



Republic of Angola

MINISTRY OF URBAN AFFAIRS AND ENVIRONMENT

Project 00011125 – National Biodiversity Strategy and Action Plan (NBSAP)

***National Biodiversity Strategy and Action Plan
(NBSAP)***

Luanda – Angola



Republic of Angola

MINISTRY OF URBAN AFFAIRS AND ENVIRONMENT

Project 00011125 – National Biodiversity Strategy and Action Plan (NBSAP)

National Biodiversity Strategy and Action Plan
(2007-2012)

Preface

This *National Biodiversity Strategy and Action Plan* is an important instrument to guarantee the conservation of biodiversity in Angola, as well as equitable sharing of the benefits of its use. This document is also a contribution to the implementation of the three objectives of the Convention on Biological Diversity.

The document published here presents actions that will make it possible, in the long run, to incorporate adequate measures into development policies and programmes to prevent the degradation of ecosystems and loss of biodiversity. These actions will be implemented in an integrated form with the Government with the support of the civil society, private sector and other national and international partners.

The approval of this Strategy and its Action Plan also demonstrates the political will of the Government of Angola to fulfil the provisions of the Convention on Biological Diversity. The importance of this document is evident in its broad-based proposed actions and the multi-disciplinary nature of the strategic areas it addresses.

Due to its contribution to the achievement of sustainable development in Angola, the implementation of the Action Plan of this Strategy is a priority of the Ministry of Urban Affairs and Environment, which in a phased manner and in partnership with other bodies and institutions, will ensure that its objectives are transformed into practical activities.

Notwithstanding the fact that this Strategy and Action Plan present the detailed actions, duly prioritised, scheduled and with clear expected outputs, its implementation will be a great challenge to Angola. In view of this and presuming that a lot still has to be done to guarantee the conservation and sustainable use of biodiversity, priorities are defined. In order to facilitate the Strategy implementation process, these priorities are grouped into eight strategic areas, each with its own specific goals.

It is our desire that these priority areas complement one another in the achievement of the global Strategy goal. To this end, disseminating the strategy is one of the first actions that the Ministry of Urban Affairs and Environment presents.

Other actions at their implementation stage by the Ministry of Urban Affairs and Environment, which are related to the activities proposed by the Action Plan include, among others, a giant sable antelope protection project, general study of the situation of protected areas and the environment, implementation of multilateral environmental agreements, preparation of sectoral strategies for wetlands and solid waste, as well as the preparation of a National Environmental Education Programme.

Diekumpuna Sita José
Minister of Urban Affairs and Environment

Introduction

The *National Biodiversity Strategy and Action Plan* is the culmination of a process of research, listening and public consultation carried out during almost two years of work countrywide. This document is also the beginning of a new phase for the conservation and sustainable use of biodiversity in Angola, which is underpinned by the current context and biodiversity conservation needs.

For many months, national and international consultants worked in search of information on the current status of biodiversity in Angola, referring to work done during the colonial era as well as the results obtained in the most recent researches conducted on terrestrial, marine and coastal biodiversity.

As a result of this research, six thematic studies were produced on aspects related to terrestrial, marine and coastal biodiversity, institutional framework and policies; social-economic and demographic standards; inventory of projects and programmes on biodiversity in Angola; and analysis of practices of use of biodiversity based on the traditional knowledge of local communities in Angola.

Based on these thematic studies, important conclusions were presented, covering various aspects of biodiversity in Angola and action recommendations were made for their conservation. Various recommendations were submitted at various national and regional workshops as part of a long public consultation process that involved more than 650 people from all Provinces of the country. Representatives of government institutions, traditional authorities, private sector, the civil society, higher education, research institutions, local communities and the press participated in the public consultation process.

The *National Biodiversity Strategy and Action Plan* was produced employing a participatory process that also includes the identification of options and definition of biodiversity conservation priorities. These priorities are evident in the eight strategic areas that compose this document and are planned in such a way as to ensure the achievement of the general Strategy objective within the set timeframe.

Soki Kuedikuenda
NBSAP Project Coordinator

Vladimir Russo
NBSAP Project Manager

Acknowledgements

The management team of the National Biodiversity Strategy and Action Plan (NBSAP) project would like to express its gratitude to all the people and institutions that during the 21 months duration of this project gave their contribution towards the preparation of the Strategy and Action Plan and the different reports on biodiversity in Angola. A list of partner institutions and its way of contribution is presented below.

The process of preparation of the *National Biodiversity Strategy and Action Plan* was only made possible due to the support of the Government of Angola through the active participation of various leaders of government institutions responsible for the sectors of agriculture and rural development, environment, energy and water, geology and mines, fisheries and petroleum.

Other institutions such as the Faculty of Science of Universidade Agostinho Neto and the Maiombe Environmental Network directly supported the implementation of the NBSAP project.

The NBSAP Project implementation process was duly funded by the United Nations Development Programme (UNDP) and the Global Environment Facility (GEF) with the support of the Norwegian Agency for International Development (NORAD).

The support of various Provincial governments, the private sector and donor institutions guaranteed the conduct of various regional workshops and enabled the active and full participation of various institutions responsible for biodiversity management.

The different consultants involved in different project activities, particularly the consultants responsible for preparing the thematic studies, put their knowledge and dedication to work in search of information that became important to the process of preparing this Strategy.

The publication of the thematic studies on biodiversity was made possible with the generous support of the Angolan Oil Industry Committee on Environment, Health and Safety.

The NBSAP Project team would also like to thank all participants at the various national and regional workshops, who directly or indirectly provided information and contributions that made this Strategy contextually relevant.

We would like to express our gratitude beforehand to all individual and corporate bodies that will facilitate the practical implementation of this Strategy and the activities contained in the Action Plan.

COUNCIL OF MINISTERS

Resolution N°. 42/06

of 26 July

Angola has specific biodiversity wealth, making it one of the most important countries on the African continent, particularly as regards the variety of ecosystems, the endemic level of species and flora diversity.

Considering that upon ratification of the Convention on Biodiversity by Angola in April 1998, the country reaffirmed its commitment, before the International Community, to the conservation of its biological diversity for present and future generations;

Considering that biodiversity is indispensable to the sustenance of all Angolans and the sustainable use of biological resources plays a vital role in the social-economic development of the country and poverty actions;

The need having arisen to approve sectoral strategies to guarantee the conservation and sustainable use of biological diversity components that enable the fair and equitable sharing of the benefits of the use of biological resources;

In view of the above and under the terms of the joint provisions of article 13 of Law nr. 5/98 of 19 June and paragraph *f*) of article 112, article 113 and paragraph *g*) of nr. 2 of article 114, all the Constitution, the government issues the following resolution:

1 - Approves the National Biodiversity Strategy and Action Plan, attached to this resolution and is an integral part hereto.

2 - The Ministry of Urban Affairs and Environment shall submit an annual report on the implementation of the actions contained in the Action Plan to the Permanent Commission of the Council of Ministers on an annual basis.

3 - Considering the broad and multisectoral nature of the National Biodiversity Strategy and Action Plan to each organ, they shall incorporate the planned actions, in accordance with the defined priorities, into their programmes and projects for due budgeting.

4 - This resolution shall enter into force pursuant to its publication.

Seen and approved by the Council of Ministers, on this 31st day of May 2006.

Fernando da Piedade Dias dos Santos, Prime Minister.

CONTENTS

1. INTRODUCTION.....	1
1.1. Background: Convention on Biological Diversity	1
1.2. Strategy Preparation Process.....	1
1.3. Justification of the Biodiversity Strategy and Plan of Action.....	2
1.4. Objectives of Strategy and Plan of Action.....	3
2. BRIEF BIOPHYSICAL AND SOCIO-ECONOMIC OVERVIEW.....	5
2.1. Biophysical Aspects	5
2.2. Socio-Economic Aspects	7
3. LEGAL AND INSTITUTIONAL FRAMEWORK.....	9
3.1. Legal Framework	9
3.2. Institutional Framework.....	10
4. OPPORTUNITIES AND CHALLENGES.....	12
5. STRATEGY AND ACTION PLAN.....	15
5.1. Background	15
5.2. The Strategy.....	17
5.3. Strategic Areas.....	19
Strategic Area A: Research and Information Dissemination	19
Strategic Area B: Education for Sustainable Development	20
Strategic Area C: Biodiversity Management in Protected Areas	21
Strategic Area D: Sustainable Use of Biodiversity Components.....	21
Strategic Area E: The Role of Communities in Biodiversity Management	23
Strategic Area F: Institutional Strengthening.....	24
Strategic Area G: Legislation and Implementation.....	24
Strategic Area H: Management, Coordination and Monitoring	25
5.4. Action Plan	26
Annex 1 – Protected Areas in Angola.....	51
Annex 2 – Legislation to Support Environmental Protection in Angola	52
Annex 3 – Multilateral Environmental Agreements.....	54

1. INTRODUCTION

1.1. Background: Convention on Biological Diversity

The formulation of this Convention commenced in November 1998, when the United Nations Environment Programme (UNEP) convened a series of meetings with specialists to prepare it. Between June 1990 and May 1992, the specialists incorporated aspects related to biotechnology transfer; *in situ* and *ex situ* conservation of wild and domesticated species; access to genetic and biotechnological resources; biosafety and legal instruments for the conservation and sustainable use of biological diversity into the Convention text.

The final Convention text was adopted in Nairobi, Kenya, on 22 May 1992, a few days before the UN Conference on Environment and Development (UNCED), which took place in Rio de Janeiro, Brazil, in June 1992, where it was signed. The Convention finally entered into force on 29 December 1993.

After the UNCED, most countries signed and ratified the Convention on Biological Diversity (CBD), including the government of Angola that signed and ratified the Convention on 4 July 1997 and became a member of the Conference of the Parties on 1 April 1998. Since then, Angola has been participating at various Convention activities, particularly the Conferences of Parties to the Convention on Biological Diversity, in order to better understand this Convention and maximising the participation of Angola in Convention activities and ensuring that the conservation and sustainable use of biodiversity in Angola is carried out effectively.

The Convention has three obligations at the national level: (i) biological diversity conservation; (ii) the sustainable use of biological diversity; and (iii) the fair and equitable sharing of the benefits of biological diversity.

Convention on Biological Diversity (Article 1)

The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of 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, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

In order to materialise this article, member states of the Conference of the Parties must meet some set targets. Some of these targets include the preparation of programmes, strategies and reports for the conservation of biodiversity. With the preparation of this Strategy and the respective Action Plan, Angola hereby fulfils most of its CBD obligations.

In the fulfilment of its Convention on Biological Diversity obligations, Angola has also concluded the preparation of the First National Report on Biodiversity for Conference of the Parties to the CBD, which, in a very detailed and exemplifying manner, outlines the current status of biodiversity in Angola. The progress made by Angola on the principal articles of the Convention as well as recommendations for conservation priority actions and the sustainable use of biodiversity in Angola, are also presented in this report.

1.2. Strategy Preparation Process

The process of preparation of this document commenced with the preparation of a project for the preparation of the National Biological Diversity Strategy and Action Plan (NBSAP). The Ministry of Urban Affairs and Environment, through its National Directorate of Natural Resources, was saddled with the task of implementing the NBSAP Project. The process was

funded by the United Nations Development Programme (UNDP), Global Environment Fund (GEF) and Norwegian Agency for Development (NORAD).

Prior to the preparation of the Strategy, studies were developed presenting an overview of the state of biodiversity in Angola in accordance with the six thematic areas. These include:

- Study of terrestrial biodiversity, including domesticated plants and animals, analysis and classification of human pressures on the biodiversity in Angola;
- Analysis of marine and coastal biodiversity and identification of human pressure on marine and coastal ecosystems;
- Study of the legislative, institutional and policies framework, including specialised human resources responsible for the management of biodiversity;
- Study of the relationship between socio-economic and demographic standards and pressure on biodiversity;
- Inventory of projects, programmes, databases and other sources of information on biodiversity in Angola;
- Analysis of practices of the utilisation of biodiversity based on traditional knowledge of local communities in Angola.

After the preparation of the thematic studies, their content, conclusions and recommendations were presented, debated and improved in a public consultation process that involved the conduct of various national and regional workshops. People representing government institutions, traditional authorities, the private sector, civil society, higher education, local communities and the press participated at each workshop. More than 650 people were involved in this public consultation and hearing process.

These documents, recommendations from the various workshops and other contributions were edited and compiled in a single document: *National Biodiversity Strategy and Action Plan*.

During the investigation process, information subsidies were also collected for the preparation of the First and Third National Reports for the Conference of the Parties. These reports present more detailed information on the state of biodiversity in Angola, its major pressures and best ways to conserve it.

A National Project Steering Committee (NPSC) was set up to ensure the proper running of the Project. The main objective of this Committee was to advise the Project Team during the processes of developing the National Biodiversity Strategy and Action Plan, including guidance on policies on the sustainable management of natural resources and guidance on the best methods for the achievement of the objectives of the NBSAP. The Committee is composed of representatives of government institutions, the civil society and agencies that executed and funded this Project.

1.3. Justification of the Biodiversity Strategy and Plan of Action

Biological resources are the basis for engagement in agricultural, economic and tourist activities. Furthermore, in Angola, these resources are also the basis for the sustenance of all Angolans, as these resources are important sources of food, construction material, traditional medicine, enhancement of agriculture and consequently the well-being of the populations.

The sustainable use of biological resources based on the pre-conditions spelt out in this Strategy will guarantee that the benefits of biological resources are also passed on to future generations. This Strategy presents actions targeted at the conservation of the biological wealth, tourist and scientific potential of Angola. This Strategy recognizes biodiversity as

being indispensable to the guarantee of the cultural integrity and livelihood of present and future generations. Its actions play a fundamental role in the development of the country and poverty eradication actions.

From the legal point of view, the Strategy is based on the Constitution of the Republic of Angola that contains a series of articles that promote environmental protection and reflect the need to elaborate measures and strategies for the protection of natural resources in Angola. It enshrines the right of all citizens to live in a healthy and unpolluted environment.

Constitution

Article 12/2

The State promotes the protection and conservation of natural resources, overseeing its exploration and use in benefit of the entire community.

Article 24/2

The State adopts measures necessary for the protection of the environment and national flora and fauna species in all the national territory and the maintenance of ecological balance.

This Strategy also comes as a response to paragraph a) of Article 112 of the Constitution that stipulates that the government shall, during the exercise of its administrative duties, “elaborate and promote the execution of the economic and social development plan of the country”, which includes environmental protection programmes and plans. The biodiversity conservation Strategy is a document that aims, practically and realistically, to help the economic and social development plans of the country.

In programmes targeted at sustainable development and environmental protection, such as provided for in Article 3 of the Environment Framework Law, the government shall ensure the implementation of strategies and measures aimed at guaranteeing citizens the “right to live in a healthy environment and the benefits of the rational utilisation of the natural resources of the country”.

Environment Framework Law (Article 13/2)

The government shall ensure that adequate measures are taken with a view to:

- a) Protecting special of endangered plant species or isolated or group botanical specimen, which, due to their genetic potential, size, age, rarity, scientific and cultural value, so require;
- b) Maintenance and regeneration of animal species, recovery of damaged habitats, specially controlling the activities or use of substances capable of harming fauna species and their habitats.

The National Biodiversity Strategy and Action Plan is in consonance with the environmental and social actions laid out in the Government Programme for the 2005/2006 Biennium, particularly with actions related to agriculture, fisheries and environment. This Strategy is also guided by the activities stipulated in the Poverty Strategy, particularly in the priority intervention area of Food Security and Rural Development.

In order for the Strategy to be feasible, it is important for there to be an integrated coordination and management of the activities contained in the Action Plan, through the creation of a unit in charge of managing and coordinating these activities.

1.4. Objectives of Strategy and Plan of Action

Article 6 of the Convention of Biological Diversity obliges all parties to develop national strategies, plans and programmes for the conservation sustainable use of biological diversity.

The first objective of this National Biodiversity Strategy and Action Plan is therefore to meet this Convention requirement.

The number of activities and decisions to be taken at all levels to conserve biological diversity in Angola is immense. As a result of this, the second objective of this National Biodiversity Strategy and Action Plan is to identify priority actions for which there is a necessary coordination of efforts in the next few years. Although the vision of this Strategy is for ten to fifteen years, the Action Plan elaborated includes short-term (up until 3 years) and medium-term (between 3 and 6 years) actions. This is aimed at helping to redefine priorities and maximise opportunities according to the level of implementation of the Strategy activities.

The Overall objective of the National Biodiversity Strategy and Action Plan is

To incorporate measures for the conservation and sustainable use of biological diversity and fair and equitable sharing of biological resources into development policies and programmes for the benefit of all Angolans.

This document also, with the activities contained in it, aims at contributing to the achievement of the multi-sector environmental programmes objectives of the government of Angola, with emphasis on the Poverty Strategy and Government Programme for the 2005/2006 Biennium.

It is intended that with the implementation of the activities contained in this Strategy, it becomes possible to fulfil recommendations of regional and international documents, namely the New Partnership for Africa's Development (NEPAD), the SADC Regional Biodiversity Strategy, the Millennium Development Goals and the World Summit on Sustainable Development.

The recommendations of the Conference of the Parties to the Convention on Biological Diversity will be taken into account in the Strategy Implementation process and will be included in a harmonised manner in the strategy areas of the Action Plan.

2. BRIEF BIOPHYSICAL AND SOCIO-ECONOMIC OVERVIEW

2.1. Biophysical Aspects

The *palanca preta gigante* (black giant sable antelope) and the *Welwitschia mirabilis* have, for a long time, been emblems of Angolan identity known the world over. They are only two examples of the very rich biological diversity in the Republic of Angola and of how living beings can be symbols of a nation.

Angola has unique biological diversity wealth. Scientists believe that Angolan biodiversity is one of the most important on the African continent. Of the estimated over 5.000 plant species that are believed to exist in the country (without mentioning the vast flora wealth of Cabinda Province), 1.260 are endemic – making Angola the second richest country in Africa in endemic plants.

The diversity of mammals is also one of the richest on the continent, with 275 recorded species. Bird resources are diversified. Angola has 872 catalogued species. About 92% of the avifauna of southern Africa occurs in Angola.

The exceptional biodiversity in Angola is due to the combination of a number of factors: the vast size of the country, its inter-tropical geographical location, the altitude variation and the biomes type. The climate diversity, coupled with equal geographical and soil variability contributed to the formation of bio-climatic zones that include from the dense tropical forest to the lack of vegetation in the desert. These different habitats are favourable for a high level biological diversity.

Habitats such as the Maiombe forest are a depositary of an enormous and rich variety of animal and plant species and are a patrimony of international value, which contributes to the smuggling of these species abroad. In these forests, there are also chimpanzees, gorillas and a wide range of mammals. There is a consensus that special protection measures should be taken to protect the region and its biodiversity. Uncontrolled bush-burning, poaching and anarchical logging have contributed negatively to the conservation of this and other important ecosystems in Angola.

Preliminary studies indicate that about 120 plant species are listed on the endangered plants. Many of them occur in protected areas. Trees such as the *Avicenia* and *Combretum* that are important in the vegetation that protects the Angolan coast are also listed as highly endangered species.

Animal species such as the cheetah, brown hyenas, African wild dog, black rhinoceros, mountain and plain zebras, giraffe and oryx are given as extinct and/or very vulnerable in parts of the Angolan territory, where they hitherto were abundant. Various other species are also facing extinction due to pressure from anthropogenic activities. Just to give a faint idea of the precarious conditions in which the mammals are, 50 of the 275 species that occur in Angola are listed as facing conservation risk of diverse levels.

Another threat to biological diversity is illegal trade in animals that are smuggled outside the country. There are unconfirmed signs that some birds are being informally exported in quantities that are capable of endangering the survival of some species in Angola. Approximately 34 Angolan birds are enlisted as being endangered.

Generally, there is little updated information on terrestrial biodiversity and its state of conservation in Angola. There is urgent need to take periodic inventories in order to verify the current status of and change trends. Other areas where information is almost non-existent

are those of insects, reptiles and amphibians. However, the need to make an inventory of biodiversity is common to all taxonomic groups and all the geographical regions of Angola.

The Protected areas created during the colonial era for the conservation of habitats and specific species are today in jeopardy, without adequate administration or fiscalisation and with degraded infrastructure, thus exposing majority of the protected species to extinction.

About 6.6 percent of the national territory is earmarked for conservation (parks, reserves and game preserves) and incorporate areas of the majority of the different biomes, except for the Tropical Forest. Annex 1 is a table containing the various areas of environmental protection. This area is a little more than half of the protected areas existing in Africa (about 10 percent of national territories).

Angola currently needs real and efficient management of already established protected areas, as well as integrated biodiversity management plans. The situation of the Kissama, Cangandala, Iona, Bikuar and Cameia National Parks is one of almost total abandon, without equipment or staff. Part of these areas are today occupied in a disorganised manner by people that practice hunting and bush-burning at levels that had already lead to the disappearance of big and small mammals. In some cases, the number of people living or farming in the protected areas is very high.

The Nature Reserves and Regional Parks are in an identical state of degradation, without support infrastructure and the presence of regular inspection. As a result of this situation, Angola is losing – and often irreversibly so - part of its biological heritage, letting an opportunity for its sustainable and equitable development slip by.

Besides the terrestrial ecosystems already mentioned, Angola also has an enormous biodiversity in terms of aquatic ecosystems (inland, marine and coastal waters). Angola is one of the most important centres of marine biodiversity and one of the most productive areas in fish resources in the world. The coastline, with a stretch of 1.650 kilometres is of great importance to ecological processes and the fauna and flora that inhabit it.

At least 26 perennial rivers flow into the Angolan coast and many others flow towards the north, east and southeast. Part of these rivers overflows vast water basins, contributing to the occurrence of extensive streams and associated wetlands.

Wide estuaries such as those of the Congo, Dande, Cuanza and Cunene rivers are the basis for the intrinsic network of species and support important food chains that are essential to the livelihood of the population, including those of neighbouring countries. Mangroves occur along the Angolan coastline and constitute transition ecosystems of important biological and ecological importance, providing harbour and nurseries for crustaceans and fish of economic and tourist importance to the country.

There are protected species along the Angolan coast such as sea turtles that nidificate on quiet shores. There is a decline in the numbers of these sea reptiles. One of the probable causes is the upsetting of the shoreline, direct hunting, attack of the nests and exploration of inerts. Sea birds such as the cape penguin are endangered and need special conservation measures.

Half-a-score sea mammal species such as whales and dolphins live in vulnerable situations. The most dramatic case however, that of the manatee, subject to voluntary and involuntary hunting. There is urgent need to reinforce its protection.

Of the 57 cartilaginous fish species (sharks and rays) that occur in Angolan coastal waters, about 12 are classified as species that require special conservation measures.

A lot is yet to be discovered and described in terms of biodiversity in Angola, particularly the importance of biodiversity resources to ecological balance, economic and social development and fair and equitable sharing of the benefits arising from these resources.

This Strategy provides a great opportunity for the conduct of important scientific research activities that will lead to better knowledge of biodiversity in Angola and also the taking of decisions on biodiversity conservation based on realistic information.

2.2. Socio-Economic Aspects

The conditions of poverty of the majority of the population and the pressure on natural resources sustain a vicious cycle of environmental degradation and reduction of quality of life. Most of the population lives below the poverty line depending daily on biological resources for their livelihood or commercialization.

The Angolan population is small in relation to the landmass of the country and is growing at an increasingly fast rate. The current population growth rate is about 3% per annum, one of the highest rates in the world. The total fertility rate, estimated at 7.2 children per woman, is second only to Niger and Somalia.

The excessive concentration of population in certain areas (such as the coastal and urban areas) exerts unsustainable pressures on resources. The most serious case is that of Luanda, where the human density attains more than one thousand inhabitants per square kilometres.

The outfall of the recent armed conflict is still a decisive factor of social and environmental imbalance. Population mobility is a factor that will influence Angolan demography in coming years. Even with the end of the armed conflict, it is envisaged that the urban areas will continue to grow rapidly due to the current demographic structure and rural-urban drift.

In most cases, the cities grow in a disorderly manner, without regard for the rules of town planning, resulting in the emergence of anarchical boroughs without basic sanitation infrastructure and with consequences for public health and biodiversity.

The dwindling of farming and livestock activity during the years of war permitted the revegetation of extensive areas that were hitherto highly depleted, principally in the Central Highlands. However, the resumption of this activity and the high level of poverty have increased the pressure on forest resources

Besides this, farming systems based on the cutting and burning of forests are also on the rise as a result of rapid migration and high fertility. Subject to an increasing demographic pressure, rural communities practice agriculture and cut down forests, not only for farming but also for firewood and charcoal making.

Social inequalities are reflected in the way that a wide majority lives in conditions of poverty and the inequitable way in which the resources are being exploited. The increasing poverty of the coastal communities and the rapid demographic growth of towns along the Angolan coast are also contributing to the destruction of mangroves, due to the search for firewood and fishing with dynamite, poisonous plants and other methods forbidden by the law governing the sector

In summary, the overexploitation of resources is one of the major threats to the aquatic and coastal ecosystems and terrestrial habitats. Logging for firewood, charcoal, wood production,

uncontrolled bush burning and illegal hunting are practices that jeopardize efforts aimed at defending and valuing Angolan patrimony.

3. LEGAL AND INSTITUTIONAL FRAMEWORK

3.1. Legal Framework

As enshrined in the Constitution, the protection of the environment and natural resources is a duty of the State, which, through the formulation of environmental strategies, policies and laws, adopts specific national and international programmes and norms, for the conservation and sustainable use of natural resources.

The Environment Framework Law, as the framework law, sets out the guiding principles for the prevention and combat of pollution and stipulates that the government should establish urban and non-urban environmental quality standards on noise, gas flaring, industrial, agricultural and economic pollution.

One of these guiding principles is the preparation of a National Environmental Management Programme (NEMP), which is aimed at defining the priority areas for the conservation and sustainable use of natural resources. The document of this programme is at the preparation phase and will define priority actions for better environmental management. In the absence of this and a National Environment Policy, sectoral strategies should be developed. Currently apart from the Biodiversity Conservation Strategy, the Wetlands Strategy, Residual Wastes Strategy and Pollution Strategy are at the conclusion stage.

The legal framework of the country is composed of a series of varying sectoral environmental laws, namely, land, fisheries, water resources, petroleum and mines, as well as laws on biological diversity protection and management and pollution control. This sectoral law gives a reasonable level of protection to biodiversity, although the regulation of the principal sectoral law has yet to be done.

It is important to note that there are still applicable laws in Angola that were produced during the colonial era that need to be reviewed and updated, particularly laws on biodiversity and Protected areas. There are still some areas on which sectoral legislation should be prepared in order to guarantee the effective conservation and sustainable use of biological resources. This is due to the fact that there are some gaps or outdated laws on biodiversity, biosafety, solid waste, pollution control and other legislation indicated in the Environment Framework Law.

However, after the publication of the Environment Framework Law, the production of environmental legislation in the country increased considerably. Of this legislation produced recently, it is important to underscore the Law on Petroleum Activities, Law on Water Resources, Law on Environmental protection associations, Law on Town Planning and Urbanisation, Law on Aquatic Biological Resources, Land Law, Decree on the Protection of the Environment during Petroleum Activities, Decree on the Prohibition of the Importation of Transgenic Genetically Modified Seeds and Baseline Law on Agricultural Development.

Based on the analysis of the legislation on terrestrial and aquatic flora and fauna, aquatic biological resources, protected areas, genetic resources, biosafety and pollution control, it can be concluded that the legal framework of the country is innovative and modern as regards the principles of conservation and sustainable use of biological resources (vide Annex 2 – Legislation to support environmental protection in Angola).

In order to improve the management of global natural resources, various Multilateral Environmental Agreements are prepared and implemented at the international and regional level. Apart from being signatory to the Convention on Biological Diversity, Angola is party to various international and regional Conventions, Protocols, Agreements and Organisations, relevant to the conservation and sustainable use of biodiversity.

In 2001, the National Assembly approved the Convention on the International Trade in Endangered Fauna and Flora Species (CITES), and in 2002, the Cartagena Protocol on Biosafety (a supplementary agreement to the CBD). However, Angola is yet to approve and ratify other important conventions such as the Convention on Wetlands of International Importance, Especially as Habitats of Aquatic Birds (Ramsar Convention). The need to ratify these conventions is part of the National Strategy and Action Plan (vide Annex 3 – Multilateral Environment Agreements).

The lack of clear sectoral policies and strategies, non-existence of complementary legislation, poor application of existing environmental legislation in Angola and non-ratification of some Multilateral Environment Agreements are some of the major obstacles to the conservation and sustainable use of biodiversity. This Strategy presents concrete actions to change this situation and maximise legislative efforts already embarked on by the government of Angola in partnership with other institutions and organisations.

This Strategy and reports associated to it will provide the elements for the clear definition of priority actions and the preparation of strategies and programmes targeted at biodiversity conservation and the attainment of sustainable development.

3.2. Institutional Framework

The Ministry of Urban Affairs and Environment (MINUA) is the public administration organ responsible for the preparation, coordination, execution and control of territorial management, urbanisation, housing and environment policies. It is its duty to prepare and execute legislation, policy instruments and strategies in the area of environment.

In order to carry out its environmental responsibilities, the Ministry of Urban Affairs and Environment has two national directorates, namely the National Directorate for the Environment (responsible for the execution of the national environmental management programme) and the National Directorate for Natural Resources (responsible for the design and implementation of policies and strategies of nature conservation and rational use of renewable natural resources).

In order to decentralise the execution of its programmes and projects, two institutes endowed with legal personality and administrative, financial and patrimonial autonomy should be created. The objective of the National Institute for Environmental Promotion (INAPA) will be to execute national policy in the area of investigation, promotion, training, dissemination and publication of environmental management policy, as well as support to environmental protection associations. The National Institute for Nature Conservation (INCN) will be created to carry out the execution of the nature conservation policy and management of the national protected areas.

According to the decentralisation strategy introduced by the government since 1999, provincial governments are members of the Provincial Directorates, among which are those of Agriculture and Fisheries, which in most Provinces include departments of environment. In some cases, the environment is incorporated into the Provincial Directorate of Urban Affairs and Environment.

For the materialisation of government policies and programmes, the Ministry of Urban Affairs and Environment has various partners that include government institutions, research institutions, the private sector, higher education, environmental protection associations, non-governmental associations and donors.

Currently, the environment institutional framework includes organs that by virtue of their area of intervention perform an important role in the conservation and sustainable use of natural resources, and which are important partners in the implementation of the Plan of Action of this Strategy. Some of these organs include the Ministry of Agriculture and Rural Development, which is the line ministry for a series of institutes responsible for the protection and management of biological diversity such as the Forestry Development Institute. Other organs responsible for the management and use of natural resources include the Ministries of Fisheries, Petroleum, Geology and Mines, Energy and Water Resources, Education, Health, Hotel and Tourism, Science and Technology, Industry and Public Works.

These sectors are part of the Multi-sector Technical Commission for Environment (CTMA) created in 2001 with the objective of hearing partners on the issues of environment, sustainable development and natural resources.

It is important to underscore the fact that other institutions that were directly involved in the process of preparing the Strategy are part of the current environment institutional framework; namely Universidade Agostinho Neto, through the Faculty of Science, the National Phytogenetic Resources Centre, the Luanda Herbarium and the National Museum of Natural History.

For the implementation of the Biodiversity Strategy, there is need to create a unit for the management and coordination of the activities contained in the Plan of Action. This unit will be coordinated by the Ministry of Urban Affairs and Environment and will be composed of technicians from other key sectors of the country, with activity coverage at the provincial and municipal levels.

4. OPPORTUNITIES AND CHALLENGES

The conservation and sustainable use of biological resources are directly dependent on opportunities existing in the different areas of intervention related to environmental issues. However, there are still some challenges that need to be overcome through this strategy in order to make it possible to seize the existing opportunities. The major opportunities and challenges for each of the areas of importance to the Strategy and Plan of action are identified in the table below:

Area	Opportunities	Challenges
Policy and socio-economic	• Institution responsible for environment policy with representation at the level of the Provinces • After a long period of armed conflict in Angola, peace and stability has returned to the country • State administration is being extended to the entire national territory. • Preparation of a National Consensus Agenda and a Long-Term Development Plan • Economic stability • Phased implementation of environmental actions in the Poverty Strategy and Government Programme for the 2005/2006 Biennium.	• The government is at the initial phase of the process of reconstruction and meeting of the socio-economic priorities of the underprivileged population • Shortcomings of governance at the provincial and municipal levels. • Decentralisation process is still slow. • Poor awareness of environment-related issues • High levels of poverty and unemployment translating into strong dependence on natural resources. • Loss of skills and information • There are still mined areas
Research	• Biodiversity studies are currently being promoted in different institutions. • Intellectual resources are available for biodiversity studies • New biodiversity management specialists are being trained • Preparation of a national register of endangered species • Red lists are being prepared • Strategic documents are at the preparation stage • Some scientific research programmes are underway	• Lack of a long-term training programme • Lack of logistical and financial support to conduct research on biodiversity • Lack of red lists • Lack of up to date educational material for personnel training • Lack of national scientific research policy • Lack of definition of role of universities in research programmes
Environmental Education	• Recognition of the importance of environmental education to biodiversity conservation. • Increased activity through the Environmental Education and Awareness Programme in partnership with environmental protection associations.	• Lack of human, material and logistical resources supporting education programmes. • Lack of knowledge and awareness at the national, provincial and local levels. • Poor coverage at the Provincial and municipal levels

	• Curriculum reform introducing the component of environment into various subjects. • Increased training actions and mass communication actions by environmental protection associations	• Insufficient materials supporting learning • Loss of knowledge and information due to the lack of research related to ethno-botany and ethno-zoology
Protected areas	• The established Protected Areas System covering 6.6% of the Angolan territory • New legislation on Protected Areas is being prepared • Surveys on the need of Protected Areas was recently conducted • Growing interest in the creation of across border protected areas • Management and research pilot-projects implemented in two Protected Areas	• Absence or ineffectiveness of management systems of majority of Protected Areas • Highly reduced wildlife fauna populations • Lack of management plans for the Protected Areas • Lack of qualified staff and financial and logistical resources for efficient management • Invasion of human population in Protected Areas • Reduced participation of population in the management of Protected Areas • Absence of botanical gardens and functional and sufficient genetic banks
Sustainable use of biodiversity	• Right of local communities over land and natural resources recognised by current legislation • Regulation on Environmental Impact Assessment approved: development projects in the sectors of agriculture, forestry, fisheries, mines and industry should take biodiversity conservation into consideration. • Increase NGO activity in rural development and management of natural resources. • Master Plan of Tourism and Inventory of Tourist Resources under preparation	• Little attention is given to the involvement of the communities in decision making processes in development projects. • The environmental law is not always applied and there is lack of monitoring of its application. • Lack of capacity to enforce biodiversity conservation laws and norms outside protected areas. • Lack of incentives for the adoption of health environmental practices • Non-existent <i>ex situ</i> conservation projects
Legal framework	• Well developed environmental legislation that takes biodiversity conservation into account (Environment Framework Law, Regulations on Environmental Impact Assessment) • Creation of a new law on Protected Areas	• Lack of capacity to enforce laws and regulations • Lack of knowledge of key environmental law • Lack of legislation on biosafety and GMOs (Genetically Modified Organisms) • Lack of programmes for the dissemination of

	• Accession of Angola to various multilateral international and regional environment agreement (including the CBD)	environmental legislation
Institutional Framework	• Recognition of the need of government institutions, Non-governmental Organisations and the private sector to coordinate biodiversity conservation actions. • Recognition of the need to decentralize the management of natural resources at the provincial, municipal and local levels	• Poor institutional capacity in terms of human resources, infrastructure and financial resources • Institutional responsibilities and roles are not always clearly defined, resulting in duplication or mistakes in biodiversity conservation • Little participation of parties interested in decision-making processes • Low salaries do not encourage the recruitment and maintenance of qualified staff

5. STRATEGY AND ACTION PLAN

5.1. Background

The National Biodiversity Strategy and Action (NBSAP) for the Republic of Angola was formulated to serve as an integrated strategy framework, within which the conservation and sustainable use of biodiversity in Angola could be organised and coordinated for the fulfilment of an action plan during a period of six years (2007-2012). However, due to the challenges that Angola is facing at the level of its economic and social development, the Strategy considers a wider vision; i.e. it envisages a period of at least 10 to 15 years. This will require periodic review and constant monitoring of its actions.

The National Biodiversity Strategy and Action Plan was developed according to the requirements of the Convention on Biological Diversity, which provides details on how it shall be prepared and implemented. The documentation and guidelines provided by the Convention Secretariat and by the Global Environment Fund were used to enable its streamlining with other environmental strategies.

The NBSAP is divided into two major sections: *The Strategy and the Action Plan*.

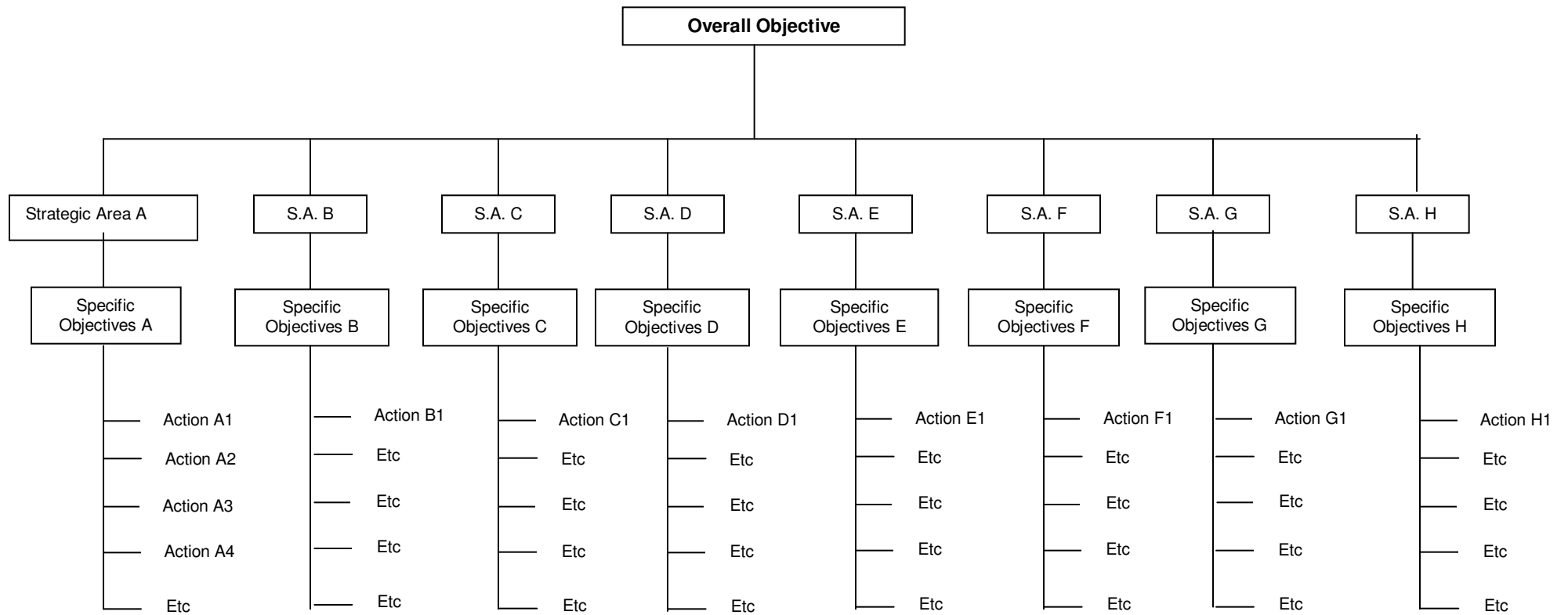
The Strategy presents a long term vision (the Overall objective) for the conservation and sustainable use of biodiversity in Angola, as well as the justification of priority Strategy intervention areas.

The Strategy and Action Plan are interconnected through Eight Strategic Areas that were defined through a process of public consultation that involved representatives of government institutions, local and traditional authorities, environmental protection institutions, the education sector, the private sector and the press. These areas include:

- **Strategic Area A:** Research and Information Dissemination
- **Strategic Area B:** Education for Sustainable Development
- **Strategic Area C:** Biodiversity Management in Protected Areas
- **Strategic Area D:** Sustainable Use of Biodiversity Components
- **Strategic Area E:** The Role of Communities in Biodiversity Management
- **Strategic Area F:** Institutional Strengthening
- **Strategic Area G:** Legislation and Its Implementation
- **Strategic Area H:** Management, Coordination and Monitoring

Specific objectives are formulated for each Strategic Area in order to attain the Overall Objective. The integrated framework of the NBSAP is illustrated in the diagram below.

The statistical data used in this section are estimates based on various documents consulted and thus should be considered as approximate and not definitive figures.



5.2. The Strategy

The Strategy for the conservation and sustainable use of Biodiversity in Angola includes the following components:

1. Overall Objective of the Strategy
2. Strategic intervention areas for the attainment of the Overall Objective
3. Specific objectives for each of the Strategic Areas

Diverse actions needed for the attainment of each of the specific objectives were identified. Such actions are indicated in detail in Section 5.4.

The Overall Objective of the Strategy is:

To incorporate measures for the conservation and sustainable use of biological diversity and the fair and equitable distribution of biological resources in favour of all Angolans into development policies and programmes.

The intervention Strategic Areas for the attainment of the Strategy Overall Objective that provide a framework for the Action Plan are:

Research and information dissemination

Information on biodiversity in Angola is scarce, for which reason research is considered as a priority for increased knowledge, which will permit the effective management of the biodiversity. For the conservation of this biodiversity, the decisions of management bodies should be based on up-to-date and detailed information. There is also need for the information obtained through research actions on biodiversity in Angola to be made widely available and broadly disseminated. Information exchange and access should be closely related to research in order to enable adequate conservation of biodiversity.

Education for Sustainable Development

The conservation of biodiversity resources in Angola requires the understanding of the value of these resources as well as the support of Angolan citizens at all levels of the society. In order for all Angolans to be able to understand the economic, social and cultural importance of biodiversity resources, it is important to embark on formal informal and non-formal educational activities. Thus, Education for Sustainable Development processes is necessary to ensure wide participation and the conscious involvement of Angolan citizens in the conservation and sustainable use of biodiversity resources.

Biodiversity Management in Protected Areas

Protected areas cover approximately 6.6% of the Angolan territory, corresponding to approximately 82.200 km². If forest reserves were to be included as protected areas, this figure would rise considerably as these reserves cover 250.000 km² of the national territory. Due to the long period of instability in the past and growing population needs, the current protection measures have not been efficient and in some cases have been non-existent. The organisation of effective management in existing protected areas and the

creation of others are important strategic interventions for the conservation of important biodiversity components in Angola.

Sustainable Use of Biodiversity Components

There are important biodiversity components in Angola that are located outside the protected areas. These are more exposed to the action of human economic activities. Thus, it is to guarantee the sustainable use of these components that economic activities such as agriculture, livestock raising, forest exploitation, fisheries, mining, civil construction and industry should incorporate measures for the conservation of biodiversity and environmental management plans. The implementation of *ex situ* conservation projects and enhancement of inspection outside protection areas are equally necessary. .

The Role of Communities in Biodiversity Management

Approximately 50 to 60% of the Angolan population lives in rural areas, being dependent on natural resources for their livelihood. Apart from being the most affected by natural phenomena, they are also the ones that better understand biodiversity in Angola, particularly as regards its distribution. Their knowledge is important to scientific research activities. The local communities should thus have a key role to perform in the conservation and management of biodiversity, which is strongly related to the sustainable use of biodiversity resources. Community involvement is important in access to and sharing of the benefits of biodiversity resources.

Institutional Strengthening

A wide diversity of actions needs to be implemented for the conservation of biodiversity in Angola. Institutional capacity in Angola is often weak in terms of human and financial resources. The implementation of these actions thus depends on the capacity building of individuals and institutions to enable them to work effectively. Institutional strengthening should include aspects related to technical and vocational training in different areas of the field of environment of relevance to biodiversity conservation. The upgrading of equipment and infrastructure and better intra-institutional coordination could guarantee good results in the management of biodiversity.

Legislation and Implementation

Many actions proposed in this strategy should be supported through appropriate legislation. The approval and ratification of multilateral environment agreements as well as the implementation of other legal mechanisms will enable the conservation and management of biodiversity to become more effective. In some cases, there may be need to review the existing legislation. In many situations, the legislation exists but is not properly applied, which needs to be duly corrected. The distribution and dissemination of existing legislation is also an important component of this strategy.

Management, Coordination and Monitoring

For the successful implementation of the NBSAP, there will be need for the participation of a wide range of institutions and individuals. The NBSAP thus identifies institutional responsibilities for its management, coordination and monitoring of the activities of implementation of its Action Plan. Management includes the mobilisation of resources and

management of information related to the implementation of the Strategy. Coordination refers to the process of integration and follow up of Strategy activities, including the practical application of actions contained in the Action Plan. Monitoring activities are to ensure that the activities contained in the Action Plan are implemented in a phased manner and are targeted at attaining the overall objective of the Strategy.

5.3. Strategic Areas

At a time that a lot needs to be done to guarantee the conservation and sustainable use of biodiversity, it is important to define priorities. In this document, priorities were identified and grouped into eight strategic areas, each of which has its specific objectives.

Strategic Area A: Research and Information Dissemination

To date no coordinated and exhaustive surveys have been conducted on biological resources in Angola. Consequently, the current status of conservation or degradation of biodiversity in the country is hardly known. Various surveys and assessments were conducted of some components of biodiversity by various institutions and university researchers. However, this effort has not been duly coordinated. Recourse to the knowledge existing in rural communities has also not been duly utilised.

Aimed at implementing adequate measures of conservation and sustainable use of biodiversity, there is, as specified in Article 7 of the Convention on Biological Diversity, the need for basic information on:

- a) Biological diversity components of importance to conservation and sustainable use.
- b) Processes and activities that have, or could have significant adverse impacts on the conservation and sustainable use of biodiversity.

Research on the components of biodiversity is fundamental for its conservation and sustainable use as well as to processes and activities that can have negative impacts on it. This research should be closely linked to the production of documents and their dissemination, as well as other types of information.

Although limited, there are data on some components of biodiversity in Angola. Existing knowledge is dispersed across various sectoral agencies and individuals in the form of projects, reports, scientific articles, maps, aerial maps and satellite images. Some documents and information on Angolan biodiversity prepared during the colonial era are outside the country and it is urgent to obtain copies of such documents and, where possible, reproduce them.

This information has not been compiled in an integrated manner at the local, national and even, in some cases, international levels. Besides this, the data are based on different classification systems, organised according to different formats and variable accuracy.

A fundamental task would be to obtain, compile and synthesise information on biological, socio-economic, legal and institutional issues that are relevant to the use of biodiversity.

Information on biodiversity and interventions that affect it should be made available to a vast range of institutions and individuals in order to ensure that there is no duplication of conservation activities, that decisions are taken based on the best information available

and that there is transparency in the implementation of conservation measures. Information should circulate at the level of local, national and international institutions.

There will be need to define priorities for duly coordinated scientific research programmes with the aim of enhancing knowledge on biodiversity in Angola. Simultaneously, the research actions which necessity and urgency were already identified during the preparation of the National Biodiversity Strategy and Action Plan should be commenced.

The objectives related to Strategic Area A are the following:

OBJECTIVE A.1

Enhance knowledge on biological resources and their state of conservation in Angola through duly coordinated research programmes and taking of periodic inventory.

OBJECTIVE A.2

Identify processes and activities that can have impact on biodiversity in Angola through research programmes and other environment management instruments.

OBJECTIVE A.3

Compile existing information on biodiversity in Angola in a database and disseminate it widely in order to contribute to its conservation and sustainable use.

Strategic Area B: Education for Sustainable Development

The success of conservation efforts depends on the understanding and participation of all Angolans. It is important that various institutions involved in research, schools and community work participate actively in information dissemination and public awareness on the conservation and sustainable use of biodiversity.

Great effort has been made at the international level to improve the level of sustainable development responsibility. Consequently, the UN declared 2005-2014 as the Decade for Education for Sustainable Development. This will depend on the actions to be embarked on in various areas, which will require changes in the way of thinking, living and working and in values and lifestyles.

Through team work, dialogue among stakeholders and decision making, working across board, social groups learn with one another and learn to influence public participation in decision making processes. Education for sustainable development will also be considered as a cross-cutting component of the strategy.

The objectives related to Strategic Area B are the following:

OBJECTIVE B.1

Develop methods and approaches on education for sustainable development in order to guarantee enhanced conservation and sustainable use of biodiversity in Angola.

OBJECTIVE B.2

Disseminate knowledge and information on biodiversity that lead to the assumption of attitudes and sustainable practices by all Angolans with a view to the conservation and sustainable use of biological resources in Angola.

Strategic Area C: Biodiversity Management in Protected Areas

Most of the protected areas in Angola were created between the 30s and 90s and as such there is need to redefine the pertinence of these protected spaces and confirm if they correspond to current priorities. Some of these conservation areas were abandoned and people have settled in them for housing, agriculture and livestock raising. The weakness of the administrative system of parks and reserves is widespread, coupled with insufficiency or even non-existence of guards. Some of the areas are mined and the infrastructure is obsolete or in ruins. Some important ecosystems, habitats and species are still not yet covered by the existing protected areas system.

The objectives related to Strategic Area C are the following:

OBJECTIVE C.1

Re-assess the status of the existing protection areas and their infrastructure through ecological surveys and inventories.

OBJECTIVE C.2

Propose the creation of protected areas to include important ecosystems, habitats and species that are of high biological value, which are not yet duly protected.

OBJECTIVE C.3

Rehabilitate the protection areas and their infrastructure in order to enable the conduct of scientific research, biodiversity conservation, ecotourism and environmental education actions.

OBJECTIVE C.4

Establish a national integrated management system that allows the reconciliation of the conservation and sustainable use of biodiversity and tourism with the interests of local communities.

Strategic Area D: Sustainable Use of Biodiversity Components

The Convention on Biological Diversity appeals for the protection of sensitive or threatened species and habitats that are not covered by protection areas. Almost 95% of the total area of Angola is situated outside protection areas. As a result, biodiversity

conservation will depend on the introduction of appropriate measures related to the sustainable use of the natural areas and resources outside the protected areas.

The use of land and natural resources outside protected areas includes:

- Agriculture (small and large scale)
- Logging (for the subsistence of the populations and business)
- Exploitation of marine resources
- Mining, oil exploration, industrial activity and tourism

This requires the implementation of a wide range of measures in order to fulfil the multiple obligations of the Convention as related to the conservation and sustainable use of biodiversity, the participation of local communities in biodiversity management, as well as to guarantee the fair and equitable sharing of the benefits arising from the use of natural resources. These measures include:

- Demand for the compulsory conduct of Environmental Impact Assessments when projects are prone to cause significant social and environmental impact;
- Foster the conduct of periodic environmental audits to ascertain the level of implementation of the environmental protection measures;
- Prepare integrated land and natural resources use plans;
- Promote and encourage activities and incentives aimed at developing and implementing agricultural practices that support the conservation of biodiversity;
- Support and encourage activities and incentives aimed at the development and implementation of forest management practices, assuring the conservation of biodiversity (including the development of methods that promote the natural regeneration of native forests);
- Identify and adopt practices that will contribute to the conservation and sustainable use of marine biodiversity, and which minimise negative impacts on it;
- Encourage the involvement, full participation and sharing of benefits by local communities as an incentive for the co-management, conservation and sustainable use of terrestrial and marine biodiversity

The objectives related to Strategic Area D are the following:

Agriculture

OBJECTIVE D.1

Implement mechanisms to minimize negative impacts on biodiversity arising from agricultural activities.

Forest Exploitation

OBJECTIVE D.2

Implement measures for the sustainable management of forest resources.

Fishing Activity

OBJECTIVE D.3

Enhance and implement mechanisms to minimise negative impacts on biodiversity arising from fishing activity.

Industrial and Mining Activities

OBJECTIVE D.4

Ensure that industrial and mining sector projects include biodiversity conservation measures in their activities.

Control of Exploitation of Fauna and Forest outside Protected Areas

OBJECTIVE D.5

Foster the conservation of biodiversity outside protected areas through enhanced inspection.

Sustainable Biodiversity Management Projects

OBJECTIVE D.6

Formulate and implement projects for the *ex situ* conservation and sustainable use of biodiversity.

Control of Exotic Invasive Species

OBJECTIVE D.7

Control the introduction of exotic invasive species through the preparation of border control and management measures.

Agrodiversity

OBJECTIVE D.8

Foster the conservation and sustainable use of agrodiversity.

Strategic Area E: The Role of Communities in Biodiversity Management

It is estimated that approximately between 50 and 60% of the Angolan population lives in rural areas, depending entirely on natural resources for the highly subsistence-based economy. Consequently, the local communities are important custodians of biodiversity. It

is thus of capital importance to the conservation and sustainable use of biodiversity that these communities are involved in all decisions related to the use of land and natural resources and that incentives for them be introduced into the implementation of such decisions.

The objective related to Strategic Area E is the following:

OBJECTIVE E

Strengthen the role of rural communities in the sustainable use of biodiversity in Angola and in decision making in this regard.

Strategic Area F: Institutional Strengthening

Some of the major challenges that Angola is facing are the strengthening of scientific research capacity, institutional strengthening and upgrading of infrastructure and basic equipment. With an effective inter-sectoral coordination and the sharing of duties, it is possible to obtain positive results with the implementation of integrated biodiversity conservation projects.

Institutional strengthening not only includes the strengthening of the institutions responsible for biodiversity conservation, but also the vocational capacity building and training of human resources, including refresher programmes, exchange visits and professional development activities. The capacity building of natural resources management, including forest rangers, poaching guards and local communities is also necessary.

The objectives related to Strategic Area F are the following:

OBJECTIVE F.1

Embark on vocational training and capacity building actions for Angolan officials in different areas of biodiversity.

OBJECTIVE F.2

Strengthen institutional capacity at the provincial and municipal level to enhance sustainable management of biodiversity in Angola and permit the decentralization of environmental governance.

Strategic Area G: Legislation and Implementation

In spite of the insufficiency of some laws and lack of some others, the weak point is not as much in the juridical and legal framework, as in the inadequate operation and organisation of State Administration Bodies and different institutions responsible for the protection and management of biological diversity.

Lack of and poor qualification of human resources and lack of financial and material resources needed to implement national and international legislation, particularly the CBD, also negatively influence the preparation and application of environmental legislation.

The objectives related to Strategic Area G are the following:

OBJECTIVE G.1

Improve the legislation on the conservation and sustainable use of biological resources and strengthen mechanisms to guaranty its implementation.

OBJECTIVE G.2

Facilitate the process of ratification of Multilateral Environment Agreements and enhance mechanisms and process of contact with the respective Secretariats.

OBJECTIVE G.3

Ensure the active participation of Angola in regional and international initiatives targeted at biodiversity conservation.

Strategic Area H: Management, Coordination and Monitoring

The actions contained in this document will be implemented by various actors, including government institutions, environmental protection associations, scientific research institutes, education institutions, the private sector, etc. Thus, it is the duty of the government, through the Ministry of Urban Affairs and Environment, to guarantee the management, coordination and monitoring of NBSAP implementation activities.

In order to ensure that the actions contained in this Biodiversity Strategy are an integral part of other government programmes and are included in the programmes of donor institutions, the Ministry of Urban Affairs and Environment should establish a Management and Coordination Unit.

The objectives related to Strategic Area H are the following:

OBJECTIVE H.1

Manage, coordinate and monitor the process of implementation of the Strategy and Action Plan as a way of guaranteeing enhanced conservation and sustainable use of biodiversity resources in Angola.

OBJECTIVE H.2

Guarantee conditions and mechanisms necessary for the full and effective dissemination of the outputs of the implementation of the Strategy at the national and provincial levels.

In order to achieve the objectives mentioned in each of the strategic areas, there will be need for the implementation of the actions described in section 5.4 below.

5.4. Action Plan

The Action Plan documents specific actions to be embarked on to attain the overall objective and specific objectives of the Strategy. The Strategic Areas of intervention are listed in Section 5.3 above.

Various actions were listed for each specific objective of each of the Strategic Areas in the table below. The Action Plan covers various columns as follows:

- **Objective Number:** The number of each of the specific objectives for each Strategic Area is listed for identification and for cross-reference with various Strategy actions.
- **Action Number:** A brief description of each action, presented in form of number.
- **Associated Actions:** A range of other closely interconnected activities in the action plan are indicated here to show their interdependence.
- **Duration:** This indicates when, during a six-year period (2007-2012), each of the activities is to be carried out.
- **Priority:** The relative priority of each action is indicated based on a scale, I indicating High Priority and II indicating Medium Priority.
- **Implementation:** This indicates the major institution (s) responsible for the implementation or coordination of a given activity.
- **Outputs:** The major output of each of the activities is listed, which could be the basis for future monitoring.
- **Costs:** The indicative cost of the implementation of each action is indicated using the general budget categories below.

I: USD 1 000 - US\$ 100 000

II: USD 100 000 - US\$ 500 000

III: > USD 500 000

The Action Plan contains specific actions and activities that should be implemented in order to achieve the Overall Objective and Specific Objectives for biodiversity conservation in Angola.

Objective	Action	Associated Actions	Duration	Priority	Implementing Bodies	Outputs	Costs
STRATEGIC AREA A: RESEARCH AND INFORMATION DISSEMINATION							
A.1	A.1.1. Formulate research programmes (including activities, schedule and budget) biodiversity in Angola from information available; beginning from the preliminary identification of gaps in current knowledge on biodiversity and definition of priorities based on emergency situations and ecological sensitive areas.	A.1.2. A.1.3.	2007-2008	I	Ministry of Agriculture and Rural Development (MINADER); Min. Of Fisheries; Ministry of Science and Technology	Programmes (Report) written Biennial priorities update	I
	A.1.2. A survey of existing institutions and professionals should be conducted in parallel with Action 1.1., as well as the preparation of a resource rationalization, capacity building, training and physical equipping and financial support programme	A.1.1. A.1.3.	2007-2008	I	Universities Ministry of Urban Affairs and Environment (MINUA)	Report produced including programme proposals	I
	A.1.3. Conduct detailed studies on the current situation of endemic and/or endangered species, specifically: a) Studies on the conditions of the manatee b) Studies on sea turtles c) Studies on the Black Giant Sable Antelope d) Studies on avifauna distribution e) Studies on primates (gorilla and chimpanzee) in the Maiombe forest of Cabinda	A.1.1. A.1.2.	2007-2009	I	Universities in collaboration with other institutions such as the National Museum of Natural History, (MNHN) National Fisheries Research Institute, Forest Development Institute (FDI)	Reports produced; Knowledge enhanced; Conservation enhanced Projects prepared	III
	A.1.4. Conduct studies on relatively unknown and/or undocumented species such as reptiles, amphibians, insects and micro-organisms.	A.1.1.	2007-2009	I	Universities; National Museum of Natural History; Scientific Research Institutes; MINUA, Provincial Governments	Reports produced; Knowledge enhanced	II

	A.1.5. Conduct and widely disseminate studies on terrestrial and coastal habitats and ecosystems with high biological value, namely: a) Gallery forests in the Cuango, Luachimo and Cassai valleys in Lunda Norte Province; b) Tropical forests (Maiombe Forest) in the interior of Cabinda Province; c) The Afromontanas forests in Huambo, Benguela, Kwanza Sul and Huíla Province, specifically the forests in Morro do Moco.	A.1.1. A.1.2.	2007-2009	I	Universities, MINUA and Forest Development Institute (FDI) (in collaboration with other partners) Provincial Governments	Periodic Reports; Knowledge enhanced; Conservation enhanced Booklets prepared and distributed	II
	A.1.6. Conduct studies in order to document and disseminate the biological characteristics of marine and coastal species to determine the current situation and identify threats and ways of protection. Disseminate these studies through workshops and publications.	A.1.1. A.1.2.	2007-2009	I	Universities; National Fisheries Research Institute (INIP); MINUA	Knowledge enhanced; Reports produced and disseminated	I
	A.1.7. Verify the status of mangrove formations and, particularly, the causes of mortality of mangroves in estuaries located between rivers Chiloango (Cabinda), Congo (Zaire) and Bengo (Luanda) and mangrove deforestation exploitation of manatee populations in the estuary of river Kwanza.	A.1.1. A.1.2. A.1.4.	2007-2009	I	Universities; Provincial Governments; MINUA; Environmental Protection Associations (ADAs)	Biennial reports produced; Enhanced conservation	I
	A.1.8. Conduct mapping and zoning of ecological sensitivity of coastal and marine zones.	A.1.1. A.1.2.	2007-2009	I	Universities; INIP	Reports and maps produced	II
	A.1.9. Conduct and disseminate, through workshops and publications, studies on the biodiversity in continental wetlands and similar ecosystems for the assessment of their current status, threats and ways of preservation, particularly the water basins of the country.	A.1.1. A.1.2.	2007-2009	I	Universities; MINUA; Ministry of Energy and Water Resources, Ministry of Fisheries;	Reports produced; Conservation enhanced and Ramsar sites proposed	II

A.2	A.2.1. Conduct assessment of deforestation of indigenous forests and soil erosion in locations to be selected based on criteria to be defined.	A.1.1. A.1.2.	2007-2009	II	MINADER; MINUA	Reports produced; Deforestation controlled;	I
	A.2.2. Conduct studies in the fields of agriculture, fisheries and forestry such that these activities are less harmful to the environment in order to avoid environmental risks such as soil erosion, pollution and loss of biological and genetic heritage.	A.1.1.	2007-2009	I	Universities; MINADER; National Committee of Phytogenetic Resources (CNRFP); NGOs	Reports produced and agricultural practices enhanced	I
	A.2.3. Study and monitor urban environmental problems (especially in the coastal areas), providing support to the definition of harmonious urban development strategies.	A.1.1. A.1.2.	2007-2009	I	Universities; MINUA	Reports produced; urban degradation reduced;	II
	A.2.4. Take inventory of prevailing situations on the coast and assess current and potential threats (including oil spills, discharge of residue and overexploitation of resources) taking into account the sensitiveness mapping and zoning study of coastal areas conducted.	A.1.1. A.1.2. A.1.8.	2007-2008	I	Universities; MINUA; Ministry of Petroleum	Reports produced; Pollution reduction;	I
	A.2.5. Conduct studies on the impact of fishing activities practiced in Angolan coastal waters, with particular focus on those involving accidental catch of turtles, dolphins and sea birds.	A.1.1. A.1.2. A.1.6. A.2.6.	2007-2008	I	Ministry of Fisheries (INIP, IPA) and Universities	Reports produced and disseminated; Knowledge enhanced;	I
	A.2.6. Through research, identify new sustainable fishing practices in order to avoid the catch referred to in A.2.5.	A.1.1. A.1.2. A.1.6. A.2.5.	2007-2009	I	Ministry of Fisheries and UAN	Fishing practices enhanced	I

	A.2.7. Conduct studies on traditional practices of rural communities and their knowledge could contribute to enhanced management of biological resources.	A.1.1. A.1.2.	2007-2009	I	Ministry of Agriculture and Rural Development; NGOs; Ministry of Culture, Ministry of Fisheries	Reports prepared; Natural resources management enhanced;	II
	A.2.8. Conduct studies on the current and potential environmental effects of population mobility as a result of the war, with particular emphasis on settlement areas.	A.1.1. A.1.2.	2007-2009	I	MINUA; Ministry of Assistance and Social Reinsertion; NGOs;	Reports prepared; Knowledge enhanced;	I
	A.2.9. Conduct studies to ascertain the current status and potential risks and benefits of non-indigenous species in Angola and define measures for their eradication or utilisation.	A.1.1. A.1.2. A.7.2.	2007-2009	II	Universities; FDI; MINUA	Reports prepared; Invasive species eradicated;	I
	A.2.10. Conduct taxonomic studies of the Angolan ethno-botany and ethno-zoology for the preservation of our scientific heritage.	A.1.1. A.1.2.	2007-2009	II	Universities; MINUA; Ministry of Culture; Anthropology Museum	Reports of the studies prepared;	I

A.3	A.3.1. Prepare a plan for the creation of a Centre for Documentation and Information (CDI) that includes: a) Identification of the Centre for Documentation and Information; b) The establishment of objectives and organogram of the Documentation Centre; c) Identification of necessary human resources and their training; d) Identification of type of software and computer equipment to procure. e) Establishment of themes covered by the collection/book fund (biodiversity, ecosystems, resource management and conservation, sustainable development, environmental legislation, etc.); f) An inventory on existing documentation and its location (within and outside Angola) and subsequently obtain copies; g) Definition of type of cataloguing of collection/book fund; h) Selection of classification systems and document analysis ; i) Preparation of norms and procedures for information processing; j) Identification of services to be provided (e.g. on-site reading and/or lending, listening and watching of cassettes, research on internal databases, free access to the shelves, attendance via email, etc.); k) Identification of target groups (users) and their information needs; l) Preparation of regulations on monitoring of records of loaned documents; m) Establishment of a loans control system.	A.3.2. A.3.3.	2007-2008	I	MINUA; Universities; National Library; Ministry of Science and Technology	Plan prepared with details on the site indicated, human and financial resources necessary Publications obtained CDI functional with management plan defined	I
-----	---	--------------------------	-----------	---	--	--	---

	A.3.2. Keep the Centre for Documentation and Information functional, in this respect having to: a) Select and acquire documents/publications, through procurement, gift and exchange (within and outside Angola); b) Request, through institutions such as the National Library of Angola, National Institute of Cultural Heritage or National Historical Archive) microfilms or microfiche cards on Angolan biodiversity produced during the colonial era through the Africa Memoir Internet Project: memoria-africa.ua.pt (a project that seeks to be a depository of all information related to countries with Portuguese as official language, from the 1960s to date); c) Process documentation (recording, cataloguing, classification and analysis); d) Organize and store processed documents; e) Create and keep databases up to date (on bibliographies, statistical and information data and environmental indicators); f) Create and maintain a database on sources of oral information, practices used in resource conservation by local communities; g) Create and keep up to date databases on Angolan legislation.	A.3.1. A.3.3.	2008-2012	I	MINUA	Centre for Information and Documentation functional Materials and books procured Database updated and functional	II
--	---	--------------------------	------------------	----------	--------------	---	-----------

	A.3.3. Create an Information Network at the national level, for the sharing of resources and information exchange, so that all Provinces and Municipalities can have access to the information, there being need to: a) Produce a Directory of Institutions that carry out environment and biodiversity related activities; b) Create and keep up to date a database of Angolan and foreign institutions and scientists that carry out activities related to the area; c) Establish cooperation agreements with national and foreign institutions that carry out related activities, such as establishing a cooperation agreement with the Memória África Project (in connection with Action 3.2) d) Disseminate information. e) Create a website on the Internet on the responsibility of the Centre for Documentation and Information to disseminate programmes, projects and documentation relevant to MINUA and to obtain comments on environmental problems in Angola; f) Join other already establish Information Networks or collaborate or collaborate with them at the national, regional and international level;	A.3.1. A.3.2.	2008-2012	I	MINUA; National Library; Ministry of Science and Technology	Network functional Directory produced Website created and updated regularly Dissemination of legislation carried out periodically and continuously	II
	A.3.4. Create an editorial area for the compilation, review, editing and publication of information on biodiversity in Angola.	A.3.1. A.3.2. A.3.3.	2008-2012	I	MINUA	Editorial area functional with material and human resources Regular publication of environment magazine	II

STRATEGIC AREA B: EDUCATION FOR SUSTAINABLE DEVELOPMENT							
B.1	B.1.1. Formulate a broad education for development strategy that considers formal, non-formal and informal education for the raising of civic consciousness (including central, provincial and municipal governments and all Angolan citizens) and for the promotion of the conservation and sustainable use of biodiversity.	B.1.2. B.1.3. B.1.4.	2007-2008	I	MINUA, Ministry of Education, National Environmental Protection Associations and the Press	Strategy formulated Specific programmes developed	I
	B.1.2. Formulate proposals to incorporate or enhance environmental issues on biodiversity into the primary and secondary school curricula.	B.1.1. B.1.6.	2007-2008	II	Ministry of Education (National Educational Development Institute – INIDE); ADAs	Formula proposed Incorporation process underway	I
	B.1.3. Implement education for sustainable development awareness programmes and campaigns at the provincial, municipal and local levels through workshops, debates and radio and television programmes using, where necessary, local languages on the importance and of conserving and using biological resources in a sustainable way.	B.1.1. B.1.2.	2007-2009	I	MINUA; Provincial governments; ADAs; Press; Traditional authorities	Increased public awareness Increased environmental awareness	II
	B.1.4. Participate actively in the United Nations Decade for Sustainable Education for Development through the development and sharing of criteria, methods and approaches for to make education for sustainable development effective and consider education for development as an integral part of capacity building in view of the achievement of the Millennium Development Goals.	B.1.1.	2007-2008	I	MINUA; Ministry of Education, Private Sector, ADAs; Civil Society	Active contributions to the Decade New methods and approaches developed	I

	B.1.5. Introduce the component of education for sustainable development into all biodiversity conservation and management projects in terms of training and production and dissemination of materials.	B.1.1. B.1.4.	2007-2010	I	MINUA; NGOs	Educational aspects included in biodiversity conservation projects	I
	B.1.6. Develop and apply new methods and approaches to implement education for sustainable development processes in all aspects of environmental education.	B.1.1.	2007-2010	I	MINUA; Ministry of Education; ADAs	Methodology and approached prepared	I
B.2	B.2.1. Disseminate the Environment Framework Law and other environmental legislation at the level of ministries, local State administration and the civil society in general through workshops, drama, articles, radio and television programmes and publication of brochures.	B.1.1. B.1.2.	2007-2010	I	MINUA; Ministry of Education; Provincial governments; Press; National and Municipal libraries	Increased public awareness, environmental legislation disseminated	I
	B.2.2. Widely disseminate knowledge and information on the importance of biodiversity conservation at all levels, with particular emphasis on rural communities, opinion makers, leaders, educators.	B.1.1. B.1.2.	2007-2010	I	MINUA; Ministry of Education; Provincial governments; Press; ADAs	Increased public awareness, environmental legislation disseminated	I
	B.2.3. Prepare short and medium duration training programmes for people working directly with communities, using, to this end, environmental education manuals in order to ensure a multiplier effect.	B.1.1. B.1.3. B.2.1.	2007-2008	I	MINUA; Universities; Vocational training Centres; NGOs	Training actions implemented, Officers trained	I

STRATEGIC AREA C: BIODIVERSITY MANAGEMENT IN PROTECTED AREAS							
C.1	C.1.1. Assess the current status of biodiversity in national parks, nature and total reserves, partial reserves, special reserves, game reserves and forest reserves aimed at confirming if the number and location of current protected areas and the respective current limits and configuration correspond to the current needs of the country.	C.1.2. C.1.3. C.2.1. C.2.4. C.2.5.	2007-2009	I	MINUA; MINADER; Ministry of Tourism; Universities	Reports with specific recommendations Recovery programmes prepared	II
	C.1.2. Based on the outputs of Activity C.1.1., redefine, if necessary, the ecological limits of existing protected areas and propose the creation of protected areas.	C.1.1. C.2.1.	2009-2011	I	MINUA; MINADER; Ministry of Tourism	Report with maps of proposed new areas	I
C.2	C.2.1. Identify and create protected areas to include samples of important ecosystems, habitats and species not yet covered, such as the Maiombe Forest in Cabinda (for the protection of the gorilla, chimpanzees and other mammals); incorporation of the Tundavala complex – Fenda – Cascade (due to its high value landscape) in the Huíla Regional Nature Park and forest galleries of Lunda Norte Province, the Kalandula waterfalls and Pedras Negras of Pungo Andongo in Malanje, the Kilombo Botanical Garden in Kwanza Norte, as well as historical monuments.	C.1.1. D.1.1.	2007-2009	I	MINUA; MINADER; Ministry of Hotels and Tourism; Ministry of Culture; Provincial governments; Universities	New protection areas created; Species and habitats conserved; Protection areas system enhanced	III
C.3	C.3.1. Based on the outputs of Activity C.1.1, rehabilitated existing protection areas.	C.1.1. C.2.1. C.3.2. C.3.5.	2008-2012	I	MINUA; MINADER; Provincial governments	Areas rehabilitated	III
	C.3.2. Formulate management plans in view of the respective rehabilitation, consolidation and enhancement of protected areas.	C.1.2. C.3.1.	2007-2008	I	MINUA; MINADER; Min. Of Hotels and Tourism	Management plans formulated and replicated	I

	C.3.3. Study, in a detailed and careful manner, the status of communities that live within and in areas adjacent to protected areas, formulating the most adequate treatment for each case (voluntary resettlement, redefinition of limits, zoning of current space, creation of buffer zones, protection fencing, etc.) involving the communities in the participatory management and adequate use of existing biological resources in the protected areas.	C.2.1.	2008-2009	I	MINUA; MINADER; Ministry of Culture; Ministry of Territorial Administration; Provincial governments; Universities; ADAs	Plans formulated	I
C.4	C.4.1. Increase number of staff employed as forest rangers and hunting guards, providing them with adequate training and endowing the respective careers with working conditions that are suitable for the effective control of illegal hunting and forest destruction, with priority for local populations.	C.2.1.	2008-2012	I	MINUA; MINADER; Provincial governments	Inspection reinforced Training acquired	II
	C.4.2. Implement a moratorium banning activities of hunting of big and medium-sized mammals and other endangered species in protected areas until such a time that the animal populations are sufficiently recovered.	C.1.1. D.5.1.	2007-2012	I	MINUA; MINADER; National Police; Armed Forces	Species protected Population increased	I
	C.4.3. Implement a permanent ban on the hunting of endangered species and compliance with the guidelines stipulated in national and international red lists for plants and animals.	D.5.2.	2007-2012	I	MINUA; MINADER; National Police; Armed Forces	Species protected Population increased	I
	C.4.4. Create incentives for investment in the rehabilitation of major infrastructure in protected areas with conditions and services suitable for the development of ecotourism and the protection of their fauna and flora.	C.3.1. C.3.2.	2008-2010	I	MINUA; MINADER; Ministry of Hotels and Tourisms	Management enhanced	I

STRATEGIC AREA D: SUSTAINABLE USE OF BIODIVERSITY COMPONENTS							
D.1	D.1.1. Prepare integrated land use and biological exploitation plans that incorporate ecological, economic and social aspects in order to conserve biodiversity in Angola.	C.1.3.	2008-2010	II	MINADER and MINUA	Plans prepared Management enhanced	II
	D.1.2. Create mechanisms and incentives for the adoption of sustainable agricultural systems, including practices that permit the organic enrichment of the soil, crop rotation and enhanced fallowing. Assess and monitor the efficiency of these methods through pilot projects.	D.1.5.	2008-2012	I	MINADER (IIA); ADAs and other NGOS	Management enhanced	II
	D.1.3. Create mechanisms and incentives to discourage the use of agricultural systems and cattle breeding at the bank of rivers that are harmful to the environment and public health and test these mechanisms through pilot projects.	D.1.4.	2007-2012	I	MINADER; ADAs	Habitats protected	II
	D.1.4. Implement pilot projects to reduce excessive cattle grazing in selected areas, including measures such as the creation of more drinking sites; enhanced handling of grazing lands and enhancement of the cattle commercialization system	D.1.3.	2007-2012	I	MINADER; NGOs	Overgrazing reduced	II
	D.1.5. Review and implement regulations on the use of pesticides, herbicides and defoliant in the agricultural sector.	D.1.2.	2007-2008	I	MINADER; NGOs	Regulations strengthened	I

D.2	D.2.1. Implement pilot projects to minimise the pressure on forests, replacing firewood and charcoal with alternative sources of energy (paraffin, butane gas, biogas, conventional electricity and solar and hydraulic energy) as well as the use of enhanced techniques of cooker and charcoal production techniques.	D.2.2.	2007-2012	I	Ministry of Petroleum, Ministry of Energy and Water Resources; FDI; NGOs	Forests conserved Pressure on resources reduced	II
	D.2.2. Implement pilot projects for the creation of community forest perimeters to meet the firewood and charcoal needs of the population	D.2.1.	2007-2012	I	Provincial governments; FDI; NGOs	Perimeters created and deforestation reduced	II
	D.2.3. Create municipal nurseries to facilitate reforestation and planting of community forests as a way of combating deforestation.	D.2.4.	2007-2012	I	Municipal Administration; NGOs	Nurseries created and deforestation reduced	II
	D.2.4. Create forest polygons and revitalize existing ones around and within urban Centres.	D.2.3.	2007-2012	II	MINUA; FDI; NGOs	Urban forests created	II
D.3	D.3.1. Implement adequate control measures for fishing activities such as patrolling of territorial waters and better fiscalisation along the coastal area aimed at controlling illegal fishing and forbidden fishing practices and enforcing fishing quotas.	D.3.2.	2007-2012	I	Ministry of Fisheries (INIP); Ministry of Defense; Ministry of Transport	Overfishing reduced Better control of resources	II
	D.3.2. Ensure that the fishing quotas established by the Ministry of Fisheries are complied with through better monitoring, fiscalisation and technical equipment.	D.3.1.	2007-2012	I	Ministry of Fisheries (INIP and IPA); National Inspection Services	Overfishing reduced	I
	D.3.3. Implement the introduction of new fishing practices and incentives in Angola through pilot projects in order to avoid accidental capturing of endangered species such as turtles, dolphins and sea birds.	A.2.5. A.2.6.	2009-2012	I	Ministry of Fisheries (INIP and IPA)	Marine and aquatic species protected	II

	D.3.4. Conduct scientific follow up of aquaculture, as regards the evolution of habitats and possible impacts on biodiversity.	A.2.5. A.2.6.	2007-2012	I	Ministry of Fisheries (INIP and IPA)	Knowledge enhanced	I
D.4	D.4.1. Ensure that Environmental Impact Assessments are conducted for projects that are prone to have negative effects on biodiversity.	D.4.2.	2007-2012	I	MINUA; Private Sector	Negative impacts reduced	I
	D.4.2. Ensure that diamond mines and petroleum products concessionaires (projects under implementation) are obliged to formulate and implement Environmental Management Plans to mitigate the negative impacts and plan for the rehabilitation of disturbed areas as per the Decree on Environmental Impact Assessment.	D.4.1.	2007-2010	I	MINUA; ENDIAMA; Private Sector, Ministry of Petroleum, Ministry of Geology and Mines; Sonangol	Areas Rehabilitated	II
	D.4.3. Regulate, manage and inspect the exploitation of mined construction materials (stones, sand and brick making), especially in turtle spawning grounds and potentially erosive areas.	A.2.5. A.2.6.	2007-2008	I	MINUA; Ministry of Geology and Mines; Provincial governments	Regulations prepared Protected species	I
	D.4.4. Establish rehabilitation programmes for the coastal ecosystems disturbed due to human activity (areas that are experiencing pollution, sedimentation, reduction of vegetation layer and erosion), especially in the reefs and shores in the vicinity of urban areas.	A.2.4.	2009-2012	I	MINUA; Ministry of Fisheries; Ministry of Public Works; Universities	Programmes developed Areas rehabilitated	II
	D.4.5. Formulate a plan for the installation of waste and/or industrial sludge treatment networks in high risk areas along the coast and for the use of household silt for agriculture	A.2.4.	2007-2008	I	MINUA; Private Sector; Provincial governments	Plans prepared	I
D.5	D.5.1. Implement a moratorium on the hunting of big and	C.2.3.	2007-	I	MINUA; MINADER;	Species	II

	medium-sized mammals (outside protected areas) and other endangered species until the animal populations are sufficiently recovered.	C.2.4.	2012		National Police; Ministry of Defense	protected, reproduced and recovered	
	D.5.2. Implement a permanent ban on the hunting of endangered species (outside the protected areas) and contained in national and international red lists, such as the black giant sable antelope, gorilla, elephant and chimpanzee.	C.2.4. C.2.5.	2007- 2012	I	MINUA; MINADER; National Police; Ministry of Defense	Species protected	II
	D.5.3 Control the exploitation of endemic, rare or endangered species contained in national and/or international red lists through enhanced fiscalisation.	A.1.1. A.1.2.	2007- 2012	I	MINUA; MINADER; National Police; Ministry of Defense	Species protected	II
D.6	D.6.1. In close connection with the outputs of the research actions of Action A.1.4, formulate and implement measures for the conservation and sustainable use of endangered biodiversity.	A.1.4.	2007- 2012	I	MINUA; MINADER; Universities	Projects prepared and implemented Species protected	III
	D.6.2. In close connection with A.1.5, formulate and implement sustainable management projects in terrestrial habitats and ecosystems of importance to biodiversity in Angola. Emphasis should be placed on <i>ex situ</i> conservation projects, particularly the creation of botanical gardens and sanctuaries for species of high value to biodiversity.	A.1.4. A.1.5.	2007- 2012	I	MINUA; MINADER; Universities; Provincial governments	Habitats protected <i>Ex situ</i> conservation; Botanical gardens and sanctuaries created	III
	D.6.3. Formulate and implement projects for the conservation of mangroves, specifically the mangroves in the estuaries of the Chiloango, Congo, Bengo and Kwanza rivers.	A.1.7.	2007- 2009	II	MINUA; MINADER; Universities	Mangroves protected	II
D.7	D.7.1. Based on the outputs of Action A.2.9, formulate and implement programmes for the control, prevention and eradication of invasive species in Angola.	D.7.2. A.2.9.	2007- 2008	II	MINUA; National Museum of Natural History; Ministry of	Programme prepared and implemented	II

					Fisheries;		
D.8	D.8.1. Promote agrobiodiversity conservation and sustainable use activities.	D.2.1. A.2.9.	2007-2008	II	MINADER; CNRF	Agrobiodiversity protected	I
STRATEGIC AREA E: THE ROLE OF COMMUNITIES IN BIODIVERSITY MANAGEMENT							
E	E.1. Implement awareness programmes to ensure maximum involvement of communities and local bodies in the making of decisions related to the management of biological resources and environmental conservation.	B.1.4. E.2.	2007-2009	I	MINADER; MINUA; NGOs; Ministry of Education; Provincial governments	Greater participation of communities	II
	E.2. Guarantee, through the media, the recognition of the rights of communities, already enshrined in a specific law, as a way of biodiversity management.	E.1. E.3.	2007-2009	I	NGOs; Press	Management enhanced	I
	E.3.. Implement communication programmes (workshops and others) in order to strengthen the knowledge and use of biodiversity and the role of traditional medicine practitioners in their conservation and management.	E.8. A.2.7.	2007-2009	II	Ministry of Health; NGOs; Ministry of Culture; National Museum of Natural History	Management enhanced	I
	E.4. Ensure compliance with the provisions of the Environment Framework Law and the Decree on Environmental Impact Assessment as regards prior consultation of local communities prior to approval of any project with foreseeable impact on their environment.	G.1.1.	2007-2010	I	MINUA	Population consulted Legislation complied with	I
	E.5. Ensure that the rights of farmers to plant, save, utilize, trade and sell their local varieties of cultivated plants are guaranteed in compliance with existing legal mechanisms.	E.3. E.4.	2007-2010	I	ISA; CNRF; NGOs	Better conservation of agrobiodiversity	II
	E.6. Conduct a deep study in the entire country in order to document existing knowledge and traditional practices	E.7.	2007-2010	II	NGOs	Reports produced and	I

	related to biodiversity management.					disseminated	
	E.7. Conduct studies to document “positive” and “negative” traditional biodiversity practices, differentiating the economic, social and cultural aspects and conduct debate workshops for the population.	E.6.	2007-2009	II	IDA; NGOs	Reports produced and disseminated	I
	E.8. Study traditional medicine resources and practices in order to incorporate positive practices into the national health system and safeguard their commercialization; preserve local knowledge and file a patent, if such is truly necessary, for treatments and medicines.	E.3.	2007-2009	II	Ministry of Health; NGOs	Management enhanced	I
	E.9. Study and prepare the requirements necessary to assure the communities of the protection against “biopiracy” and the fair and equitable sharing of the benefits arising from their traditional knowledge, namely medicinal plants.	E.1. E.3.	2007-2009	II	MINUA; Ministry of Culture; Herbarium of Luanda; NGOs	Studies prepared; Benefits shared	I
	E.10. Study mechanisms of community participation in biodiversity management.	E.1. E.2. E.3.	2007-2009	I	MINADER; Universities	Legislation produced	I
	E.11. Study the articulation of forms of biodiversity management by the communities with State management forms and the sustainable use of biological resources.	A.1.4. E.3. E.10.	2007-2009	II	MINUA; MINADER; Universities	Studies prepared; Management enhanced	I
	E.12. Foster the integration of species related to the sustainable use of biological resources in community development programmes.	E.1. E.3.	2007-2009	II	MINUA; NGOs	Conservation enhanced	I

STRATEGIC AREA F: INSTITUTIONAL STRENGTHENING							
F.1	F.1.1. Prepare a scientific training programme of specialists on biodiversity studies (taxonomy of fauna and flora, identification of species and biodiversity assessment) of multidisciplinary and intersectoral teams connected to museums, universities, environmental organisations and other institutions.	A.1.1. F.2.1.	2007-2008	I	Universities; National Museum of Natural History	Programme formulated and submitted to possible donors	I
	F.1.2. Provide basic and vocational training to MINUA technicians, FDI, the police, forest rangers and guards, traditional authorities, demobilized soldiers and other staff of institutions at the central, provincial and municipal levels that are pertinent to the strengthening of technical capacity in order to guarantee enhanced biodiversity management.	F.2.1.	2007-2009	I	MINUA; FDI; INIP; IIA; NGOs; MINARS; Provincial governments; Universities	Technicians trained	II
	F.1.3. Provide training to national consultants on biodiversity assessments, ecological assessments, socio-economic assessments and Environmental Impact Assessment.	G.1.1.	2007-2008	II	Universities; MINUA	Consultants trained	I
F.2	F.2.1. Prepare programmes for the upgrading of basic infrastructure and equipment, in order to enable them to meet up with the needs required in the area of biodiversity.	F.1.1. F.1.2.	2007-2008	I	Universities; CNRF; INIP; IIA	Programme formulated	I
	F.2.2. Prepare foreign technical assistance and cooperation programmes subject to specific rules to contribute to the development of the scientific potential of Angola.	A.1.1. A.1.2.	2007-2008	I	MINUA, Ministry of Planning; Ministry of External Relations	Programme formulated	I

	F.2.3. Create infrastructural, human, financial and technical capacity for the normal operation of the Centre for Documentation and Information (CDI) for the deposit of all information on biodiversity in Angola.	A.3.1. A.3.2.	2008-2010	I	MINUA	Technicians trained CDI functional	I
	F.2.4. Create infrastructural, human and technical capacity at the level of Provinces and Municipalities in order to facilitate coordination between sectors.	C.2.3.	2007-2010	I	MINUA; Provincial governments	National officers trained	I
	F.2.5. Establish and build the capacity of a National Biosafety Officer to supervise and control the entry into the country and use of genetically modified organisms (GMO).	A.2.9.	2007-2009	I	CNRF	Control over GMOs improved	II
	F.2.6. Strengthen institutional and technical capacity of bodies responsible for the collection, treatment, analysis and publication of demographic and statistical data, with priority for the National Institute of Statistics (INE).	A.2.9.	2007-2010	II	INE	Reliable demographic data	I
	F.2.7. Prepare and distribute directories of national consultants with training and experience in the area of biodiversity and other key specialisation areas.	F.2.3. F.2.4.	2007-2010	II	MINUA	Directories prepared and updated periodically	I
	F.2.8. Create a coordination and operational system of national focal points for the supply of sectoral information of relevance to biodiversity in order to update the environmental information database and facilitate the processes for the preparation of reports on the environment.	F.2.4. G.3.3.	2007-2010	I	MINUA; Ministry of External Relations	Directory prepared and updated periodically	I

STRATEGIC AREA G: LEGISLATION AND IMPLEMENTATION							
G.1	G.1.1. Strengthen the application of the law and regulations on the conduct of Environmental Impact Studies especially in oil exploration and diamond mining areas in order to ensure that adequate environmental management measures are taken.	E.4. F.1.4. G.1.2.	2007-2012	I	MINUA	Negative impacts reduced	I
	G.1.2. Review the sectoral law in order to integrate and articulate the component of biodiversity into different economic sectors.	G.1.1.	2007-2009	I	MINUA (with other sectors)	New legislation created	I
	G.1.3. Approve the legislation, under preparation, on national parks, reserves and other protected areas.	C.1.2. C.1.3.	2007-2009	I	MINUA; Council of Ministers	Legislation approved	I
	G.1.4. Approve the Law on Environmental Crimes that is currently under preparation and another law on environmental responsibility.	G.1.5.	2007-2008	I	MINUA; Council of Ministers, National Assembly	Legislation approved	
	G.1.5. Strengthen the institutions responsible for ascribing environmental civil, administrative and criminal liability, included in the study and implementation of forms of participation of the population in support of the action of these institutions.	G.1.1. G.1.4.	2008-2009	I	MINUA; Ministry of Justice	Institutions strengthened	I
	G.1.6. Create mechanisms for the implementation of the regulatory legislation (Decree nr.92/04) on the prohibition of the importation of genetically modified organisms and approval of the legislation on access to genetic resources and associated traditional knowledge.	F.2.5	2007-2009	I	CNRF; MINADER; MINUA; Council of Ministers	Control improved Legislation approved	I

	G.1.7. Review and, if necessary, reformulate the legislation and measures regarding the control of entry into the country of exotic species that may become invasive to the detriment of local species.	A.2.8; D.7.1	2007-2009	II	MINADER; MINUA	Legislation approved	I
	G.1.8. Adopt legislation and measures on the control of exportation from the country of genetic species and resources.	A.2.8.	2007-2009	I	MINUA; MINADER; CNRF; Council of Ministers	Legislation approved; measures adopted;	I
G.2	G.2.1. Strengthen the implementation mechanisms of the recommendations of the Conventions and Protocols (CBD, CITES, CMS, Ramsar, Cartagena), through the training of the services responsible for the ports, airports and land border posts.	G.2.2. G.2.3.	2007-2009	I	MINUA; MINADER; Ministry of Interior	Mechanisms enhanced; officials trained	I
	G.2.2. Approve and ratify the Convention on Wetlands of International Importance, Especially as Habitats of Aquatic Birds (Ramsar Convention). After its ratification, a strategy should be prepared for the conservation of the wetlands.	G.2.1.	2007-2008	I	MINUA; MIREX; Council of Ministers; National Assembly	Convention approved and Strategy prepared	I
	G.2.3. Ratify the CITES and Cartagena Protocol on Biosafety and deposit the instruments for the Ratification of these Conventions and others already approved such as the Bona Convention on Migratory Species.	G.2.1.	2007-2008	I	MINUA; MIREX; Council of Ministers; National Assembly	Convention ratified	I

	G.2.4. Review the possibility of accession to the following African conventions and agreements on biodiversity: the African Convention on the Conservation of Nature and Natural Resources (Algeria 1968), the Lusaka Agreement for Cooperative Control on Illegal Trade in Wild Fauna and Flora (Lusaka 1994), African Convention on the Banning of Importation and Control of Across Border Movement and Management of Hazardous Residues (Bamako, 1997) and the Aarhus Convention (1998).	G.2.1.	2007-2008	I	MINUA; MIREX	Reports with recommendations Conventions ratified Angola Party to the Conventions	I
G.3	G.3.1. Ensure the participation of Angola in the Conference of the Parties to the multilateral environmental agreements to which it is party, to exchange experiences and information.	G.2.1.	2007-2012	I	MINUA and other sectors	Reports prepared; Effective participation	I
	G.3.2. Strengthen the active participation of Angola in regional and international initiatives related to biodiversity (e.g. SADC Regional Biodiversity Programme, New Partnership for Africa's Development, Millennium Development Goals, etc).	G.2.1. G.3.1.	2007-2012	I	MINUA and other sectors	Position strengthened Experience acquired	I
	G.3.3. Establish and maintain stable focal points for compliance with the commitments of Angola as well as to follow up on regional and international negotiations and better communication between MINUA, MIREX and the Secretariats of the Conventions.	F.2.4. G.2.1. G.3.1.	2007-2012	I	MINUA; MIREX and other sectors	Focal points indicated Communication enhanced	I

STRATEGIC AREA H: MANAGEMENT, COORDINATION AND MONITORING							
H.1	H.1.1. Identify office and structure of the unit as well as mobilize financial resources for the normal operation of the Strategy Management and Coordination Unit.	H.1.2.	2007-2009	I	MINUA (with other sectors)	Unit established, funds mobilized	II
	H.1.2. Identify and recruit human resources for the normal functioning of the Strategy Management and Coordination Unit and guarantee the attainment of its overall objective.	H.1.1.	2007	I	MINUA (with other sectors)	Staff recruited; Unit functional	II
	H.1.3. Define terms of reference prepare project proposals based on the activities identified in the Action Plan and select partners for their implementation.	H.1.1. H.1.2.	2007-2008	I	MINUA (with other sectors)	Terms of reference prepared	I
	H.1.4. Prepare the terms of for the identification of partners and coordination of monitoring and evaluation activities of the Strategy implementation process.	H.1.1. H.1.2.	2007	I	MINUA (with other sectors)	Partners selected; Periodic monitoring and evaluation	I
H.2	H.2.1. Prepare information brochures, publish books on biodiversity in Angola and embark on actions of dissemination of the outputs of Strategy implementation activities.	H.1.1.	2007-2012	I	MINUA	Information disseminated	II
	H.2.2. Prepare annual reports on the progress of the Strategy implementation for wide distribution at the national level and sending to the Secretariat of the Convention on Biological Diversity.	H.1.1.	2007-2012	I	MINUA; MIREX; Council of Ministers; National Assembly	Annual Reports prepared; Information shared	I

ANNEXES

Annex 1 – Protected Areas in Angola

Designation	Province	Area (in km ²)
National Parks		
Bikuar National Park	Huíla	7,900
Cameia National Park	Moxico	14,450
Cangandala National Park	Malanje	630
Iona National Park	Namibe	15,150
Kissama National Park	Bengo	9,960
Mupa National Park	Cunene	6,600
Regional Parks		
Chimalavera Regional Nature Park	Benguela	150
Reserves		
Namibe Partial Reserve	Namibe	4,450
Búfalo Partial Reserve	Benguela	400
Mavinga Partial Reserve	Kuando Kubango	5,950
Luiana Partial Reserve	Kuando Kubango	8,400
Bird Island Total Nature Reserve	Luanda	2
Luando Total Nature Reserve	Malanje/Bié	8,280
Game Reserves		
Ambriz Game Reserve	Bengo	1,125
Longa-Mavinga Game Reserve	Kuando Kubango	26,200
Luengué Game Reserve	Kuando Kubango	13,800
Luiana Game Reserve	Kuando Kubango	11,400
Milando Game Reserve	Malanje	6,150
Mucusso Game Reserve	Kuando Kubango	21,250

Annex 2 – Legislation to Support Environmental Protection in Angola

General	Date of publication
Constitution of the Republic of Angola	Law nº 23/92 of 16 September
Environment Framework Law	Law nº 5/98 of 19 June
Territorial Management and Urbanization Law	Law nº 3/04 of 25 June
Law on Biological Aquatic Resources	Law nº 6-A/04 of 8 October
Law of Environmental Defense Associations	Law nº 3/06 of 18 January
Law on Consumer Defense	Law nº 15/03 of 22 July
Decree on Environmental Impact Assessment	Decree nº 51/04 of 23 July
Poverty Strategy	Resolution nº 9/04 of 4 July
Terrestrial Flora	
Regulation on Soil Flora and Fauna Protection	Decree nº 40.040 of 20 January 1955
Forest Regulation	Decree nº 44.531 of 21 August 1962
National Road Code	Decree nº 77/91 of 13 December
Stipulates that illegal logging and illegal traffic of forest products attract fines	Joint Executive Decree nº 26/99 of 27 January
Updates the Forest Regulation approved by Decree nº 44.531	Dispatch nº 149/00 of 7 July
Terrestrial Fauna	
Hunting Regulation	Legislative Diploma nº 2.873 of 11 December 1957
Sets forth the amounts to be charged for the issuance of hunting licenses	Joint Executive Decree nº 36/99 of 27 January
Readjustment of compensation fees for hunting forbidden animals	Joint Executive Decree nº 37/99 of 27 January
Genetic Resources	
Stipulates that the collection and exportation of phytogenetic resources can only be done by local or foreign nationals pursuant to authorization of the National Phytogenetic Resources Committee	Dispatch nº 59/96 of 14 June
Terrestrial Protection Areas	
Regulation on Soil, Flora and Fauna Protection	Decree nº 40.040, Series 1 of 9 January 1955
Regulation on National Parks	Ordinance nº 10.375 of 15 October 1958
Forest Regulation	Decree nº 44.531 of 21 August 1962
Land Law	Law nº 9/04 of 9 November

Law on water resources	Law nº 6/02 of 21 June
Biosafety	
Regulation on Soil, Flora and Fauna Protection	Decree nº 40.040, Series 1 of 9 January 1955
Hunting Regulation	Legislative Diploma nº 2.873 of 11 December 1957
On the prohibition of the importation of transgenic genetically modified seeds or grains	Decree nº 92/04 of 14 December
Establishes the fundamental conditions for obtaining licenses for the importation of seeds	Dispatch nº 12/U/97 of 2 April
Baseline Law on Agricultural Development	Law nº 15/05 of 7 December
Pollution Control	
Law on Water Resources	Law nº 6/02 of 21 June
Law on Petroleum Activities	Law nº 10/04 of 12 November
Law on Geology and Mining Activities	Law nº 1/92 of 17 January
Environment Protection during Petroleum Activities	Decree nº 39/00 of 10 October
Regulation of Procedures on the Petroleum Activities Waste Management, Removal and Disposal	Executive Decree nº 8/05 de 5 of January
Regulation on Petroleum Activity Spill Notification Procedures	Executive Decree nº 11/05 of 12 January
Regulation on the Management of Operational Discharge during Petroleum Activities	Executive Decree nº 12/05 of 12 January
Health Regulation Act	Act nº 5/87 of 23 February
Administrative Offences Act	Act nº 10/87 of September

Annex 3 – Multilateral Environmental Agreements

Multilateral Environmental Agreements	Date of Signature	Date of Ratification
International convention for the conservation of Atlantic tunas.	-	29.07.1976
Convention on the International Regulations for Preventing Collisions at Sea	-	03.10.1991
Concerning the Protection of the World Cultural and Natural Heritage	-	07.11.1991
International Convention for the Safety of Life at Sea (SOLAS)	-	03.11.1993
United nations convention to combat desertification in those countries experiencing serious drought and/or desertification particularly in Africa (CCD)	14.10.1994	03.06.1997
Convention on Biological Diversity (CBD)	12.06.1992	01.04.1998
United Nations Framework Convention on Climate Change (UNFCCC)	14.06.1992	17.05.2000
Vienna Convention for the Protection of the Ozone Layer	-	17.05.2000
Montreal Protocol on Substances that Deplete the Ozone Layer	-	17.05.2000
Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)	-	2001*
Convention on Migratory Species (Bona Convention)	-	15.04.2003
Convention on Wetlands of International Importance, especially as Habitats of Aquatic Birds (Ramsar Convention)	-	-
Convention on the Law of the Sea	09.03.2001	20.12.2001
International convention for the prevention of pollution from ships, 1973, as modified by the protocol of 1978 relating thereto (MARPOL 73/78)	-	21.12.2001
International convention on liability and compensation for damage in connection with the carriage of hazardous and noxious substances by sea (HNS 96)	-	20.04.2001
Protocol of 2003 to amend the international convention on the establishment of an international fund for compensation for oil pollution damage (FUND 92) and 1971 Protocol	-	20.04.2001
International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (INTERVENTION 69)	-	04.10.2001
Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage	-	01.11.2001

(CLC PROT 92)		
International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC 1990)	-	09.11.2001
Cartagena Protocol on Biosafety	-	2002*
Stockholm Convention on Persistent Organic Pollutants (POPs)	-	2005*
Rotterdam Convention on the Prior Informed Consent Procedure	-	2005*
Protocol on Fisheries (SADC)	14.08.2001	01.04.2003
Protocol on Wildlife Conservation and Law Enforcement (SADC)	18.08.1999	-
Protocol on Forestry (SADC)	03.10.2002	-
Revised Protocol on Shared Watercourse (SADC)	07.08.2000	-
Protocol on Energy (SADC)	24.08.1996	19.12.1997

** Agreements approved by the National Assembly but not yet published in the Government Gazette or agreements that have not been deposited in the respective secretariats.*