities to be implemented over an initial period of ten years. It is founded on the following principles:
  - a) Emphasis is placed on those activities and processes that will add new and significant value to existing national, sub-regional and regional environmental management activities.
  - b) The plan of action as a whole and its implementation projects will build upon prior progress and fill existing gaps.
  - c) Activities are to be implemented in such a way as to ensure that Africa learns from its previous efforts and achievements while taking into account the experience gained in other regions of the world.
  - d) Collective action with differentiated capabilities—clear recognition that while the continent has shared goals and obligations, its countries have different levels and ranges of capability—financial, human, scientific and technological—endowments. Genuine regional co-operation will thus be required to mobilise or harness the capabilities to implement the plan of action. In addition, emphasis is on those activities that will ultimately enlarge the region's capacity to engage in environmental management.
  - e) The action plan, its goals and implementation are not aimed at meeting interests or needs of a country or group of countries but the African continent as a whole.
36. This action plan will build upon the ongoing activities carried out by the revitalised AMCEN in the context of the implementation of the Abuja Declaration and other relevant African processes. The action plan will also complement the on-going

AMCEN activities including the generation and dissemination of environmental information in Africa; Poverty and Environment in Africa, Environmental Assessment in Africa and the strengthening of the collaboration with major bodies in Africa. The action plan developed through an integrated and participatory approach will also benefit from collaboration with all stakeholders and actors involved in sustainable development activities in the countries.

37. The Action Plan is organised in clusters of programmatic areas covering the following priority sectors and cross-cutting issues as identified in Environment Initiative of NEPAD: Combating land degradation, drought and desertification; Wetlands; Invasive species; Marine and coastal resources; Cross-border conservation of natural resources; climate change; and, Cross-cutting issues. The action will build upon the related problems of pollution, forests and plant genetic resources, wetlands, invasive alien species, coastal and marine resources, capacity building and technology transfer.

### **3.1 Objectives of the action plan**

38. The overall objectives of the action plan are to complement relevant African processes, including the work programme of the revitalised AMCEN, with a view of improving environmental conditions in Africa in order to contribute to the achievement of economic growth and poverty eradication. It will also build Africa's capacity to implement regional and international environmental agreements and to effectively address the African environmental challenges in the overall context of the implementation of NEPAD.
39. Its specific objectives are to:
- a) Contribute to the implementation of NEPAD through the effective implementation of its Environment Initiative;
  - b) Promote the sustainable use of Africa natural resources; Strengthen public and political support to sub-regional and regional environmental initiatives.
  - c) Support the implementation by African countries of their commitments under the global and regional environment conventions and other legal instruments to which they are party to;
  - d) Enhance the human and institutional capacities of the African countries to address effectively the environmental challenges facing the continent
  - e) Promote the integration of environmental considerations into poverty reduction strategies
  - f) Foster regional and sub-regional co-operation to address environmental challenges.
  - g) Build a network of regional centres of excellence in environmental science and management
  - h) Mobilise and direct African and international scientific and technical communities to solve Africa's pressing environmental problems.
  - i) Enhance the effective participation of the African major groups and their important contribution to inform intergovernmental decision-making.
  - j) Improve the institutional framework for regional environmental governance.
  - k) Mobilise international resources for the implementation of the African environmental initiative.

- 1) Provide a framework for the establishment of a solid partnership between the African themselves and with their bilateral and multilateral partners, including the multilateral financial institutions such as the Global Environment Facility and in accordance with the spirit and the letter of the United Nations Millennium Declaration.

### **3.2 Programmatic Areas and Activities**

#### ***Programme Area 1: Combating land degradation, drought and desertification***

40. Land is the critical resource and the basis for survival for most people in Africa. Agriculture contributes about 40% of regional GDP and employs more than 60% of the labour force. Land degradation is a serious problem throughout Africa, threatening economic and physical survival. Key issues include escalating soil erosion, declining fertility, salinisation, soil compaction, pollution by agrochemicals and desertification.
41. Desertification affects one sixth of the world's population, 70% of all drylands, amounting to 3.6 billion hectares, and one quarter of the total area of the world. In Africa the impact of desertification is particularly acute. It threatens the lives of millions of persons and seriously affects more than 39% of the total area of the continent. Since 1950, an estimated 500 million hectares of African land have been affected by soil degradation, including at least 65% of agricultural land. If the degradation of cultivated lands were to continue at the present rate, it is predicated that crop yields could be cut by half within 40 years thus having serious negative impact on the food security of the continent and aggravating the poverty and the number of malnourished persons. Although a net food exporter before 1960, Africa has become more dependent on food imports and food aid over the past three decades. In 1995, food imports accounted for 17% of total food needs in the region. The rate is expected to at least double by 2010. As a result of declining food security, the number of undernourished people in Africa nearly doubled from 100 million in the late 1960s to nearly 200 million in 1995. Projections indicate that the region will be able to feed only 40% of its population by 2025. Yet, the agricultural potential of the continent remains untapped.
42. There are an estimated 632 millions hectares of arable land in Africa, however, only 179 million, although unevenly distributed, are actually cultivated. Recurrent droughts and extreme weather events associated with climate change are compounding the land degradation phenomenon in Africa. Nearly two-thirds of African land is arid or semi-arid. The continent is the most seriously affected by desertification which is threatening more than one-third of Africa's land area. All the sub-regions of the continent are affected by desertification. In Northern Africa alone, more than 57% of the total land is threatened by desertification. It is based on this reality that the international community, in adopting in 1994 the United Nations Convention to Combat Desertification decided to pay special attention to the African continent through the title of the convention as well as the adoption of a distinct annex on regional implementation for Africa.
43. The United Nations Convention to Combat Desertification (UNCCD) in countries experiencing serious drought and/or desertification, particularly in Africa addresses

the desertification challenges from a sustainable development perspective. One of the major features of the Convention is the bottom up approach that entails the involvement of local populations and communities in decision-making and the implementation of the Convention. Also of importance is the role assigned to NGOs and Community Based Organisation (CBOs) in the organisation of local communities for effective participation in combating desertification. The UNCCD also stresses partnership arrangements between the affected people, the government and the donor community in addressing the causes of land degradation. In implementing the Convention, Parties are called upon to forge co-operation with a view to avoiding duplication. The Convention and its Regional Implementation Annex for Africa (RIAA), calls for the preparation and implementation of National Action Programme (NAP), the Sub-Regional Action Programme (SRAP) and the Regional Action Programme (RAP).

44. African countries have played a leading role throughout the negotiation, adoption and now implementation of the Convention to combat desertification. In accordance with the relevant provisions of the Convention and its Annex for Africa, they have committed themselves to:
- (a) Adopt an integrated approach in addressing the physical, biological and socio-economic challenges associated with combating desertification and drought;
  - (b) Establish strategies and priorities to combat desertification and mitigate the effects of drought
  - (c) Integrate strategies for poverty eradication into programmes and projects related to desertification control and the mitigation of the effects of drought;
  - (d) Strengthen sub-regional, regional and international co-operation, especially in the areas of information collection, analysis and exchange, research and development, and in the transfer, acquisition, adaptation and the development of technology;
  - (e) Co-operate within relevant intergovernmental organisations;
  - (f) Make appropriate financial allocations from their national budgets towards implementation of the Convention and the RIAA; They have adopted National Action Plans and are embarked in the finalisation of Regional and Sub regional Action Plans for the implementation of the convention;
  - (g) Strengthen reforms towards greater decentralisation as well as reinforcement of participation of local communities in halting and reversing desertification process; and
  - (h) Mobilise new and additional national financial resources for the implementation of the Convention.
45. Since the adoption of this unique legal instrument, the priority attached to combating desertification in Africa has also been recognised throughout the proceedings of its Conference of the Parties. In this regard, it must be noted that the third Conference of the Parties held in Recife, Brazil, in November 1999, devoted its attention to reviewing the national reports submitted by African countries. The commitments of the African countries to the issue of combating desertification is evidenced by the ratification of the convention by 52 African countries and the submission in less than two years after the entry into force of the convention, of more than 42 national reports.

Most of African countries are actively engaged in the preparation, finalisation and implementation of National Action Plans. All the African sub-regions are finalising Regional and Sub regional Action Plan for the implementation of the convention.

46. Indeed, the implementation of the objectives of the Convention to Combat Desertification remains one of the top environmental priorities of the African continent. Accordingly, the overall objectives of this programme area of the Action Plan is to enhance the support for the implementation of the objective of UNCCD to combat desertification in Africa while improving livelihoods and contributing to ensure food security on the continent. More specifically this programme area will aim at:
- (a) Support the African countries to prepare and finalise national action plans called for by Article 9 of the Convention;
  - (b) Support the African countries to implement their national action plan in accordance with the national priorities and actions identified;
  - (c) Support the finalisation and implementation of the regional and sub-regional action plans;
  - (d) Support the effective implementation of the Annex for Africa of the Convention;
  - (e) Build a reliable and up-to-date information base on the status and trends in land degradation, drought and desertification on the continent.
  - (f) Strengthen the continent's capacity to anticipate and monitor land degradation, drought and desertification.
  - (g) Establish an integrated regional information system and promote information sharing on land degradation and desertification control and in the mitigation of the effects of drought.
  - (h) Develop holistic and integrated tools and methodologies for sustainable land management.
  - (i) Develop adaptive land management tools and approaches.
  - (j) Develop and adopt regional land use guidelines and policies.
  - (k) Harness indigenous knowledge system of land (natural resources) management, particularly Indigenous Soil and Water Conservation (ISWC).
  - (l) Disseminate information on best practices in combating land degradation, drought and desertification.
  - (m) Strengthen and mobilise the scientific, technical and institutional capacities for integrated sustainable land management to combat land degradation, desertification and drought.
  - (n) Enhance the human and institutional capacities of national and regional centres of excellence, including when appropriate the establishment of sub-regional and regional information systems on land degradation, drought and desertification.
  - (o) Establish a regional network of centres of excellence for the development and implementation of national, sub-regional and regional action programmes to combat land degradation, drought and desertification.
  - (p) Enhance the public awareness and education in support to the objectives of the Convention.
  - (q) Promote the effective participation of the civil society including Non Governmental Organisations and local communities for the implementation of the Conventions.
  - (r) Promote South-South co-operation.

47. Considering the region-wide approach of NEPAD, the Action Plan to address land degradation, desertification and drought under NEPAD is based on the Regional Action Programme (RAP) and the Sub-Regional Action Programmes (SRAPs) of the UNCCD for Africa. These programmes represent an integrated approach, which takes into account various environmental, technological, socio-cultural, economic and institutional constraints faced by the affected countries. The programmes have been prepared and will be implemented in a participatory manner, with the involvement of various branches of central and local administration, academia and research institutions, civil society and particularly local communities as well as the private sector.
48. The regional action programme focuses on selected thematic areas for action at the regional level, identified by the African country Parties to the Convention in their regional meetings. In accordance with these thematic areas, activities under NEPAD could focus on sustainable land use, integrated management of water resources, development of new energy sources, development of sustainable agriculture and management of rangeland. The regional action programme is operationalised through thematic programme networks (TPNs), which co-ordinate the activities in the mentioned thematic areas. These TPNs are structured as flexible networks of institutions and agencies participating on a voluntary basis with each member's autonomy remaining intact. Network participants are linked together via a host institution, which are as follows:
- Integrated management of water resources: SADC Secretariat (Directorate of Infrastructure), Gaborone, Botswana (TPN1)
  - Sustainable land use (agroforestry and soil conservation): INSAH-CILSS, Bamako, Mali (TPN2)
  - Rational use of rangelands and development of fodder crops: Inter-African Bureau for Animal Resources of the AU (AU/IBAR), Nairobi, Kenya (TPN3)
  - Ecological Monitoring, natural resources mapping, remote sensing and early warning systems: African Organisation for Mapping and Remote Sensing, Algiers, Algeria (TPN4)
  - Promotion of new and renewable energy sources: National Agency for Renewable Energy (ANER) of Tunisia and ENDA TM, Dakar, Senegal (TPN5)
  - Development of sustainable agriculture: AU/SAFGRAD, Ouagadougou, Burkina Faso (TPN6)
49. The SRAPs are co-ordinated by the relevant Sub-Regional Organisations in Africa, namely: CILSS and ECOWAS for West Africa; UMA for the Maghreb Countries in North Africa; IGAD for the Horn of Africa; CEMAC for Central Africa and SADC for Southern Africa.
50. The priority measures to be undertaken under NEPAD, in co-operation with the UNCCD Secretariat, and the sub-regional organisations and the host institutions of the thematic programme networks, will revolve around the following themes:
- a) Sustainable land use (agroforestry and soil conservation): sustainable land use is of primary interest to rural communities, and some countries have

already taken it up as a priority activity to be developed at local level. This implies developing a methodology, in line with the Convention, which takes into account, localised and integrated community approaches in order to enhance the initiative of the farmers and natural resource users. Priority activities at the regional level include:

- Promotion of capacity-building activities, including pilot projects on agroforestry and soil conservation, in order to strengthen and support the work of community-based organisations;
  - Promotion of concessional investment flows to improve local incomes;
  - Facilitation of the adaptation of technology and practices.
  - Support to decentralisation in respect of strengthening rural community systems;
  - Creation of an environment that enables policies to guarantee land security for the users.
- b) Integrated management of water resources: sustainable use of water resources is crucial in the arid and semi-arid areas in order to prevent and halt land degradation. Activities to be undertaken at the regional level should include a set of measures such as:
- Assessment of the availability of water resources, and strengthening of a water resources information system;
  - Capacity-building, institutional strengthening and technical and scientific co-operation;
  - Support to institutional, legislative, regulatory and economic reforms;
  - Support to co-operation on integrated water resources management in international river, lake and hydrogeological basins, including the establishment of transboundary pilot areas;
  - Promotion of the development of sustainable water supply and sanitation infrastructures in the drylands.
- c) Development of new and renewable energy sources: there exists a close linkage between energy and land degradation in dryland areas. The identification and utilisation of alternative renewable energy sources, instead of using firewood, has the potential to provide for better livelihoods and should be explored. The dryland regions have considerable solar energy potential and, in some areas, enjoy conditions that are conducive to the harnessing of wind energy and the exploitation of biomass. Also micro-hydraulics and micro dams could provide a significant source of renewable energy. In the light of these potentials, the development of new and renewable energy sources could be supported at the regional level through:
- Strengthening co-operation and exchange of information between commercial energy providers and research institutions working on renewable energy;
  - Promoting capacity building for local communities to use alternative and renewable energy sources.

(d) Development of sustainable agriculture: agricultural development strategies tend to be directed towards enhancing productivity with the aim of rapid economic outcomes at the expense of long-term inputs in also environmentally and socially sustainable production. In countries affected by desertification, priority should be given to a programme approach, which may be supported by the following elements at the regional level:

- Promoting closer interaction between research and farmers;
- Promoting the participation of women in the decision-making processes concerning agriculture;
- Promoting adaptable and sound technologies to support sustainable agricultural farming systems;
- Promoting early warning systems;
- Promoting relevant incentive measures, including access to affordable funding and credit;
- Promoting access to markets for agricultural products from affected countries.

(e) Rational use of rangelands: requires a strong input from the central authorities and co-operating partners, as well as from rural societies. The activities to be undertaken at the regional level include the following:

- Promoting research and development for the sustainable use of rangelands, including fodder production, animal husbandry and sand dune fixation;
- Promoting the application of ecological monitoring programmes to the drylands areas;
- Supporting extension services and adult education in pastoral areas;
- Supporting the collection and distribution of traditional knowledge from pastoral communities;
- Promoting decentralisation and participation of farmers and pastoralists in the decision-making concerning rangelands;
- Facilitating livestock movement to markets; reducing barriers in favour of livestock trade.

(f) In addition, Integrated Natural Resources Management (INRM)/ Reforestation and Ecological Monitoring, natural resources mapping, remote sensing and early warning systems are horizontal issues that would concern all five above mentioned themes.

51. Important criteria for projects to achieve sustainable impact on the ground as well as on the broader policy environment identified in consultations with the Africa sub-regional organisations and African experts, include the following key challenges:

- *Integration of environmental and livelihood objectives* – the socio-economic dimension of land degradation to be better factored in to project and programme design.
- *Creation of an enabling environment/conducive policy environment* – sustainable land management requires a cross-sectoral approach and better co-ordination of policy frameworks related to the environment, agriculture and development.

- *Upscaling of “good land management practices”*, including project replication, building of grassroots movements and influencing policy reform.

52. The thematic workshop on desertification held in Algiers on 19-20 January 2003 with the participation of more than 50 African experts who identified around 72 project proposals. The complete list is contained in Annex II. The workshop built upon the results of the Consultative meeting on the preparation of project proposals to combat desertification in the context of NEPAD, organised by the Secretariat of the UNCCD in Ouagadougou, Burkina Fasso on 16-18 September 2002. The workshop also benefited from the consultative meeting on this issue held with the participation of more than 100 African experts on 15<sup>th</sup> November 2002 in Rome, Italy at the margins of the First meeting of the Committee on the Review of the Implementation of the UNCCD. The projects identified are classified into three categories: Category 1: First generation of projects i.e. projects that have already been subject to complete formulation exercise; Category 2: Second generation projects: those already subject to advanced stage of consultation between the countries concerned; and Category 3: Third generation projects; those for which a country has indicated its intention to initiate consultations with one or several neighbouring countries with the aim of developing a precise activity to combat desertification at the interface of common frontiers of the countries concerned. A summary of category one projects identified is given below. In addition, a key priority cutting across all projects, is support to information sharing and networking at regional level through the Thematic Programme Networks of the RAP.

Projects in category 1 by the Arab Magreb Union:

- Green belt: Conservation countries and sustainable use of natural resources in the Maghreb countries
- Management of watersheds of wadi Mellegue and M' soun-Inaoune
- Rehabilitation and development of the oases ecosystems
- Implementation of a long-term ecological monitoring network

Projects in category 1 by CEMAC/ECCAS

- Generation of information for awareness raising on bush fires in the CEMAC Region
- Water harvesting in arid and semi-arid zones (Chad, Cameroon, Central African Republic)
- Sub-regional programme for training of primary school teachers in combating desertification in the CEMAC Region

Projects in category 1 by IGAD:

- Environment Education and Training in the IGAD sub-region
- Capacity building in integrated water resources management in the IGAD sub-region
- Household energy for poverty alleviation and women economic empowerment in IGAD sub-region
- Building capacity for community based natural resources management in IGAD sub-region
- Rehabilitation and management of degraded rangelands in the IGAD sub-region

- Promotion of sustainable crop production in Drylands of IGAD Sub-region: IGAD Human resources and gender equity development for semi-arid agricultural research

Projects in category 1 by SADC:

- Kalahari-Namib Project on Transboundary Desertification Control in Botswana, Namibia and South Africa
- Demonstration Phase Activities of the Africa Land and Water Management Initiative in the Limpopo River Basin in Southern Africa
- Capacity building for integrated rangeland management in the SADC region
- Assessment of Surface water resources of Southern Africa
- Protection and Strategic Uses of Ground Water Resources in the Transboundary Limpopo Basin and Drought Prone Areas of the SADC Region
- SADC regional project to control infestation and translocation of aquatic weeds

Projects in category 1 by CILSS and ECOWAS:

- Management of shared natural resources, diversification of livelihoods and strengthening of transboundary integration and combating of desertification: Pilot transboundary project for “L’Azaouak” (Mali and Niger)
- Harmonisation of phytosanitary legislation and regulations
- Integrated management of the Fouta Djallon Highlands
- Integrated Management of the Lake Chad Basin
- Integrated Management of the Senegal River Basin
- Integrated Management of the Gambia River Basin

53. With regard to its objectives, approach and working methods, the UNCCD constitutes a strategic development tool for addressing poverty reduction in dryland areas. It also contributes to self-sustained economic growth, capacity-building and social empowerment. The implementation of the UNCCD responds, thus, directly to the goals of NEPAD, with a specific emphasis on the poorest populations. While combating desertification, through environmental interventions, contributes to the maintenance and management of a common resource, the fertile topsoil that sustains agricultural productivity, it also supports the implementation of other priority activity areas of the NEPAD Environment Initiative, particularly those related to global warming, cross-border nature conservation and environmental governance.
54. The implementation of this programme area will be undertaken in collaboration with the Secretariat of the Convention and in particular the Secretariat of the Annex for Africa located at the headquarters of the African Development Bank. The Global Mechanism of the Convention will be requested to mobilise additional financial support to the implementation of this programme area. In addition, the designation, by the Second Assembly of the GEF, of land degradation, particularly desertification and deforestation as a new focal area of the GEF, as well as the adoption of the GEF Operational Programme 15 on Land degradation will enhance the financial support to the implementation by African countries of the objectives of the Convention.

## ***Programme Area 2: Conserving Africa's Wetlands***

55. Wetlands in Africa sustain rural livelihoods across large parts of the African continent. The functions that they perform include *maintenance of the water table* by way of facilitating the movement of large volumes of water into the underground aquifers, resulting in the recharge of the water table. They also *prevent floods and erosion* by slowing surface run-off and reducing overflow into riverbanks downstream thus stopping erosive flood conditions. They play an important role in *storm protection, water purification, micro-climate stabilisation, provision of habitat* for species, and for *provision of mangroves and other wood products* which are harvested for fuel-wood, timber and medicinal purposes. These are extremely important to local economies and to many communities where fish is almost the sole source of animal protein. Mats, baskets and thatching material are derived from grasses and reeds in the wetlands all over Africa. The provision of other critical life support elements like pasture for livestock especially during the dry season, and clean and reliable sources of water for human consumption, agriculture and industry are also among the functions and services that wetlands provide.
56. Despite their economic, social and ecological importance, Africa's wetlands are being degraded at alarming rates. To address the problem of wetlands degradation, a number of African countries have become contracting parties to the Ramsar Convention on Wetlands since the 1970s whose overall objectives are to stem the loss of wetlands, promote their wise use, and promote special protection of listed wetlands. The Ramsar Conference of Parties (COP-8) adopted in its Decisions the support of its contracting Parties to this programme of NEPAD on wetlands. The vision for the NEPAD programme on Conserving Africa's Wetlands is: "*African countries and their people have healthy and productive wetlands and watersheds that can support fundamental human needs (clean water, appropriate sanitation, food security, and economic development)*".
57. The workshops on wetlands, held in Nairobi on 10-11 February 2003 benefited from the results of the consultative meeting held in Valencia, Spain on 17 November 2002 at the margins of the COP8 of RAMSAR. The workshop prepared a strategy and identified nine project proposals. The list of projects is contained in Annex II. The main objective of the strategy to conserve Africa's wetlands is to "*promote and attain a healthy and productive environment in which African countries and their people have wetlands and watersheds that can support fundamental human needs such as clean water, appropriate sanitation, food security and economic development*". The strategy therefore aims to maintain and/or improve the ecological integrity of wetland ecosystems that enables the best use of wetland values and functions in the long term. It also presents the requirements that would improve and maintain these natural assets and enable the sustenance of the total economic values and functions of wetlands. The detailed strategy is a long-term programme that entails a wide range of interventions to support the management of Africa's wetlands. The following initial actions have been identified:
- (a) Development of Plans and Policies to Promote Wise Use of Wetlands
- *Assistance with the development of National Wetland Policies and Plans* will be the first step in the plan to implement the proposed strategies in those countries that have a large part of the population dependent on wetlands. Site-based projects

will be developed to improve awareness of wetland values and functions and the importance of their consideration in sectorally managed issues such as water management, hydropower development, land use planning, and others.

- *Application of impact assessment to developments potentially affecting wetlands* based on the joint work of International Association for Impact Assessment and the Ramsar Convention.
- **TARGET:** At the end of three years, review of legislation and practices which impact on wetlands carried out in at least 30% of countries in each sub region; at least 30% of countries in each sub region developing National Wetland Plans/Policies; and sharing of experiences and lessons learned.

(b) Establishment of Subregional Wetland Networks

- *Promote the establishment of North African and West African Wetlands Networks* as an initial activity. The second step will entail establishing similar networks for the other sub regions in Africa. Their purpose will be to provide technical assistance and guidance to wetland management interventions under this Action Plan and to assist countries overcome hurdles preventing timely implementation of the Action Plan.
- **TARGET:** At the end of three years, all sub regions in Africa would have established Technical Wetlands Networks with clear terms of reference and all existing river or lake basin organisations would have factored wetlands into their decision-making process.

(c) Wetland Inventory/Appraisal, Monitoring and Assessment

- *Develop proposals to establish either wetland inventories or rapid national wetland appraisals* based on Wetlands International, Conservation International and IUCN have developed standardised methodologies. Data emanating from this process will be fed back into the Global Review of Wetland Resources (GroWR);
- **TARGET:** At the end of three years 30% of countries in the region without a wetland inventory will have embarked on a process to develop either a national wetland inventory or a rapid national wetland appraisal and all sub regions will have a network of representative wetland sites created that are being permanently studied to create a body of long-term data and research on issues such as water flows, seasonal variation, and others and the subsequent relations to human use, valuation, productivity and biodiversity.

(d) Demonstration of Integrated Approaches to Wetland Management

- *Demonstration of the value of managing wetlands for their multiple functions* ranging from their provision of clean water, flood control, fishing stocks, and others.
- *Demonstration of the value of integrating wetlands into river basin management* (possibly using Ramsar's guidelines for Integrating Wetland Conservation into River Basin Management), and establishing working relationships with regional basin authorities;
- *Demonstration of the value of integrating wetlands into coastal zone planning and management* (utilising the Guidelines on Integrated Coastal Zone Management);
- *Formation of a regional network of managed wetlands that are representative of all the major types of wetlands* found on the continent and of the major functions they provide that form the basis for economic development.

- **TARGET:** At the end of three years; at least 5 demonstration projects, one per each sub region, developed and funded to increase awareness of wetland values and functions. Projects may include links to the Global Water Partnership, IWMI and other regional initiatives including other sectoral programmes of NEPAD. Fifteen priority wetland projects within priority river basins or coastal zones focusing on conservation and/or restoration.
- (e) Demonstration of Approaches for Wetland Restoration and Rehabilitation
- *Wetland sites selected for wetland restoration and rehabilitation* based on the results of the wetland inventories and on national priorities. Extra consideration will be given to SIDS given their unique situation, pressure on coastal wetlands and scarce freshwater resources.
  - **TARGET:** At the end of five years; projects developed, funding secured and implementation begun for six or more priority wetland sites focusing on restoration and rehabilitation, at least one in each sub region.
- (f) Communication, Education and Public Awareness
- *Wetland Communication, Education and Public Awareness Strategy developed* to ensure that information of relevance reaches the most appropriate types of stakeholders.
  - **TARGET:** At the end of five years; projects developed, funding secured and implementation begun for at least one awareness raising campaign in each sub region or shared, international river basin and at least one awareness raising programme developed to show the impact of climate change on wetlands and some of the adaptive measures that can be undertaken at the national and local level.
- (g) Capacity Development
- *Gaps in training opportunities in wetland management identified throughout the region.* An Africa-wide capacity development initiative on wetland management is thought to be a critical need, creating economy-of-scale benefits in conducting training, fostering regional co-operation and cross-pollination of ideas and successful experience.
  - *Strengthening of existing and, establishment of new training centres where needed.*
  - **TARGET:** At the end of three years; at least one training centre and training programme on wetland management and research, such as the Centre for African Wetlands and the East African Wetland Management Training Course in operation in each sub region and at least 20 percent of universities in the region integrating wetland management and wise use of wetlands issues into their teaching curricula.

### ***Programme Area 3: Preventing, Control and Management of Invasive Alien Species***

58. Impacts of invasive alien species are now a major public policy and political concern in many countries of Africa. In Eastern Africa the invasion of the water hyacinth (*Eichhornia crassipes*) in Lake Victoria has caused considerable environmental, economic and social impacts. It includes the unsuitability of fish spawning and breeding areas, inaccessibility of fish landing areas, irregular supplies, poor quality of catch, massive amounts of organic decomposition of dead weed, and clogged water intakes. In South Africa, it is estimated that 7% of water run-off is lost to invading alien plants and that figure is growing.

59. Invasive alien species also affect Africa's forestry, horticulture, trade, tourism and other sectors of the economies. The control and/or management of impacts of these species are thus important aspects of ensuring Africa's economic recovery and development.
60. Invasive Alien Species (IAS) are a contributing cause of poverty and a primary cause of species loss, ecosystem decline and, as such, pose a threat to sustainable development. The prevention, control and/or management of invasive alien species will be an important contribution to ensuring Africa's economic recovery and development. The goal of the Programme Area on Prevention, Control and Management of Invasive Alien Species is "to minimise the impact of IAS on the African continent's people, economies and ecological systems". The proposed project interventions to address the problem of invasive alien species in Africa will be executed building on the existing frameworks. A number of sub-regional and regional instruments exist that can be used to regulate and/or control the introduction and use of alien species in Africa. The Treaty for the Establishment of the East African Community, the Southern Africa Development Community Treaty and the treaty establishing the Common Market for Eastern and Southern Africa provide measures to regulate and/or control the introduction of alien species, particularly invasive ones.
61. At the international level, the prevention and control of invasive alien species is addressed by the Convention on Biological Diversity (CBD) in Article 8(h). The fifth Conference of Parties to the Convention, held in Nairobi, Kenya in May 2002, adopted interim guiding principles for the prevention, introduction and mitigation of the impacts of alien species and considered proposals to develop an international instrument. The CBD and the Ramsar Convention have also developed a work plan on invasive alien species. The Sixth meeting of the Conference of the Parties, held in April 2002 in The Hague, adopted a number of decisions to address alien species that threaten ecosystems, habitats and species. Thus, the proposed projects under this Programme Area will support African countries to implement the decisions adopted by the Conferences of the Parties to the Convention on Biological Diversity.
62. The NEPAD thematic workshop on invasive alien species was held in Pretoria, South Africa on 23-24 January 2003. The participants identified 14 project proposals for the implementation of this programme area. The list of proposals is contained in Annex II. The projects that are proposed as a first phase of interventions have been identified as key initiatives to catalyse a comprehensive effort "to minimise the impact of invasive alien species on the African continent's people, economies and ecological systems". The projects respond to the key issues defined and agreed by a Technical Working Group convened as part of the development of the IAS programme and fall under a group of interrelated Sub-programmes. The sub-programme areas are as follows: Prevention of Invasive Alien Species, Awareness Raising and Information Provision, Training and Capacity Building, Aquatic Invasive Alien Species, Terrestrial Invasive Alien Species, Ballast Water, and African Islands.
63. The Sub Programme area on Prevention of Invasive Alien Species, contained a set of suggested activities on Mitigation of Impacts of Invasive Alien Species Caused by Trade and Development Aid. It also suggests a pilot programme to prevent alien species entering through airports. The suggested activities related to risk assessment

aim to fill three gaps that are fundamental to IAS prevention: a) inability to detect potentially invasive species on entry into a country; b) lack of consolidated databases on IAS in Africa; and c) lack of access to other regional and international databases. The Sub programme on Awareness raising and information provision aims at raising awareness and providing information to enable the effective management of invasive alien species. The sub programme on Training and Capacity Building aims at assessing the existing and institutional capacity to enable the effective management of Invasive Alien Species. The Aquatic Invasive species Sub programme revolves around mariculture monitoring and Hull-fouling/Caulerpa prevention in the Mediterranean region as well as a Pan African assessment and mitigation of the impacts of water hyacinth and other invasive alien aquatic invaders. The Terrestrial invasive alien species sub-programme area aims at (a) assessing and mitigating the impacts of selected plant invaders in agriculture, forestry and rangelands in IGAD and other African regions; (b) promoting sustainable management of key invasive woody species in Southern Africa; and (c) control of the invasive Indian House Crow on the Eastern Africa coast and its hinterland. The Ballast water sub-programme contains activities aimed at ensuring the proper management of ballast water. The African Islands sub-programme area aims at ensuring the control of the impact on islands African states of invasive alien species.

***Programmatic Area 4: Conservation and sustainable use of marine, coastal and freshwater resources***

64. Africa's coastal ecosystems and marine biodiversity contribute significantly to the economies of many countries, mainly through fishing and tourism. They are a major source of livelihood for many thousands of households. Coastal and marine resources contribute considerably to the revenue of countries of the region. For example, in 1997 total marine fish catch exports from Africa contributed US\$445 million to the countries' economies. The fisheries sector is also a significant employer. 70% of the world's fisheries are considered overexploited. Declines in catch rate along the African coasts are also evident. Moreover, marine and coastal resources are under increasing threat from development-related activities. Up to 38% of the African coastline of 40,000km, including 68% of marine protected areas, is considered to be under high degree of threat. Uncontrolled urbanisation of the coastal zone, is a major cause of such as degradation. In some cases, marine pollution from major coastal cities has even reached toxic levels.
65. Africa's coastal ecosystems are also threatened by industrial pollution, mining and oil exploration activities. Although the level of industrial development in the continent is still relatively low compared to other regions in the world, the rate is accelerating along the coastal zones. The Mediterranean basin is now one of the most polluted semi-enclosed seas in the world. Mangroves have high ecological and socio-economic importance. However, mangroves and coral reefs are increasingly under threat from human activities. The Indian Ocean contains about 15% of the world's coral reefs, of which more than one-half is estimated to be at risk from human activities, including those associated with climate change.
66. Current regional efforts to manage the resources are in the form of such conventions as the African Convention on the Conservation of Nature and Natural Resources

adopted in Algiers in 1968, the 1985 Barcelona convention on the protection of the Mediterranean sea, the Red Sea and the Gulf of Aden, 1985 Nairobi Convention for the Protection, Management and Development of Marine and Coastal Environment of the Eastern African Region, the 1981 Convention for Co-operation in the protection and development of the Marine and Coastal Environment of the West and central African region, known as the Abidjan Convention and the 1991 Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa. There are other numerous regional and sub-regional initiatives on coastal and marine resource management, including the Global Programme of Action (GPA) on land based sources of marine pollution adopted in December 1995 which was reviewed at the First Intergovernmental meeting held in Montreal, Canada in November 2001.

67. Building on the achievements of the Pan-African Conference on Sustainable Integrated Coastal Management held in Maputo in July 1998, the Cape Town Declaration on an African Process for the Development and Protection of the Coastal and Marine Environment, particularly in Sub-Saharan Africa was adopted in December 1998. It was endorsed by the OAU summit held in Algiers in July 1999 and reaffirmed at the OAU Summit held in Lusaka, Zambia in July 2001. The Cape Town Declaration affirmed the commitments of African leaders to strengthen co-operation through the relevant existing global and regional agreements, including the GPA, programmes and institutional mechanisms, in particular through the co-ordinating framework of the Abidjan and Nairobi Conventions.
68. The African Process, developed through a UNEP/GEF Medium Sized projects entitled "Development and Protection of the Coastal and Marine Environment in Sub-Saharan Africa", has mobilised eleven nation teams to conduct assessments of the degradation of coastal and marine environment in the countries. Its outcomes will contribute to the development of a common coastal policy that ensures that coastal and marine resources are conserved and sustainably used, and that coastal development is equitable, sustainable and optimises the use of valuable coastal resources. It has identified the following priority areas for future interventions: coastal erosion, pollution, sustainable use of living resources, management of key habitats and ecosystem, tourism. It is expected that these activities will be extended in the near future to cover other regions of Africa.
69. The goal of the Conservation and sustainable use of coastal and marine resources programme area is to incorporate environmental concerns to the development agenda of countries through targeted actions that address not only the environmental aspects, but also institutional, regulatory, policy and capacity elements. The overall objective of the programme is to support the implementation of the objectives of the Abidjan and Nairobi Conventions; to contribute to the implementation of the decisions of the Super PreCom of the African Process regarding the management of Africa's coastal and marine resources in an integrated manner which were reaffirmed by the Partnership Conference held in Johannesburg on 2 September 2002 at the margins of the World Summit on Sustainable Development; and to support the elaboration and implementation of the African Regional Programme of Action on freshwater which was adopted at the first session of the African Ministerial Conference on Water (AMCOW) held in Cairo, Egypt in February 2003. Activities in the area of fresh water will be undertaken in the context of AMCOW pursuant to its mandate. AMCEN and

AMCOW will co-ordinate on areas of mutual interests within their respective mandates.

70. In addition the objectives of this programme area will also aim at assisting African countries to implement the relevant provisions of the Global Programme of Action for the Protection of the Marine Environment from Land Based and support the activities contained in the Montreal Work Programme for the period 2002-2006, including the strategic action plan on municipal wastewater. The activities of the programme area shall aim at:
- (a) Incorporating the objectives of the Global Programme of Action into actions programmes, strategies and plans at local, national and regional levels and into sectoral policies;
  - (b) Strengthening the capacities of regional seas organisations;
  - (c) Preparing action plan to address priorities of interventions;
  - (d) Strengthen the capacities of relevant local and national authorities;
  - (e) Supporting the implementation of the strategic action plan on municipal wastewater.
  - (f) Promote demonstration projects on the implementation of the guidelines on Integrated Coastal Area River Basin Management (ICARM).
  - (g) Supporting the preparation and implementation of the African Regional Programme of Action on freshwater,
  - (h) Lining the freshwater environment with the coastal and marine environment.
71. The activities identifies under this programme area have been recommended by the participants of the NEPAD thematic workshop on coastal and marine resources, held in Abuja, Nigeria on 24-25 February 2003. They are based on a development of a series of potential interventions and projects to address the problem of conservation and sustainable use of coastal and marine resources and related freshwater ecosystems in Africa. The list of the 45 project proposals identified by the participants is contained in Annex II. Awareness and commitment to the sustainable development of resources through targeted interventions that address priority issues which encompass not only environmental, but also socio-economic concerns, and linkages to support the implementation of the Global Plan of Action, and of the interface between freshwater and marine issues are key elements of this programme area.
72. The proposed activities have been clustered in the following seven areas : Coastal, Marine and Freshwater Pollution; Physical Changes in the Coastal, Marine and Freshwater Environment; Coastal, Marine and Freshwater Biodiversity; Integrated Management Approaches to River/Lake Basins and Coastal Zone; Environmental-Sustainable Economic Development in Coastal Area; Augmenting Water resources (Surface and Underground) and Climate Change. However, some of proposals are closely linked to more than one thematic area. This confirms strong linkages between individual projects. All the projects in each thematic cluster are grouped into two categories: Category 1: Fully developed and ready for submission for funding projects, and Category 2: Eligible Projects that need further development.
73. Under Category 1 of the cluster of coastal, marine and freshwater pollution the following two projects have been identified: (a) Municipal Solid Waste Management

and Enhancement of Environmental Quality in sub-Saharan Africa; (b) Management of Municipal Sewage in sub-Saharan Africa through Appropriate Technologies. Under the Category 2 the following three projects have been identified: (a) Control of eutrophication in semi-enclosed area; (b) Prevention of Pollution from Shipping Activities and Strengthening of National and Regional Oil Spill Management Systems in sub-Saharan Africa, and (c) Development of a conceptual framework for a control of eutrophication of lakes and reservoirs, with particularly attention to non-point source of pollution.

74. Under Category 1 of the cluster of Physical Changes in the Coastal, Marine and Freshwater Environment, the following two projects have been identified: (a) Mitigation of Coastal Erosion and Restoration of Degraded Areas in Sub-Saharan Africa; (b) Development of Sound Land-use Practices and Reduction of Suspended Solids in Estuaries and Lagoons in Sub-Saharan Africa. Under category 2, the following two projects have been identified: (a) Addressing land degradation to mitigate sediment impacts on the aquatic environment; (b) Mitigation of coastal erosion caused by oil and gas exploration activities.
75. Under Category 1 of the cluster on Coastal, Marine and Freshwater Biodiversity, the following three projects have been identified: (a) Mangrove Management in sub-Saharan Africa; (b) Improving the Protection and Stability of Coral Reefs and Associated Communities; and (c) Conservation of Biodiversity through the Enhancement and or Establishment of Marine Protected Areas in sub-Saharan Africa. Under Category 2, the following four projects have been identified: (a) Assessment and mitigation of the ecological and socio-economic impacts of destructive fishing practices in Sub-Saharan Africa; (b) Strengthening management, monitoring, control and surveillance capacity in fisheries management organisations in sub-Saharan Africa; (c) Management of invasive species in the aquatic environment, and (d) Addressing Transboundary problems of freshwater ecosystems biodiversity.
76. Under Category 1 of the cluster on Integrated Management Approaches to River/Lake Basins and Coastal Zone, the following two projects have been identified: (a) Promoting the Establishment of RAMSAR Sites and Developing a Participatory and Integrated Approach for River Basin Management in sub-Saharan Africa; (b) Supporting the Development and Implementation of Integrated Coastal Area Management (ICAM) in Sub-Saharan Africa. Under Category 2, the following four projects have been identified: (a) Enhancement and Conservation of Ecosystems Functions for River Basins and Associated Coastal Areas in Africa; (b) Development and Application of River Basin Information System on the Integrated Management of Africa's Transboundary River Basins; (c) Integrated Watershed and Coastal Areas Management of SIDS in Africa; and (d) Impacts of dams and related development activities in the river basins.
77. The project Reduction of environment Impact from Coastal tourism through introduction of policy changes and strengthening public-private partnership has being identified under Category 1 of the cluster on Environmental-Sustainable Economic Development in Coastal Area. Under category 2 the two following projects have been identified: (a) Promotion of alternative livelihood strategies in sub-Saharan Africa; (b) Mariculture and Aquaculture development in sub-Saharan Africa. Under category 2 the following three projects have been identified under the cluster on Augmenting

Water resources (Surface and Underground): (a) Augmenting urban water resources; (b) Groundwater vulnerability; and (c) Transboundary aquifer management. The project on Impact of global climate change on key marine and coastal ecosystems in sub-Saharan Africa has been identified under category 1 of the cluster on Climate Change. Under Category 2, the following two projects have been identified: (a) Assessment of the Vulnerability of sub-Saharan Coastal Zones to the different Impacts of Climate Change (included sea level rise), and (b) Establishment of adaptation strategies for impacts of climate changes on water availability and quality.

78. The participants identified the following gaps; (a) Industrial waste including hazardous waste, toxic chemicals, POP's, including modelling and data collection; (b) Erosion caused by oil and gas exploration activities; (c) Freshwater ecosystem biodiversity;(d) Impact of dams and related development activities in the river basin;(e) Aquaculture; (f) Market facilities; (g) Tourism in inland waters; (h) Infrastructures to be addressed at national level; (i) The GOOS-Africa project – Regional operational observing, monitoring and forecasting system in Africa (ROOMFSA) should be included in this theme. The participants also identified the following associated projects under preparation through GEF resources as potential projects that will contribute to the implementation of the objectives of the programme area: (a) Addressing land-based activities in the Western Indian (WIO-LaB); (b) Combating coastal area degradation and living resources depletion in the Guinea Current LME through regional actions; (c) Canary Current LME; (d) Addressing Transboundary Concerns in the Volta River Basin and its Downstream Coastal areas; (e) Management of the Iullemeden Aquifer System - Mali, Niger, Nigeria.

#### ***Programme Area 5: Combating Climate Change in Africa***

79. Africa accounts for 14% of the world's population. However, nine of ten people have no access to electricity and three fourths of their energy comes from traditional fuels. Consequently, Africa's emissions of carbon dioxide that cause climate change are still low, estimated to be only 3.5% of the world's total carbon dioxide. In addition, Africa's vast forest reserves serve as a significant sink for carbon dioxide and thus play an important role in alleviating and balancing the emissions of industrialised countries. Although Africa has not historically contributed to the climate change phenomenon and its forests have played the role of a significant sink for the carbon emitted by industrialised countries, it is predicted that the continent will suffer the most from the adverse effects of climate change as many aspects of African economies are still sensitive to climatic hazards.
80. The historical climate record for Africa shows warming of approximately 0.7° C over most of the continent during the 20<sup>th</sup> century, a decrease in rainfall over large portions of the Sahel, and an increase in rainfall in east and central Africa. Climate change scenarios for Africa, based on results from several general circulation models using data collated by the IPCC indicate future warming across Africa ranging from 0.2° C per decade (low scenario) to more than 0.5° C per decade (high scenario). This warming is greatest over the interior of semi-arid margins of the Sahara and central southern Africa.

81. One of the most significant climatic variations has been the persistent decline in rainfall in the 3.5 million km<sup>2</sup> of Sahel since the late 1960s. The trend was only interrupted in 1994 when the region received adequate rainfall. Unfortunately, dry conditions returned after 1994. Projected future changes in mean seasonal rainfall in Africa are less well defined. Under the low warming scenario, few areas show trends that significantly exceed natural 30-year variability. Under intermediate warming scenarios, most models project that by 2050 north Africa and the interior of southern Africa will experience decreases during the growing season that exceed one standard deviation of natural variability; in parts of equatorial east Africa, rainfall is predicted to increase in December-February and decrease in June-August. With a more rapid global warming scenario, large areas of Africa would experience changes in December-February or June-August rainfall that significantly exceed natural variability. This calls for greater preparedness as well as for measures to mitigate the causes and impacts of climate change.
82. The United Nations Framework Convention on Climate Change (UNFCCC) is the international legal instrument that promotes “stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” It explicitly recognises developing countries' low levels of greenhouse gas emissions as well as their economic development aspirations.
83. At the third Conference of Parties to the UNFCCC held in Kyoto, Japan in December 1997, Parties adopted the Kyoto Protocol. The Protocol establishes legally binding obligations on Annex 1 countries (developed country Parties) to reduce emissions of greenhouse gases (GHGs) on average by 5.2 per cent below 1990 levels by years 2008-2012. It also establishes a Clean Development Mechanism (in Article 12) that is meant to assist non-Annex 1 Parties (generally, developing countries) in achieving sustainable development and in contributing to the ultimate objectives of the UNFCCC.
84. The overwhelming majority of the African countries are contracting Parties to the UNFCCC and many have already signed and ratified the Kyoto Protocol. The UNFCCC creates obligations on all Parties including African Contracting Parties under Article 12 on communication of information related to implementation. The main obligation relate to communicating to the Conference of Parties information on national inventories of human induced emissions by sources and removal by sinks of all greenhouse gases, a general description of steps taken or envisaged implement the convention. In addition, African countries are expected to:
- a) Integrate climate change considerations into their social, economic and environmental policies and programmes;
  - b) Keep levels of their emissions under check by periodically or as required providing national inventories of anthropogenic emissions and removal by sinks;
  - c) Promote education, training and public awareness;
  - d) Promote the sustainable management of sinks and reservoirs of greenhouse gases; and
  - e) Promote and/or conduct relevant research and co-operate in exchange of information.

85. The challenges facing Africa associated with Climate Change are important. They are at the origin of additional sources of vulnerability of the continent. . Indeed Africa is highly vulnerable to the various manifestations of climate change. The IPCC report on Impacts, adaptation and Vulnerability has identified the six following situations that are particularly important for Africa:
- Water resources, especially in international shared basins where there is a potential for conflict and a need for regional co-ordination in water management
  - Food security at risk from declines in agricultural production and uncertain climate
  - Natural resources productivity at risk and biodiversity that might be irreversibly lost
  - Vector- and water-borne diseases, especially in areas with inadequate health infrastructure
  - Coastal zones vulnerable to sea-level rise, particularly roads, bridges, buildings, and other infrastructure that is exposed to flooding and other extreme events
  - Exacerbation of desertification by changes in rainfall and intensified land use.
86. These challenges call for the need of integrating climate concerns in development in order to ensure the long-term achievement of the Millennium Development Goals (MDG). They highlight the need to support African countries to cope with current variability as a first step to build resilience to climate change.
87. In order to finalise the Climate change programme area a consultative meeting was held on 3-4 October 2002 in Nairobi during the African preparatory meeting to the 8<sup>th</sup> Meeting of the Conference of the Parties to the Climate Change Convention. More than 45 African experts attended the meeting. It was followed by a consultative meeting attended by more than 100 African experts held in New Delhi, India on 25 October 2002 at the margins of the 8<sup>th</sup> meeting of the Conference of the Parties of the UNFCCC. The results of the consultative meetings were considered at the Climate change thematic Workshop on the climate change programme area of the environment initiative of NEPAD, held in Rabat, Morocco on 26-27 February 2003. More than 45 experts attended the meeting that recommended an African strategy on climate change as well as 26 project proposals contained in Annex II. The suggested proposals will be build upon and complement 8 on-going projects considered as relevant to the objectives of the strategy.
88. The Africa's Climate Change Strategy revolves around the issue of vulnerability assessment and the development of adaptation strategies. It was considered that the three following major steps need to be taken to increase the resilience of African countries to climate change:
- Firstly, ecosystems, regions and people most vulnerable to climate change need to be identified.
  - Secondly, adaptation strategies need to be developed for the identified regions and sectors.
  - Thirdly, demonstration and pilot projects need to be implemented to show the way forward. Simultaneously, capacity building support will have to be provided to enable important institutions to function effectively.
89. Determining vulnerabilities is of greatest concern. Most countries have examined only biophysical impacts of climate change and in most instances in a qualitative way.

Almost no socio-economic impacts have been analysed and costed. Since vulnerability can be characterised as a function of both a system's exposure to climate change and its adaptive capacity, countries should analyse baseline socio-economic development (which can change adaptive capacity), integrated impacts, and autonomous adaptation before determining their vulnerability. Stage II adaptation activities could also include such analysis. Countries need to identify where vulnerability is greatest by sector, and if appropriate by regions (coastal zones). They also need to identify vulnerabilities that are transboundary (e.g., international river basins, species migration across borders). This will involve an integrated assessment of vulnerable areas and sectors.

90. Even if some African countries have benefited from diverse bilateral programmes, as evidenced by the 8 on-going projects identified in Annex II, there are few projects in Africa to assist countries to assess their vulnerability to climate change. These projects concentrate on specific areas and sectors and will not assist policy makers to compare vulnerability in multi-sectors in the same region. This will require development of vulnerability indices for the continent to provide the critical tool to policy makers to prioritise actions to adapt to climate change by applying a vulnerability/adaptation approach to understanding climate change risks. Vulnerability assessment will systematically link current approaches of vulnerability to short-term risks with emerging understanding of vulnerability to long-term development issues, such as sustainable livelihood security and global change, taking into account the changing nature of risks and uncertainty.
91. Approaching climate change through the perspective of vulnerability will facilitate links to sustainable development policy and emerging climate policy on adaptation. Exploration of potential impacts and adaptive capacity will be a useful contribution also to UNFCCC. The potential and constraints for adapting to climate change can only be identified through research that links local situations to national and global and sub-regional institutions.
92. Determining where adaptation will be most effective in reducing vulnerability is crucial for the development of adaptation strategies. In the near future, the least developed African countries should have developed their National Adaptation Programme of action (NAPA) which is a quick identification and formulation, using a participatory approach, of their urgent and immediate needs for adaptation to climate change. A broad, but representative set of adaptation options could be considered. These could include different approaches, reflecting widely varying costs and feasibility, such as changes in rules or regulations, planning, sustainable management of natural resources, infrastructure and technical measures. Ideally, adaptation assessment would consider anticipated impacts of climate change, current and future patterns of climate variability and extremes, current and future non-climatic (socio-economic, political, etc.) developments, anticipated interactions between climate related impacts and non-climatic developments, and likely autonomous and planned adaptation to both climatic and non-climatic impacts. Identification and evaluation of effective adaptation options may be based on the following criteria: effectiveness, costs, feasibility, secondary (incremental) benefits, co-benefits, consistency with national development priorities and sustainable development goals, consistency with other global environmental issues and acceptability to stakeholders.

93. Clearly, adaptation measures need to be an integral part of any national program or action plan for combating climate change and for complying with the UNFCCC. In fact, it would be beneficial for all, and especially the most vulnerable, to develop national strategies for adaptation. Possible steps towards developing and implementing such a strategy could include the following:
- Identification of impacts, including setting up a system for data collection, monitoring of changes, analysis of data, capacity building in terms of institutional and scientific capacity as well as human resources, and technology transfer;
  - Identification of vulnerability in the light of possible impacts;
  - Identification of adaptation measures that could reduce vulnerability and/or benefit from new opportunities using a participatory approach, involving all stakeholders;
  - Creating the appropriate environment for the implementation of the identified measures via capacity building, technology transfer, public awareness, political support, incentive measures, integration of adaptation into development plans and policies;
  - Implementing the identified measures taking into consideration financial and managerial aspects, timeliness, consistency with sustainable development, local involvement, transparency, learning by doing, equity, etc;
  - Monitoring and evaluating implementation of adaptation measures to readjust the strategy.
94. The next step will be to integrate national adaptation strategies into national sustainable development planning. This would entail mainstreaming adaptation into national development policy, especially through the involvement of the economic, financial, and planning agencies of government working in conjunction with the international donor community and private sector investments. Integration of adaptation measures with natural hazard reduction or disaster prevention programs. This could entail establishment of market oriented local insurance schemes and promotion of such schemes, the development of systematic observation and monitoring networks, and forecasting and early warning systems as well as risk preparedness plans. Capacity building in vulnerability and adaptation assessment is required, as part of international efforts to design and evaluate adaptive strategies and options. Participation in the process must be local or regional.
95. In addition to the 8 on-going climate change projects of relevance to the Africa's Strategy on Climate Change, the following projects have been suggested:
- Integrated Assessment of Vulnerability to Climate Variability and Change and Response Strategies;
  - Learning about climate change from local action to national dialogues in Africa;
  - Climate risk management;
  - Adaptive resource management;
  - Carbon management for sustainable livelihood;
  - Supporting public outreach and education programs on climate change.
  - Strengthening shared river basin management and develop sub-regional water resource strategies:
    - a) Incorporating climate change adaptation concerns into integrated watershed management plans for three watersheds in the Maghreb (Algeria, Morocco and Tunisia).

- b) Assessing the Impacts of and Adaptation to Climate Change on the Watershed of the Gambia River Basin:
- Building capacity for early warning;
  - Environmental intervention to climate variability, malaria and poverty in the East African Highland;
  - Impact of global Climate change on Key Marine and Coastal Ecosystems in sub-Saharan Africa;
  - Assessment of the Vulnerability of sub-Saharan Coastal Zones to the Different Impacts of Climate Change (including sea level rise).
96. Recognising the insignificant contribution of Africa to the global greenhouse gas emissions and low energy consumption, provision of electricity without increasing the emissions needs is considered within this section. Electricity demand in Africa is projected, based on recent trends, to grow to 619 Twh/yr in 2010 and to 864 twh/yr by 2020. Beyond recent trends in electrical demand growth, a goal has been identified within the NEPAD Energy Initiative to increase access to sustainable, reliable and affordable commercial energy supply from 10 to 35% or more in the next 20 years.
97. The NEPAD framework has established an Energy Initiative led by Senegal designed to achieve Africa's Energy goals. All countries should undertake full social and environmental impact assessments of all energy projects according to recognised procedures and standards in order to ensure that energy needs in urban and rural areas are met in such a way as to optimise sustainable social and economic benefits while minimising environmental impacts. In the case of hydropower, a full assessment should be undertaken including examination of other options for water and energy resources development. The role of renewable energies and small-scale projects designed to meet rural electrification needs should be further explored.
98. Towards this the following preliminary projects are proposed within the climate change section of NEPAD:
- Promotion of Renewable energy initiatives and strategies;
  - Establishment of sustainable link and working module between climate change experts and energy initiative capacity development for sustainable development and Clean Development Mechanism (CDM);
  - Evaluating synergistic effects of adaptation with mitigation activities through pilot projects in the areas of agroforestry, including soil stabilisation, income generation, improved soil water retention, and enhanced biodiversity.

***Programme 6: Cross-Border Conservation or Management of Natural Resources***

99. Africa's natural resources, like those of other continents, are continuous across national borders. Accordingly, sustainable natural resource management requires co-ordinated cross-border policy and action in conformity with existing agreements among the countries concerned. Cross-border collaboration on sustainable use, conservation and management of natural resources can provide both economic and conservation benefits greater than would be achieved by countries working alone. A cross-border approach to sustainable use and conservation of natural resources within the NEPAD Environment Initiative should be seen as a complement and extension to existing national initiatives and should build on these national level initiatives where the right opportunities arise.

## *Freshwater*

100. While Africa uses only about 4% of its renewable freshwater resources, water is becoming one of the most critical natural resource issues. Africa has abundant freshwater resources in large rivers and basins. The continent has over than 50 significant international river basins, more than any other continent. One such river basin is the Congo Basin that with its tributaries represents the second largest river basin in the world after the Amazon Basin. Africa harbours the second largest freshwater lake in the world, Lake Victoria. For 14 African countries, their entire territory falls within international river basins. The region has more than 160 lakes that are larger than 10 square miles. Most of the lakes are located around the equatorial region and the sub-humid East African Highlands within the Rift Valley. There are 83 River and Lake basins in Africa with the following distribution: Northern Africa 11, Western Africa 29, Central Africa 8, Eastern Africa 20 and Southern Africa 15. With over 50 major international water basins in Africa, two or more countries share watercourses.
101. Agriculture is the largest user of water in Africa accounting for 88% of the total water use. It is estimated that 40 to 60% of the region's irrigation is currently lost through seepage and evaporation. Groundwater resources are also crucial for many countries in Africa. However the rate of exploitation is causing increasing threats. The continent is one of the two regions in the world facing serious water shortages. More than 300 million people in Africa still lack adequate access to safe water. The demand for water is increasing rapidly due to population growth and economic development. As a result, Africa's share of water on a per capita basis is estimated to have declined by as much as 50% since 1950.
102. Currently, 14 countries in Africa are subject to water stress or water scarcity, with those in Northern Africa facing the worst prospects. A further 11 countries will join this category of countries in the next 25 years, bring the number to more than half of the African countries. It has been estimated that by 2025 more than 230 million people (16% of Africa's population), will be living in countries facing water scarcity and more than 460 million (32% of Africa's population) will be living in water-stressed countries. About 50 rivers in Africa are shared by two or more countries. Access to water from shared rivers may be a source of political tension if the situation is not addressed. In addition, water quality is also decreasing at an alarming rate owing to industrial pollution and lack of adequate water treatment thus causing major and persistent health problems. Issues of water quantity and water quality are indeed the most pressing environmental issues in Africa.
103. In adopting the Declaration of the African Minister responsible for Water Resources at the International Conference on Freshwater held in Bonn, Germany in December 2001, the African Ministers stressed that water is the key natural resource throughout Africa. The Ministers decided to focus their efforts on: governance of the water sector; intergovernmental policy dialogue for water security; financing for the development of the water sector; building capacities for the management of the water sector; transfer of technology; meeting the water needs of Africa urbanising centres; guaranteeing adequate water, sanitation and hygiene services; strengthening the role of women in the management of water resources and the provisions of adequate sanitation services; linking the freshwater environment with the coastal and marine environment.

104. The Abuja Ministerial Declaration on Water: a Key to Sustainable Development in Africa adopted in April 2002 establishes the African Ministerial Conference on Water (AMCOW) which adopted at its first substantive session held in February 2003 an African Regional Programme of Action on freshwater. Further activities in the area of fresh water will be undertaken in the context of AMCOW pursuant to its mandate. AMCEN and AMCOW will co-ordinate on areas of mutual interests within their respective mandates.

### ***Biodiversity, Biosafety and plant genetic resources***

105. Africa's biodiversity and natural wealth are key to contributing to the economic development of the continent. It includes five globally significant biodiversity hotspots (Cape Floristic Province, the Eastern Arc Mountains and Coastal Forests of Tanzania and Kenya, Madagascar and the Indian Ocean Islands, the Succulent Karoo, and the Guinean Forests of Western Africa. Africa has a large and diverse heritage of flora and fauna, including major domesticated crops. The continent is home to more than 50,000 known plant species, 1,000 mammal species, and 1,500 bird species. Eastern Africa has the highest numbers of endemic species of mammals (55%), birds (63%), reptiles (49%) and amphibians (40%). Madagascar is the most endemic-rich country in Africa and one of the six most significant concentrations of plants in the world is the Cape Floral Kingdom. 70% of the wild species in North Africa are known to be of potential value as sources of traditional food, medicine and pharmaceuticals and half of these have more than one potential use.
106. Savannahs, the richest grasslands in the world, are the most extensive ecosystem in Africa. They support many indigenous plants and animals as well as the world's largest concentration of large mammals. African wetlands also have a rich biological diversity, with many endemic and rare plant species as well as wildlife such as migratory birds. Wetlands are found in most African countries. Throughout centuries, African societies have depended on the rich biodiversity of the continent for survival. They have developed strategies to protect and conserve this natural heritage for the benefit of their own and future generations. In some cultures, rich areas of biodiversity, including forests were often designated as sacred or protected areas.
107. The first national parks in Africa were created in the first half of the 20<sup>th</sup> century, including the Kruger National Park in South Africa in 1928. A symposium on nature conservation was convened in 1938, which resulted in the designation of many of the existing protected areas in the Arab countries of the continent. There are now more than 3,000 or so protected areas in Africa representing 240 million hectares. Under the leadership of the Organisation of African Unity, the African Convention on the Conservation of Nature and Natural Resources was adopted in Algiers on 15 September 1968.
108. Most of the African countries have ratified the biodiversity-related conventions. However the large and diverse biological heritage of the continent is at risk in all regions of Africa. Some species have already been reported as extinct and many others are under threat of extinction. Recent estimates show that a total of 124 animal species have become extinct from the wild and 924 animal species are critically endangered or

vulnerable. Twelve plant species are extinct and 869 are critically endangered. Despite being among the most biologically productive ecosystems in Africa, wetlands are being lost as they are regarded in most of the cases as wastelands and potential areas for agriculture. The introduction of exotic species over the past century has also contributed to biodiversity loss. Armed conflicts have also led to significant ecological damage and biodiversity losses.

109. Environmental pollution is an increasingly major threat to biodiversity in many African countries. Pesticide residues have reduced the populations of several bird species and other organisms. As the region continues to industrialise the adverse impact of pollution on biodiversity is most likely to increase unless cleaner production processes and technologies are promoted. Climate change is the latest emerging threat to biodiversity in Africa. It has already been identified as an emerging cause to the loss of habitat to many species and in particular amphibian populations.
110. Most of the African countries have submitted their national report to the Conference of the Parties to the UN Convention on Biological Diversity and are preparing, finalising and implementing their biodiversity strategies and action plans called for by Article 6(a) of the Convention. The objective of this Action Plan will aim at improving Africa's implementation of the objectives of the Convention including the relevant decisions of the Conference of the Parties with a particular emphasis on sustainable use and the fair and equitable sharing of benefits. To this end, the ecosystem approach will be promoted. A special attention will be devoted to implement throughout Africa the Bonn guidelines on access to genetic resources and fair and equitable sharing of the benefits arising out of their utilisation.
111. African countries have played a leading role in the negotiation of the Cartagena Protocol on Biosafety. Many African countries have signed the Protocol and are now engaged in the process of ratification. On the issue of biosafety, this Action Plan will aim at increasing efforts to prepare and implement national biosafety frameworks by African countries. It will also entail the development and implementation of activities to build African human and institutional capacities in accordance with the decisions of the Intergovernmental Committee of the Cartagena Protocol chaired by an African official.
112. A consultative meeting on the Biosafety component of the Action Plan on the environment initiative of NEPAD was organised at the African meeting on Risk Assessment and Public Participation held , with the participation of more than 86 experts, in Windhoek, Namibia on 12-15 November 2002. The participants noted that there is a need to develop biosafety institutions and structures in African countries for the operationalisation of the Cartagena Protocol on Biosafety. The need for transfer of experience, both technical and scientific was also highlighted. To this end, the following activities have been recommended:
  - Carrying out an assessment of current technological capacity to manage Biosafety issues, and the implications of this on the implementation of a National Biosafety;
  - Strengthening national capacity to develop national regulatory biosafety frameworks;
  - Strengthening national capacity for competent decision making on notifications and requests related to Living Modified Organisms (LMOs), including the establishment of administrative systems to assist with screening notifications and requests for completeness;

- Risk assessment, including, where appropriate, the consideration of risk management, and risk evaluation (as socio-economic issues may be taken into account in accordance with the Protocol),
  - Decision making within the time limits specified in the regulatory framework and in accordance with the provisions of involvement of stakeholders, and
  - A mechanism for feed back between these different steps.
  - Applying other measures according to the Protocol taking into account the work of the Inter-governmental Committee for the Cartagena Protocol on Biosafety (ICCP) and the Meetings of the Parties upon the entry into force of the Protocol;
  - Support regional and sub-regional collaboration, including harmonisation of the implementation of national regulations;
  - Provide all stakeholders with an opportunity to be involved in the design and implementation of a National Biosafety Framework.
  - Raise public awareness and improve information flow to the public on the issues involved around the release of Living Modified Organisms to promote informed debate and to ensure transparency with respect to the regulation of LMOs.
113. There is therefore an urgent need to build the capacity of the African countries in the following areas: Institutional capacity building (a) legislative and regulatory frameworks; (b) administrative framework, (c) Technical / telecommunication structure; (d) Funding and resource management, (e) Mechanisms for follow-up, monitoring and assessment, (f) Human resources development and training on issues related to risk assessment, risk management and technological transfer. Capacity building on mechanism for public awareness and information exchange and data management was also considered important. It was also considered that biotechnology transfer and management is a key element for ensuring the success of the implementation of the Cartagena Protocol on Biosafety.
114. The African Protected Areas Initiative (APAI) is an African-led initiative designed to help mobilise African institutions and expertise to work effectively toward enhancing the role of protected areas as vital tools for safeguarding biodiversity, sustaining ecosystem processes and contributing to livelihoods and sustainable development across the continent. The purpose of this initiative is to develop an institutional framework to enhance partnership and collaboration among the many stakeholders in Africa's protected areas, and build on these to attract new constituencies and resources. The shorter-term objectives are proposed as follows:
- (a) Develop for all Sub-Saharan African countries a well-designed and effectively managed system of conservation areas that will meet the environmental and socio-economic needs of each country.
  - (b) Increased material and political support for Africa's conservation areas mobilised, at the national, regional and international levels;
  - (c) Create a mechanism for assisting African countries to implement the CBD and other international and Regional Conventions (e.g. the Africa Convention);
  - (d) African Biodiversity conservation and protected areas issues effectively articulated at key regional and international fora (WPC, COP 7 etc);
  - (e) To create a continent-wide protected area database, maintained within Africa to support the activities that are identified as of highest priority by the African countries (building on existing databases, such as WCMC);

- (f) To enhance biodiversity management throughout Africa through improved training, institutional and policy development, systems planning;
  - (g) Develop a strategy and action plan for APAI and have them approved at WPC V and at relevant African Councils as a " Blue Print" for the Regional and continent wide revival and conservation of Africa's biodiversity;
  - (h) Develop and support a network of scientists, PA practitioners, experts and policy makers as a forum for exchange of ideas, experience and policy influence.
115. To this end it is suggested that a trust fund be established. The goal of the trust fund will be to complement and co-ordinate support from multilateral agencies to assist African governments, continental and regional bodies in Africa to leverage the highest level political commitment for conservation of biodiversity through protected areas and to enhance African ownership and partnership. The objective of the trust fund is to establish a co-funding facility that will provide funding in a predictable and timely manner to complement financial resources from recipient countries or other organisations to strengthen Africa's long term commitment to conservation of biodiversity through maintenance of the integrity of protected areas and to improve the capacity of African institutions (i.e. Research institutions, government agencies, community organisations, NGOs, private sector, etc.) to manage protected areas. A trust fund with an initial capital of US \$ 250 million is proposed to support African countries to make long term commitments to sustainable management of protected areas by providing grants to co-finance proposals aimed at:
- Deepening the political commitment of African countries conservation of biodiversity through sound management of protected areas;
  - Strengthen the capacity of African organisations to demonstrate and promote replication of best practice in protected area management;
  - Improve networking among African Institutions;
  - Develop critical masses of people from diverse sectors of society who can work together despite their different approaches to conservation;
  - Facilitate long term commitment and active governmental support for creating a mixed public-private sector mechanisms that will function beyond direct governmental control;
  - Promote basic fabrics of legal and financial practices and supporting institutions in which people have confidence;
  - Ensure sustainable system of protected areas governance, including through sustainable financing and institutions.

### ***Forests***

116. The forests of Africa cover 520 million hectares and constitute more than 17% of the world's forests. Forests play an important economic role in many African countries. They provide 6% of the GDP in the region, the highest in the world. But the share of forest products in trade is only 2%. Africa's forests are threatened by a combination of factors including agricultural expansion, commercial harvesting, increased firewood collection, inadequate land and tree tenure regimes, inappropriate agricultural systems, and accelerating urbanisation and industrialisation. Droughts and armed conflicts also contribute significantly to forest degradation.

117. During the 80's, Africa lost an estimated 47 million hectares of forests. By 1995, another 19 million hectares had been lost, an area the size of Senegal. In most African countries, there has been an increasing demand for wood products, especially firewood and charcoal. As a result, the consumption of forest products nearly doubled during 1970-1994. At least 90% of Africans depend on firewood and other biomass for their energy needs. More recently, new economic reform measures have removed subsidies on energy alternatives, which further increased the demand for firewood and other biomass. Recent projections estimate that the consumption of firewood and charcoal will rise by 5% by 2010.
118. In adopting the Framework of an Action Plan for the Environment Initiative of NEPAD, the 9<sup>th</sup> meeting of the AMCEN, held in Kampala, Uganda on 1-5<sup>th</sup> July 2002 decided to include forests as a separate cross-border issue to be looked at in more details. To this end a thematic workshop on the forests component of the environment initiative of NEPAD was held in Yaounde, Cameroon on 13-14 February 2003. The workshop was organised in close co-operation with the African section of the WorldWide Fund for Nature. The list of project activities is contained in Annex II. It must be noted that at the margins of this workshop an important agreement was signed between Nigeria and Cameroon on transboundary protected area between the two countries. This was followed by an agreement to conserve the endangered species under the UNEP Great Apes Survival Project (GRASP).
119. The participants to the workshop noted that the general status of the African forest is one of overall decline, a trend that has been apparent through the past century and is predicted to continue over the next 20 years. Although there are isolated examples of improvements and progress, in general, Africa's forests are (i) poorly inventoried, (ii) lack adequate policy frameworks and legal status, (iii) lack adequate management; and (iv) lack adequate sustainable revenues to guarantee long-term survival, in spite of providing significant environmental services. Unless this decline is reversed, it will be impossible for the forest sector in Africa to continue to play its important role in sustaining forest dependent communities and contributing to national economic welfare, yet alone contribute to the long-term social and economic development and poverty alleviation goals of the NEPAD.
120. The development of Sustainable Forest Management (SFM) in Africa requires that long-term environmental health and ecological function of Africa's forests be maintained, in order to provide vital ecosystem services upon which millions of Africans depend. The value of these ecosystem services must be fully incorporated into African forest policy development and decision-making, alongside timber resource values.
121. The forests component of the Environment Initiative of NEPAD focuses on five key weaknesses in the present-day environmental management of African forest resources, which result from a general lack of capacity at human, institutional and systemic levels. More specifically, there is:
- Lack of sound national forest programmes including medium-term national forest plans;
  - Lack of capacity for sustained forest resource inventory and monitoring;
  - Lack of effective application of appropriate criteria and indicators (C&I) for sustainable forest management;

- Lack of capacity to protect and manage forest for biodiversity conservation;
  - insufficient participation of both local communities and private sector in sustainable forest management; and
  - Insufficient action against increasing illegal forest exploitation.
122. Within Africa, there are planned, existing and ongoing projects and initiatives that demonstrate the progress that could be made in addressing each of these weaknesses. The NEPAD Environment Initiative could play an important role in supporting, catalysing and expanding these and similar initiatives. One such initiative is the convergency plan and priority actions of the Congo Basin Initiative that constitute an important part of NEPAD Environment Initiative.
123. For forest programmes, there is a need for continued support to:
- Sharing of experience in development, harmonisation and implementation of national programmes to promote sustainable forest management,
  - New approaches, initiatives and partnerships that promote sustainable forest management through, for example, the Yaounde Summit Declaration, CEFDHAC Brazzaville Process and the Pan-African Forest Certification Scheme,
  - Promote the role of Africa's humid and savannah forests and woodlands as important carbon sinks, biodiversity reservoirs and sources of other goods and services, and ensure that these values are incorporated in national forest programmes and the sustainable management of these forests.
124. For mapping and knowledge of forest ecosystems, there is a need to:
- Improve the integration of forest land into overall land use planning for sustainable development; e.g. through integration with AfriCover and other land use mapping exercises,
  - Build national capacity to access and use remote sensing data and geographic information processing technologies, including geographical information systems (GIS) and global positioning systems (GPS),
  - Improve the integration of such data with other available information regarding the goods and services provided by forests to local communities, and
  - Promote the integration of scientific with traditional knowledge and practice of forest management.
125. For monitoring and assessment, there is a need to:
- Participate in regional criteria and indicator processes,
  - Develop national forest inventory and monitoring systems which take account of these criteria and indicators,
  - Improve scientific underpinning of the use of economic, social and environmental indicators of sustainable forest management, including indicators of goods and services provided by forests,
  - Exchange information and experience with partner countries on monitoring and responding to large scale disasters affecting forest ecosystems, such as forest fires, and
  - Build capacity in countries to monitor the impacts of human activity and environmental change on forest resources, including the impacts of fire, infrastructural development, illegal logging, climate change, etc.

126. For protected areas, there is a need to:
- Improve ability to analyse and categorise existing protected forest areas in Africa and identify key forest types not sufficiently represented in the different categories of protection,
  - Work with partner countries to establish and maintain protected forest areas and associated networks, including cross-border parks and other transnational and international initiatives, such as the Congo Basin Initiative, aimed at protecting important forest biodiversity and other ecological values,
  - Improve the effectiveness of protected area management through strengthening the capacity of African institutions involved on forest protected area management, and
  - Initiate activities on forest landscape restoration both within protected areas and to establish buffer zones around core forest protected areas.
127. For broader stakeholder involvement, there are opportunities for greater involvement of both the Private Sector and Civil Society groups and new partnerships in sustainable forest management. SFM is not possible without the positive involvement and commitment of forest owners, forest industries, civil society, non-governmental and community-based organisations and indigenous people.
128. For the Private Sector, there is a need to:
- Encourage the private sector, particularly forest-related industries, to develop and apply voluntary codes of conduct that support forest certification and sustainable forest management, both domestically and internationally,
  - Encourage private voluntary market-based mechanisms that would support improved management practices in the forest sector,
  - Encourage the private sector to increase efficiencies and reduce waste in forest product processing and recycling, whilst at the same time encouraging new international and domestic markets,
  - Promote private investment and development of partnerships in SFM and to identify innovative financing mechanisms to attract private sector finance, and
  - Develop partnerships between private sector and governments, and between private sector and NGOs, for example, the Producers Group Network that is being established in West and Central Africa.
129. For Civil Society, there is a need to:
- Devolve forest ownership and management to the lowest appropriate level compatible with SFM,
  - Encourage the formation of community forests and strengthen community participation in policy development and implementation, and
  - Expand market opportunities for forest communities and small forest operations.
130. For Forest Law and Governance, there is a need to:
- Encourage the sharing of information and assessments on the nature and extent of international trade in illegally harvested timber as a basis for developing practical and effective counter measures,
  - Work with interested partner countries and through international organisations including the United Nations Forum on Forests (UNFF), the Collaborative Partnership on Forests (CPF), FAO, CIFOR, UNEP, and the elements of the International Tropical Timber Organisation's Libreville Action Plan which relate to illegal forestry, to

develop capacity to assess the nature and extent of illegal logging and trade in illegally harvested timber and capacity to develop and implement counter measures such as “chain of custody” verification,

- Expand participation in the Lusaka Agreement Task Force to include more African countries and to strengthen their activities in cross-border investigation of poaching and illegal trade undertaken by criminal syndicates,
- Develop joint activities to reduce illegal wildlife trade with the CITES Bushmeat Working Group (CBWG), the Monitoring of Illegal Killing of Elephants (MIKE), the World Bank/AIDE Regional Environmental Information Project (REIM/PRGIE) and other relevant African organisations; and
- Encourage African governments to take measures to implement their obligations under international agreements aimed at combating bribery and corruption in international business transactions as they pertain to trade in timber and wildlife.

### **3.3 Crosscutting issues**

131. Major crosscutting issues include health and environment; poverty and environment and the transfer of technology. The actions identified cannot take place without the consideration of issues related to gender and traditional/indigenous knowledge.

#### ***Health and the environment***

132. Exacerbated by rapid population growth, poverty remains the primary cause for most of sub-Saharan Africa's environmental health problems. With a total population of about 450 million, half of Africa's residents have no access to health services and two-thirds lack safe drinking water, according to a 1991 report by the World Bank. Many sub-Saharan water supplies are undrinkable, contaminated by bacteria, untreated or poorly treated sewage, heavy metals and silt from soil erosion, fertilisers and pesticides, mining tailings, and industrial waste. Most Africans are also gravely affected by indoor and outdoor pollutants, microbes that cause life-threatening, diarrhoea and tropical diseases, HIV/AIDS, inadequate sanitation and sewage treatment, desertification and deforestation, mining, and the overuse of pesticides and insecticides. The impacts of Genetically Modified Organisms (GMO's) on human health are an important aspect under the Cartagena Protocol on Biosafety. Due to the lack of knowledge on environmental sustainable alternatives and proper quality control on agricultural products, African farmers have greatly increased their use of chemically based pesticides, herbicides, and fungicides. More than 11 million acute pesticide poisonings, including those with only minor effects, occur annually in Africa, making them a major public health problem. Chemicals as arsenic, cadmium, lead, mercury and sulphuric acid used in various industrial process including mining contaminate water and soil and affect human health. Persistent Organic Pollutants (POPs) widely used in agriculture, disease vector control and industry and generated as by-products in industrial processes and uncontrolled combustions represent a serious threat to human health due to their endocrine disruption effects on immune function, the nervous system, and certain aspects of reproduction in both humans and wildlife. At least 50,000 tons of obsolete pesticides as well as tens of thousands of contaminated soils have accumulated in most of African countries over long periods. These pesticides pose serious threat to the health of both rural and urban population and contribute to land and water degradation.

133. A large number of African countries are Parties to the Basel Convention on the control of transboundary movement of hazardous wastes and their disposal, the Bamako Convention of 1991, the Rotterdam Convention on the Prior Informed Consent. African countries are also working for the ratification of the recently adopted Stockholm Convention on Persistent Organic Pollutants. They have initiated the activities for the preparation of the National Implementation Plans as required by Article 7 of the convention. The objectives of the activities to be undertaken under this programme area of the Action Plan aim to assist African countries to implement their commitments under chemicals related conventions for which they are contracting Parties and to address other related environmental problems such as atmospheric pollution.
134. A consultative meeting on the health and environment component of the Action Plan on the environment initiative of NEPAD was held, with the participation of more than 100 African experts, in Geneva on 8 December 2002 at the margins of the Sixth meeting of the Conference of Parties of the Basel Convention. With a view of finalising the Health and Environment section of the Environment initiative of NEPAD a thematic workshop was held in Dakar, Senegal on 17-18 February 2003. The participants recommended 28 project proposals. The list of the project is contained in Annex II. On issues related to Environmentally Sound Management of Pesticides and Other Toxic Chemicals, the following projects were suggested:
- Education and awareness;
  - Establishment of Poison Centres;
  - Development of emergency response plans;
  - Development of African input into the Strategic Approach to International Chemicals Management;
  - Assessment, development and implementation of health indicators;
  - Implementation of GHS;
  - Prevention of illegal traffic in chemicals;
  - Eliminate stockpiles of obsolete pesticides from Africa
  - Establishment and/or capacity building of the regional centres (e.g. Basel Convention Regional Centre in Nigeria, Senegal and South Africa) for the management of hazardous waste in the context of building synergies with the Stockholm (POP) and Rotterdam Convention (PIC).
135. On issues related to waste management, the following project proposals were suggested:
- Sewage system / Waste waters;
  - Solid Waste Management;
  - Environmentally sound management of hazardous waste;
  - Develop and implement waste minimisation programmes;
  - Management of Obsolete Stockpiles (ASP covers pesticides-need Industrial chemicals)
136. Regarding the Support infrastructure, the following project proposals have been suggested:
- Establishment of environmental information management systems;

- Establishment of improved capacity in: laboratory, scientific risk assessment;
  - Monitoring of environmental contaminants in environmental samples and marketable products
137. On issues related to Sustainable Production and Consumption, the following project proposals have been suggested:
- Assessment of current status of production facilities;
  - Capacity to assess alternative cleaner production technologies;
  - Development of cleaner production capacity;
  - Research into alternative approaches to use of current hazardous formulations;
  - Development of strategies for remediation of contaminated sites
138. Regarding Networking and information dissemination, the following project proposals have been suggested :
- Support for development and enforcement of legislative frameworks;
  - Dissemination of information on chemicals and pesticides;
  - Co-ordination amongst countries on cleaner production centres, poison centres and laboratories
139. On issues related to Atmospheric pollution (reduction of particles and harmful gases) the following projects have been suggested :
- Reduction of emission from automobiles;
  - Elimination of lead in gasoline;
  - Strengthening of legislation related to car emissions (i.e., inspections)

***Transfer of environmentally sound technologies***

140. Africa's sustainable development is largely dependent on its ability to develop, acquire and apply environmentally sound technologies. "Environmentally sound technologies are not just individual technologies, but total systems which include know-how, procedures, goods and services, and equipment as well as organisational and managerial procedures."
141. African countries have been active at negotiating for favourable terms of technology transfer. In such conventions as those on biological diversity and climate change, they have always called on the industrialised countries to facilitate the transfer of new technologies through relaxation of intellectual property protection. Issues of technology transfer are also noted in national and sub-regional action programmes on desertification.
142. To help facilitate the acquisition and/or transfer of environmentally sound technologies to African countries, the following activities will be considered and developed:

- (a) Establishment of a regional clearing-house mechanism that would gather and disseminate information on the nature and range of environmentally sound technologies on the international market.
- (b) Support to African countries to formulate and implement incentive measures that may include subsidies and tax policies.
- (c) Establishment of a fund for the acquisition of the technologies and support to local research efforts aimed at generating environmentally sound technologies.

### *Assessment and Early warning for natural disaster*

143. Africa environmental assessment capacity to address environmental challenges will need to be enhanced. To this end, the following activities may be promoted:
- a) Support the development of an Africa programme in early warning, including the establishment of an Africa Information Network.
  - b) Prepare and implement institutional capacity building for integrated environment assessment.
  - c) Increase access to relevant data and information to support vulnerability assessment and the issuing of early warnings of environmental emergencies issues and threats;
  - d) Incorporate environmental aspects of early warning and vulnerability assessments into the decision-making process for disaster preparedness and
  - e) management;
  - f) Facilitate access to and dissemination of information on environmental issues and threats at national, sub-regional and regional levels, using the best possible up to date information;

### *The NEPAD Environment Directory*

144. The implementation of the Action Plan on the Environmental Initiative of NEPAD requires the establishment of a system to track, monitor, and catalyse the information required. To catalyse the implementation phase of the NEPAD process, a mechanism to bring together and co-ordinate existing information resources is needed. Such a mechanism would track the implementation of the NEPAD process in a transparent manner and at the same time build a network of focussed information systems to maximise efficient exchange of expertise, data and information. Therefore an Environment Directory for the Implementation of the Action Plan on the Environment Initiative of NEPAD will be established. The Environment-Directory, is a tool that aims to build a comprehensive “directory” of institutions and existing information resources they own or manage (including projects activities, documents, expert rosters, etc). The system is built upon a network structure that actively involves international, national government and non-governmental organisations in the collection and maintenance of data and information, and thus has a relatively low operational maintenance cost. It utilises internet technology to link with other databases to share and exchange data and information. Also planned as part of it’s inclusion under the UNEP.Net framework, is the development of an exchange interface to allow any environmental information system on the internet to be

searched from this single point. There are four main categories captured by the system (and therefore it provides a structured approach to selecting and finding information): Addresses (expert rosters and institutions); Projects; Documents (National Reports, Assessments, etc); Datasets (measurements, inventories, etc); Maps (GIS systems, printed maps).

145. The Environment-Directory for NEPAD would provide at minimum, links and direct access to the following information resources for each of the programme area:
- Planned and ongoing project activities (through linkage and integration with existing project databases)
  - Project concepts submitted as a result of the planning phase
  - Expertise available in and outside the region (institutions and people)
  - Trends and findings of the Africa Environment Outlook, Enabling activities Inventories, and so on
  - Best Practices and lessons learned for issues of concern in a thematic area
  - Selected geographical information system applications (such as the African Fresh Water atlas showing every surface water resource, power generation dams, water stress level, etc, in Africa)
  - A special graphical interface to map and link existing information systems based on a search.
  - A searchable catalogue to existing and trusted interactive fora.

#### **Section 4: Implementation of the Environmental Action Plan**

146. The Environmental Action Plan is a living document that will need to be reviewed on a regular basis by AMCEN in order to adjust it to the changing needs and circumstances. Its implementation will require a long-term approach. It will be implemented in harmony with the other components of NEPAD and building on the achievements and work programme of AMCEN and other relevant African initiatives such as the African Ministerial Conference on Water and the African Process. It will require an appropriate implementation mechanism as well as adequate financial resources. In this regard the role of private sector was emphasised. The relation between environment and culture and traditional knowledge are considered essential for addressing the environmental objectives of NEPAD.
147. As reflected by the outcomes of the nine NEPAD thematic workshops as well as the proceedings of the Fourth Steering Committee meeting held at ministerial level in Maputo on 23-24 April 2003, the development of human and institutional capacity of the African countries is one of the most pressing priority. Accordingly the implementation of the Strategic Plan to Build Africa's capacity to implement global and regional environmental conventions contained in Annex I should be considered as a matter of high priority. It should be submitted to the donor meeting as a priority project.
148. The implementation of the Action Plan requires the provision of adequate financial resources to be mobilised by Africans themselves. However, based on the commitments agreed upon by the international community and as contained in the United Nations Millennium Declaration, the Monterrey Consensus on financing development, Chapter 8 of the Johannesburg Plan of Implementation adopted by the World Summit on

Sustainable Development as well as United Nations Declaration on NEPAD adopted on 16 September 2002 by the High Level Plenary meeting of the 57<sup>th</sup> United Nations General Assembly, additional international financial resources will be required. To this end, a donor meeting with the participation of the bilateral, multilateral financial institution including the GEF, as well as private sector will be convened at the invitation of the government of Algeria, in Algiers, Algeria in December 2003.

### **Conclusion**

149. The African Environment Action Plan for the implementation of the environment initiative of NEPAD is a concrete response by African leaders to address the environmental challenges facing the continent with a view of promoting sustainable development in one of the poorest continent of the world. It offers a unique opportunity to build a strong and vibrant partnership between Africa and its partners including the private sector. Africa leaders are determined to fulfil their commitments and their responsibilities towards present and future generations in order to protect the local and the global environment of our planet. However, the three pillars of sustainable development cannot be achieved without peace and security on the continent. Africa expects its bilateral and multilateral partners to join forces and support this historical initiative. As a matter of urgent priority for the establishment of such a partnership the annex containing a strategic plan to build Africa's capacity to implement global and regional environmental conventions is an integral part of this action plan.

## **Annex 1: A Strategic Plan To Build Africa's Capacity to Implement Global and Regional Environmental Conventions**

### **INTRODUCTION**

1. Agenda 21 (Chapter 37) defines "capacity-building" to encompass "the country's human, scientific, technological, organisational, institutional and resource capabilities. A fundamental goal of capacity-building is to enhance the ability to evaluate and address the crucial questions related to policy choices and modes of implementation among development options, based on an understanding of environmental potentials and limits and of needs as perceived by the people of the country concerned. As a result, the need to strengthen national capacities is shared by all countries". It is a knowledge-intensive process requiring the continuous upgrading of skills, organisational capabilities, policies and laws. Capacity building is therefore a long-term and dynamic process.
2. Building the capacity of African countries to implement global environmental conventions has been recognised as one of the priority challenges to meet sustainable development. This recognition is articulated in decisions of conferences of parties to the conventions of all major global and regional environment conventions. As the financial mechanism of the Conventions signed in Rio de Janeiro, the Global Environment Facility (GEF) has recognised such a need by initiating in 1996 the enabling activities and initiating the Capacity Development Initiative. There is growing commitment by African countries themselves and the international community to invest in strategic and coherent activities that build the region's capacity to implement conventions in a co-ordinated and comprehensive manner.
3. The Global Environment Facility (GEF) through its Capacity Development Initiative (CDI) has supported a number of assessments of national and regional capacity needs. It is supporting more national capacity need assessments. These are aimed at identifying and clarifying the specific human resource, institutional, financial, policy and other capacity requirements of countries. They provide the necessary basis for formulating and implementing national and regional capacity building programmes.
4. One of the priority goals of the environment initiative of the New Partnership for Africa's Development (NEPAD) is to build Africa's capacity to implement environmental conventions and such related international legal instruments as the protocol on biosafety. To respond to such an urgent need, a Strategic Plan for Capacity Building for Africa (SPCB) - to achieve capacity building goals of the environment initiative has been developed. The plan is organised around clusters of activities and processes that will be implemented over a 5-year period. The proposed activities target specific needs identified by African countries themselves. The countries will also take overall leadership in implementing this plan. The suggested plan will build on and complement the GEF Capacity Building Initiative and will aim at achieving its overall objectives. It will be submitted to the donor meeting to be held in December 2003 on the Africa Environment Action Plan for the implementation of the New Partnership for Africa's Development.
5. African countries face numerous challenges in their efforts to implement their commitments under global environmental conventions and to achieve sustainable development. Since the 1972 Stockholm Conference on the Human Environment, many agreements and related regulatory instruments have been adopted at

international level to conserve and manage the natural environment and to guide human activities for sustainable development. Today there are well over 200 relevant multilateral agreements concluded on environmental subjects as diverse as biological diversity, biosafety, Transboundary Long-Range Air Pollution, the Law of the Sea, Climate Change, Toxic substances, Desertification and Protection of the World's Cultural and Natural Heritage. Several environmental agreements have been concluded at regional and sub-regional levels.

6. The implementation of the global environmental conventions must necessarily take place at national level. Unfortunately, many African countries lack the capacity to implement fully the complex provisions of this growing body of international law. Building the capacity of these countries must now be given top priority. But such capacity building must be informed by and based on the country's own needs and priorities.
7. Africa's priorities for the implementation of the conventions can generally be drawn out of national reports, national strategies and action plans, statements by delegations at meetings of conference of parties, project proposals submitted to financial institutions and donors and reports of national workshops as well as country studies. The capacity needs include :
  - (a) Development of adequate national policy frameworks for the effective implementation of the global and regional conventions.
  - (b) Preparation and implementation in a co-ordinated manner of national, legal and regulatory frameworks to comprehensively address the complexity of issues covered by global conventions.
  - (c) Promote / Enhance adequate institutional mechanisms for the implementation of such frameworks, including strengthening the role of environmental institutions.
  - (d) Promote / Enhance mechanisms for environmental information including co-ordination, integration, and delivery to identified targets, and particularly those in the policy and decision making process.
  - (e) Promote / enhance mechanisms required for regional co-operation on issues of common concern such as the management of shared ecosystems, in conformity with existing agreements between countries concerned, including for example: migratory species, trade in endangered species, shared coastal and inland water bodies, transboundary river basins and pollution, as well as exchange of information and expertise.
  - (f) Promote information and understanding of the status of and trends in environmental degradation, vulnerability to climate change, impacts of land degradation and desertification and implications of loss of biodiversity in addition to a variety of other environmental challenges is still meagre in many African countries.
  - (g) Enhance the negotiating and technical skills of the African representatives at the meetings of the major global conventions.

- (h) Public awareness of global conventions and related sustainable development instruments

## **II. Objectives**

- 8. The overall objective of the Strategic Plan for Capacity Building for Africa (SPCB) is to enable African countries to implement in a co-ordinated and comprehensive manner their commitments under global and regional environmental conventions and other international legal instruments. It will also promote sharing of experiences at national, regional and sub-regional levels and to encourage South-South co-operation.
- 9. The SPCB is being developed and will be implemented through partnership among Africans themselves and between them and the international community. It will take a comprehensive approach for developing the capacities needed by African countries to fulfil their commitments under global and regional environmental agreements. It is process oriented and aims at maximising impact at the national and regional levels. As stated above, the plan focuses on capacity needs identified by countries themselves. Its specific objectives are to:
  - (a) Support African countries to generate and use relevant knowledge and information to implement their commitments under global environmental conventions;
  - (b) Assist African countries to implement capacity building provisions of the United Nations Convention to Combat Desertification.
  - (c) Support African countries to implement capacity building provisions of the Convention on Biological Diversity and other biodiversity related conventions such as CITES, RAMSAR and CMS.
  - (d) Assist countries to implement capacity building decisions adopted by the second meeting of the Intergovernmental Committee for the Cartagena Protocol on Biosafety.
  - (e) Assist African countries to implement capacity building decisions adopted by the seventh session of the Conference of Parties to the United Nations Framework Convention on Climate Change held in Marrakech, Morocco in November 2001.
  - (f) Support African countries to prepare for the entry into force and the implementation of the Kyoto Protocol.
  - (g) Support countries to create skills for negotiating and participating at meetings of parties to global environmental conventions
  - (h) Support the implementation of national, sub-regional and regional policies and related legal capacity building for the implementing environmental conventions.
  - (i) Strengthen national, sub-regional and regional institutional arrangements to implement global environmental conventions and related sustainable development instruments.
  - (j) Assist countries to implement capacity building decisions and activities of chemicals and wastes related conventions, including through existing regional mechanisms.
  - (k) Assist Least Developed Countries (LDC's) of Africa to prepare and implement national adaptation programmes pursuant to the decision of the seventh session of the Conference of Parties to the UN Convention on Climate Change.
  - (l) Support African countries to implement the Bamako and Basel Conventions and to prepare for the entry into force and the implementation of the Stockholm

Convention on Pesticides and Organic Pollutants (POPs) and the Rotterdam Convention on Prior Informed Consent (PIC).

- (m) Strengthen the capacity of African countries to implement regional seas conventions and related regional and global programmes of action.
- (n) Support the countries to implement the environmental pillar (in particular those aspects related to global environmental conventions) of the Johannesburg Plan of Action.
- (o) Promote the maximisation of synergies between environmental and other global and regional conventions.

### III. GUIDING PRINCIPLES AND ELEMENTS

10. The design, preparation and implementation of the SPCB shall be guided by the following principles:

- (a) Consistent with African national priorities and needs as contained in their respective action plans and strategies as well as national reports on the implementation of relevant conventions submitted to the Conference of the Parties;
- (b) Consistent with the relevant provisions of the environmental conventions and the guidance of the respective Conferences of the Parties;
- (c) Be country driven with the full participation of major stakeholders and in particular the representatives of the civil society, including NGOs, women and youth;
- (d) Be flexible so as to be adjusted with evolving needs and priorities of countries;
- (e) It should follow the principle of “learning by doing” as well as a step by step approach;
- (f) It should be a continuous, progressive and inter-active process;
- (g) It should be undertaken in an effective, efficient, integrated and programmatic manner;
- (h) It should mobilise and enhance national, sub-regional and regional institutions and build on existing processes and endogenous capacities;
- (i) Take into full consideration the specific needs of the Least developed countries of Africa;
- (j) Be consistent and in conformity with other activities of the environmental initiative of the New Partnership for Africa’s Development;
- (k) Assist in the implementation of the environmental component of the Millennium Declaration adopted in September 2000 by the United Nations General Assembly;

- (l) Build on existing bilateral and multilateral capacity building initiatives;
- (m) Complement, support or be part of the GEF Capacity Development Initiative;

#### **IV. ACTIVITIES**

11. To achieve the above objectives the following activities may be considered and developed.

##### ***1. Human Resource Development***

12. One of the capacity requirements of many African countries is human skills or expertise in policy, legal, technical and scientific aspects or issues emerging from environmental conventions and related protocols. Generally, expertise necessary to translate provisions of conventions into concrete national activities, policies and laws is in short supply in many countries. The countries have often identified shortage of skills in such areas as taxonomy, climate science, environmental economics and environmental law. There is also a shortage of expertise or skills for negotiating environmental agreements.

13. To support the building and strengthening of Africa's human resource base for the implementation of environmental conventions and related sustainable development instruments, the following activities may be considered:

- (a) Preparation and review of appropriate training course modules on environmental conventions.
- (b) Identification and selection of appropriate regional and international training institutions.
- (c) Preparation of specific training projects. These will focus on specific capacity needs of the countries. The training may be offered as short and long courses depending on specific needs. Emphasis will be placed on developing a core of skills or critical mass of expertise that can/should be shared across the continent. This critical mass will also be utilised to train others. Specific training courses on negotiations--with emphasis on different approaches and tools for negotiating conventions--may be developed.
- (d) Frequent review and evaluation of training projects.

##### ***2. Public education and awareness raising***

14. The achievement of the objectives of the global environmental conventions by the African countries largely depends on the extent to which their general public and decision-makers are aware of the conventions and their respective national obligations. Public and decision-makers support to and ownership of the conventions are very crucial to national implementation.

15. Most global environmental conventions recognise the importance of educating the public and increasing public awareness of the conventions. For example, the Convention on

Biological Diversity has devoted its article 13 to measures aimed at public education and awareness. Article 13 calls on contracting parties to “co-operate, as appropriate, with other States and international organisations in developing educational and public awareness programmes, with respect to conservation and sustainable use of biological diversity.” Public education and awareness considerations are also integrated into the Convention to Combat Desertification, the Climate Change Convention as well as the Stockholm Convention on POPs.

16. Within the framework of this SPCB, specific activities will be developed to implement public education and awareness provisions of global environmental agreements. Recognising that countries have developed or will develop their own priorities and activities on public education and awareness, the following activities may be considered:

- (a) Developing common strategies to integrate issues on environmental conventions into education at all levels. This may involve review and revision of school and universities’ curricula.
- (b) Establish a regional environmental education programme to be co-ordinated through a network of centres of excellence.
- (c) Support university and other tertiary research and educational activities on environmental policy and law. In addition, encourage and support the establishment of cross-disciplinary environmental courses in African universities.
- (d) Support countries to develop and provide appropriate information packages to the public, if possible in their national languages.
- (e) Support countries to establish media facilities that focus on global environmental conventions and related sustainable development issues.
- (f) Organise regional youth environmental sessions and put emphasis on dissemination of information on global environmental conventions.
- (g) Encourage and support non-governmental organisations to increase their involvement in environmental awareness building, with emphasis on issues on and emerging from global conventions.

### ***3. Strengthen institutions and improve co-ordination***

17. The ability of African countries to fulfil their commitments under global environmental agreements largely depends on the nature and capacities of institutions that they establish and how such institutions are configured to achieve synergies in their operations. As already stated above, the implementation of conventions is often not effectively achieved because of weak institutions at national, sub-regional and regional levels. Strengthening the capacity of institutions particularly to develop and negotiate appropriate mandates and modus operandi as well as appropriate legal and regulatory frameworks will be one of the key priorities of the SPCB.

18. On the basis of specific priorities of African countries, the SPCB may focus on the following :

- a) Support countries to strengthen mandate and capacities of relevant institutions responsible for the implementation of global and regional environmental conventions.

- b) Promote co-ordination of and synergies among national, sub-regional and regional institutions responsible for implementation of conventions.
- c) Support the strengthening of AMCEN and sub-regional and regional economic bodies' participation in the negotiation and implementation of conventions.
- d) Promote the establishment and/or strengthening of centres of excellence in environmental law, policy and science as well as to strengthen their participation in regional processes on conventions

#### ***4. Support the development of information systems and related environmental assessments***

19. The absence of adequate and relevant information and data has been identified as one of the capacity needs to implement global and regional environment conventions. Also the capacity to generate, manage and effectively use information and data on various aspects of environmental management and governance is in short supply in Africa. Meeting commitments under global conventions will require African countries to strengthen their abilities to generate, manage and use relevant information and data.

20. To contribute to the building of capacity to implement information and environmental assessment related provisions of global conventions, and building on such ongoing efforts as the African Environment Outlook produced through AMCEN, the SPCB may:

- a) Support training of Africans in assessment and information management aspects related to global environmental conventions.
- b) Support national and regional capacity to collect and use multi-sectoral information in decision-making processes and build capacity to collect and analyse data and information for decision-making
- c) Consider supporting the establishment of a comprehensive regional information framework.

#### ***5. Mobilise and strengthen the role of scientific and technical communities***

21. The implementation of global environmental conventions and related sustainable development instruments is a knowledge-intensive effort that largely requires scientific and technical knowledge. For African countries to meet their commitments such as conducting inventories, assessments and restoration of ecosystems, they require scientific and technical capacities.

22. The SPCB will support African countries to mobilise and utilise their existing scientific and technical communities. Emphasis will be placed on strengthening the role of existing science networks in negotiations, participation in meetings of parties, and scientific research. African science networks can play a major role in the mobilisation of existing scientific skills/expertise, generation and provision of scientific information to policy-makers and agencies, organising and offering specialised training courses on environmental conventions, participation in project conception and development with governmental agencies, and support to project review, monitoring and evaluation.

23. The SPCB may support the mobilisation of the scientific and technical communities by :

- (a) Assisting countries in the preparation of capacity profiles of African scientists working on different aspects of environmental conventions and related sustainable development.
- (b) Organising or supporting the organisation of meetings of regional science networks or academies to explore specific thematic issues on global conventions.
- (c) Promoting exchange of information between African science networks and their countries in other regions of the world.
- (d) Supporting research through the networks on issues or problems identified as priority by African countries.
- (e) Promoting information exchange through such means as newsletters or journals on environmental conventions.

#### **6. *Promote south-south co-operation and sharing of experiences***

24. Building Africa's capacity to implement global and regional conventions can be achieved through the development of south-south co-operation and networking. South-south co-operation is crucial to enable African countries to learn or draw lessons from capacity building efforts of other developing countries and regions. In addition, it is important for purposes of training, information exchange and exchange of scientists. Some of the Asian and Latin American countries have developed expertise and experience that are useful to Africa's goals of building capacity to implement conventions.

25. In addition, south-south co-operation may be source of institutional strengthening in Africa. African countries can learn from various institutional models developed in other developing countries. On the basis of specific identified priorities of African countries, the SPCB will promote south-south co-operation through such activities as :

- (a) Promote exchange and dissemination of good practices and lessons learned between Africa and other developing regions.
- (b) Strengthen the collaboration on issues of common interest at regional, sub-regional and inter-regional levels among developing countries.
- (c) Promote sharing of information and experiences in implementing conventions.

### **V. IMPLEMENTATION MODALITIES**

26. The SPCB shall be a flexible, long-term framework so as to adjust its activities to the evolving needs and requirements of countries and their changing circumstances. It should be considered as a living document and be reviewed on a regular basis.

27. The implementation mechanism for this plan shall be the same as that for implementing the overall environmental initiative of NEPAD. It will be implemented under the overall responsibility of AMCEN through its Bureau, which will be assisted by the steering committee for the implementation of the Africa Environment Action Plan. The first meeting of the steering committee will identify and recommend for adoption to AMCEN through its Bureau a process of identifying relevant capable institutions to

develop and implement the proposed activities will be established. The Steering Committee will provide guidance to the process for developing each of the clusters of activities on the basis of countries' needs and priorities. It will report on a regular basis to AMCEN through its Bureau on the status of implementation of this plan.

28. The Implementation action plan on capacity building shall be submitted to the donor meeting to be held in Algiers, Algeria in December 2003.

## **Annex II: List of Projects identified by the NEPAD Thematic Workshops<sup>1</sup>**

### **A: Programmatic Area 1: Combating land degradation, drought and Desertification**

#### ***Arab Magreb Union***

Green belt: Conservation and sustainable use of natural resources in the Magreb countries  
Management of watersheds of wadi Mellegue and M' soun-Inaoune  
Rainwater harvesting and use in the arid and semi-arid zones of the Magreb Union  
Sustainable management of the agro-pastoral resource base in the Magreb zone and Egypt  
Rehabilitation and development of the oases ecosystems  
Promotion of development research for combating desertification in the Magreb Union  
Strengthening of the role of civil society in combating desertification  
Implementation of a long-term ecological monitoring network  
Creation of an observatory for drought, desertification and natural disasters in the UMA and CILSS  
Development of Arboriculture on foot slopes and marginal lands  
Combating sand encroachment in the transboundary area between Algeria and Tunisia (Taleb Larbi-Hazouana)  
Improving and protecting irrigated agricultural land of In Guezzam in the Algeria-Niger transboundary area  
Integrated management of the IGUELEN Tamanrasset zone between Algeria and Mali  
Protection of the trans-Magreb route from Nouakchott-Nouadhibou

#### ***CILSS/ ECOWAS Region***

Support programme for strengthening of management of transboundary rangelands  
Support programme for forest management  
Promoting the establishment and maintenance of shared and/or transboundary protected areas  
Conservation Strategy for Western African Elephants  
Conservation and rational management of sensitive ecosystems (mangroves, humid zones and arid zones)  
Adaptations to climate change in West Africa  
Development of diagnostic tools and monitoring systems for natural resources and the environment in West Africa  
Management of shared natural resources, diversification of livelihoods and strengthening of transboundary integration and combating of desertification  
Pilot transboundary project for the "Le Kantchari" (Burkina Faso and Niger)  
Pilot transboundary project for "L'Azaouak" (Mali and Niger)  
Pilot transboundary project for "Cures Salees"  
Coordination of the control of crop pests and diseases  
Harmonisation of phytosanitary legislation and regulations  
Control of weeds and pests on tree species  
Control of livestock diseases  
Commercialisation of *typha australis* in the transboundary areas of the Senegal river valley  
Provision of petrol to the sub-region (ECOWAS and CILSS)  
Rural electrification  
Commercialisation of coal mined in Niger in the sub-region  
Communication and Dissemination of Environmental Information in the Volta Basin

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<sup>1</sup> Projects fact sheets are available for the category 1 projects

Control of invasive aquatic weeds  
Control of sand encroachment in water courses and coastal areas  
Integrated management of the Oueme river basin  
Integrated Management of Niger river basin;  
Integrated management of Park W  
Integrated management of the upper and middle Niger  
Integrated land and water management in the Illumenden aquifer  
Integrated management of the Fouta Djallon Highlands  
Integrated Management of the Lake Chad Basin  
Integrated Management of the Senegal River Basin  
Integrated Management of the Gambia River Basin  
Integrated Management of the Mono River Basin

### ***CEMAC Region***

International initiative for the sustainable management of natural resources in the Congo Basin  
Sub-regional programme for training of primary school teachers in combating desertification in the CEMAC Region.  
Generation of information for awareness raising on bush fires in the CEMAC Region.  
Water harvesting in arid and semi-arid zones (Chad, Cameroon, Central African Republic)  
Transboundary management including transfer of water between Oubangui and Lake Chad Basin  
Desertification Observatory in Central Africa  
Development of Sub-regional cooperation strategy for combating desertification  
Development of community based agro-forestry  
Sustainable management of Soil fertility in equatorial humid zones

### ***IGAD Region***

Household energy for poverty alleviation and women economic empowerment in IGAD sub-region  
Environment Education and Training in the IGAD sub region  
Capacity building in integrated water resources management in the IGAD sub-region  
Building capacity for community based natural resources management in IGAD sub-region  
Strengthening environment pollution control in the IGAD sub-region  
Promotion of sustainable crop production in Drylands of IGAD Sub-region: Management of soil fertility and water-use efficiency  
Promotion of sustainable crop production in Drylands of IGAD Sub-region: IGAD Human resources and gender equity development for semi-arid agricultural research  
Assessment and Mapping of Natural Resources in the IGAD Sub-region  
Assessment and mitigating the impact of invasive plant species  
Natural Resources Use Conflict Resolution Resulting from Droughts and Environmental Refugees  
Rehabilitation and management of Degraded Rangelands  
Strengthening Environment Pollution Control in the IGAD Sub-region  
Promotion of Trans-boundary Ecotourism  
Integrated Watershed Management for two transboundary systems - The Omo-Turkwel-Kerio-Tarch Rivers and L. Turkana Basins and the Juba-Shebele-Ewaso Ngiro River basins

### ***SADC Region***

Kalahari-Namib Project on Transboundary Desertification Control in Botswana, Namibia and South Africa  
 Demonstration Phase Activities of the Africa Land and Water Management Initiative in the Limpopo River Basin in Southern Africa  
 Capacity building for integrated rangeland management in the SADC region  
 Assessment of Surface water resources of Southern Africa  
 Protection and Strategic Uses of Ground Water Resources in the Transboundary Limpopo Basin and Drought Prone Areas of the SADC Region  
 SADC regional project to control infestation and translocation of Aquatic weeds  
 Okavango – Upper Zambezi natural resources management project  
 Sustainable Conservation of Miombo and Savannah woodlands in the SADC region (Tanzania, Malawi, Mozambique, Zambia and Zimbabwe).  
 Lake Malawi / Niasa/ Nyasa Ecosystem Management – Tanzania, Mozambique and Malawi  
 Beira Corridor Sustainable Trans-boundary Natural Resources Management Programme  
 Promotion of stakeholder participation in water resources management: Feasibility Study for Creating a fund to support NGO and CBO participation in water resources management – programme on means to empower women in water resources  
 Networking / Information sharing on CCD in the SADC region  
 Okacom water resources management  
 Biodiversity conservation participatory development  
 Integrated Management in the south south-west region of Madagascar (Province Toliara)

### ***Regional Action Programme***

Ecological monitoring, mapping of Natural Resources, remote sensing, and early warning within the context of the regional action programme for Africa of the UNCCD  
 Geographic Information System (GIS) on water resources in the countries of UMA and Egypt  
 Promoting cultivation and marketing of Agroforestry fruit trees for food, nutrition and improved incomes for small-scale farmers in African countries.

### **B: Programmatic Area 2: Conserving Africa's wetlands**

Capacity building for wetlands assessment, planning, management and monitoring in Africa  
 Strengthening the information base and the opportunities for sharing experiences for the management of wetlands in Africa  
 Restoration and rehabilitation of African wetlands  
 Integrated management of Wetlands Ecosystems in Major Lake/River Basins in Africa  
 Sustainable management of wetlands to enhance communities' livelihoods  
 Management, restoration and rehabilitation of coastal wetlands  
 Assessment and monitoring of Africa's freshwater ecosystems  
 Improving Africa's freshwater ecosystems governance and management  
 Valuing Africa's freshwater ecosystems in economic development and poverty alleviation

### **C: Programmatic Area 3: Prevention, Control and Management of Invasive Alien Species**

Assessment and Mitigation of the Impacts of Selected Plant Invaders (*Prosopis juliflora*, *Acacia* spp.) in Agriculture, Forestry and Rangelands in IGAD  
 Sustainable management of key invasive woody species in Southern Africa

Assessment and Mitigation of the Impacts of Selected Woody Alien Plant Invaders (*Prosopis juliflora*, *Acacia* spp.) in Agriculture, Forestry and Rangelands in Africa  
 Assessment and mitigation of the impacts of water hyacinth *Eichornia crassipes* and other invasive alien aquatic plants (Pan-African)  
 Control of the invasive Indian House Crow on the Eastern Africa coast and its hinterland  
 Mitigation of Impacts of IAS Caused by Trade and Development Aid  
 African Islands Biological Control Programme  
 African Risk Assessment Programme  
 Pilot programme to prevent invasive alien species entering through airports  
 Hull Fouling/*Caulerpa* Prevention Programme  
 Mariculture Monitoring Programme  
 African Ballast Water Programme  
 Raising Awareness and Providing Information to Enable the Effective Management of IAS in Africa  
 Assessment of the Existing Institutional and Human Capacity to Enable the Effective Management of IAS in Africa

**D: Programmatic Area 4: Conservation and Sustainable Use of Marine, Coastal and freshwater resources**

Municipal Solid Waste Management and Enhancement of Environmental Quality in sub-Saharan Africa.  
 Management of Municipal Sewage in sub-Saharan Africa through Appropriate Technologie  
 Control of eutrophication in semi-enclosed area  
 Prevention of Pollution from Shipping Activities and Strengthening of National and Regional Oil Spill Management Systems in sub-Saharan Africa .  
 Development of a conceptual framework for a control of eutrophication of lakes and reservoirs, with particularly attention to non-point source of pollution  
 Mitigation of coastal erosion and restoration of degraded areas in sub-Saharan africa  
 Development of Sound Land-use Practices and Reduction of Suspended Solids in Estuaries and Lagoons in Sub-Saharan Africa  
 Addressing land degradation to mitigate sediment impacts on the aquatic environment  
 Mitigation of coastal erosion caused by oil and gas exploration activities.  
 Mangrove Management in sub-Saharan Africa.  
 Improving the Protection and Stability of Coral Reefs and Associated Communities  
 Conservation of Biodiversity through the Enhancement and or Establishment of Marine Protected Areas in sub-Saharan Africa  
 Assesment and mitigation of the ecological and socio-economic impacts of destructive fishing practices in Sub-Saharan Africa  
 Strengthening management, monitoring, control and surveillance capacity in fisheries management organizations in sub-Saharan Africa  
 Management of invasive species in the aquatic environment  
 Integrated management and conservation of fragile ecosystems such as mangroves  
 Addressing Transboundary problems of freshwater ecosystems biodiversity  
 Promoting the Establishment of RAMSAR Sites and Developing a Participatory and Integrated Approach for River Basin Management in sub-Saharan Africa  
 Supporting the Development and Implementation of Integrated Coastal Area Management (ICAM) in Sub-Saharan Africa

Enhancement and Conservation of Ecosystems Functions for River Basins and Associated Coastal Areas in Africa

Development and Application of River Basin Information System on the Integrated Management of Africa's Transboundary River Basins

Integrated Watershed and Coastal Areas Management of SIDS in Africa

Impacts of dams and related development activities in the river basins.

Reduction of environment Impact from Coastal tourism through introduction of policy changes and strengthening public-private partnership

Promotion of alternative livelihood strategies in sub-Saharan Africa

Mariculture and Aquaculture development in sub-Saharan Africa

Augmenting urban water resources

Groundwater vulnerability

Transboundary aquifer management (Kalahari Aquifer System - Botswana, Namibia, Angola & Zaire ; Great Oriental Erg Aquifer System - Algeria, Tunisia and Nubian Aquifer System - Egypt Libya, Sudan, Chad

Impact of global climate change on key marine and coastal ecosystems in sub-Saharan Africa

Assessment of the Vulnerability of sub-Saharan Coastal Zones to the different Impacts of Climate Change (included sea level rise)

Establishment of adaptation strategies for impacts of climate change on water availability and quality

Addressing land-based activities in the Western Indian (WIO-LaB)

Combating coastal area degradation and living resources depletion in the Guinea Current LME through regional actions

Addressing Transboundary Concerns in the Volta River Basin and its Downstream Coastal areas

Management of the Iullemeden Aquifer System - Mali, Niger, Nigeria

Industrial waste including hazardous waste, toxic chemicals, POP's, including modeling and data collection

Erosion caused by oil and gas exploration activities; (c) Freshwater ecosystem biodiversity

Impact of dams and related development activities in the river basin Aquaculture

Market facilities

Tourism in inland waters

Infrastructures to be addressed at national level

The GOOS-Africa project – Regional operational observing, monitoring and forecasting system in Africa (ROOMFSA) will be included in the portfolio.

## **E: Programmatic Area 5: Combating climate change in Africa**

**Ongoing** agriculture: Impacts on and Adaptation of Agro-ecological systems in Africa (Regional- Burkina Faso, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Niger, Nigeria, Senegal, South Africa, Zambia and Zimbabwe)

National Adaptation Programmes of Action (NAPAs)

Assessments of Impacts and Adaptations to Climate Change (AIACC)

Capacity Building for Observing Systems for Climate Change.

Refinement of early warning systems to enable timely remedial measures:

Dialogue on Water and Climate in the sahel region (see IUCN West Africa office)

Vulnerability and adaptation to climate change in the Sahel: project funded by the Canadian and implemented by the CILSS.

## **Projects proposed**

Integrated Assessment of Vulnerability to Climate Variability and Change and Response Strategies in Africa: (Learning about climate change from local action to national dialogues in Africa ; Climate risk management and Adaptive resource management Carbon management for sustainable livelihood)

Supporting public outreach and education programs on climate change

Strengthening shared river basin management and develop sub-regional water resource strategies: (a) Incorporating climate change adaptation concerns into integrated watershed management plans for three watersheds in the Maghreb (Algeria, Morocco, Tunisia) (b) Assessing the Impacts of and Adaptation to Climate Change on the Watershed of the Gambia River Basin

Building capacity for early warning (early warning, seasonal forecasting and development of tools)

Environmental intervention to climate variability, malaria and poverty in the East African Highlands

Impact of global climate change on Key Marine and Coastal Ecosystems in sub-Saharan Africa: (develop predictions, build capacity and promote outreach)

Assessment of the Vulnerability of sub-Saharan Coastal Zones to the Different Impacts of Climate Change (included sea level rise): (Measure historical sequences, identify vulnerable coastal areas, characterise vulnerability and identify adaptation options)

## **F: Programmatic Area 6: Cross-border Collaboration and Natural Resources management**

### **Forests**

Support to forest programme development

Mapping and inventory (knowledge) of forest ecosystems

Monitoring and assessment

Protected areas

Private sector partnerships

Civil society partnerships

Forest law enforcement and governance

Carbon trading via storage/sequestration (linked to protected areas)

Reafforestation for improved ecosystem services

## **G : CROSS-CUTTING ISSUES**

### **1. Health & Environment**

#### **Existing projects**

Support for the implementation of the Stockholm Convention on POPs

Development of national implementation plans for the management of POPs

Reducing reliance on agricultural pesticides use through integrated production and pest management and establishment of community-based pollution prevention system in Senegal and Niger River Basins

Regionally based assessment of persistent toxic substances

Agrochemical pesticides project

MIRT (Minority international research training) Programme

Chemical Information Exchange (CIEN)  
Preparation of national inventories of PCBs and PCB-containing equipment in the SADC sub-region  
African stockpiles project  
Survey of chlorinated Dioxins, Dibenzofurans and PCBs in the major waters of South Africa  
Atmospheric environmental issues in developing countries  
National chemical profile development  
Action plan development as part of an integrated chemicals management programme  
GHS implementation

## **Projects proposed**

### ***Environmentally Sound Management of Pesticides and Other Toxic Chemicals***

Education and awareness  
Establishment of Poison Centres  
Institutional capacity building for the management of chemicals  
Development of emergency response plans  
Development of African input into the Strategic Approach to International Chemicals Management  
Assessment, development and implementation of health indicators  
Implementation of GHS  
Prevention of illegal traffic in chemicals  
Eliminate stockpiles of obsolete pesticides from Africa

### ***Waste management***

Sewage system / Waste waters  
Solid Waste Management  
Environmentally sound management of hazardous waste  
Develop and implement waste minimisation programmes  
Management of Obsolete Stockpiles (ASP covers pesticides-need Industrial chemicals)

### ***Support infrastructure***

Establishment of environmental information management systems  
Establishment of improved capacity in: laboratory, scientific risk assessment  
Monitoring of environmental contaminants in environmental samples and marketable products

### ***Sustainable Production and Consumption***

Assessment of current status of production facilities  
Capacity to assess alternative cleaner production technologies  
Development of cleaner production capacity  
Research into alternative approaches to use of current hazardous formulations  
Development of strategies for remediation of contaminated sites  
Development of integrated vector management programmes

### ***Networking and information dissemination***

Support for development and enforcement of legislative frameworks  
Dissemination of information on chemicals and pesticides  
Capacity building at all levels for better environment management

Co-ordination amongst countries on cleaner production centres, poison centres and laboratories

***Atmospheric pollution (reduction of particles and harmful gases)***

Reduction of emission from automobiles

Elimination of lead in gasoline

Strengthening of legislation related to vehicle emissions

## **2. Poverty & Environment**

***Programme & project areas***

Promotion of good governance (institutional)

Capacity development for formulating, implementing and monitoring policies and strategies at the regional, national and local levels (technical)

Promotion of community based natural resources management

Prevention, resolution and management of conflicts

Developing and implementing vertically and horizontally integrated sound strategies

Environmental information, education and public awareness

Promoting sustainable agricultural practices through promotion of science and technology

Promote sustainable energy

Improving the policy (macroeconomic and sectoral) environment with the view to attracting foreign investment and facilitate factor (capital and labour) mobility

Cross country harmonisation of policies and strategies

Promote integrated management of natural and human induced calamities and move towards sustainable development

**Projects proposed in the central Africa region (Congo basin Initiative) by all the ministers of the region at the Special Session of AMCEN in Maputo, Mozambique, 9-10 June 2003.**

***Environmental information***

Establishment of a coastal and marine environment observatory, a regional observatory of the forest ecosystem and a network of exchange of information

A programme of data collection and dissemination for the strengthening of the regional environmental information programme ;

Extension of the forest information system;

Development of a bush fire and seismic observatory;

Rehabilitation of hydrometeorological stations and environmental observatory stations.

***Freshwater resources***

Water supply and sanitation (rehabilitation and extension of infrastructures to reduce by half the percentage of the population without access to drinking water and sanitation services by 2015);

Extension of recherche activities on the hydraulic potential and the physico chemical characterisation of water resources of the region;

Oceanographic and fisheries research programme;

Transboundary management of the Oubangui river;

Establishment of early warning stations for flood monitoring;

Alien invasive species programme;

Evaluation of hydrological potentials of the river basins of central africa;  
Erosion control programme;  
Integrated management of wetlands.

### ***Land degradation***

Desertification and land degradation programme;  
Land rehabilitation programmes;  
Sustainable agricultural development programme;  
Bush fires and deforestation programme;  
Subregional cultural and land diversification programme;  
Rehabilitation of agronomical research center.

### ***Marine and coastal management***

Combatting Coastal and marine erosion;  
Combatting oil pollution;  
Protection of fragile ecosystems such as mangrove  
Management of ballast waters;  
Protection of fisheries and marine turtles;  
Management of toxic and hazardous wastes;  
Institutional capacity building for the management of chemicals.

### ***Health and environment***

Harmonisation of hygiene code and development of legislative framework for water management;  
Waste management Plan;  
Drainage and wastewater treatment (domestic, industrial and installations, including hospitals);  
Development of information, education and communication programmes;  
Intensification of combatting water born diseases, malaria, HIV AIDS;  
Intensification of research on reservoir of Ebola virus.

### ***Forest ecosystems***

The convergence plan includes :

Harmonisation of standards on assessment of natural resources;  
Establishment of a data base on management and diffusion of data on natural resources.;  
Identification of priority conservation areas;  
Settlement Plan for indigenous populations;  
Establishment of priority national and transboundary protected areas;  
Carbon sequestration potential of the congo basin;  
Vulnerability/adaptation of ecosystems to climate change;  
Development and implementation of national and transboundary protected areas;  
Establishment of standards for the elaboration, approval, and implementation of management plans (protected areas, forests);  
Implementation of sustainable management plan for natural resources;  
Development of an African forestry certification;  
Combat illegal logging;  
Strengthening local transformation capacity of timber;  
Strengthening intra African trade of timber;

Support sustainable management of forest products including medicinal plants;  
Tree planting operations;  
Encourage agroforestry in fragile ecosystems;  
Promotion of ecotourism;  
Development and implementation of co-management mechanisms of animal and forest biodiversity;  
Poverty reduction of local communities, including pygmies;  
Development of alternative activities in the surrounding of protected areas;  
Definition and implementation of legislative framework in support of effective participation of community in natural resources management;  
Harmonisation of policies, legislations and environmental tariffication;  
Reinforcement of regional cooperation;  
Capacity building;  
Promotion of forestry and biodiversity research programme;  
Coordination, follow-up and evaluation of programmes;  
Harmonisation of national planification initiatives with the convergence plan;  
Development of national and subregional strategies for financing the priority actions.

### ***Trade and environment***

Combatting illegal logging and exploitation of the fauna;  
Border control of GMO likely to alter fragile biodiversity;  
Surveillance of trade, import and licensing for toxic chemicals and wastes.

### ***Social Economy***

Capacity building for better environment management.

**Annex III : Sustainable development for Africa (Chapter 8) of the Plan of Implementation adopted at the World Summit on Sustainable Development held in Johannesburg, 26 – 30 September 2002.**

Since the United Nations Conference on Environment and Development, sustainable development has remained elusive for many African countries. Poverty remains a major challenge and most countries on the continent have not benefited fully from the opportunities of globalization, further exacerbating the continent's marginalization. Africa's efforts to achieve sustainable development have been hindered by conflicts, insufficient investment, limited market access opportunities and supply side constraints, unsustainable debt burdens, historically declining levels of official development assistance and the impact of HIV/AIDS. The World Summit on Sustainable Development should reinvigorate the commitment of the international community to address these special challenges and give effect to a new vision based on concrete actions for the implementation of Agenda 21 in Africa. The New Partnership for Africa's Development (NEPAD) is a commitment by African leaders to the people of Africa. It recognizes that partnerships among African countries themselves and between them and with the international community are key elements of a shared and common vision to eradicate poverty, and furthermore it aims to place their countries, both individually and collectively, on a path of sustained economic growth and sustainable development, while participating actively in the world economy and body politic. It provides a framework for sustainable development on the continent to be shared by all Africa's people. The international community welcomes NEPAD and pledges its support to the implementation of this vision, including through utilization of the benefits of South-South cooperation supported, inter alia, by the Tokyo International Conference on African Development. It also pledges support for other existing development frameworks that are owned and driven nationally by African countries and that embody poverty reduction strategies, including poverty reduction strategy papers. Achieving sustainable development includes actions at all levels to:

Create an enabling environment at the regional, subregional, national and local levels in order to achieve sustained economic growth and sustainable development and support African efforts for peace, stability and security, the resolution and prevention of conflicts, democracy, good governance, respect for human rights and fundamental freedoms, including the right to development and gender equality;

Support the implementation of the vision of NEPAD and other established regional and subregional efforts, including through financing, technical cooperation and institutional cooperation and human and institutional capacity-building at the regional, subregional and national levels, consistent with national policies, programmes and nationally owned and led strategies for poverty reduction and sustainable development, such as, where applicable, poverty reduction strategy papers;

Promote technology development, transfer and diffusion to Africa and further develop technology and knowledge available in African centres of excellence;

Support African countries in developing effective science and technology institutions and research activities capable of developing and adapting to world class technologies;

Support the development of national programmes and strategies to promote education within the context of nationally owned and led strategies for poverty reduction and strengthen

research institutions in education in order to increase the capacity to fully support the achievement of internationally agreed development goals related to education, including those contained in the Millennium Declaration on ensuring that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling and that girls and boys will have equal access to all levels of education relevant to national needs;

Enhance the industrial productivity, diversity and competitiveness of African countries through a combination of financial and technological support for the development of key infrastructure, access to technology, networking of research centres, adding value to export products, skills development and enhancing market access in support of sustainable development;

Enhance the contribution of the industrial sector, in particular mining, minerals and metals, to the sustainable development of Africa by supporting the development of effective and transparent regulatory and management frameworks and value addition, broad-based participation, social and environmental responsibility and increased market access in order to create an attractive and conducive environment for investment;

Provide financial and technical support to strengthen the capacity of African countries to undertake environmental legislative policy and institutional reform for sustainable development and to undertake environmental impact assessments and, as appropriate, to negotiate and implement multilateral environment agreements;

Develop projects, programmes and partnerships with relevant stakeholders and mobilize resources for the effective implementation of the outcome of the African Process for the Protection and Development of the Marine and Coastal Environment;

Deal effectively with energy problems in Africa, including through initiatives to:

Establish and promote programmes, partnerships and initiatives to support Africa's efforts to implement NEPAD objectives on energy, which seek to secure access for at least 35 per cent of the African population within 20 years, especially in rural areas;

Provide support to implement other initiatives on energy, including the promotion of cleaner and more efficient use of natural gas and increased use of renewable energy, and to improve energy efficiency and access to advanced energy technologies, including cleaner fossil fuel technologies, particularly in rural and peri-urban areas;

(k) Assist African countries in mobilizing adequate resources for their adaptation needs relating to the adverse effects of climate change, extreme weather events, sea level rise and climate variability, and assist in developing national climate change strategies and mitigation programmes, and continue to take actions to mitigate the adverse effects on climate change in Africa, consistent with the United Nations Framework Convention on Climate Change;

Support African efforts to develop affordable transport systems and infrastructure that promote sustainable development and connectivity in Africa;

Further to paragraph 42 above, address the poverty affecting mountain communities in Africa;

Provide financial and technical support for afforestation and reforestation in Africa and to build capacity for sustainable forest management, including combating deforestation and measures to improve the policy and legal framework of the forest sector.

Provide financial and technical support for Africa's efforts to implement the Convention to Combat Desertification at the national level and integrate indigenous knowledge systems into land and natural resources management practices, as appropriate, and improve extension services to rural communities and promote better land and watershed management practices, including through improved agricultural practices that address land degradation, in order to develop capacity for the implementation of national programmes.

Mobilize financial and other support to develop and strengthen health systems that aim to:

- Promote equitable access to health-care services;
- Make available necessary drugs and technology in a sustainable and affordable manner to fight and control communicable diseases, including HIV/AIDS, malaria and tuberculosis, and trypanosomiasis, as well as non-communicable diseases, including those caused by poverty;
- Build capacity of medical and paramedical personnel;
- Promote indigenous medical knowledge, as appropriate, including traditional medicine;
- Research and control Ebola disease.

Deal effectively with natural disasters and conflicts, including their humanitarian and environmental impacts, recognizing that conflicts in Africa have hindered, and in many cases obliterated, both the gains and efforts aimed at sustainable development, with the most vulnerable members of society, particularly women and children, being the most impacted victims, through efforts and initiatives, at all levels, to:

Provide financial and technical assistance to strengthen the capacities of African countries, including institutional and human capacity, including at the local level, for effective disaster management, including observation and early warning systems, assessments, prevention, preparedness, response and recovery;

Provide support to African countries to enable them to better deal with the displacement of people as a result of natural disasters and conflicts and put in place rapid response mechanisms;

Support Africa's efforts for the prevention and resolution, management and mitigation of conflicts and its early response to emerging conflict situations to avert tragic humanitarian consequences;

Provide support to refugee host countries in rehabilitating infrastructure and environment, including ecosystems and habitats that were damaged in the process of receiving and settling refugees.

Promote integrated water resources development and optimize the upstream and downstream benefits there from, the development and effective management of water resources across all uses and the protection of water quality and aquatic ecosystems, including through initiatives at all levels, to:

Provide access to potable domestic water, hygiene education and improved sanitation and waste management at the household level through initiatives to encourage public and private investment in water supply and sanitation that give priority to the needs of the poor within stable and transparent national regulatory frameworks provided by Governments, while respecting local conditions involving all concerned stakeholders and monitoring the performance and improving the accountability of public institutions and private companies; and develop critical water supply, reticulation and treatment infrastructure, and build capacity to maintain and manage systems to deliver water and sanitation services in both rural and urban areas;

Develop and implement integrated river basin and watershed management strategies and plans for all major water bodies, consistent with paragraph 25 above;

Strengthen regional, subregional and national capacities for data collection and processing and for planning, research, monitoring, assessment and enforcement, as well as arrangements for water resource management;

Protect water resources, including groundwater and wetland ecosystems, against pollution, and, in cases of the most acute water scarcity, support efforts for developing non-conventional water resources, including the energy-efficient, cost-effective and sustainable desalination of seawater, rainwater harvesting and recycling of water.

Achieve significantly improved sustainable agricultural productivity and food security in furtherance of the agreed Millennium development goals, including those contained in the Millennium Declaration, in particular to halve by 2015 the proportion of people who suffer from hunger, including through initiatives at all levels to:

Support the development and implementation of national policies and programmes, including research programmes and development plans of African countries to regenerate their agricultural sector and sustainably develop their fisheries, and increase investment in infrastructure, technology and extension services, according to country needs. African countries should be in the process of developing and implementing food security strategies, within the context of national poverty eradication programmes, by 2005;

Promote and support efforts and initiatives to secure equitable access to land tenure and clarify resource rights and responsibilities, through land and tenure reform processes that respect the rule of law and are enshrined in national law, and provide access to credit for all, especially women, and that enable economic and social empowerment and poverty eradication as well as efficient and ecologically sound utilization of land and that enable women producers to become decision makers and owners in the sector, including the right to inherit land;

Improve market access for goods, including goods originating from African countries, in particular least developed countries, within the framework of the Doha Ministerial Declaration, without prejudging the outcome of the World Trade Organization negotiations, as well as within the framework of preferential agreements;

Provide support for African countries to improve regional trade and economic integration between African countries. Attract and increase investment in regional market infrastructure;

Support livestock development programmes aimed at progressive and effective control of animal diseases.

Achieve sound management of chemicals, with particular focus on hazardous chemicals and wastes, inter alia, through initiatives to assist African countries in elaborating national chemical profiles and regional and national frameworks and strategies for chemical management and establishing chemical focal points.

Bridge the digital divide and create digital opportunity in terms of access infrastructure and technology transfer and application through integrated initiatives for Africa. Create an enabling environment to attract investment, accelerate existing and new programmes and projects to connect essential institutions and stimulate the adoption of information communication technologies in government and commerce programmes and other aspects of national economic and social life.

Support Africa's efforts to attain sustainable tourism that contributes to social, economic and infrastructure development through the following measures:

Implementing projects at the local, national and subregional levels, with specific emphasis on marketing African tourism products, such as adventure tourism, ecotourism and cultural tourism;

Establishing and supporting national and cross-border conservation areas to promote ecosystem conservation according to the ecosystem approach, and to promote sustainable tourism;

Respecting local traditions and cultures and promoting the use of indigenous knowledge in natural resource management and ecotourism;

Assisting host communities in managing their tourism projects for maximum benefit, while limiting negative impact on their traditions, culture and environment;

Support the conservation of Africa's biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, in accordance with commitments that countries have under biodiversity-related agreements to which they are parties, including such agreements as the Convention on Biological Diversity and the Convention on International Trade in Endangered Species of Wild Fauna and Flora, as well as regional biodiversity agreements.

Support African countries in their efforts to implement the Habitat Agenda and the Istanbul Declaration through initiatives to strengthen national and local institutional capacities in the areas of sustainable urbanization and human settlements, provide support for adequate shelter and basic services and the development of efficient and effective governance systems in cities and other human settlements and strengthen, inter alia, the joint programme on managing water for African cities of the United Nations Human Settlements Programme and the United Nations Environment Programme.

**Annex IV: Decision adopted on 10 June 2003 by the Second special session of the African Ministerial Conference on the Environment on the Action Plan of the Environment Initiative of NEPAD**

We, the Ministers of the African Ministerial Conference on the Environment,

Recalling the Kampala Declaration on the Environment for Development adopted at the ninth meeting of the African Ministerial Conference on the Environment held in Kampala from 1 to 5 July 2002,

Recalling also the Plan of Implementation adopted by the World Summit on Sustainable Development,<sup>i</sup> held in Johannesburg, from 26 August to 4 September 2002 and its chapter 8 on sustainable development for Africa,

Recalling also the United Nations Declaration on the New Partnership for Africa's Development<sup>ii</sup> adopted on 16 September 2002 by the General Assembly, at a high-level plenary meeting,

Recalling the United Nations Millennium Declaration<sup>iii</sup> adopted by the United Nations General Assembly in September 2000,

Recalling also the relevant decision on the New Partnership for Africa's Development adopted by the group of eight major industrialized countries at their meeting held in Kananskis, Canada from 25 to 27 June 2002,

Recalling also the results of the Conference on the role of the private sector in financing the New Partnership for Africa's Development held in Dakar in April 2003,

Expressing its appreciation to the United Nations Environment Programme and the Global Environment Facility for their support in the development of the action plan of the Environment Initiative of the New Partnership for Africa's Development,

Concerned that Africa is the only continent in which poverty is expected to rise during the twenty-first century,

Concerned also about the increasing environmental threat facing the African continent as a result of global environmental changes with adverse effects,

Decide to:

1. Note with appreciation the results of the fourth meeting of the Steering Committee of the United Nations Environment Programme/Global Environment Facility medium-sized project on the environment initiative of the New Partnership for Africa's Development, held at ministerial level in Maputo, Mozambique from 23 to 24 April 2003;
2. Note the reports of the eight thematic workshops and the civil society consultation on the finalization of the action plan of the environment initiative of the New Partnership for Africa's Development;

3. Endorse the action plan of the environment initiative of the New Partnership for Africa's Development;
4. Reaffirm that the African Process for the Development and Protection of the Coastal and Marine Environment is an integral part of the action plan of the environment initiative of the New Partnership for Africa's Development and its recommendation and projects should be entrusted to African institutions under the overall coordination of the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention) and Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention);
5. Invite the President of the African Ministerial Conference on the Environment and the host of the special session to submit the action plan of the environment initiative of the New Partnership for Africa's Development, through the President of Senegal, to the Summit of the African Heads of State to be held in Maputo, in July 2003 and encourage the members of the Steering Committee to attend the meeting;
6. Invite the President of the African Ministerial Conference on the Environment and the host of the special session to submit the action plan of the environment initiative of the New Partnership for Africa's Development, through the President of Senegal, to the next meeting of the Heads of State Implementation Committee of the New Partnership for Africa's Development;
7. Invite the President of the African Ministerial Conference on the Environment and the host of the special session to submit the action plan of the environment initiative of the New Partnership for Africa's Development, through the President of Senegal, to the Secretary-General of the United Nations;
8. Invite bilateral and multilateral donors to actively participate in the donors meeting on the action plan of the environment initiative of the New Partnership for Africa's Development to be held in Algiers, in December 2003;
9. Invite the Global Environment Facility in partnership with the African Development Bank, the United Nations Environment Programme, the secretariat of the African Ministerial Conference on the Environment and the New Partnership for Africa's Development to play a leading role in mobilizing additional financial resources for the implementation of the action plan of the environment initiative of the New Partnership for Africa's Development and its associated projects, with special emphasis on the implementation of its annex on capacity-building;
10. Welcome the offer by Egypt to host in October 2003, at ministerial level, the fifth meeting of the Steering Committee, on capacity-building for the implementation of the action plan of the environment initiative of the New Partnership for Africa's Development;
11. Keep under review the implementation of the action plan of the environment initiative of the New Partnership for Africa's Development at the regular meeting of the African Ministerial Conference on the Environment and mandate the Steering Committee to continue playing a leading role in overseeing the implementation of the action plan and its annex on capacity-building in particular;

12. Invite the President of the African Ministerial Conference on the Environment and the host of the special session to submit through the Steering Committee a detailed report on the implementation of the action plan of the environment initiative of the New Partnership for Africa's Development at the next meeting of the African Ministerial Conference on the Environment to be held in 2004;
13. Express its appreciation to the Governments of Algeria, Cameroon, Kenya, Mali, Morocco, Nigeria, Senegal and South Africa for hosting and supporting the convening of the eight thematic workshops for the finalization of the action plan of the environment initiative of the New Partnership for Africa's Development;
14. Further express its appreciation to the Government of Mozambique for hosting the fourth meeting of the Steering Committee and in particular Mr. John Kachamila, Minister for the Coordination of Environmental Affairs of Mozambique for his leadership in the finalization of the action plan of the environment initiative of the New Partnership for Africa's Development.

## **Annex V: Major Events related to the Implementation of the UNEP/GEF MSP on the New Partnership for Africa's Development**

Adoption of the UNEP/GEF MSP on the Environment Component of the New Partnership for Africa's Development (NEPAD) 26 July 2001, Lusaka, Zambia

Launch of NEPAD at the inaugural meeting of the Implementation Committee of Heads of State and Government, 23 October 2001, Abuja, Nigeria

First Steering Committee Meeting of the Project 17 January 2002, Pretoria, South Africa

Second Steering Committee Meeting, 11-12 March 2002, Algiers, Algeria

Third Steering Committee Meeting at the level of experts 12-13 June 2002, Dakar, Senegal

Third Steering Committee Meeting at the level of Ministers, 14 June 2002, Dakar, Senegal

Meeting with the President of the Republic of Senegal, H.E.M. Maitre Abdoulaye Wade and the members of the Steering Committee, 14 June 2002

Ninth Meeting of AMCEN endorsed the Framework of an Action Plan for the Environment Initiative of the New Partnership for Africa's Development 1-5 July 2002, Kampala Uganda

Framework presented to the Implementation Committee of NEPAD at the margins of the First meeting of the Assembly of the African Union 8 July 2002, Durban, South Africa

Presentation on the finalisation of the Action Plan made at the Steering Committee of NEPAD 2-4 August 2002, Addis Ababa, Ethiopia

Inter agency meeting with WWF, IUCN, UNEP and the World Bank on the finalisation of the Action Plan, 5 August 2003, Geneva, Switzerland

Workshop on the Environment Component of NEPAD convened at the margins of the World Summit on Sustainable Development with the participation of the President of Senegal and President of Mauritania 3 September 2002, Johannesburg South Africa

Workshop on the environment component of NEPAD held at the margins of the Second GEF Assembly 17 October 2002, Beijing, China

Presentation on the finalisation of the Action Plan made at the High Level Committee on Programme of the Chief Executive Board 23-24 September 2002 Vienna, Austria

Climate change component of the draft action plan on the environment initiative of NEPAD discussed at the African meeting preparatory to the 8<sup>th</sup> meeting of the COP of UNFCCC. 3-4 October 2002, Nairobi, Kenya

Presentation on the implementation of the second phase of the MSP made at the 4<sup>th</sup> annual regional consultation of the United Nations agencies 24-26 October 2002, Addis Ababa, Ethiopia

Consultative meeting on the preparation of projects to combat Desertification in the context of NEPAD, Ouagadougou, Burkina Faso, 16 – 18 September 2002

Co-ordination meeting held with the representatives of IUCN 6<sup>th</sup> November 2002, Nairobi, Kenya

Presentation of the MSP made at the meeting of the Chief Executive Board chaired by the Secretary General of the United Nations 8-9 November 2002, New York, USA

Discussion on the Biosafety component of the draft action plan at the African meeting on risk assessment and public 12-15 November 2002, Windhoek, Namibia

Desertification issues discussed with the African representatives attending the First Meeting of the Committee on Review of Implementation of the Convention on Desertification 16 November 2002, Valencia, Rome

African representatives discussed the wetlands issues at the margins of the COP 8 of RAMSAR. 17 November 2002, Valencia, Rome

Meeting with the African ambassadors accredited to UNEP discussed the finalisation on the Action Plan 28 November 2002, Nairobi, Kenya

Health related issues of the environment component of NEPAD discussed with the African negotiators attending the Sixth meeting of the COP of the Basel Convention. 8 December 2002, Geneva, Switzerland

Desertification, 19 – 20 January 2003, Algiers, Algeria

Poverty and Environment, 23-24 January 2003, Bamako, Mali

Invasive Species, 23-24 January 2003, Pretoria, South Africa

NGO Consultation, 1 February 2003, Nairobi, Kenya

Discussion on the environmental component of NEPAD at the UNEP Global Ministerial Environmental Forum with the participation of 1000 delegates under the chairmanship of the President of Republic of Senegal, H.E.M. Maitre Abdoulaye Wade and the Vice President of the Republic of Kenya, H. E. Mr. Kijana Wamalwa, 5 February 2003, Nairobi, Kenya.

Wetlands, 10-11 February, 2003, Nairobi, Kenya

Forest, 13-14 February 2003, Yaounde, Cameroon

Health and Environment, 17-18 February 2003, Dakar, Senegal

Marine and Coastal, 23-24 February 2003, Abuja, Nigeria

Climate Change, 26-27 February 2003, Rabat, Morocco

Fourth Steering Committee meeting for the presentation of the Action Plan of the Environment Initiative of NEPAD, 23 – 25 April 2003, Maputo, Mozambique

Special Session of AMCEN 9 – 10 June 2003, Maputo, Mozambique

Heads of States Meeting of the African Union, July 2003, Maputo, Mozambique

Fifth Steering Committee meeting of the UNEP/GEF MSP on the environmental component of NEPAD, Egypt, October 2003

Donors meeting on the environment component of NEPAD, December 2003, Algiers, Algeria

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- i Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002 (United Nations publications, Sales N. E.03.II.A.1), chap. 1 resolution 2, annex.
  - ii General Assembly resolution 57/2 of 16 September 2002.
  - iii General Assembly resolution 55/2 of 8 September 2000.

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