



Republic of Angola
Ministry of Environment

**6th National Report on
Biodiversity in Angola and the
Achievement
Of the AICHI Goals 2011-2020**



National Directorate of Biodiversity
March 2019





DATASHEET

6th National Report on Biodiversity in Angola And Achievement of AICHI Goals 2011-2020

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EXECUTIVE SUMMARY

Angola has been a party to the Convention on Biological Diversity (CBD) since 1994. The primary objective of this report is to assess the country's performance towards the objectives of the CBD and the AICHI GOALS 2011-2020 and to suggest new actions to be taken in order to be successful in the implementation of the Millennium Goals on Biodiversity conservation.

The measures taken at national level to achieve the Aichi goals are estimated at 60% as partially effective, 30% as effective measures and 10% as ineffective measures.

Angola has sought to raise awareness and educate the population about the values of biodiversity through communication and training programs in educational institutions.

Protected land areas now account for about 12.58% of the National surface area. The creation of the network of marine protected areas is expected in the near future. The Red List of Species of Angola was elaborated, which includes three (3) extinct species, twenty-nine (29) endangered species, one hundred (100) vulnerable species and eighteen (18) invasive species.

Angola has sought to integrate Biodiversity values into development and poverty reduction programs in all sectors of economic activity and has applied the Nagoya protocol on access to genetic resources and the fair and equitable sharing of the benefits resulting from their use.

Reducing the rate of loss of natural habitats including forests is still considered a challenge for the country, as an average of about 106 thousand hectares of natural forests and 370 hectares of plantations are lost annually, that is, a deforestation rate of about 0.20 to 0.25%.

To achieve the goals of the Global Plant Conservation Strategy, the country has contributed to scientific research to identify new species, endemic and invasive, characterization of the conservation status, and knowledge of the flora distribution throughout the country. Sustainable land management measures have been implemented incorporating peasant families.

Local communities have played a major role in contributing to the preservation of Biological Diversity in cooperation with both governmental and nongovernmental institutions. The government, in cooperation with local communities, has sought ways to reduce the degradation of natural ecosystems by producing sustainable coal (which serves as a livelihood for them), by means of land rehabilitation through agro-pastoral production and preservation of plant genetic resources of agricultural plants of food importance in specialized banks.

The main pressures and drivers of biodiversity change are: deforestation, erosion, illegal exploitation of natural resources, introduction of new exotic species, hunting and trafficking of animals, animal conflict, illegal fishing, weak management of solid waste and, among other causes such as the oil spill and discharges.

The evaluation of the measures clearly demonstrates that Angola is heading in the right direction to achieve the Aichi Goals 2011-2020, although efforts are still needed to achieve them in all.



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LISTA DE ABREVIATURAS E ACRÓNIMOS

ADPP	People-to-People Development Aid
ADRA	Action for Rural Development and Environment
BCC	Benguela <i>Convention Current</i> (Benguela Current Convention)
BIOCOM	Angola Bioenergy Company
CDB	Convention on Biological Diversity
CMS	<i>Convention on Migratory Species - Birds</i> (Convenção em Espécies Migratórias Aves)
CNRF	National Center for Plant Genetic Resources
DNPAIA	National Directorate for Prevention and Evaluation of Environmental Impacts
EBSAS	Marine Area of Biological and Ecological Importance
EEFS	Forest Experimental Station of Sacaála
EPP	Polyvalent and Professional School
FAO	Food and Agriculture Organization of the United Nations
FIDA	International Fund for Agricultural Development
FRESAN	Strengthening Resilience and Food and Nutrition Security
GEE	Greenhouse gases
GEF	<i>Global Environmental Fund</i> (Fundo Global do Ambiente)
GMO	<i>Genetically Modified Organisms</i> (Organismos Geneticamente Modificados)
IDF	Forestry Development Institute
IIA	Institute of Agricultural Research
INBAC	National Institute of Biodiversity and Conservation Areas
INIP	Institute of Fisheries Research
IRSEA	Regulatory Institute of Electricity and Water Services
ISCED	Higher Education Institute
JEA	Ecological Youth of Angola
KAZA	Cross-Border Conservation Area Kavango – Zambezi



LAC	Luanda Commercial Antenna
MINAGRIF	Ministry of Agriculture and Forestry
MOSAP	Market Oriented Smallholder Agriculture Project (Projecto de Agricultura Familiar Orientada para o Mercado)
NBSAP	National Biodiversity Strategy and Action Plan (Estratégia Nacional e Plano de Acção da Biodiversidade)
OEM	Marine Space Management
OGE	State General Budget
ODS	Sustainable Development Goals
PLENARCA	Conservation Network Expansion Plan
PNUA	UNEP - United Nations Environment Program
PNUD	UNDP - United Nations Development Program
POPs	<i>Persistent Organic Pollutants</i> (Poluente Orgânico Persistente)
PORAMP	Marine Protected Areas Network Management Plan
PRODEL	Public Company of Electricity Production
RETESA	Land Rehabilitation and Management of Pasture Areas in Agro-Pastoral Production Systems of Small Producers in South-West of Angola
RNA	Angola National Radio
RWCP	<i>Range Wide Conservation Program</i> (Programa de Conservação de Longo Alcance)
SADC	<i>Southern African Development Community</i>
SASSCAL	<i>Southern Africa Science Service Centre for Climate Change and Adaptive Land Management</i> (Centro de Investigação Científica para Mudanças Climáticas e Gestão Adaptiva da Terra)
TFO	The Future Okavango (O Futuro Okavango)
TPA	Public Television of Angola
UAN	Agostinho Neto University
UNFCC	United Nations Framework Convention on Climate Change



INTRODUCTION

Angola being part of the Convention on Biological Diversity (CBD), is committed to elaborate the national biodiversity strategic reports and the achievement of the Global goals.

The main objective of this report is to assess the implementation of the Biodiversity goals stipulated in the AICHI 2020 strategic plan. The elaboration of this report aims at identifying the progress of the conservation, restoration, valorization and sustainable use of natural resources of Biodiversity.

The Terms of Reference for the preparation of the 6th (sixth) report comprises 7 (seven) chapters, but since Angola does not have a National Biodiversity Strategy approved at government level, this document is composed of only six (6) in particular:

1. Implementation measures taken, assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve the Aichi goals;
2. Assessment of progress towards each goal;
3. Description of the national contribution to the achievement of each Aichi Global Biodiversity target;
4. Description of the national contribution to the achievement of the goals of the Global Strategy for Plant Conservation;
5. Additional information on the contribution of local communities;
6. Updated profile of biodiversity in the country.

For the preparation of this report, there was the participation of National administrative entities, Universities, Institutes, and Non-Governmental Organizations that gave all information to constitute it.

This document contributed to biodiversity assessment, identified threats, and developments throughout the national territory from 2011 to the present year.

Objective

The main objective of this report is to assess Angola's progress in meeting the Aichi Biodiversity Goals of 2020, in accordance with the principles and guidelines established by the Convention on Biological Diversity.



Methodology and General Description of the Report Structure

In order to carry out this report, the following phases have been fulfilled:

i. Bibliographical analysis as well as the observations of the Aichi goals;

At this stage, information on delayed reports and documents related to the subject under study was collected through material provided by related institutions;

ii. Gathering information on national objectives;

With the obtaining of the information through the data, a description of the national objectives as well as the justification of them was demonstrated, demonstrating their relevance in the application of the Aichi Biodiversity Goals.

iii. Assess the effectiveness of the implementation measures taken and techniques to achieve the National Goals;

Description of the main measures taken to contribute to the implementation of the National Biodiversity Action Plan as well as the evaluation of the effectiveness of these measures to achieve the desired results.

At this stage, the level of progression was also assessed by ranking the category of progress made for each of the goals set in the country, providing information on the evidence used in the evaluation of each method based on the information provided in the implementation measures including obstacles in implementation.

iv. Description of the national contribution to the achievement of each global Aichi Biodiversity goal;

This section has described the national contribution to the achievement of each Aichi global biodiversity goal replicating for each of the goals, analyzing to what extent these contributions support the implementation of Agenda 2020 for the Sustainable Development Goals.

v. Additional information on the contribution of indigenous communities to the achievement of the Aichi Biodiversity objectives;

vi. Biodiversity profile update

In this phase through the intermediation mechanism exhibited by the country was updated the Biodiversity Profile, describing the facts of biodiversity and the ongoing measures to improve the convention and sustainable management.



SECTION I. INFORMATION ON NATIONAL OBJECTIVES



SECTION I. INFORMATION ON NATIONAL OBJECTIVES

I. Information On National Objectives

Angola has not yet adopted National Biodiversity Goals and is therefore reporting progress using the Aichi Biodiversity Goals as a reference

Goal 1 of AICHI

"By 2020, at the latest, people should be aware of the values of biodiversity and what they can do to conserve it and to use it sustainably."



*Mabakica Farm - Wacu-Kungo, Cuanza Sul
(Jessica Cunha)*

I. Implementation measures taken assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve national goals.

Angola has sought to raise awareness among the population about the values of biodiversity, sustainable use and conservation. For this the government created several means such as:

- Communication Programs (Life on Planet Earth - TV TPA, Nossa Terra (Our Land) - TV ZIMBO, Green Channel - Radio RNA, Onda Natural (Natural Wave) - Radio LAC) through which all information related to the environmental sector is disseminated;
 - Dissemination of environmental information, linked to the Biodiversity area in all events held on environmental dates (31 January, 2 February, 3 March, 21 March, 22 April, 8 May, 22 May, 5 June, 8 June, 17 June, 16 September, 27 September);
 - Work done with communities through projects such as: IRCEA, Sustainable Coal, RETESA, FRESAM, MOSAP 1, MOSAP 2, Field Schools.
 - Training of staff in the areas related to Biodiversity in Universities:
- Many companies have resorted to environmental licensing as a result of the awareness raised by the Ministry of the Environment.

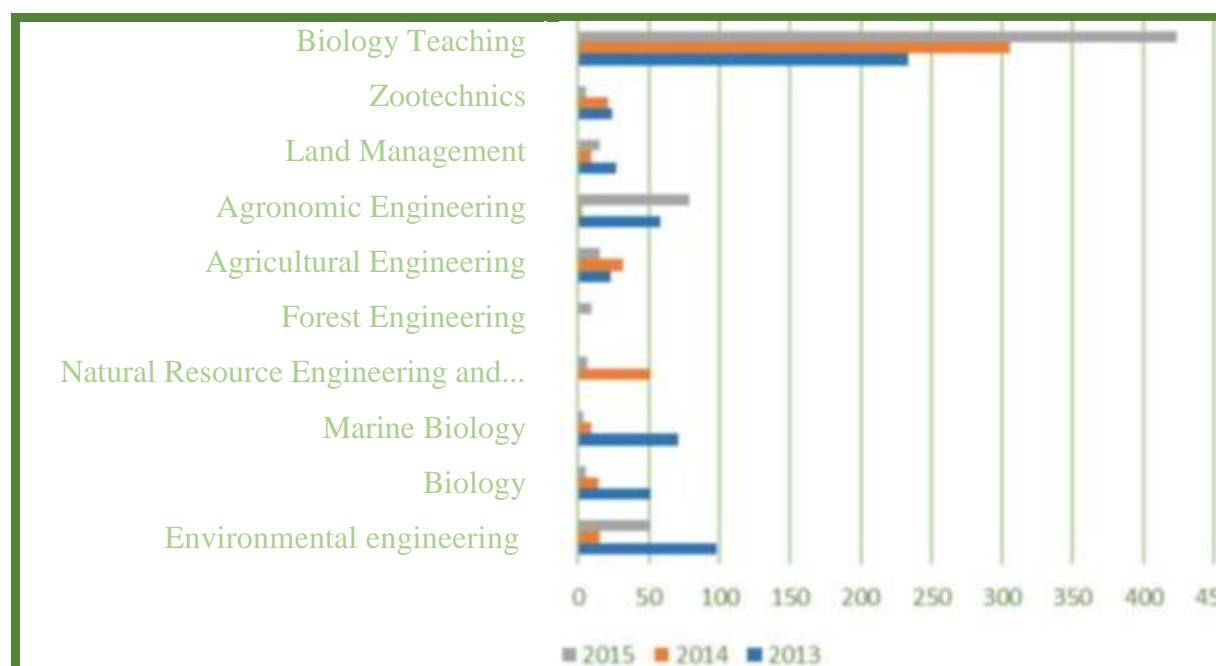


TABLE 1: Graduated staff (Source: Statistical Yearbooks for Higher Education from 2014 to 2016)

Staff Graduated			
COURSES / YEAR	2013	2014	2015
Environmental Engineering	98	15	51
Biology	51	14	6
Marine Biology	71	9	4
Natural Resource Engineering and Environments	0	51	7
Forest Engineering	0	0	9
Agricultural Engineering	23	32	15
Agronomic Engineering	58	3	79
Land Management	27	9	15
Zootechnics	24	21	6
Biology Teaching	234	306	424
TOTAL:	586	460	616

GRAPHIC 1: Graduations related to Biodiversity (Source: Statistical Yearbooks for Higher Education from 2014 to 2016)

Graduations Related to Biodiversity





Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

The measure has been assessed as partially effective because it has not been implemented to the required scale or at the appropriate institutional level to date:

- Since the work with the communities has not yet reached the desired expectation;
- Some communities still do not have access to the media and workshops used to disseminate information related to biodiversity

The methodology for the above evaluation was based on the great adherence to the workshops, frequent increase of the complaints of people about the damages caused in the environment and the necessity of their preservation. On the other hand, we have also heard the praises of people when environmental measures are well applied.

Websites, Web links and relevant files

Television Programs:

- A Vida no Planeta - TPA 1:
<http://tpa.sapo.ao/programacao/tpa1/detalhe/a-vida-no-planeta>

- Nossa Terra -TV Zimbo:
https://www.youtube.com/watch?v=6GkNbw9_NzQ

Kitabanga Project:

http://jornaldeangola.sapo.ao/sociedade/saude_e_educacao/kitabanga_salva_milhoes_de_tartarugas

http://www.angop.ao/angola/pt_pt/noticias/ambiente/2013/1/8/Projecto-Kitabanga-expande-tematica-sobre-proteccao-das-tartarugas,ac6d6b58-babb-4511-8e1d-57328c1aa294.html

Other information

The Retesa project covered 45 field schools in the following municipalities:

- Virei, Camucuio and Bibala (Namibe)
- Chongoroi (Benguela)



- Quilengues (Huíla)

The IRCEA Project covered the following provinces:

- Lubango
- Luanda
- Namibe

1.2. Goal 2 of AICHI

“By 2020, at the latest, biodiversity values should be integrated into poverty reduction and development strategies, national and local planning processes, and be properly integrated into the national accounts and documentation and communication system.”



Implementation measures taken assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve national goals.

Angola has sought to integrate Biodiversity values into development and poverty reduction programs:

- Recommending the integration of departments or environmental areas in all sectors that are responsible for the conservation and sustainable use of biodiversity, for managing environmental issues (e.g.: Mineral Resources and Petroleum Ministries, Biocom - Bioenergy Company of Angola, PRODEL);
- It allows to interact and caution biodiversity concerns in projects, plans and programs as well as insertion of biodiversity conservation tools;
- The implementation of the legislation concerning the preservation of Biodiversity (Basic Law of the Environment - Decree-Law No. 5/98 of 19 June, Presidential Decree 51/04 of 23 July on Environmental Impact Assessment, Executive Decree 252 / 18 of July 13 on the Red List, Law No. 6/17 of 4 January on Forest and Wild Animals, Law No. 3/14 of 10 February on Criminalization of offenses underlying money laundering).



Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

The Measure was evaluated as effective due to mandatory application of environmental decrees and laws in the various institutions of the country to promote harmonious and sustained development throughout the national territory, protecting the environment, natural resources, national historical, cultural and artistic heritage.

The methodology was based on studies of environmental impacts or environmental audits in the various locations of projects or companies in operation (susceptible to cause damage to the environment) and creation of environmental departments in companies or Ministries with greater dimension of impact on the environment.

Websites, Web links and relevant files

- Executive Decree 252/18 of 13 July on the Red List:
<http://extwprlegs1.fao.org/docs/pdf/ang178415.pdf>
- Law No. 6/17 of 4 January on Forest and Wild Animals:
<http://extwprlegs1.fao.org/docs/pdf/ang162520.pdf>
- Law No. 3/14 of 10 February on Criminalization of offenses underlying money laundering:
<https://docplayer.com.br/381190-Lei-n-o-3-2014-de-10-de-fevereiro-lei-sobre-a-criminalizacao-das-infracoes-subjacentes-ao-branqueamento-de-capitais.html>
- FRESAN PROJECT:
<https://www.saon-angola.org/noticias/fresan-projecto-de-fortalecimento-da-resiliencia-e-da-seguranca-alimentar-e-nutricional>

Other relevant information

On 7 May 2018, the Economic Commission of the Council of Ministers approved the Program for Local Development and Combating Poverty for the five-year period 2018-2022, under the guidance of the President of the Republic, João Lourenço. The program contains a series of projects in the lives of families.

The program of Combating Poverty is in charge of the Ministry of Social Action, Family and Promotion of Women



The program's philosophy continued, in addition to reinforcing the provision of basic social services, of Women

The program's philosophy continued, in addition to reinforcing the provision of basic social services, it foresees productive inclusion actions for vulnerable families, initially 70% for Ex-military personnel and 30% for other community members.

Websites, Web links and relevant files

- **The Executive approves local development program and fight against poverty:**

http://www.angop.ao/angola/pt_pt/noticias/politica/2018/4/19/Executivo-aprova-programa-desenvolvimento-local-combate-pobreza,9ddee3c4-d0d5-46af-86a9-4e4d25e42006.html

- **Program to combat poverty:**

http://www.angop.ao/angola/pt_pt/noticias/sociedade/2018/10/45/Programa-combate-pobreza-requer-disciplina-rigor,3bee58aa-9500-46a9-b533-0b03fec893b2.html

1.3. Goal 3 of AICHI

“By 2020 at the latest, incentives - including subsidies - harmful to biodiversity shall be eliminated or reformulated to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity shall be developed and applied in a manner consistent and in harmony with the Convention and other relevant national obligations, taking into account national socio-economic conditions.”



*Sanitary ditch / Drain
(José Morais)*

Implementation measures taken assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve national goals.

Implementation measures taken, assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve national goals.

- Combat the poaching through the application of legislation to the transgressors and subsequent conviction by the national court. Law No. 3/14 on the criminalization of offenses against money laundering was approved, in which the punishments for crimes against the environment are presented in articles 33 and 34°.



- The program of voluntary surrender and confiscation of firearms at the national level has continued and shown some fruits in what concerns the fight for the conservation of the biodiversity, since they were used for the poaching.

- Efforts have been made to promote habitat and animal life conservation, responsible development, combating poaching and animal trafficking.

- The Basic/Founding Law on the Forests and Wildlife was approved, which establishes the norms that aim to guarantee the conservation and the rational and sustainable use of the forests and the wildlife of the country. In turn, this law establishes the principles and general rules for the protection and management of forest and wildlife resources and their ecosystems. Ensuring that they are used and exploited in a sustainable, integrated and responsible manner.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

The second option was selected because although all the measures described above have been implemented, the conservation of the species and its sustainable use have still been difficult due to the high number of users who still practice poaching and indiscriminate use of species and forests.

Websites, Web links and relevant files

- Program to combat poaching:

http://jornaldeangola.sapo.ao/sociedade/caca_furtiva_provoca_extincao_de_animais

http://jornaldeangola.sapo.ao/politica/eua_apoiam_o_combate_a_caca_furtiva_em_angola

<https://www.dw.com/pt-002/angola-quer-apertar-cerco-à-caça-furtiva/a-39199747>

Presidential Decree No. 311/18, of 19 December - Regulation on the Import and Re-export of Endangered Species of the Wildlife and Flora/Forest.

Law no. "6/17 of January 24 - BASIC LAW ON FORESTS AND WILDLIFE

Law n ° 3/14 of 10 of February Article 33 (Aggression to the environment)

- Sustainable charcoal project:

<http://www.ao.undp.org/content/angola/pt/home/imprensa/o-projecto-sobre-carvao-vegetal-tem-mudado-a-vida-.html>



Other relevant information

The government of Cuanza Norte in Angola is developing a vast campaign to mobilize citizens about the importance of preserving wildlife and forests and the consequences of poaching.

- Angola participates in the Maiombe Regional Forest Conservation Initiative, which integrates four countries (DRC, Congo Brazzaville, Angola and Gabon), in which it intends to maintain and restore the integrity of the Maiombe ecosystems to conserve biodiversity, promoting stability improving the livelihood of local communities.

- The project "Promotion of sustainable coal in Angola through a value chain approach" aims to reduce the unsustainable and intensive mode of greenhouse gas (GHG) emissions in the production of coal in the regions of the provinces of Cuanza Sul and Huambo.

Websites, Web links and relevant

<http://m.portalangop.co.ao/angola/pt-pt/noticias/ambiente/2018/9/42/Autoridades-reforcam-estrategias-combate-caca-furtiva,adad730e-95a7-4c59-a7d5-6e870d5f4a37.html>

<https://www.biodiversidade-angola.com/area/area-de-conservacao-transfronteirica-de-maiombe/>

<https://www.biodiversidade-angola.com/informacao/>

Obstacles and scientific and technical needs related to the measure taken

Unfortunately, not all the Angolan population has the notion that hunting in Angola is prohibited.



Figure 1: Slaughtered Elephant (Source: <https://www.dw.com/pt-002/angola-quer-apertar-cerco-à-caca-furtiva/a-39199747>)



1.4. Goal 4 of AICHI

“By 2020 governments, businesses and decision makers at all levels should follow steps to achieve or have plans implemented for sustainable consumption and production and shall maintain the impacts of the use of natural resources within safe ecological limits.”



*The White Egret in Luanda Bay
(José Morais)*

Implementation measures taken assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve national goals.

- The Government and its partners have sought to do their best in sustainability by integrating principles of Biodiversity conservation in their programs of activities:
- The Ministry of Fisheries and the Sea at certain times alerts and prohibits the fishing of some species in order to prevent their extinction and allow their normal reproduction.
- The Basic Law on Forests and Wild Animals and the Forestry Regulations were approved, in which the norms are established to guarantee the conservation and rational and sustainable use of the existing forests in the national territory.
- Civil Protection and Fire Brigade Services have been helping the victims of environmental calamities;
- All the Exploration Companies before starting their activity have the obligation to license it, so that through a detailed study they can know the impacts that they may cause to the environment and caution them in the best way; on the other hand, they are advised to have the environmental department in their yards and to make a landscape recovery after the moment of exploitation;
- The Presidential Decree on the rules and procedures for abandoning wells and dismantling of oil and gas installations in the national territory was launched for the Oil Sector.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective



Unknown

The second option was selected because, even with the creation of laws, deforestation can be observed and artisanal fishing of forbidden species is still carried out.

Websites, Web links and relevant files

Law n ° 6/17 of January 24 - Law of Bases of Forests and Wildlife
 Presidential Decree n ° 91/18 of April 10 - Abandonment of Oil Wells
 Decree n ° 51/04 of July 23 - Evaluation of Environmental Impacts

Obstacles

The non-observance and consequent compliance with the law.

Other relevant information

The National Directorate for the Prevention and Evaluation of Environmental Impacts of the Ministry of the Environment in Angola has the task of proceeding with the environmental licensing of projects whose activity interferes significantly with the environment, under the terms of the legislation in force, from 2014 to 2017, 367 environmental licenses and 160 environmental licenses for operation were issued.

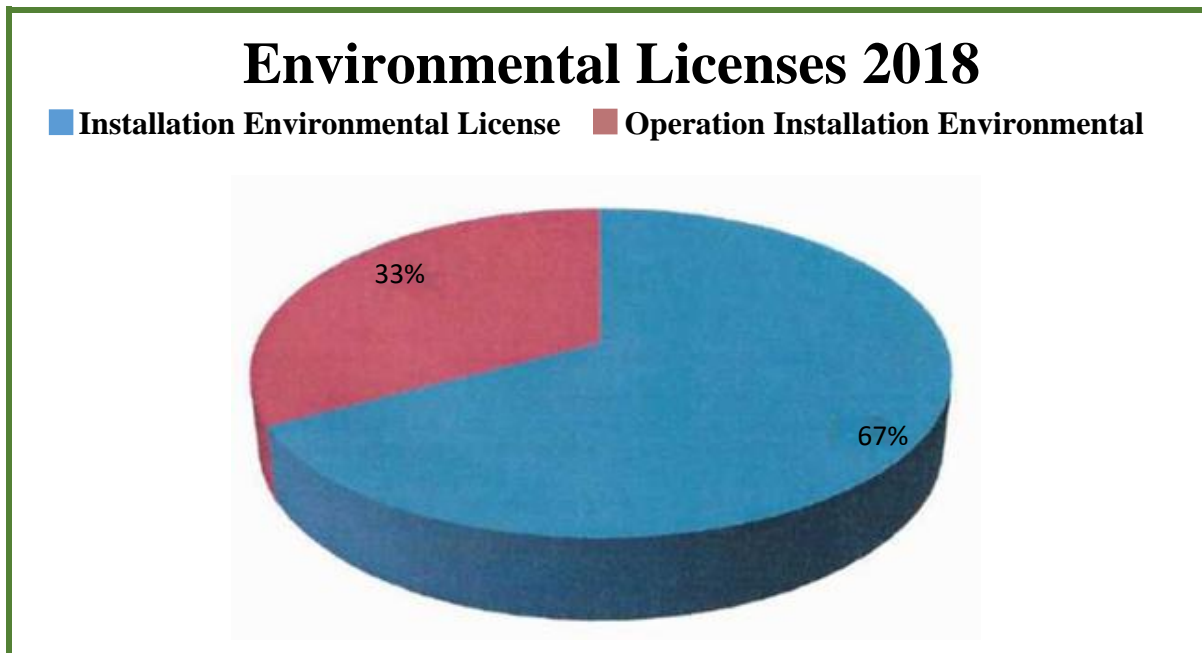
In 2018, 351 environmental licenses were issued (table and Graphics below)

TABLE 2- Environmental Licenses for Installation and Operation issued in 2018 (Source: DNPAIA)

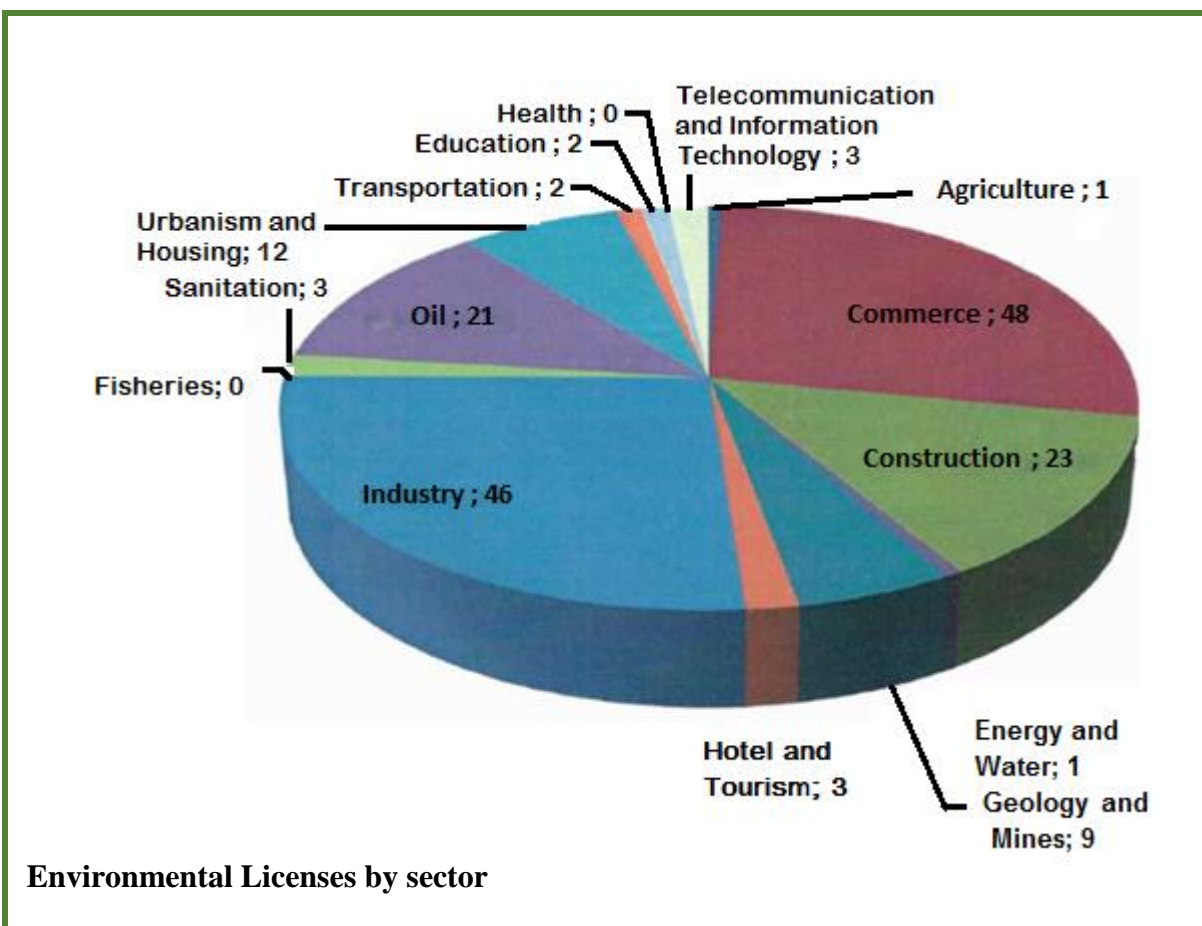
Environmental Licenses	
Installation Environmental License	Operation Environmental License
236	115
Total of Licenses Issued -	351



GRAPHIC 2- Environmental Licenses (Source: DNPAIA)



GRAPHIC 3- Environmental Licenses by sector of activity (Source: DNPAIA)





1.5. Goal 5 of AICHI

By 2020, the rate of loss of all natural habitats, including forests, should be reduced by more than half and, if possible, reduced to zero, degradation and fragmentation should be significantly reduced.



Implementation measures taken assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve national goals.

- In the country there is a forest management instrument, which is the Ministry of Agriculture and Forestry, specifically the IDF (Forest Development Institute) that identifies the main activities carried out in forests and creates ways to raise awareness among the population about their non-sustainable use.
- There is a Forest Regulatory Law which also provides for the setting of exploitation quotas by provinces, depending on the survey that is under way through the forest inventory, which has already allowed the Ministry of Agriculture to have an idea about the quantities of these resources.
- Since 2017 the Forest Exploration Licenses are an exclusivity of the Ministry of Agriculture, however, it is noteworthy that this body has not issued any license for forestry in the last 2 years.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

This was the selection because this goal is still a challenge for Angola, since there is still deforestation and habitat degradation.

Methodology:

On average annually as a result of natural and man-made phenomena (such as anarchic exploration, drought, uncontrolled fires, coal production, mining, among others) about 106 thousand hectares of natural forests and 370 hectares of plantations are lost an annual rate of 0.2 and 0.25% respectively.



Websites, Web links and relevant files

Law n ° 6/17 of January 24 - LAW OF BASES OF FORESTS AND WILDLIFE

- Devastation threatens forests in Angola:

(http://jornaldeangola.sapo.ao/reportagem/devastacao_ameaca_florestas)

- ENPRF- National strategy of Settlement and reforestation;

- System of Concessions of the Forest Sector:

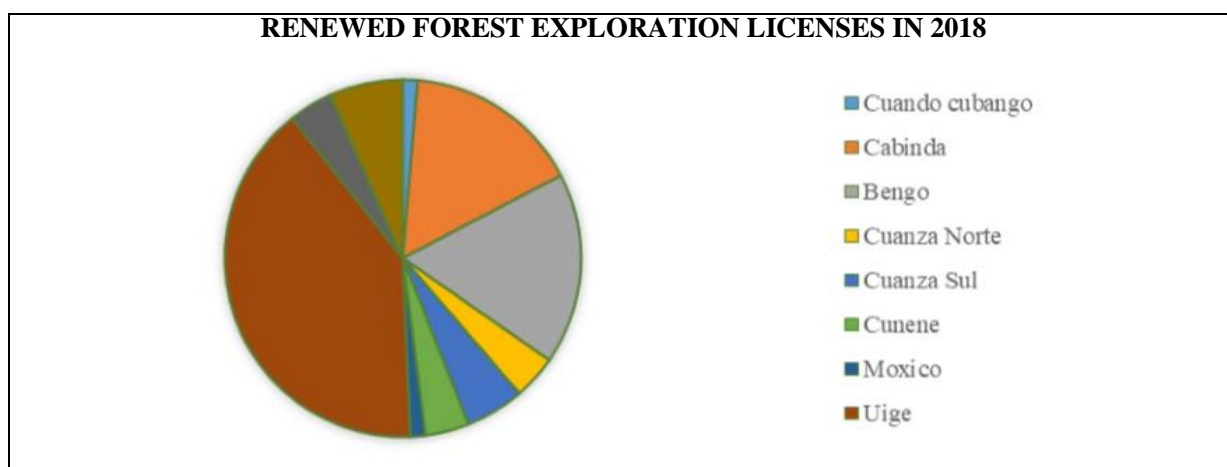
http://www.angop.ao/angola/pt_pt/noticias/economia/2017/2/10/Angola-adopta-sistema-concessoes-sector-florestal,97202440-94bf-4a49-a6e3-e72e48c30ac7.html

Other relevant information

Efforts have been made to give more attention to this subject by representatives of the entities and also by people.

In 2018 Angola revalidated about 75 licenses of forest exploitation:

GRAPHIC 4 - Forest exploration licenses renewed in 2018 (Source: IDF)



Obstacles

The existing poverty in Angola is due to the great lack of jobs and the lack of information



1.6. Goal 6 of AICHI

“By 2020, all stocks of fish and invertebrates and aquatic plants shall be managed and harvested in a sustainable, legal and ecosystem-based manner, so that overfishing is avoided, recovery plans and measures are implemented for all species that are depleted so that fishing has no significant adverse impacts on endangered species and vulnerable ecosystems and the impact of fishery on stocks, species and ecosystems are within safe ecological limits.”



*Fishermen in Luanda Bay
(José Morais)*

Implementation measures taken assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve national goals.

- The Ministry of Fisheries and the Sea annually defines closed seasons applicable to the whole fleet or only to certain segments and types of fishing. These closures also apply only to certain defined areas of the coast and are adopted on the basis of scientific advice from the competent authorities and may be modified at any time during the year if deemed necessary for the proper management of fisheries.



Figure 2- Closure calendar (2018)

- The Ministries of Fisheries and the Sea and the Ministry of Environment foresee in the short term the creation of a network of marine protected areas.
- The National Institute of Fisheries Research (INIP) has a program of environmental monitoring of the marine ecosystem, whose objectives are:
 - Collect physico-chemical and biological parameters in the environmental monitoring lines along the Angolan coast (Congo, Luanda, Lobito, Namibe and Rio Cunene) and at fixed stations (Luanda, Benguela and Namibe). (Next Figure)

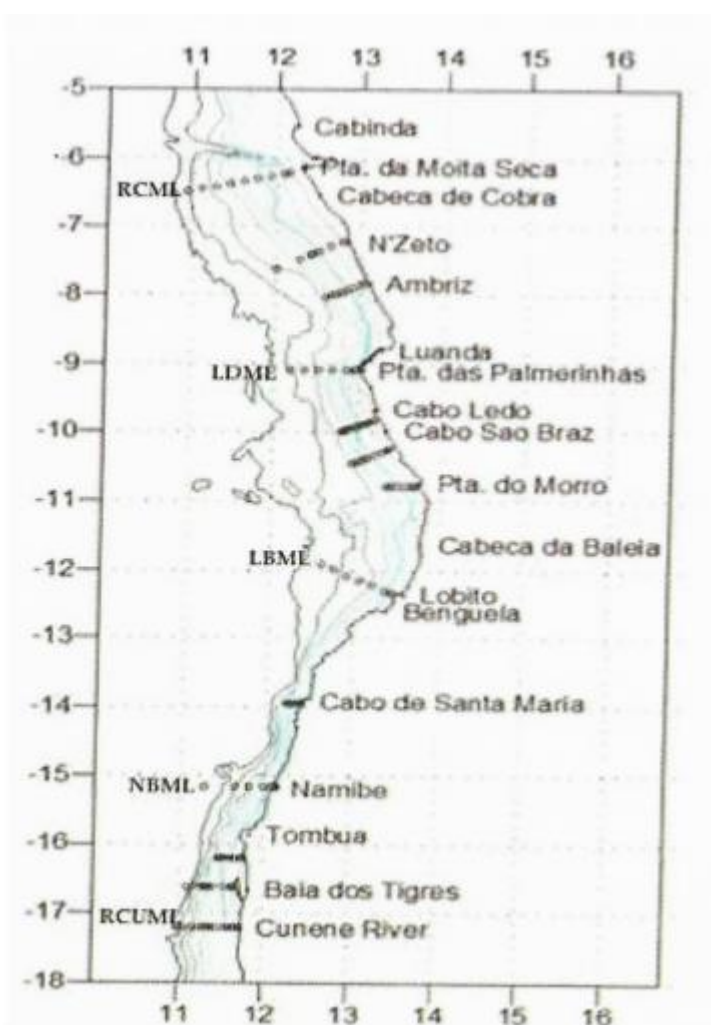


Figure 3 : Environmental monitoring lines along the Angolan coast (Source: INIP)

- Provide information for fisheries management and the assessment of environmental risks and their impacts on marine ecosystems.

Other INIP programs:

- Quality control program (controls the sanitary quality of fishery products and their derivatives in ways to support the Ministry of Fisheries in the certification of these products).
- Monitoring Program for abundance of fishery resources;
- Environmental monitoring program for inland waters.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective



- Measure taken was ineffective
- Unknown

The second option was selected because, even with the measures of temporal interdiction of the activity for the segments and types of fishing, still the practice (by some fishermen) in the periods of closure is observed.

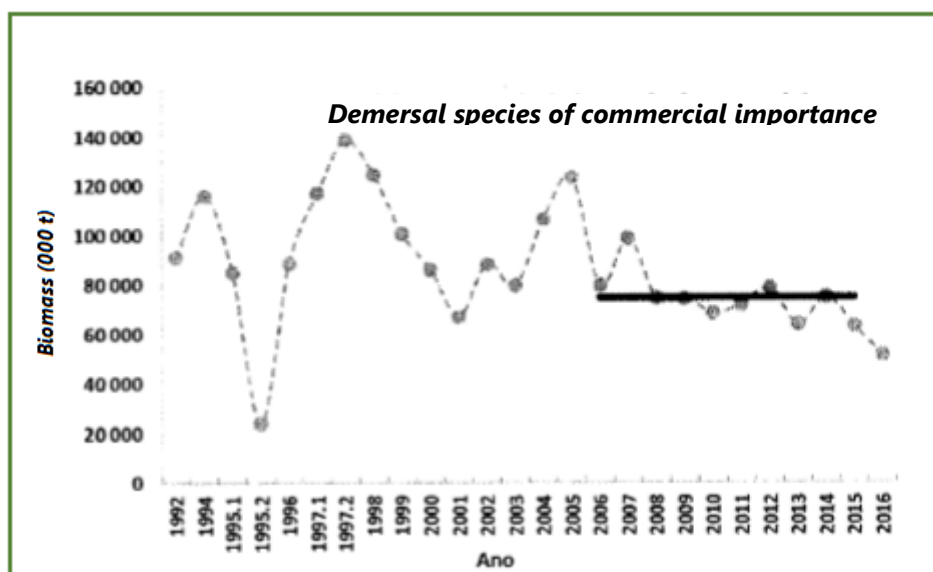
Websites, Web links and relevant files

- Fisheries and Aquaculture Management Plan 2018 - 2022
(<https://pescas.gov.ao/public/documentos/13.pdf>)
- Annual report of the National Institute of Fisheries Research (INIP) - 2015-2017
- Interdiction of horse mackerel fishing:
(<https://www.dn.pt/lusa/interior/angola-mantem-interdicao-a-pesca-de-carapau-em-2018-mas-quota-de-importacao-diminui-8924353.html>)

Other relevant information

The total biomass of pelagic species in 2017 off the coast of Angola was estimated at 1,050,000 tons. Total biomass of demersal fish in 2016 was estimated at 41,000 tonnes, representing a 21% reduction compared to 2015.

GRAPHIC 5 - Demersal species of commercial importance (Source: INIP)



**TABLE 3: Estimated global biomass index for major demersal groups and species (Source: INIP)**

Groups / Species	2008	2009	2010	2011	2012	2013	2014	2015	2016
Sparrows/Sparids	21.227	18.108	25.714	20.872	21.719	22.022	37.225	19.800	18.376
<i>D. macrophthxlmus</i>	3.176	876	2.395	777	3.671	3.413	8.443	1.955	1.306
<i>D. angolensis</i>	6.860	6.697	11.561	9.905	7.501	10.486	12.896	7.362	4.654
Hake	11.979	8.120	7.051	6.751	13.939	6.471	14.084	15.441	11.202
Groupers	1.187	779	643	705	1.249	760	1.092	435	375
Croaker/Meagre	12.684	6.064	8.256	13.884	8.073	16.442	6.970	4.292	3.477
<i>Uuibritta canariensis</i>	5,058	2.409	4.493	6.038	4.125	13.137	3.698	2.066	1.331
Grunts/Mugilids	7.411	8.192	10.873	14.677	20.538	7.297	7.230	12.172	7.303
<i>Bradydeuteris auritus</i>	70.217	40.010	24.838	36.639	51.544	45.625	55.248	30.924	26.763
Deep water									
Shrimps									
<i>Aristeus varidens</i>	1,508	2.204	1.134	1.272	1.525	1.944	2.387	1.626	1.495
<i>Parapenaeus longirostris</i>	1.622	1.432	1.648	1.492	3.971	2.149	2.183	1.661	1.232
Cephalopods	3.577	4.317	3.215	3.757	6.742	2.917	5.583	3.131	2.612
<i>Sepia orbignyana</i>	895	1.452	1.316	2.026	3.713	784	1.919	372	769
<i>Ulex coinãetii</i>	898	441	452	238	1.667	472	2.037	1.442	691
Sharks	1.831	3.009	1.205	1.482	659	2.122	1.107	1.096	750
Total	150.130	110.111	104.793	120.515	150.638	136.041	162.101	103.775	82.336

**Figure 4 - Tilapia of the Kwanza River - Bom Jesus****Websites, Web links, and relevant files**

Annual reports of the National Institute of Fisheries Research (INIP) - 2015- 2017



1.7. Goal 7 of AICHI

“By 2020, areas with agriculture, aquaculture and forestry should be managed in a sustainable manner, ensuring the conservation of Biodiversity.”



Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

- Sustainable management of the area of agriculture, the Plant Genetic Resources Center, has been working with the diversity of seeds used by farmers to conserve and use them in a sustainable way.
- For the aquaculture area, the Ministry of Fisheries and the Sea, created the Institute for the Development of small-scale fishing/Artisanal Fisheries and Communal Aquaculture, where the area of intervention is the promotion of sustainable and responsible activities of fishing and communal aquaculture.
- For forestry, the IDF (Forest Development Institute) has created ways to sensitize the population about the sustainable use of forests;

The Sacaála Forestry Experiment Station (EEFS) is one of the research units of the Institute of Agronomic Research (IIA) assigned to the Ministry of Agriculture, located in Huambo Province, which was designed to carry out forestry studies as tests of specific behavior for the comparison of the plasticity of the forest species (selection of the most interesting clones to produce good quality seed, production of seedlings of forest species, to carry out studies in the area of beekeeping and fish farming). EEFS has areas repopulated with eucalyptus, pine and cedar species (Figure below). These areas have been the source of seeds and / or plants for the production of seedlings in the season.


TABLE 4- Balance of the production of seedlings of the agricultural season 2017/2018 in the EEFS (source: II A)

N°	Species	Quantity Produced	Sold, Donated or Stolen, and Remaining Quantity in Nursery (Farming) until 4th Quarter of 2018				Remaining Seedlings in the Nursery	
			Sold	Donated	Stolen	Re-populated in the Station	Remaining in the Nursery	%
1	Eucalyptus pine trees	4,000	66	8	0	200	3,726	93.15
2	Pinheiros	10,000	99	0	75	0	9,826	98.26
3	Cedar	5,571	106	2	0	115	5,348	95.90
4	Yellow Acacia	900	2	4	0	0	894	99.30
5	Lilac Acacia	1,000	0	0	0	0	1,000	100.00
Total		21,471	273	14*	75	315	20,794	96.80

Donated for publicizing of the variety


Figure 5- Species planted by EEFS
Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective



Measure taken was ineffective

Unknown

This was the selection because this goal is still a challenge for Angola, since there is still deforestation and degradation of habitats.

Websites, Web links, and relevant files

Presidential Decree No. 5/14 - President of the Republic Devastation threatens forests in Angola (http://jornaldeangola.sapo.ao/reportagem/devastacao_ameaca_florestas)

- Leaflet of the Center for Plant Genetic Resources 2018 - 17-08;

Report on Activities Developed During the Year 2018; Experimental Station of Sacaála; INSTITUTE OF AGRICULTURAL/AGRONOMIC RESEARCH

Other relevant information

The company Estrela da Floresta (integrated forestry industry in the Huambo, Benguela, Huíla and Bié provinces) **of sustainable forestry** is responsible for managing 18 (eighteen) Angola's land concessions with the objective of developing new forest plantations and rehabilitating the old forests plantations of the region. With more than 80,000 hectares of forest and an additional area of land, the company aims to achieve strong long-term investment returns through the use of the best recognized silvicultural practices globally. The company's mission is to employ better global forestry practices that protect biological diversity, support long-term economic growth, and provide benefits to the Angolan community.

Websites, Web links, and relevant files

Estrela da Floresta:

<http://www.estreladafloresta.com/pt/acerca/>

<https://www.youtube.com/watch?v=Msa5MubX6Zc&feature=voutu.be>



1.8. Goal 8 of AICHI

“By 2020, pollution, including that resulting from excess nutrients, should be at levels not harmful to biodiversity and ecosystem function.”



*Solid Waste in Talatona, Luanda
(José Morais)*

Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

- Presidential Decree 141/12 of 21 June approving the Regulation on the Control of National Water Pollution.
- There is the Regulation on Waste Management and the Strategic Plan for the Management of Waste. After that, the National Waste Agency was created, which is responsible for regulating the application of legislation in this area;
- The National Waste Agency has monitored and made known the information necessary for the proper handling of waste in order to prevent biodiversity and ecosystems from being harmed.
- The rate of waste production in Angola is estimated at 0.46 kg per inhabitant per day. This production of waste is accentuated in the most populous urban centers of the country, where it can reach the value of 1.7 kg per inhabitant / day, and the tendency is of growth.



Some companies receive waste and recycle it, although this situation needs major improvements, towards environmentally sound waste management.

CURRENT POLICIES AND STRATEGIES (IN PROGRESS) - WHAT YOU SHOULD DO AT HOME.
In order to give a concrete response to the waste situation, a number of measures have been put in place to organize urban and peri-urban centers, to reduce, reuse and recycle waste, to improve sanitation and to educate and raise awareness of waste, prevention of waste production

REDUCTION Produce as little waste as possible using the products and materials as many times as possible: buy refillable cleaning and hygiene products, do not use disposable dishes, use sturdy boxes to pack food instead of aluminum foil.

REUSE/REUTILIZATION If a product or object no longer requires you, avoid throwing them away and reuse them in some way: use the supermarket bags several times, use the glass and plastic bottles to store food and small objects



RECYCLING If possible, send the recyclable waste to other products separate the waste at home and place it in the right places wherever possible

CURRENT POLICIES AND STRATEGIES - THE FUTURE OF ANGOLA -
It is the aim of the Ministry of the Environment, to make efforts to increase the collection of waste in the streets.



It is also the intention of the Ministry of the Environment to proceed with projects for the selective collection of waste of recyclable value, such as glass, paper, cardboard and plastic and metal packaging.

Waste that is collected will preferably be recovered in its own facilities instead of being dumped into landfill and into landfills.

VALORIZATION: It is the use of waste, using them in processes of transformation, such as recycling and composting, which produce a final product that can be used in people's daily lives and thus create more jobs

DATASHEET
MINISTRY OF THE ENVIRONMENT
Frederich Engels Avenue, 92



Republic of Angola
MINISTRY OF THE ENVIRONMENT




TOGETHER WE WILL IMPROVE THE COUNTRY



COLLABORATE FOR A BETTER ENVIRONMENT

Figure 6 – Solid waste solutions adopted by the Ministry of Environment.


SOLUTIONS FOR WASTE



WASTE PRODUCTION

The rate of waste production in Angola is estimated at 0.46 kg per inhabitant per day. This production of waste is accentuated in the most populous urban centers of the country, where it can reach the value of 1.7 kg per inhabitant / day, and the tendency is of growth.

Economic development, the expansion of urban areas, the development of peri-urban and rural areas are all factors leading to increased waste production and require an effective and efficient national collection and treatment system to respond to the new reality of waste.



SITUATION IN THE PROVINCES


In most of the country's provinces, with the exception of Luanda, province, the collection of waste is still poorly organized and structured, with few sites with containers for waste disposal

The collected waste is disposed of in dumps without protection for the Environment and public health, being a potential source of contamination and diseases.

WASTE CHOICE

In 2010, the "Clean Angola" campaign was launched with the objective of implementing, throughout the country, actions to clean up the cities, lectures and awareness activities and environmental education

In some cities there are already companies that collect the solid waste accumulated near the residences or roads and transport them to areas of.




Considerable improvements have been made in the collection systems of several cities. However, the development of this process remains one of the major challenges of waste management in the country, and there is a need to improve the number of containers on the street as well as the efficiency of the system.

Despite this reality, there are already bets in the practice of selective collection in small and medium scale, being a reason of confidence for the future of the country.


KNOWING THE WASTE

In order to know the residues it is necessary to identify the process or activity that originated them, as well as to know their constituents and characteristics and to identify them by comparison with lists of residues and substances whose impact on health and the environment is known.



FINAL DESTINATION OF WASTE

In Luanda, waste has been deposited in the Mulenvos landfill (in the photo) in 2007, in a controlled and correct manner. However, in the remaining provinces, the waste is still deposited in dumps or burned in the open.





- The construction of landfills in all provinces is planned to be carried out nationwide by 2025. Landfills are under construction in the provinces of Huambo, Cabinda and Bengo, and in other provinces the sites for their creation have been identified, but conditional on funds that are being processed.
- The Ministry of the Environment, together with the Environmental Consulting companies, have advised the populations and entities responsible for projects to prepare Waste Management Plans, so that they know the best way of handling them in their projects and residences, encouraging the correct separation of their waste and recycling.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

Option selected because in Angola, many public and private companies as well as a large part of society are aware of the need for management and proper collection of waste. However, less than half adopt such practices and is still notable, pollution in various areas of the country, still taking proportions at harmful levels to biodiversity.

Websites, Web links, and relevant files

- Decree approving a regulation on pollution control of national waters:
[https://www.vda.pt/xms/files/v1/Newsletters/Flash_VdAtlas - Angola -
_Novo Regulamento para a Prevencao e Controlo da Poluicao das Aguas Nacionais-
06.08.2012-.pdf](https://www.vda.pt/xms/files/v1/Newsletters/Flash_VdAtlas_-_Angola_-_Novo_Regulamento_para_a_Prevencao_e_Controlo_da_Poluicao_das_Aguas_Nacionais-06.08.2012-.pdf)
- Decree on waste management:
[http://www.gckcc.ao/attachments/article/382/Decreto Presidencial 190 2012 de 24 de Agosto
Regulamento sobre Gestao de Residuos.pdf](http://www.gckcc.ao/attachments/article/382/Decreto_Presidencial_190_2012_de_24_de_Agosto_Regulamento_sobre_Gestao_de_Residuos.pdf)
- Construction of landfills in Angola:
[http://www.angop.ao/angola/pt_pt/noticias/ambiente/2018/7/33/Todas-provincias-com-aterros-
sanitarios-ate-2025,4f0f8796-63d8-4d69-bcb6-bf5b38d3375c.html](http://www.angop.ao/angola/pt_pt/noticias/ambiente/2018/7/33/Todas-provincias-com-aterros-sanitarios-ate-2025,4f0f8796-63d8-4d69-bcb6-bf5b38d3375c.html)



1.9. Goal 9 of AICHI

“By 2020, invasive alien species and introduction routes must be identified and prioritized; priority species must be controlled or eradicated and measures should be adopted to manage the routes, preventing the introduction and establishment of invasive alien species”.



*Sunflower in Viana, Luanda
(José Morais)*

Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

-The Red List of species was published in Angola in which 18 invasive species are identified in category D, namely:

- Cacusso (*Tilapia* sp), Cromolena, Congo ya Sika (*Chromolaena odorata*), *Solanum mauritanum*, Chameleon/Camára-de-Cheiro (*Lantana câmara*), Mutton (*Ricinus communis*), Water hyacinth (*Eichhornia crassipes*), *Prosopis* (*Prosopis glandulosa*), Devil's fig, *Opuncia* (*Opuntia stricta*), *Calotropis gigantea*, *Acacia saligna* (*Acacia saliga*), small Inga (*Inga vera*), *Leucaena* (*Leucaena leucocephala*), St. John's Wort (*Ageratum conyzoides*), Picão-bravo_Golden Button (*Galinsoga parviflora*), Bullfrog (*Tridax procumbens*), Cardo Santo (*Argemone mexicana*), Gourd (*Arundo donax*) e Margaridão_Girassol mexicano (*Tithonia diversifolia*).



Figure 7- Invasive Species in Angola (*Lantana camara* & *Eichhornia crassipes*)



- Biosafety projects: Cartagena and Nagoya protocols have been implemented in Angola

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- ✓ Measure taken was partially effective
- Measure taken was ineffective
- Unknown

The second option was selected because although the invasive species are already known, the growth of these species cannot yet be reduced. An example of this is the great expansion of water hyacinths that occur throughout the country and have invaded streams, wetlands and irrigation canals.

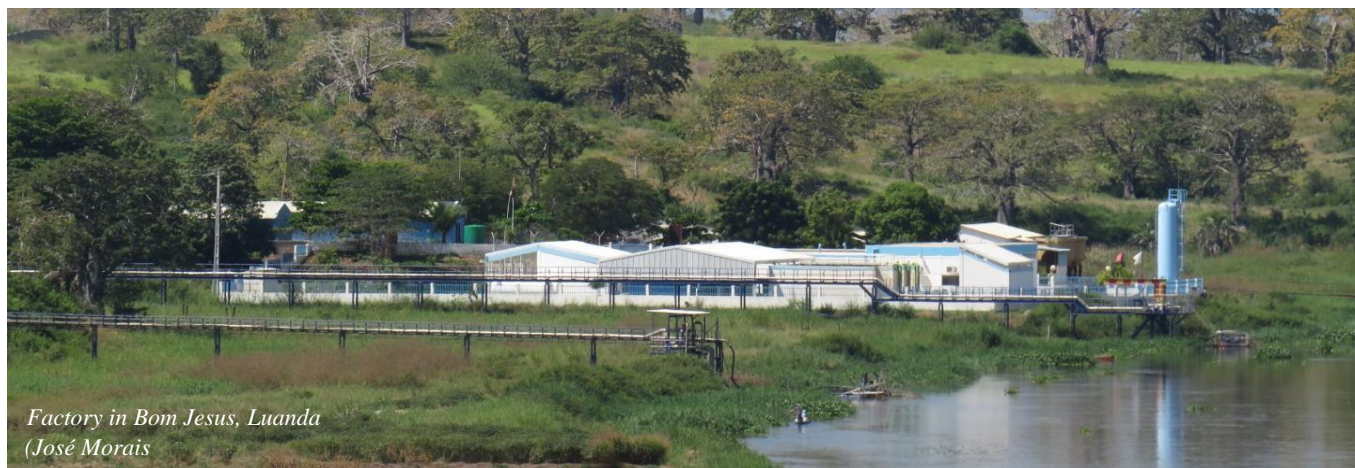
Websites, Web links, and relevant files

Executive Decree No. 252/18 of 13 July - Red list of the species of Angola.

Presidential Decree No. 311/18 of 19 December - Regulation on the Importation and Re-Exportation of Endangered Species of Wildlife and Forest.

1.10. Goal 10 of AICHI

“By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification, should be minimized in order to maintain their integrity and functioning.”



*Factory in Bom Jesus, Luanda
(José Morais)*



Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

- Wetlands and mangroves have been identified as vulnerable ecosystems in Angola. Regarding mangroves, efforts have been made to conserve them. In the province of Luanda there is already an area (Saco dos Flamingos - Mussulo) where the recovery of mangroves is well evident.
- Mangrove forests occur along the Angolan coast and constitute transitional ecosystems of enormous biological and ecological importance, providing shelter and nurseries for crustaceans and fish of economic and tourist importance to the country.
- Angola has formulated and implemented mangrove conservation projects specifically in the estuaries of the Chiloango, Congo, Bengo and Kwanza rivers.
- The resolution approving the accession of the Republic of Angola to the convention on wetlands for international import was approved.
- At the national level, wetlands were identified as Lagoon of Carumbo (Lunda Norte), Arco (Namibe), Saco dos Flamingos (Luanda), Mangroves of the Chiloango river mouth (Cabinda), Lagunário de Saurico (Bengo), Lagoon of Calumbo (Luanda) and Bay of Lobito (Benguela). The Kumbilo Wetlands Complex (Cuando Cubango), the section of the Kwanza River of Muxima / Barra do Kwanza / Luanda, the lagoon of Quilunda (Luanda) and the Chanas of the Cameia / Moxico National Park are other wetlands.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

The second option was selected because at the national level some more humid zones were identified, as mentioned above, and efforts have been made for the conservation of mangroves, although they have not yet been fully identified throughout the country;

Websites, Web links, and relevant files

Resolution No. 27/16 of 22 July approving the accession of the Republic of Angola to the Convention on Wetlands for International Import.

- Risk of extinction in Zaire:

http://www.angop.ao/angola/pt_pt/noticias/ambiente/2017/9/41/Biologo-alerta-para-risco-extincao-dos-mangais-Nzeto,57d50472-0760-43a6-8323-0451e3130400.html

- NBSAP 2012:



<https://www.wipo.int/edocs/lexdocs/laws/pt/ao/ao008pt.pdf>

- Wetlands:

http://www.angop.ao/angola/pt_pt/noticias/ambiente/2018/4/18/Identificadas-zonas-humidas-pais,8d16ba64-b957-4770-92cc-54705187c88b.html

Obstacles

The biggest challenge for the loss of wetlands has been the construction of infrastructures, which consequently alter the routine of birds and can reduce the amount of water in the area's water table.

Websites, Web links, and relevant files

- **Construction in wetlands causes evasion of migratory birds:**
http://www.angop.ao/angola/pt_pt/noticias/ambiente/2015/9/43/Construcao-zonas-humidas-causa-evasao-aves-migratorias,fca774af-4824-48f8-9288-89bfa6477a6f.html

1.11. Goal 11 of AICHI

“By 2020, at least 17% of land and inland waterways, and 10% of coastal and marine areas, especially areas of particular importance to biodiversity and ecosystem services, must be conserved through ecologically well-connected systems of protected areas and other efficient area-based conservation measures, and integrated into broader land and sea landscapes.”





Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

- In Angola, protected land areas increased from 6.5% to 12.58% of the National surface area in 2013. There were three new national parks: Mavinga and Luengué-Luiana, in Cuando Cubango, and Maiombe in Cabinda.
- The Ministry of Agriculture and Forestry has so far continued to implement measures to control and monitor forest exploitation contracts in order to ensure that the interests of the State (biodiversity protection) and the parties are not harmed, to improve inspection and control of transported wood, it is envisaged the construction of inspection and marketing warehouses in strategically located places to receive the wood coming from several points of production.
- The Ministry of the Environment, in collaboration with the Ministry of Fisheries and the Sea, foresees the creation of a network of marine protected areas, in which the Networking Plan for Marine Protected Areas (PORAMP) will be prepared, where the classification and characteristics of the network of marine protected areas, as well as the management and conservation measures to be applied to each of the defined protection and management classes will be proposed.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

It was selected partially effective because the terrestrial zones evolved from 6.5% to 12.58%, with the creation of new national parks.

The marine area is still a challenge, although Angola has good prospects.

Websites, Web links, and relevant files

- Integrated Management Plan for the Iona Park:

([https://info.undp.org/docs/pdc/Documents/AGO/Plano Gestao Integrado%20PN%20Iona Set 2 016.pdf](https://info.undp.org/docs/pdc/Documents/AGO/Plano_Gestao_Integrado%20PN%20Iona_Set_2_016.pdf))
Fisheries and Aquaculture Management Plan 2018 - 2022:

- Fisheries and Aquaculture Management Plan 2018 - 2022:

(<https://pescas.gov.ao/public/documentos/13.pdf>)

http://www.angop.ao/angola/pt_pt/noticias/economia/2018/0/2/Angola-conta-com-novo-modelopara-exploracao-florestal,b555aa76-238e-4695-9ce3-7920cb60271b.html



- **Angola raises conservation areas over the next decade:**

http://www.angop.ao/angola/pt_pt/noticias/ambiente/2017/5/23/Angola-eleva-areas-conservacaoproximo-decenio,789b56b4-e923-4f50-ac91-930137e0d8bb.html

Other relevant information

Regarding the potential of the country's forest resources, roundwood/log wood have a reserve of approximately 57,450,000 cubic meters:

TABLE 5- Reserves of Log wood in the country

Natural Forest	Reserves of Log wood available for exploitation	40,000,000 m ³
	Annual cutting capacity	360,000 m ³ /year (29.8%)
Planted Forest	Reserves of Log wood	17,450,000 m ³
	Annual cutting capacity	850,000 m ³ /year (70.2%)

In 2016, the estimated domestic consumption of timber in toro was 732,000 m³ / year with a population of 24.4 million inhabitants, ie the per capita consumption of wood in toro was 0.03 m³ / inhabitant.

GRAPHIC 6 – Timber production from 2013 to 2017 (m³)



The constitution of the Republic of Angola enshrines in Article 39 the "right of everyone to live in a healthy



and non-polluted environment as well as the duty to defend and preserve it". It is intended to establish the principles and general rules for the protection and management of terrestrial forest and wildlife/fauna resources and their ecosystems, ensuring that they are used and exploited in a sustainable, integrated and responsible manner.

Websites, Web links, and relevant files

Summary Report on the situation of the industrial sector; Ministry of Agriculture, January 2016.

1.12. Goal 12 of AICHI

“By 2020, the extinction of known endangered species should be prevented and their conservation situation improved and sustained, particularly for those of greatest decline.”



Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

- Angola already has knowledge of the endangered species, based on the inventory made in recent years, so the Angola Red List of Species was elaborated, which includes 3 extinct species, 29 endangered species, 100 vulnerable species and 18 invasive species.
- In relation to some species previously considered extinct, such as the Giant Black Palanca (which until 2009 had only been identified 6 individuals, and in 2018 had more than 80 controlled animals in the Cangandala National Park and 140 in the Luando); the Buffalo, that until 2012 only had been identified 100 animals, in 2018 had in the inventory more than 1000; the Zebra of the Mountain (that was practically extinct in 2012, and in 2018 had in the inventory more than 14 individuals).
- There is in Angola the Kitabanga Project for the conservation of sea turtles that until now allows to know and monitor the status of sea turtles along the coast of Angola, Contribute to the awareness of coastal communities in favor of safeguarding sea turtles, register and preserve more than 25,000 nests,



the inclusion of more than 3,000,000 small new turtles in the marine environment, among others.

- There is also the Project Palanca (Foundation Kissama), which also does the study in depth on the Giant Black Lever, allowing to know its evolution at the National level.
- As regards habitat conservation, 2018 presidential decrees were approved approving the Statutes of the Management Service of some National Parks.
- Based on a survey made in the Bicuar National Park, a preliminary reference list was created for the park with 409 (species, based on direct observations and historical records, 6 of these species
- Regarding Herpetology, the first reference list of amphibians and reptiles of the park was created, with 94 species. The entomological survey (insects) resulted in a preliminary reference list with 94 species of butterflies, including *Acraea bellona*, endemic to Angola.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

The measure taken was effective because species known to be endangered are already known and much has been done to conserve them.

Websites, Web links, and relevant files

- Kitabanga Project (www.projectokitabanga.org)
- Law No. 3/14 of 10 February on the criminalization of offenses underlying money laundering.
- Executive Decree 252/18 of 13 July on the Red List of Species of Angola
- Presidential Decree No 311/18 of 19 December - Regulation on the Import and Re-export of Species of Endangered Wildlife and Forest.
- Atlas of Herpetofauna:

<https://www.facebook.com/1458989884404094/posts/1979782928991451?sfns=mo>

Other relevant information

In 2016, the National Action Plan for the Conservation of Cheetah and Mabeco (African Wild Dog) was drawn up in Angola, since both species are globally threatened; according to the 2018 Angola Red List of



Species, Cheetah and Mabeco are classified as endangered species.

This plan aims to improve the status (population viability, distribution, ecological functionality and perception of the population) of Cheetah and Mabeco, ensuring the increase of viable populations according to their distribution in Angola.

Four criteria were used to review and update distribution maps for Cheetah and the African Wild Dog: resident area, possible resident area, recoverable and unknown area:

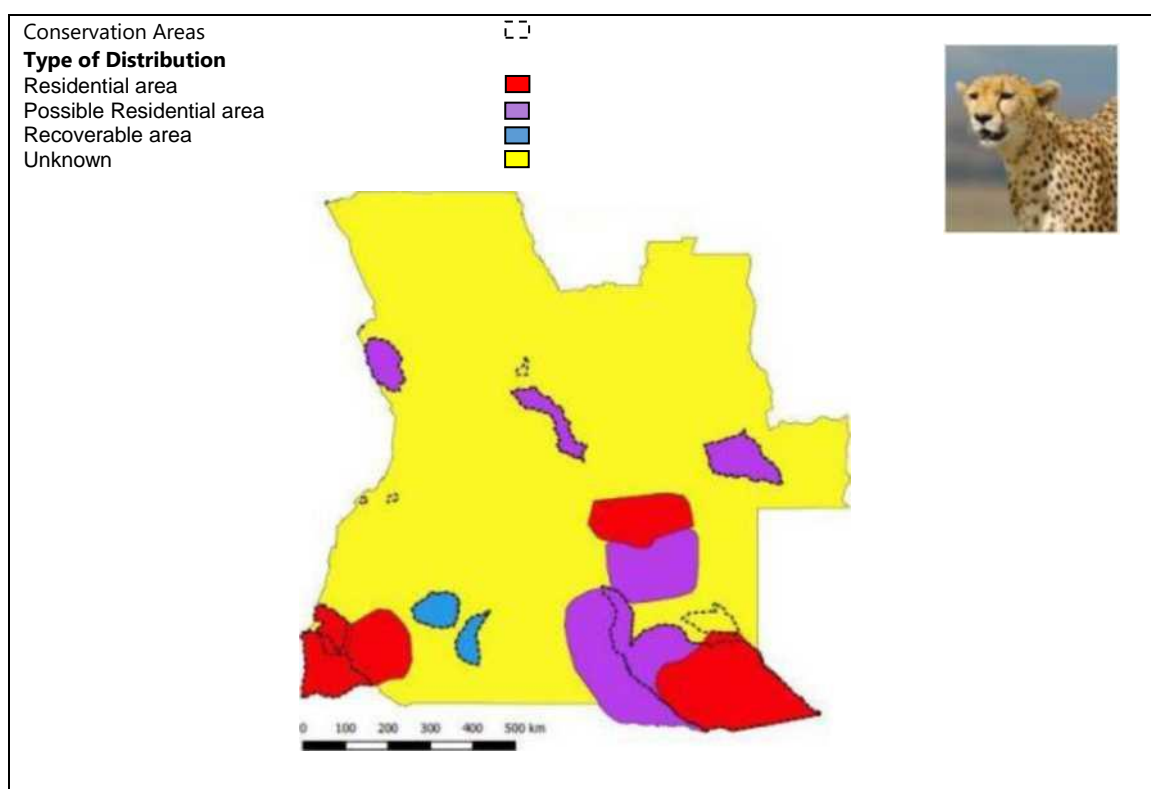


Figure 8: Updated map of distribution of Cheetah in Angola (updated in October 2016 at the National Workshop on Conservation Planning held in Quiçama, Angola).

- The residential area for Cheetah in Angola is 128,967km². The recoverable area is 13,109km² and the area designated as “Unknown” for Cheetah has decreased by 977.62Km².

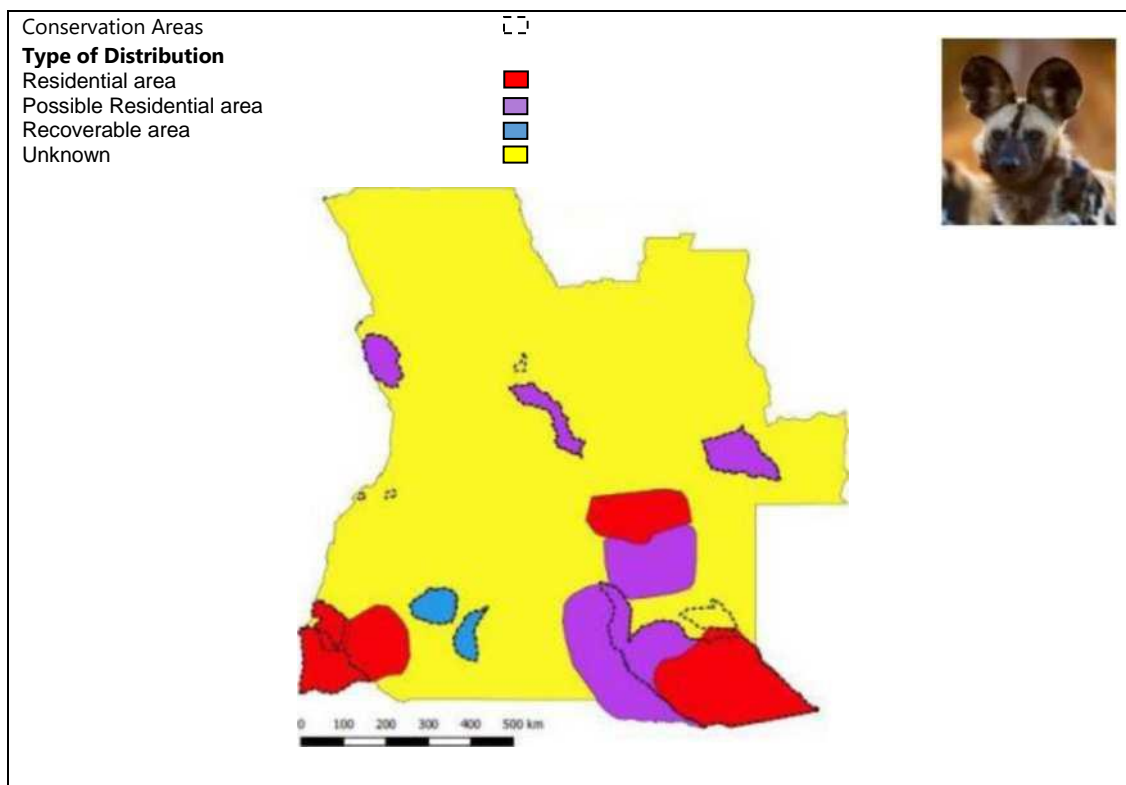


Figure 9: Updated map of Mabeco distribution in Angola (updated in October 2016 at the National Workshop on Conservation Planning in Quiçama, Angola).

For Mabeco (African Wild Dog), the residential area is 129,327km² and the possible residential area is 75,160km². The area designated as unknown to the African Wild Dog is 1,004,826km².

Websites, Web links, and relevant files

- National Action Plan for the Conservation of Cheetah and Mabeco in Angola:
http://www.cheetahandwilddog.org/WP/staging/9849/wp-content/uploads/2017/06/Plano-Nacional-de-Acção-de-Conservação-da-Cheetah-e-Mabeco-em-Angola_FINAL.pdf

1.13. Goal 13 of AICHI

“By 2020, the genetic diversity of cultivated plants and domestic animals and their wild relatives, including other species of social, economic and cultural importance, should be maintained, and strategies should be developed and implemented to minimize genetic erosion and protect their diversity genetics.”



Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

Describe a step taken to contribute to the implementation of your country's national biodiversity strategy and action plan. In order to maintain genetic diversity *in situ* and *ex situ*, Angola has the Plant Genetic Resources Center which studies the great patrimony of national plant genetic resources with a view to conservation and use for sustainable food security and development of the national economy.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

The Measure was evaluated effectively because the conservation and use of Plant Genetic Resources has allowed to:

- Increase the variability of conserved germplasm in gene banks to produce higher-yielding varieties and to help farmers adapt to climate change.
- Encourage farmers to maintain the valuable genetic variability in their fields and in community banks.
- Promote maintenance of genetic diversity and seed exchange among farmers in different regions.
- Characterize and select characteristics, resistance to drought, floods, high temperatures, variable growth



cycles to better adapt to climate change.

- Extend and consolidate wild species collections including local variety and wild relatives of crops.
- Identify strategies and prioritize improvement programs.

Protect endemic species from extinction.

- The methodology was based on the work that the Center for Plant Genetic Resources do with the community, laboratory work and work with other countries.

Websites, Web links, and relevant files

Center for Plant Genetic Resources - UAN, leaflet n ° 1/2018

1.14 Goal 14 of AICHI

“By 2020, ecosystems that provide essential services, including water-related services, that contribute to health, livelihoods and well-being, must be restored and protected, taking into account the needs of women, indigenous people and local communities, and poor and vulnerable.”



*Local Population in Sequele, Luanda
(Patrício Veiga)*

Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

Since 2015, the country has made significant progress in projects with communities linked to biodiversity.

The Resilience and Food and Nutrition Security (FRESAN) project in Angola strengthens sustainable family farming in the provinces most affected by climate change, namely Cunene, Huíla and Namibe.

At the national level, the Mosap 2 project is an initiative of the Ministry of Agriculture for Agricultural Development (IFAD), which implemented a total of 120 new field schools in the municipalities of Massango, Cahombo, Cacusso, Calandula, Cambundi-Catembo and Mucari, in the framework of the Family



Agriculture Project aimed at the Market in order to promote family agriculture in the communities.

The sustainable use of forests in the generation of electric energy by biomass to be implemented in the provinces of Cabinda, Huambo, Bié, and Benguela in ways to reach the neediest/most needy communities. The water for all project, a motto adopted by the Angolan government since 2014, has already benefited more than 400 (four hundred thousand) home connections reaching 700 (seven hundred) thousand in 2015 and has been extended to the current year, that is benefiting from large metropolises to the most needy communities.

The National Center for Plant Genetic Resources (CNRF) and the Institute of Agronomic Research (IIA) have developed studies showing that there is a great biological diversity of cultivated plants in Angola. These studies were mainly based on the collection of germplasm from farmers' field crops at the national level and their characterization of morphological and agronomic aspects. The results of this work are used for technical recommendations to farmers and agricultural entrepreneurs and to assist the supervising body in decision-making and the elaboration of agricultural management policies, that is, the main objective of the CNRF is to study the great resource patrimony of the National Plant Genetic Resources (RF) with a view to their conservation and use for sustainable food security and the development of the national economy.



Figure 10 - Activities carried out by CNRF

Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

- Measure taken was effective
- Measure taken was partially effective



- Measure taken was ineffective
- Unknown

The measure is partially effective because many of the programs established according to the goal described above are medium- and long-term projects, with the exception of the water for all project, which has already been completed in its entirety.

Websites, Web links, and relevant files

<https://www.saon-angola.org/noticias/fresan-proiector-de-fortalecimento-da-resiliencia-e-da-seguranca-alimentar-e-nutricional>

http://iornaldeangola.sapo.ao/provincias/mosap_ii_implementa_mais_escolas_de_campo

<http://www.angolaenergia2025.com/pt-pt/conteudo/energia-da-biomassa>

<http://www.gov.br/biodiversidade/biodiversidade-aquatica/zonas-humidas-convencao-de-ramsar.html>

Other relevant information

The RETESA project - Rehabilitation of land and management of pasture areas in the agro-pastoral production systems of the small producers of south-west Angola was carried out.

As with the above project, implementation of the Climate Resilience Integration project in the Agricultural and Pastoral Production Systems is underway, which takes place through the management of soil fertility in vulnerable areas using the Field Schools approach (IRCEA).

The reforestation operations of Estrela da Floresta Company seek to replace decades of generally poor forestry practices, often unregulated by large-scale, revitalized wood plantations. This resource has provided local communities with livelihoods, has created opportunities for new industrial partners and provides more timber for the domestic market.

Websites, Web links, and relevant files

<https://pt.slideshare.net/FAOoftheUN/informative-brochure-retesa-project-portuguese-brochura-informativa-projecto-retesa>

<http://www.angop.ao/angola/pt-pt/noticias/ambiente/2017/5/25/Governo-implementa-projectos-ligados-Seca-desertificacao,b299e13c-1c18-45cc-af53-5ebd6deb80eb.html>

Estrela da Floresta Website

<http://www.estreladafloresta.com/pt/acerca/>

<https://www.youtube.com/watch?v=zTS9g7Dkgw&feature=youtu.be>



1.15. Gol 15 of AICHI

“By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks should be expanded through conservation and restoration, including restoration of at least 15% of degraded ecosystems, thereby contributing to climate change mitigation and for adaptation and for combating (desertification).”

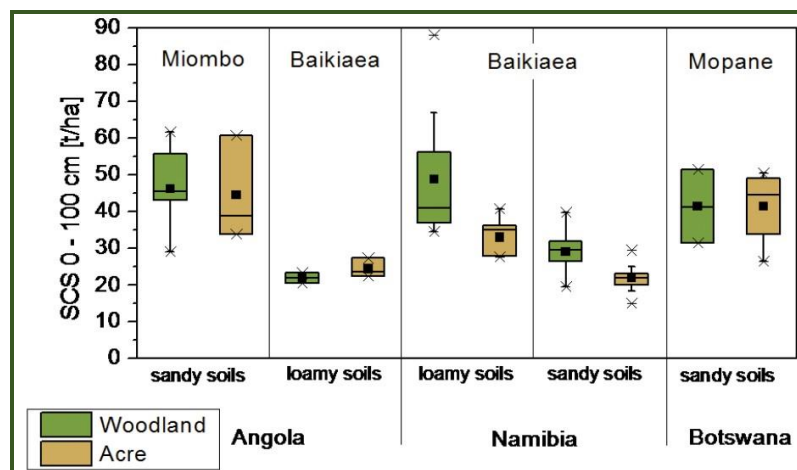


Vegetation on the Zambeze River, Moxico
(José Morais)

Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

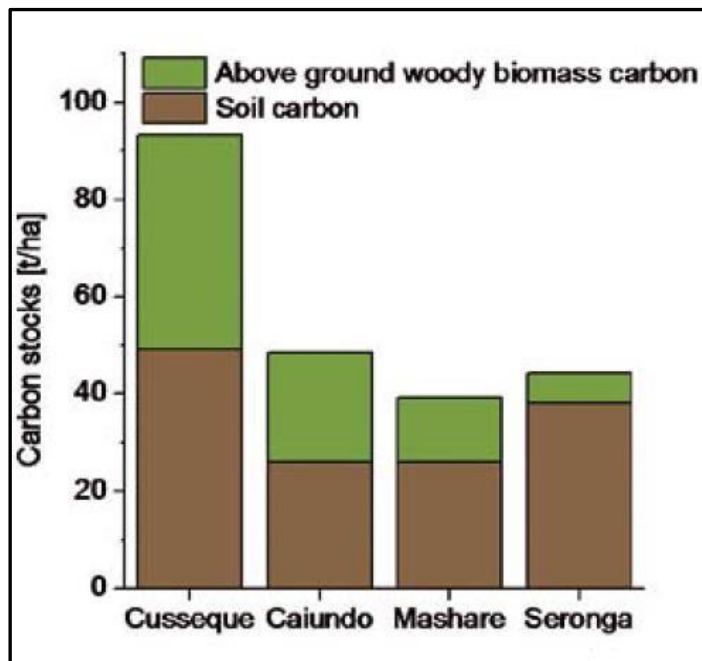
- There are advanced studies in the Okavango basin, which also included the study of existing carbon stocks in Angola:
- National soil carbon stocks were quantified for all landscape and land use units up to one (1) meter deep.
- The biomass carbon above the national soil corresponds to the climate gradient and decreases from the north to the south, being the largest amounts found in the north of the central nucleus of Cusseque. These stocks are higher than those of above-ground woody biomass.

GRAPHIC 7: Soil carbon stocks (SCS) in different forest types (Miombo in the central nucleus of Cusseque, Baikiaea in the central cores of Caiundo and Mashare and Mopane in the central nucleus of Aeronga) and in corresponding agricultural fields. We must consider that agricultural use occurred for different periods: a short period since the conversion of forests in Angola and long-term cultivation in Namibia and Botswana





GRAPHIC 8: Carbon stocks in forests of the four central nuclei.



For Angolan nuclei, the effect of the loss of carbon stocks is not visible due to a shorter period of use of agricultural land, from the beginning of agriculture, cutting, and burning.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

This goal is a challenge for Angola, although studies have been done in some areas related to carbon stocks.

Websites, Web links, and relevant files

Okavango Basin Report:

http://www.future-okavango.org/downloads/TFO_Report_portuguguese_small_version.pdf



1.16. Goal 16 of AICHI

“By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Resulting from its Utilization shall be in force and operative, consisting of national legislation.”

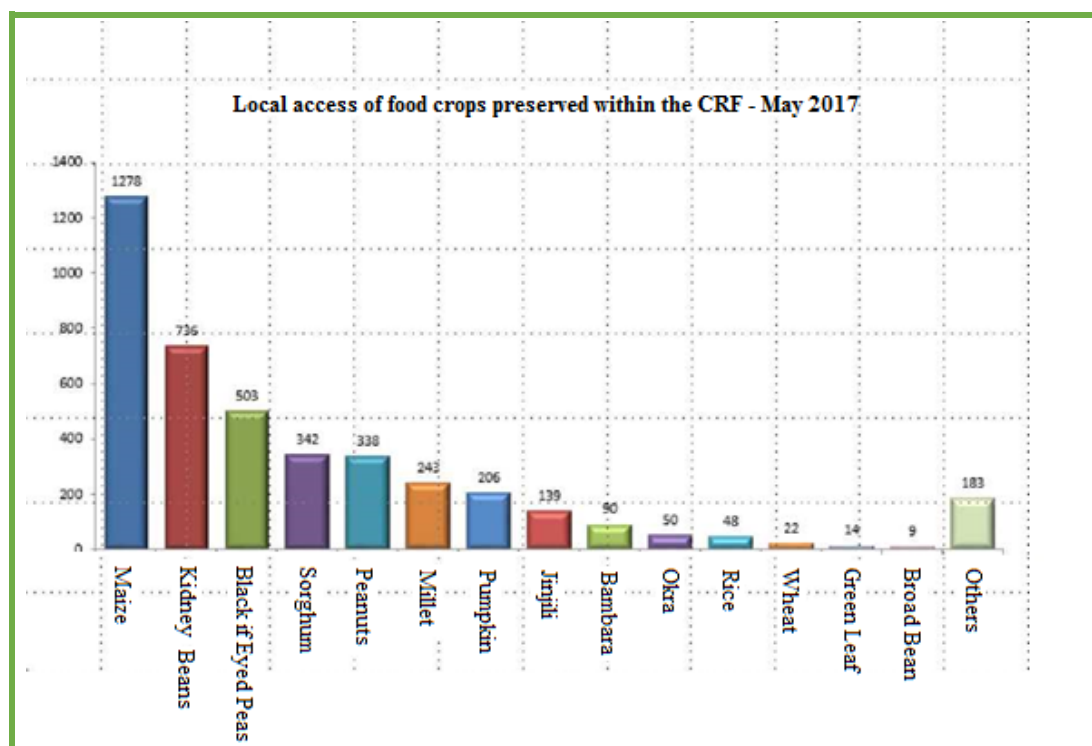


Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

- On 25 April 2015, Angola ratified the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits. As a result of its Utilization, the resources derived from biodiversity management are allocated fairly to the populations that protect the genetic heritage in the States, which is an incentive for social development, poverty eradication and environmental sustainability.
- Since 2007, the Cartagena Protocol on Biosafety has been in force for the Convention on Biological Diversity, which aims to ensure an adequate level of protection in the field of the transfer, handling and safe use of living modified organisms resulting from modern biotechnology that may have adverse effects. The protocol also aims to ensure the sustainable use of biological diversity, taking into account risks to human health and specifically focusing on transboundary movements.
- The Center for the Plant Genetic Resource Center/Phylogenetic Resources (CRF) is a Center for Scientific Research and Postgraduate Studies at Agostinho Neto University (UAN), which works closely with the Ministry of Agriculture and Forestry (MINAGRIF) as a result of a protocol between the two institutions signed in the year 2000. The CRF's main objective is to study the great heritage of National Plant Genetic Resources (RF), with a view to their conservation and use for sustainable food security and the development of the National economy. As Angola is a country with a wide variety of eco-regions and agricultural areas, and associated variability of genetic resources of wild and cultivated plants, it seeks to mitigate some effects of climate change by taking advantage of the great diversity of local varieties developed and conserved for long years in the farmers' fields



GRAPHIC 9 - Preserved food crops in CRF



Some actions are planned to support national activities for the conservation and use of biodiversity sustainability, such as:

- Sensitize society on the importance of environmental preservation, in order to sustain the conservation of natural resources that certainly Angola is quite rich.
- Perform and disseminate environmental education in all sub-systems of education as well as society in general.
- Ensure conservation of genetic resources for agriculture, fisheries, forestry and livestock..
- As Angola is a member of international legal instruments, an international treaty on Plant Genetic Resources for food and agriculture, as well as the Nagoya Protocol, it will emphasize that fair sharing of benefits generated from the use of genetic resources is respected.
- Implement the traditional knowledge record associated with genetic resources.
- Higher education programs have as their specific objective the conservation and sustainable use of genetic resources of associated biodiversity in the country.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown



The Measure was evaluated/assessed effectively because it was seen and approved by the National Assembly in Luanda on April 25, 2015.

On the other hand, the Plant Genetic Center has had great success in the performance of its work.

Websites, Web links, and relevant files

Resolution n ° 35/16 of 2 August

Other relevant information

The collection, conservation and characterization of CRF's Plant Genetic Resources allows to:

- Increase the variability of conserved germplasm in gene banks to produce higher yielding varieties and to help farmers adapt to climate change;
- Encourage farmers to maintain the valuable genetic variability existing in their fields and in community banks;
- Promote the maintenance of genetic diversity and the exchange of seeds between farmers in different regions;
- Characterize and select characteristics, resistance to drought, floods, high temperatures, variable growth cycle for better adaptation to climate change;
- Expand and consolidate collections of wild species, including local varieties and wild relatives of crops;
- Identify strategies and priorities for breeding programs.
- Protect endemic species from extinction;
- Regeneration of samples conserved in the gene bank;
- Multiplication of samples for distribution in research and improvement programs;
- Staff training in conservation and use of Plant Genetic Resources



Figure 11: Plant Genetic Resource



Websites, Web links, and relevant files

- **CRF**

CENTER OF PLANT GENETIC RESOURCES- UAN
 Building of Science and Technology (CNIC) Ho Chi Min Avenue, N °201
 P O Box 10043 (BG), Luanda, Angola
 Telephone: 244-222-3504 ° 5; Email crfuan@gmail.com
 Flyer nº 1/2018

<p style="text-align: center; color: red;">PARTICIPATIONS OF CRF</p> <ul style="list-style-type: none"> • Conferences, workshops and lectures with national institutions. • Discussions related to plant genetic resources at the national level, such as the National Committee on Plant Genetic Resources. • At the Regional level, especially in the SADC Regional Network. • At the international level in the Commission on Genetic Resources for Food and Agriculture. • At the meetings of the Rector Organ of the International Treaty on RF (Plant Genetic Resources) for Food and Agriculture. 	<p style="text-align: center; color: red;">CONSERVATION AND UTILIZATION OF PLANT GENETIC RESOURCES</p> <p>The introduction of exotic varieties of higher yield may be appropriate especially on large-scale farms, but adaptive unique qualities local conditions of local varieties should be conserved to contribute to food security present and future. In this context, the collection, conservation and characterization of RF is of great importance since it allows:</p> <ul style="list-style-type: none"> • Increase the variability of conserved germplasm in gene banks to produce higher yielding varieties and to help farmers adapt to climate change. • Encourage farmers to have the valuable genetic variability existing in their fields and community banks. • Promote the maintenance of genetic diversity and the exchange of seeds between farmers in different regions. • Characterize and select characteristics, resistance to drought, floods, high temperatures, variable growth rate to better adapt to changes; climate change. • Expand and consolidate collections of wild species, including local varieties and wild relatives of crops. • Identify strategies and priorities for breeding programs. • Protect Endemic Species from Extinction 	<div style="background-color: #FFFF00; padding: 5px; border: 1px solid black; text-align: center;"> <p>CENTER OF PLANT GENETIC RESOURCES- UAN</p> </div> <p>The Center for Plant Genetic Resources (CRF) is a Center for Scientific Research and Postgraduate Studies at Agostinho Neto University (UAN), which works closely with the Ministry of Agriculture and Forestry (MINAGRIF) as a result of a protocol between the two institutions signed in the year 2000. The CRF's main objective is to study the great heritage of National Plant Genetic Resources (RF), with a view to their conservation and use for sustainable food security and the development of the national economy. As Angola is a country with a wide variety of ecoregions and agricultural zones, and associated variability of genetic resources of wild and cultivated plants, it may have greater potential to mitigate some effects of climate change if it takes advantage of the great diversity of local varieties developed and conserved for long years in the farmers' fields.</p> <p style="text-align: center; color: red;">RESEARCH AREAS</p> <ul style="list-style-type: none"> - <i>Ex situ</i> conservation of germplasm harvested in a gene bank. - Survey and harvest of RF throughout the National territory. - Agromorphological Characterization in the Experimental Field.
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Figure 12: CRF Brochure 2018 - 17-08

- **Excerpts from the State of Biodiversity Report for food and agriculture in Angola.**

Obstacle:

There are major gaps in information and knowledge about the functioning associated in terms of direct and indirect benefits to production and other aspects of human well-being. Although the adverse impacts of biodiversity associated with production (eg weeds and pests) are a traditional focus of agricultural research, research on the conservation of this biodiversity is primarily concerned with the intrinsic value of organisms. There is still little research in Angola on the use of biodiversity. The native knowledge of biodiversity and its benefits is not written, and is transmitted orally by the families that own it.

Files based on sporadic projects, without monitoring and monitoring, result in data gaps and sufficient knowledge to assess the state of ecosystem services.



Regarding the biodiversity of indoor aquatic environments (species and habitat types) and underwater habitats little is known. There is a lack of information and knowledge about fish diseases and the tools to diagnose them. In fisheries, not all fishermen and actors are aware of the existence and consequences of diseases, or are familiar with instructions and regulations on disease prevention, which increases the risk of their spread.

Ecosystem services lack a precise scale for their assessment. The concern is that land cover maps used as indicators do not accurately reflect the impacts of management and drivers of the microscapes.

Research on ecosystem services is complex and requires an interdisciplinary approach, which in turn establishes limitations on human and financial capacity. There is also poor quantitative and qualitative availability of researchers to conduct experimental studies in the agricultural and forestry and landscape sectors, as well as studies of the social and economic implications of associated biodiversity

Websites, Web links, and relevant files

Excerpts from the state of biodiversity report for food and agriculture in Angola.

1.17. Goal 17 of AICHI

“By 202015, each Party shall undertake, adopt as policy tool and begin to implement an action plan and strategic national parcipatory and updated”



Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

The National Strategy and Action Plan for Biodiversity 2018-2025 has already been prepared, which has not been approved yet for administrative reasons. It guides us on the goals and actions that must be implemented for the conservation of Biodiversity, in order to guarantee the well-being of our populations and contribute to the strengthening of the national economy.



Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

The third option was selected because, as mentioned above, the National Strategy Project and Biodiversity ctio Plan exist, but it is still being approved by the National Government.

Websites, Web links, and relevant files

National strategy and plan of action for biodiversity 2018 - 2025

1.18. Goal 18 of AICHI

“ By 2020, traditional knowledge, innovations in practices of local communities relevant to the conservation and sustainable use of biodiversity, and their customary use of biodiversity and their customary use of biological resources must be respected, subject to relevant national legislation and international obligations, and fully integrated and reflected in implementing the convention with the full and effective participation of indigenous communities at all relevant levels.”



*Drying of Cassava
Bumba Village, Malanje
(José Morais)*

Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

- Presidential Decree n. ° 216/11, of 8 August in Article 3 on National priorities in land management, provides:



b) Guarantee of access and use of land to citizens, recognizing the customary rights of access and land management of resident rural communities promoting social and economic justice in the countryside;

h) conservation of areas of ecological interest and management of natural resources in a sustainable manner that can guarantee the quality of life of present and future generations by ensuring that total and partial protection zones maintain environmental quality and the special purposes for which they were constituted.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- ✓ Measure taken was partially effective
- Measure taken was ineffective
- Unknown

It was selected because, despite being decreed by law, the customary rights of access and management of the lands of the resident rural communities are still little respected, promoting social and economic justice in the countryside.

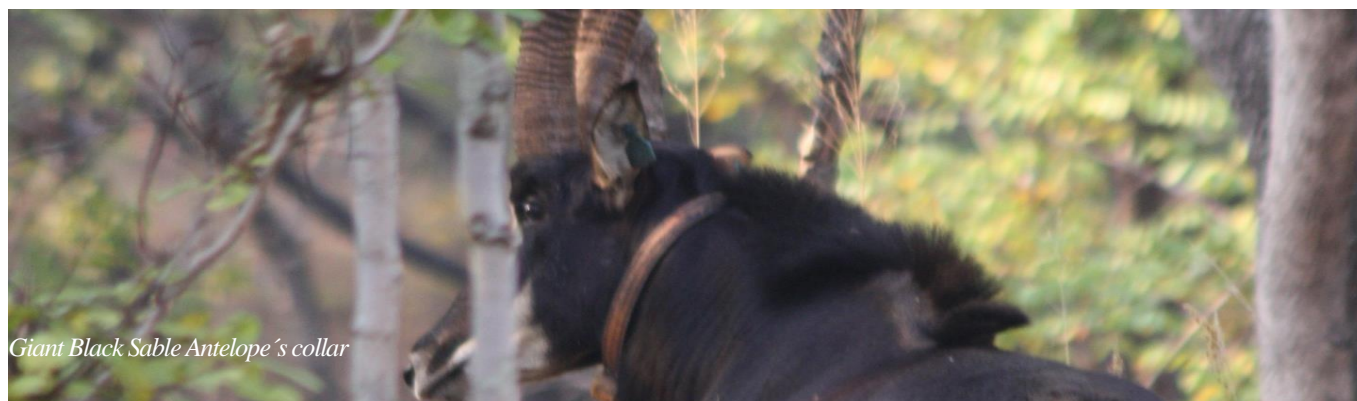
Websites, Web links, and relevant files

- Presidential Decree n. ° 216/11, of 8 August:

<http://www.gckcc.ao/attachments/article/390/Decreto%20Presidencial%20n.%20216%2011,%20de%208%20de%20Agosto.pdf>

1.19. Goal 19 of AICHI

“By 2020, knowledge, the basis of biodiversity-related to science and technologies, their values, functioning, situation, trends, and the consequences of their loss must be improved, widely shared, transferred and applied”



Giant Black Sable Antelope's collar



Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

-Collars and chips are being used for satellite control of the Giant Black Palanca and the marine turtles. It is also envisaged that this measure will be applied or extended to all large mammals threatened with extinction.

- The accompaniment is sometimes done with the help of infrared cameras that at the expense of the motion trigger.

- Through the use of monitoring techniques with trapdoors / infrared cameras, in the last 4 years Angola reached:

2015 - Carnivorous Survey in the Iona National Park

2016- Mammal Survey in the Bicular National Park

2017- Mammals Survey in Quiçama National Park (154 photo trapping stations were placed for more than 3 months)

2018 - Survey of Mammals in Luando National Reserve (more than 2000 km of rails were covered and almost 90 cameras were placed).

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

- It was selected because thanks to these applied technologies it has been possible to follow the growth of species previously considered extinct.

- **Methodology:**

Observation of data regarding the growth of individuals of the species of sea turtles and giant black sable antelope.

Observation and identification of many species in areas where they were thought to have been extinct using satellite monitoring collars and infrared machines.

Websites, Web links, and relevant files

- Giant Black Sable Antelope Conservation Project:

<https://www.youtube.com/watch?v=tPXdGRHYJA8>

- Kissama Foundation 2017: [https://www.](https://www.youtube.com/watch?v=f5sZfSuiC0o)

[youtube.com/watch?v=f5sZfSuiC0o](https://www.youtube.com/watch?v=f5sZfSuiC0o)



- Presidential Dispatch n ° 2/18 of January 4:

<http://extwprlegs1.fao.org/docs/pdf/ang172333.pdf>

- Human actions continue to threaten turtles in Angola:

<https://www.dw.com/pt-002/ações-humanas-continuam-a-ameaçar-tartarugas-em-angola/a-42371738>

www.cheatahandwilddog.org

Use of collar for the satellite control of the Giant Black Palanca:



Figure 13- Control Collars on the Giant Black Sable Antelope

- Summary of the joint activities of RWCP and INBAC in Angola, 2015-2018 compiled by Rosemary Groom, Sara and David Elizalde and Hilário Valério, October 2018.



Figura 14- PhotoTrap

1.20. Goal 20 of AICHI

“By 2020 at the earliest, mobilization of financial resources for effective implementation of the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated process agreed in the Strategy for Resource Mobilization, should be substantially higher than current levels. This target is subject to changes arising from assessments of resource requirements that will be developed and reported by the Parties.”





Implementation measures taken, assessment of their effectiveness, associated obstacles, scientific and technical needs to achieve national goals.

- Support / Contribution of National Partners;
- National Sponsorship for Kitabanga project;
- Support from the National Environment Fund;
- Global Environment Facility (GEF) have contributed to the implementation of national projects in degraded areas, with climate change, biodiversity projects and ecosystem protection.
- Global Environment Fund (GEF) cycles every two years have been a major source for biodiversity projects.

Example:

In 2018 the first comprehensive survey of mammals of the Luando integral natural reserve was completed under the GEF 5 program.

Assessment of the effectiveness of the implementation measure taken to achieve the desired results

- Measure taken was effective
- Measure taken was partially effective
- Measure taken was ineffective
- Unknown

It was selected because many of the projects to promote sustainable development in Angola have been financed by the National Environmental Fund, GEF, by some partner companies operating in the country and the Angolan Government has shared with its human resources, means, etc.

Websites, Web links, and relevant files

- Projects financed by the National Environment Fund:

(<http://www.ao.undp.org/content/angola/pt/home/imprensa/novo-projecto-.html>)

(<http://www.novojornal.co.ao/sociedade/interior/fundo-global-de-proteccao-ambiental-destina-41-milhoes-usd-para-projectos-em-angola-34279.html>)

- Kitabanga Project Partners:



Figure 15: Kitabanga Project Brochure

ASSESSMENT OF THE EFFECTIVENESS OF THE GOALS

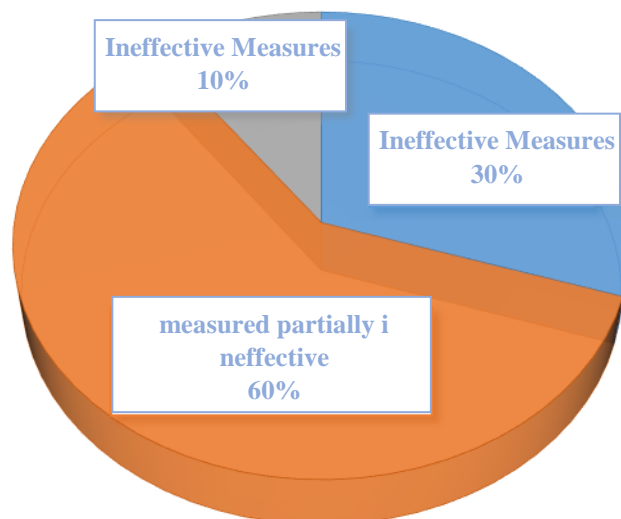


Figure 16 - Graphic of the assessment of the effectiveness of the goals of Aichi in Angola



SECTION II

**DESCRIPTION OF THE NATIONAL CONTRIBUTION
FOR THE REACH OF THE GOALS OF THE GLOBAL
STRATEGY FOR THE CONSERVATION OF THE
PLANTS**



SECTION II - DESCRIPTION OF THE NATIONAL CONTRIBUTION FOR THE REACH OF THE GOALS OF THE GLOBAL STRATEGY FOR THE CONSERVATION OF THE PLANTS

Angola has contributed with several projects to reach the goals of the global strategy for the conservation of plants. Contribution:

List of species of plants known in Angola – EGCP Goal 1

About 820 species were identified through surveys in the wetlands of Serra do Pingano, in the Uíge province, in which bryophytes were identified, new species of vascular plants, and ethnobotanical evaluations were described. Research has been carried out by Kimpa Vita University in cooperation with a team of German researchers at the Dresden Technical University since 2014 (Biodiversity of Angola, 2019).

Researches at the top of Cubango were started in 2017 by National Geographic. The researchers collected more than 1,300 plant samples and registered 417 vascular plant species in Cuito Cuanavale in high rainfall zones, and in areas of lower precipitation, 176. In the province of Moxico, 100 new plant registrations were made, and in the province of Cuando Cubango 24 (Biodiversity, 2019). The LUA Herbarium (Huambo province) contains 40,000 plant collections. Botanical Center (Province of Luanda) contains 35,000 collections and the Herbarium of LUBA (Province of Huíla) about 50,000.

Assessment of the conservation state – EGCP Goal 2

Publication of the Red List of the species of Angola, extinct, endangered, Vulnerable and invasive. Prepared by the Ministry of the Environment and its partners (2018).

Information, researches and methods – EGCP Goal 3

- Angola has been creating sensitization campaigns, for the conservation and the maintainable use of the Flora;
- Publication of a list of threatened species of extinction;
- Identification of the distribution of the flora in every parent;
- Angola has been perfecting in the Geobotanical Studies of the Angolan Southwest from Tundavala to Tômbua.
- The WebSdis database common to the countries members of the area of SADC was developed where every type of information is compiled for later to be transformed in form of histograms representing the present genetic variability in the local varieties of alimentary cultures and hereafter to map the respective ranches of crop of the samples.
 - In the extent of the program of CRF it is made the identification of useful agro-morphologic characteristics for the use in futures improvement programs. In this context they take place studies of agro-morphologic characterization of existent cultures in the bank, this work takes place in the experimental field of located CRF in the Academical Campus of UAN and it is to support and to guide the end-of-course work of students of the Biology course of the Faculty of Sciences-UAN.



Handled productive lands in a maintainable way – EGCP Goal 6

Farmers participate in the soil conservation process through practices such as crop rotation, furrow irrigation, conservation of plant genetic resources through the use, production and commercialization of their own local varieties. All these activities are carried out by rural communities with direct support from the Ministry of Agriculture with the aim of improving the quality of life of the populations.

The conservation In-situ of the known threatened plants – EGCP Goal 7

Its main conservation objective is the protection and conservation of the species typical of the arid biome of the southeast of the country. It is still the main habitat of one of the most distinguished and ancient plants known to science - *Welwitschia mirabilis*.

The *Ex-Situ* conservation, recovery and restoration - EGCP Goal 8

Ex-situ conservation in Angola focuses on the agrarian diversity or diversity of agricultural systems.

The CRF's Center for Plant Genetic Resources has as its main objective to study the great heritage of National Plant Genetic Resources (RF), with a view to their conservation and use for sustainable food security and the development of the national economy.

The purpose of the CRF is to "collect, preserve, research and use plant genetic resources, cultivated and wild species of plants and plant genetic resources of vital importance for the sustainable development of agriculture". The CRF is dedicated, in particular, to the conservation and study of medicinal plants, species of plants of industrial utility or for other purposes.

Genetic diversity of cultures, wild relatives and other plants of a value conserved socioeconomic - EGCP Goal 9

Angola has preserved the traditional knowledge and practices of local communities, and increasingly encouraged positive practices for the management of natural resources, in order to respect and incorporate them in the struggle for the preservation of biological and genetic diversity.

Biological invasions – EGCP Goal 10

Exotic and invasive species will be identified, prioritized species will be controlled or eradicated, and measures will be implemented to prevent their introduction and establishment according to the AICHI goal. Angola in 2018, officially launched the red list of species, in which the invasive species were identified and characterized.

During the conflict, large quantities of exotic seeds were distributed as emergency aid to farmers. Their



own seeds had been lost in the numerous displacements caused by the armed conflict and the seeds offered in the distributions were essential to cultivate. Although these exotic varieties often have higher yields under cultivation conditions, they require inputs not available to small farmers, they do not respond properly under local conditions (irregular precipitation, lack of fertilizers, lack of pesticides, etc.). The Government has been working on legislation regulating access to genetic resources. The systematic use of food from wild plants encourages a study of their nutritional richness.

International Trade – EGCP Goal 11

Presidential Decree No. 311/18 of 19 December approves the regulation on the Import and Re-export of species of Endangered Species of Wild Fauna and Flora. Official Gazette 1st Series n ° 188.

Executive Decree 433/16, dated October 26, publishes for validation purposes the Certificate of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), (Official Gazette no. 178).

Derived products of plants – EGCP Goal 12

At the institutional level, the Ministry of Agriculture and Forestry through the Institute of Agronomic Research (IIA) conducts studies on the adaptability, performance and nutritional content of local varieties. The results of this work are used for technical recommendations to farmers and agricultural entrepreneurs and to assist the supervising body in decision making and development of agricultural management policies. On the other hand, many foods are obtained outside the plants grown through harvesting within the richness of the biodiversity that the country presents.

At present the most produced agricultural products in Angola are manioc, sweet potatoes, corn, bananas, reindeer potatoes, vegetables, beans and peanuts. Angola is self-sufficient in cassava, and sweet potato from the root and tuber group, millet in the cereal group, and in bananas from the fruit group.

Several species of plants are used to make various handicrafts, such as (in the common name) the Black-tailed Woodpecker (*Dalbergia latifolia*), the IronWood (*Caesalpinia leostachya*), and the white toad (*Gosweilerodendron Balsamiferum*), being these species distributed fundamentally in three provinces of the Angolan territory: Cabinda Zaire and Uíge.

Knowledge of local communities – EGCP Goal 13

Traditional knowledge, innovations and practices of local communities are relevant to the conservation and sustainable use of biodiversity.

In situ conservation (or in farmers' fields) it is the common practice of peasants to retain varieties that demonstrate adaptive qualities. In *in situ* conservation / *on farm* generally, they store the seeds in



containers, such as demijohns, or bottles, or gourds by adding conservation products based on traditional knowledge. This practice allows them to store the seed from one agricultural season to the next. The seed remains the viability free from pests or diseases.

In the past 25 years, small farmers in almost all provinces have contributed with seed samples of more than 4,200 of their local varieties to the Agostinho Neto University Plant Genetic Resources Center to be kept alive in the long term and to be characterized and used in crop breeding programs.

The plants used to make handcrafted pieces, their use and meaning for different ethnolinguistic peoples. The handicraft being considered one of the main forms of expression of the African culture in particular of our culture arouses a great attention in us students of botany, since the raw material is of vegetal origin.

Communication, education and awareness programs – EGCP Goal 14

Some actions are planned such as:

- Sensitize society on the importance of environmental preservation, in order to sustain the conservation of natural resources that certainly Angola is quite rich.
- Carry out and disseminate environmental education in all subsystems of education as well as society in general.
- Ensure the conservation of genetic resources for agriculture and forests.

As Angola is an integral part of international legal instruments, the International Treaty on Plant Genetic Resources for Food and Agriculture, and also the Nagoya Protocol, it will emphasize respect for the equitable sharing of benefits generated from the use of genetic resources:

- Higher education programs that have as their specific objective the conservation and sustainable use of genetic resources of biodiversity existing throughout the country.
- In order to mitigate greenhouse gas (GHG) emissions, prevent forest and soil degradation, the project initiated in 2018 a 2-year training program for rural communities in the provinces of Huambo and Cuanza Sul and technicians from the Forest Development Institute (IDF) in community forestry management and sustainable charcoal production.

Angola has the following university establishments and scientific research centers with courses in research and environmental and biodiversity issues:

- Agostinho Neto University
- National Plant Genetic Resources Center ANU
- Botany Center ANU
- Lusíada University of Angola
- Catholic University of Angola (UCAN)
- Independent University of Angola (UNIA)
- Jean Piaget University



- Methodist University, Environment and Territory Management course
- Kimpa Vita University
- 11 de Novembro University
- José Eduardo dos Santos University
- Mandume ya Ndefumayo University

National Non-Governmental Organizations:

- **Angolan Ecological Youth (JEA)** - is an NGO dedicated to the protection, conservation and recovery of the environment, education and environmental awareness of the population.
- **Action for Rural Development and Environment (ADRA)** aims to help communities develop sustainable agriculture.

Adequate numbers of trained people with adequate resources – EGCP Goal 15

Family farmers are the constant and dynamic conservatives of this heritage free of charge for national food security.

The great diversity of local varieties also plays an important role in supporting small and large farmers to face the challenges and threats of climate change. The role of small farmers is essential in this conservation task and deserves all recognition and support.

Partnerships for the conservation of national and international plants – EGCP Goal 16

Angola, establishes strengthening partnerships for the conservation of plants at the national and international levels to achieve the objectives of the plant conservation strategy. Partnerships of Agostinho Neto University, with the *Royal Botanic University of Lisbon*, etc.

Some active networks of plant conservation in Angola

- The National Herbarium and *the Royal Botanic Gardens*,
- Resolution 12/00 of 5 May: Approves the accession of the Republic of Angola to the United Nations Convention to Combat Desertification. Official Gazette 1ª Série n. 18
- *Lisbon Royal Botanic* - Tapada Botanic Garden.
- CRF is one of the main entities implementing national policies on the conservation and use of plant genetic resources and is a component of the SADC regional network of plant genetic resources (SPGRC).
- In Angola, the Government in partnership with the United Nations Development Program (UNDP) implemented the project "Promotion of sustainable charcoal through a Value Chain Approach". This project, which began in October 2016, is implemented by the Ministry of the Environment (MINAMB) in / with the support of UNDP and is funded by the Global Environment Facility (GEF).



Description of important measures taken by Angola to implement the Global Strategy for Plant Conservation

Although Angola does not have an approved national strategy for plant conservation, it maintains an active network of institutions that aim to create methodologies and strategies for conservation of the species distributed in the country.

1. In the field of the environment:

- Creation of three conservation areas, Maiombe, Luengue-Luiana and Mavinga, with about 84,000 km², decrees that aim at conservation measures through the identification of important areas of plants such as parks and natural reserves are observed. Regular updates of threatened species.
- Publication of the regulation on the import and export of endangered species,
- Red list of species.

2. In the field of forestry:

- Projects with local communities have also been created to restore their activities so as not to degrade the environment. Angola, a country with a wide variety of eco-regions and agricultural areas, has acknowledged its potential, coupled with the variability of genetic resources of wild and cultivated plants, can mitigate some effects of climate change by taking advantage of the great diversity of local varieties developed and preserved for long years in farmers' fields and in eco-regions.

3.2 In the field of Scientific Investigation:

The CRF has been working on the regeneration of samples conserved in the gene bank, in the multiplication of samples for distribution in research and breeding programs, and in the formation of cadres in conservation and use of plant genetic resources.

Category of progress toward the goal of the Global Strategy for National Plant Conservation

We can consider that Angola has progressed at the national level, but at a still insufficient rate. However, the executive has made efforts in order to follow the right path to achieve the goal at the national level.

Examples:

- Creation of the Red List of species, including the category of plants (2018-2023);
- In 2013 the Medicinal Plants Book was launched;
- Forming rural communities and government technicians to prevent forest degradation;
- Resolution 35/16 approves the accession of the Republic of Angola to the Nagoya Protocol on access to Genetic Resources and the fair and equitable sharing of benefits arising from its use.



Description of the extent to which Angola has contributed to achieving this objective of the Global Strategy for Plant Conservation with some factual information.

Angola, through presidential decrees, approved in 2018 the Organic Statute for the management of National Parks, among which: Mupa National Park, Mavinga National Park, Iona National Park, Quiçama National Park, Cameia National Park, Cangandala National Park, Bicuar National Park, and Luêngue Luiana National Park.

In Angola, the Government in partnership with the United Nations Development Program (UNDP) implements different initiatives, among them the project "Promotion of sustainable charcoal through a Value Chain Approach", in order to achieve this goal".

The Okacom Project, recognizing the need to develop medium to long-term programs to increase the resilience of drought affected communities in these provinces to break a recurrent drought cycle.

The Angolan government has adopted policies and legal instruments in order to implement the international conventions and treaties ratified by the State and have been implemented in programs within the framework of the national policy of forests, protection of fauna, endangered species, world heritage and cultural, as well as biodiversity



SECTION III

ADDITIONAL INFORMATION ON THE CONTRIBUTION OF LOCAL COMMUNITIES



SECTION III - ADDITIONAL INFORMATION ON THE CONTRIBUTION OF LOCAL COMMUNITIES

V. Additional information on the contribution of indigenous communities and local communities to achieve Aichi Biodiversity Goals, which were not captured in the sections above.

Sustainable Charcoal

It is estimated that about 37.6% of the Angolan population resides/lives in rural areas depending entirely on natural resources for their subsistence. Consequently they are important guardians of biodiversity.

These communities should be involved in all decisions related to Biodiversity regarding land use, and other natural resources and that incentives for them should be introduced.

One of the contributions of the local communities to the achievement of the Biodiversity Goals was the implementation of the Sustainable Carbon Project in November 2017.

The project aims at reducing the dismembered slaughtering of trees as was previously done by the populations with regard to the production and sale of coal.

Through funding from the Global Environment Facility (GEF) and UNDP technical assistance, ADPP, a civil society organization in Angola, started in February 2018 to develop fruit tree nurseries with members of the Ela Kipunda community, Province of Cuanza Sul.

It should be noted that two (2) months later, the local population could transplant the potato plants, mango trees, moringa, loquat tree and lucerne. As a result of the work that involved all of the community, it is important to emphasize that before the arrival of this project, there were already some trees in the community, but the planting system which was used by the communities was unreliable. Farmers threw the seed into a pit and simply waited for its germination, which was often successful, and with the emergence of the project, communities became aware of the practices, adopting the ADPP methodology. The seeds are inserted in plastic bags, which has facilitated the irrigation and the transplant.



Figure 17 - Production of charcoal

Center for Plant Genetic Resources of Agostinho Neto University (CRF – UAN)

With regard to the conservation of biodiversity by local communities, for more than twenty (20) years, specialists from the Plant Genetic Resources Center of the Agostinho Neto University (CRF - UAN) have been collecting, conserving and characterizing plant genetic resources of food importance.

Among the four thousand and one hundred (4,100) accessions of material collected about four thousand (4,000) are conserved in the germplasm bank of which cereal seeds such as corn, sorghum and millet, legumes, algae, vegetables and some medicinal plants. The process is only possible after direct contact with communities, local farmers and local government authorities. The seeds are harvested in agricultural communities with technicians from the Institute for Agrarian Development (IDA), traditional authorities (Sobas), farmers and peasants.

In the act of receiving the seed from the peasants, they are awarded, certificates of recognition for the conservation of these varieties in their farms.

ADPP – People-to-People Development Ai

ADPP Association - **People-to-People Development Aid**, of Danish origin, a non-governmental organization, started its activities in 1986, and was subsequently registered in 1992 as an Angolan Association.

ADPP has around forty (40) projects, among them the creation, construction and management of rural schools in close cooperation with the Angolan Ministry of Education, Environmental projects,



community projects for rural development, farmers' clubs and many others:

Has in its matrix Vocational Schools and ADPP for Children and Youth. These are generally referred to as education, with an emphasis on the environmental and agro-pastoral aspects.

ADPP is managed by a Board of Directors elected by the general meeting. ADPP's work is funded by a number of partners including national and local government, private companies, UN and other international organizations and external Governments. ADPP projects receive institutional support from relevant ministries, including the Ministry of Education, the Ministry of Family and Women Promotion and the Ministry of Agriculture, and provincial, municipal and local authorities. All ADPP projects are subject to an annual external audit, performed according to international standards by Ernst and Young.

ADPP Angola is a co-founder of the Federation of Associations linked to the International Human-to-People Movement, a network of organizations working on sustainable long-term development. The members are independent national associations, whose work is based on a great knowledge of the needs and potential development of the communities where they are located.



Figure 18- ADPP Working with communities

Within the same organization and in what concerns the work of ADPP with the communities, there is the EPP (polyvalent and professional school) created by the same organ in order to reach the most needy communities and not only that.

With the aim of training staff to develop this learning by implementing in communities ways to reduce poverty, and the sustainable use of biodiversity, EPP (multipurpose and professional school has implemented the following courses in its curriculum:



- Community health agent who will learn how to prevent, prevent and treat common diseases, hygiene and basic sanitation, HIV / AIDS testing, health campaigns, physical health, nutrition and child mortality;
- Environmental promoter after training, will know about global warming, and climate change, construction of renewable sources, produce energy through Biofuel, Biogas, sun and wind;
- Agri-food assistant, will know agricultural practices in Angola, nutritious plants, different types of soils and crops, pests and how to combat them, production calculation;
- Water assistant, will know about water pollution and desertification, global warming and water, water-borne diseases, how to convert the contaminated water into potable water, build and restore wells, canalization and how to build small-scale water and sanitation system;

It is important to emphasize that the programs implemented by the NGO ADPP, assisted by the Angolan Government, have been very important in the fight against poverty, and its activities are centered in four points such as Education, Health, Agriculture, community development. It should be noted that ADPP has implemented simultaneous projects in all 18 (eighteen) provinces. Most of the projects, particularly in the transboundary provinces, are not in the country's capitals but in some of the country's most remote communities. The projects focus on the following areas:

- **Education;**
- **Health;**
- **Agriculture;**
- **Community Development**



Figure 19 – ADPP Focal Points A- Education; B - Health; C - Agriculture; D - Community Development

- **Education**



Figure 20 - Children's School Complex - Quissala - Huambo

During the year 2017, 15 (fifteen) ADPP magisterial schools and 8 (eight) ADPP multipurpose and professional schools, as well as literacy project and teacher training in services continued to raise the level of education covering a wide range of population

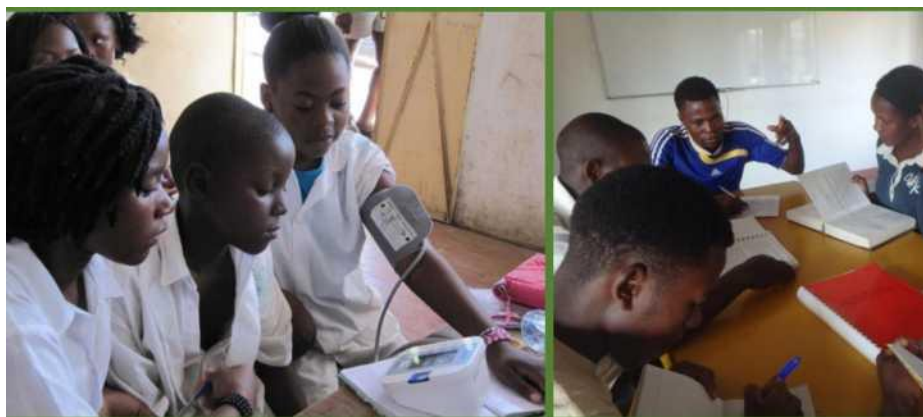


Figure 21- Education project with communities (Source ADPP)

- **Health;**

The Angolan government has been helping communities with regard to disease prevention and the monitoring of their treatment. Certain community projects such as Malaria Control in the provinces of Uige and Zaire include components linked to school in ways to achieve greater / wider coverage.

Consortium projects such as malaria elimination in the border areas of Angola / Namibia or the HIV



program in four southern provinces are also proving to be effective in ensuring coordination and reducing duplication of effort of all stakeholders.



Figure 22- ADPP And Government of Angola Project - Health in Communities

- **Agriculture and environment**

Agricultural projects in 2017 have focused more on women farmers as they account for more than half of the workforce in the family-based agricultural sector and often in some of the communities are also heads of households.

From this same project, farmers' clubs are set up, including women's farmer clubs that organize farmers in a group of around fifty (50), providing them with the knowledge, tools and resources needed to improve agricultural production in a sustainable way. Also in 2017, there were operational farmer's clubs in Cuanza Sul, Cuanza Norte and Malanje.

Other projects related to agriculture in 2017 were the sustainable production of coal in Huambo province and Cuanza Sul, which aims to minimize damage to the environment by training rural communities on the sustainable use of forest biomass. The objective of the project is to instruct those who make coal in more efficient technologies for its production. The assiduous selection of tree species, reforestation and general environmental awareness, and farm schools for farmers in Cunene are part of the program of activities.



Figure 23- ADPP's Agricultural Project with Communities



- **Community Development**

ADPP's community development aims at empowering communities to manage the development process, targeting one or more sustainable development goals.

Community Development Project In 70 (Seventy) Inland Communities

Fishing communities along the lakes and rivers and exploration of newly established aquifers/aquiculture plants in the provinces of Luanda, Bengo, Cuanza Norte and Malanje have received support to develop the fish trade in a sustainable and sustainable way. Community development goes hand in hand with economic development. By the end of 2017 the project has recruited and hired, including the general coordinator of the project, three provincial coordinators and 11 (eleven) of the 14 local project leaders have begun work to find community agents, locate tutors and literacy supervisors, and to establish the first group of literates, to establish a community action group and to prepare community development plans for each community integrated in the project.

Community Development Project In Coastal fishing area

The villages of Cabo Ledo and Buraco, south of Luanda, are part of a community-based literacy and development project in fishing areas, which was launched in 2015. The project encourages the education of children as well as adults, promotes improvement in hygiene and basic sanitation and offers an entrepreneurship course in an effort to strengthen the local economy.

Community leaders, literacy tutors and volunteer coordinators, under the leadership of a project leader, aim to reach 600 families in order to achieve the objectives of the project.

Forum on Rural Wo

In the year 2017 a forum was held by the Angolan government in the commune of Xangongo municipality of Ombandja, Cunene province. The theme was the insertion of rural women into literacy programs, assigning kits for traditional midwives, fieldwork tools, opening mills for women organized in associations and combating juvenile delinquency.

The forum reflected on the need to promote rural women, taking into account their role in communities and the implementation of the program to combat hunger and poverty. During the work, topics related to the economic and productive domain, agricultural campaign 2017-2018, perspectives of support to the families and rural women, promotion of aquaculture (techniques for growing and reproducing fish, algae, crustaceans or molluscs) and beekeeping (beekeeping for honey and wax production).



Figure 24- Rural Woman Promotion Forum (Source: <http://jornaldeangola.sapo.ao/provincias/comunid>)

Retesa Project

The RETESA project (2014 - 2018) - Land Rehabilitation and Management of Pasture Areas in Agro-Pastoral Production Systems of Small Producers in South-West Angola consisted in training local communities in sustainable practices aimed at preventing the continued degradation of land through strengthening the capacities of small-scale agro-pastoralists in south-west Angola and related institutions, as well as rehabilitation through the integration of Sustainable Land Management (GST) technologies and simultaneously improving community livelihoods by introducing adapted approaches locally for the strengthening and diversification of the animal, agricultural and non-agricultural and livestock value chains.

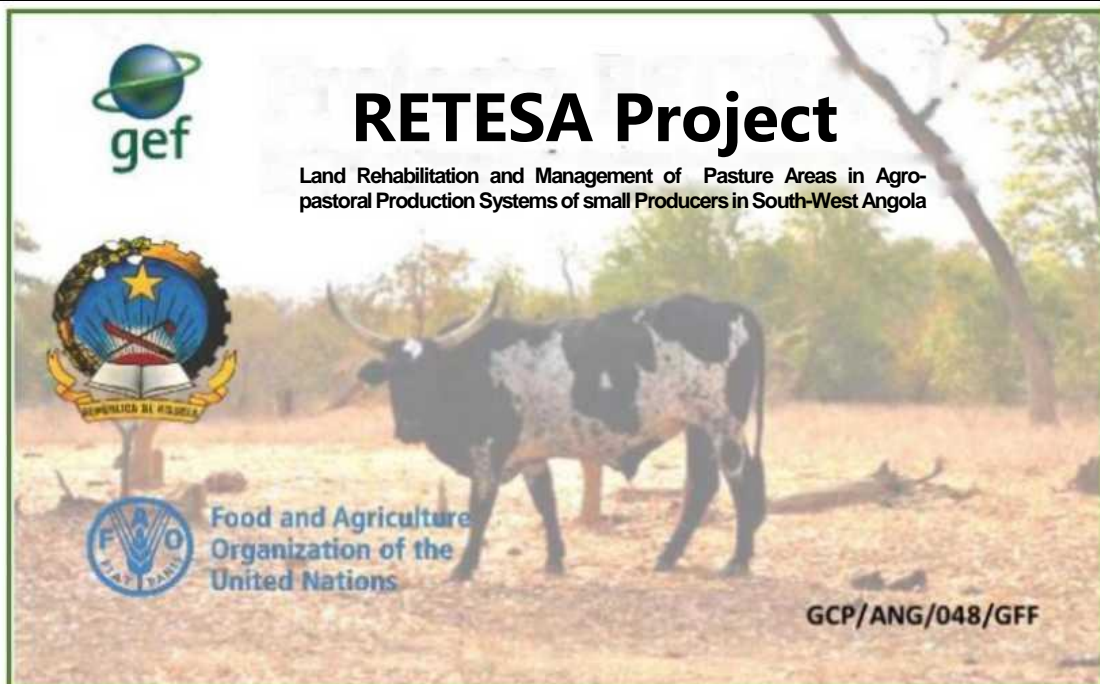


Figure 25 - Retesa project



Figure 26 - Drought in the region of Cunene Province - challenges of climate change



Sacaála Forest Experimental Station (EEFS)

Sacaála Forest Experimental Station (EEFS) is one of the research units of the Institute of Agricultural Research (IIA) assigned to the Ministry of Agriculture. It is the only one of its kind for the IIA.

In the self-sustaining strategy of the station's workers, the management of the station has about four (4) hectares of land and was distributed to workers, where corn, beans, potatoes and soybeans were sown. It should be noted that this sowing was done on the outskirts of the station and nursery of the station to avoid weeds growth and high maintenance costs, with successive grading or weeding.



Figure 27 - EEFS Agricultural Project with the Communities



SECTION IV

**BRIEF ASPECTS OF THE CURRENT ANGOLAN
BIODIVERSITY PROFILE**



SECTION IV - BRIEF ASPECTS OF THE CURRENT ANGOLAN BIODIVERSITY PROFILE

4.1. Brief description of the current Biodiversity Framework in Angola

Angola is located on the Atlantic coast of Southern Africa, with a land mass of 1,246,700 km² and about 25.8 million inhabitants (INE 2014). It shares a border on the South with Namibia, to the North with the Republic of Congo and the D.R.C., to the East with the D.R.C. and Zambia, and is bathed by the Atlantic Ocean to the West. The country is characterized by two seasons: the wet **rainy period**, from October to April, and the **dry period**, known as **Cacimbo**, from May to August, with lower temperatures. It has a very rich biodiversity, with Ecosystems such as the Namibe Desert in the Southwest, passing through the entirely Angolan, Kwanza Basin, with forests and open savannas; the Okavango and Zambezi Basin in the Southeast, the rainforest in the Zaire Basin to the North and Northeast. The exceptional biodiversity is due to the combination of a number of factors: the vast size of the Country, its inter-tropical geographical position, the variation in altitudes and the type of ecosystems. The resulting climatic diversity, combined with equal geological and soil variability, contributed to the formation of bioclimatic zones ranging from the dense tropical forest, to the absence of vegetation in the desert. These differing habitats favor a high level of biological diversity (MINUA, 2005).

The loss and degradation of habitats continue to be some of the main problems faced by the Angolan biodiversity. Although there is no precise data on the extent of the phenomenon, experts agree that this problem tends to worsen for several reasons, among which human pressure is considered to be the principal factor. However, biodiversity in Angola has conspicuously evolved over the years, though, none-the-less, effective measures and programs have been implemented to conserve same.

The design and implementation of Policies and Strategies for the Conservation of Nature and the Sustainable Use of Natural Resources are based on the promotion, inventorying and evaluation of ecological systems, including their abiotic and biotic factors, composition, structure and productivity, as well as Technical and Scientific studies on nature conservation. It also includes the preservation and promotion of the sustainable use of Biodiversity resources, through the implementation of the Policy of Recovery and Rehabilitation of natural areas that have been affected by any anthropic or natural process, particularly in such areas ecologically degraded by exploitation activities of non-renewable natural resources. The "Maiombe Initiative" Project was created, with the stated objective of the conservation of the Maiombe Forest, creating mechanisms to restore ecosystems, in order to give regional stability and consequently improve the way of life of its populations. Each year on average, 106,000 hectares of natural forests and 370 hectares of plantations are lost, representing an annual loss rate of 0.2 to 0.25%.

Conservation areas grew by around 100%, from a coverage of 6.6% to 12.58% of the total area of the Country, as represented by 9 National Parks and 5 Reserves. Angola, intends to create and ensure the management of other areas of Environmental Protection and Conservation at National, Regional and Cross-border levels, proposing mechanisms for dissemination, publicity and adoption of policies aimed at educating citizens to preserve the environment.



The Strategic Plan of the National Network of Conservation Areas (PENARCA) aims to achieve, by 2022, the coverage of about 17% of the country's surface area as conservation areas, that is, attaining the SADC Regional average.

The Red List of Angolan Species was published in 2018 under the Convention on International Trade in Endangered Species of Wild Fauna and Flora Threatened with Extinction (CITES) and the Convention on Biological Diversity (CBD). The list is subdivided into 5 categories:

Category A (Extinct Species): Black Rhinoceros, the Brown Hyena and the Cape Penguin are the species officially recognized as extinct in Angola.

Category B (Species threatened with extinction): There are 29 species including: the Lion, the Cheetah, the Mabeco, the Spotted Hyena, the Mountain Zebra, the Gorilla, the Red Buffalo, the African Manatee, the Giant Black Sable Antelope, the Meerkat, the Sand Fox, the Brazza Monkey, the Chimpanzee, the Buffalo, the Angolan Giraffe, the Baboon, the Leather-backed Turtle, the Gray Parrot, the Manta Ray, the Blue Shark and the Tiger Shark.

Category C (Vulnerable): 100 species are listed. Amongst them, mammal species such as the Elephant and the Leopard, birds, reptiles such as Crocodile and Boa constrictor, Fish, Insects, Cetaceans, namely the Blue Whale, Crustaceans and Plants, including the traditional Baobab Tree.

Category D, (Invasive Species): Integrates the Tilapia (fish), for it eliminates the native species when outside its habitat and vegetation.

With regards to Forest Management, Charcoal from plant production during the harvest season was set at 41,750 tonnes, according to a Government Decree that also imposes conditions on Logging and Firewood production. In accordance with Executive Decree N°. 277/18 of the Ministry of Agriculture and Forestry, the maximum amount of Licensed Charcoal Production during the 2018 Forest Harvest Season was 34,250 tonnes from the Natural Forests and 7,500 tonnes from the Planted Forests. Logging is limited to 259,853.35 m³ in the Natural Forests and 48,500 m³ in the Planted Forests, for a total of 308,353.35 m³. The Decree grants the largest logging quotas to the Provinces of Uíge (over 60,000 cubic meters), Cabinda (51,820 cubic meters) and Bengo (28 cubic meters), which make up more than half of the allowed quantity.

The Province with the largest share of Charcoal production is Huambo, with 11,000 tonnes (5,000 tonnes from Natural source and 6,000 tonnes from Planted origin), followed by Cuanza Sul with 6,100 tonnes, Bengo with 5,000 tonnes, Uíge (9.53 tonnes) and Cuanza Norte (6.4 tonnes). These were the Provinces with the Highest Licensed Quantities allowed for the 2018 campaign season.

Although currently lacking in the protection of the Feeding and Transit zones of Migratory Birds in Angola, greater attention is already being paid to the protection of these sites, such as the Flamingos Pouch (Luanda) and the Lobito Bay (Benguela). Currently, Eleven (11) wetlands are identified, namely Carumbo Lagoon (Lunda Norte), Arco (Namibe), Flamingos Pouch (Luanda), Mangroves at the Mouth of the Chiloango River (Cabinda), Saurico Lake Complex (Bengo), Calumbo Lagoon (Luanda) and the Lobito Bay (Benguela). The Kumbilo Wetlands Complex



(Quando Cubango), the section of the Kwanza River at Muxima/the Kwanza River Spit/ Luanda, the Quilunda Lagoon (Luanda) and the Grasslands of the Cameia/Moxico National Park, are other selected wetlands.

The Lobito Municipal administration has banned fishing in the city's mangroves, which serve as habitat for flamingos, once extinct in that region. This measure also aims to recover the ecosystem of the city's mangrove.

In Luanda, the disappearance of mangroves threatens the breeding grounds of fish stocks and bird sanctuaries. However, the Government has spared no efforts towards the conservation of the mangroves, with the creation of the "Flamingos Pouch" area, where there is already evidence of the recovery process.

The Country has about 1,650 kilometers of coastline, but still lacks protected marine areas. This has been a major challenge facing conservation of marine and coastal habitats. In general, there are approximately 6,850 Native Species, and the level of endemism is about 14.8%, with 230 species being recorded. Upon a recent proposal by the Marine Spatial Planning Coordination Group (OEM), there are on-going plans to establish Five (5) new Marine Ecological or Biological Areas (EBSAS). In addition to the already existing EBSAS, namely, Mussulo-Kwanza-Cabo, and the one in Namibe, the new proposals are Chiloango in Cabinda, Ponta Padrão in Soyo, Longa in Cuanza-Sul, Ombaca in Amboim, and Bentiaba in Namibe.

4.2. Main Sources of Pressure and Drivers of Changes to the Biodiversity (Direct and Indirect)

There are several sources of pressure that drive the significant changes to the biodiversity. Resulting from the growth in democracy, increased development and the spread of industrial technology, environmental problems have become increasingly evident.

4.2.1. Deforestation

There are many pressures leading to deforestation, such as the increase in Agricultural fields, since the local populations regularly clean several hectares for subsistence farming. Harvesting of charcoal has also contributed to the loss of forests, as well as the production of timber (for commercial and domestic uses).

4.2.2. Erosion

Angola loses about 20 million Hectares of arable land per year due to erosion. Erosion has been most pronounced in the catchment area of the Cunene River, in the Central Plateau, in some rivers such as the Cuando, and others, namely, Keve, Quicombo, Catumbela, Guvrire and Coporolo. The other major cause of erosion has been the lack of structures in the cities to withstand rainwater, which has degraded urban roads, homes and other infrastructure. Although ravines are a natural phenomenon, human action intensifies and accelerates the process. The construction of new road networks and the alteration of the natural drainage of the waters, has been one of the main factors triggering ravines, affecting mainly the east of the country.

4.2.3. Illegal Exploitation of Natural Resources

Land degradation causes the reduction and loss of Biological and Economic Productivity of the soil. Illegal mining, of course, has a considerable environmental impact. It intensely alters the mined and the surrounding areas, where the barren rock and waste deposits are made. In short, illegal mining produces



environmental impacts common to all areas subjected to this type of rudimentary and predatory extraction,

mainly the contamination of water resources, as well as other negative anthropic impacts, namely: deviation of river courses and abandonment after exploitation, water contamination, deforestation and silting of rivers.

4.2.4. The Introduction of New Exotic Species

Exotic species cause habitat decline and the consequent loss of biodiversity. It is feared that Aquaculture projects and mass production of cereals such as soybeans may bring genetically modified or invasive species into the Country and are likely to cause damage to the local Biological Biodiversity.

The main species in Aquaculture production, Tilapia, is classified in the Red List of Angolan Species as being invasive, hence even the utmost care is not enough in the handling of this species in Fish Farms near irrigation systems channels or rivers, considering the heightened risk of escape into the natural environment, where it can overwhelm and cause the extinction of native species.

4.2.5. Poaching and Animal Trafficking

The population of the Savannah (*Loxodonta africana africana*) and the Forest (*Loxodonta africana cyclotis*) Elephants is estimated at between 800 to 1000 individual animals, according to the National Biodiversity Directorate (DNB).

The fight against poaching for ivory extraction is a struggle without respite that the Angolan Government has been undertaking. This effort has had the effect mainly of stopping the attempts of traffickers to transit the Country with artefacts like Ivory, Rhinoceros horns and Pangolin scales, where many originate from neighboring countries.

4.2.6. Illegal Fishing

This activity has received special attention from the State, since it affects the Socio-economic Life of the Country's populations and the national economy. In 2017 in the Namibe Province, 58 industrial and semi-industrial fishing vessels were seized for fishing in restricted areas, as well as unauthorized dumpings and employing illegal fishing methods (Alfredo Pinto Moreira 2017). In the Tombua Municipality, more than ten tonnes of fish are caught daily. Illegal fishing has resulted in a scarcity of marine resources; some fishing methods, both artisanal and semi-industrial, accidentally capture numerous birds and marine mammals (dolphins and seals) that are attracted by the fish bait.

4.2.7. Solid Waste Management

The increase in the production of Solid Waste is related to the increase in population, lack of infrastructure,



weak Environmental education and awareness, as well as the weakness of inspections.

As a consequence of the unplanned coastal urbanization, there is a lack of adequate management of the waste, which in turn has caused pollution of the habitat, mainly in Luanda.

4.2.8. Human-Wildlife Conflict

During the period under review, the Human-Wildlife conflict has been characterized by the dispute for habitat space between Humans and Wild Animals. The former, through their actions, have led to the degradation of habitats, and obstruction of migratory corridors of wild species. The most cited species in this type of conflict are: The elephant, the hippopotamus, and the crocodile, with the resultant destruction of agricultural fields, houses and sometimes even in human deaths.

4.2.9. Other causes

The other causes of pressure on the Biodiversity are: Industrial pollution, Oil drilling in the North (sporadic oil spillages), and the Scrubbing of ships. Given the pressure exerted on the biodiversity by all of the factors described above, Angola, as a member of the BCC, has been adopting Ecosystem-based Management Measures (MBEs) to create mechanisms to raise awareness for the Sustainable use of the Oceans, and to practice it (BCC 2014). The enormous pressure on Wetlands, Migratory Bird Sanctuaries and the Refuges of several other species of the Animal kingdom, endangers the survival of species associated with this particular type of habitat.

4.3. Some Measures Aimed at Improving the Implementation of the Convention

4.3.1. Principal Measures undertaken to achieve the Aichi Biodiversity Targets in 2020

Although it does not yet have an approved National Biodiversity Strategy for the period from 2012 to 2018, Angola, however, has several Projects that are based on Restoration, Conservation, Awareness and Poverty Eradication

A series of Rehabilitation Projects for the National Parks, the Protection of Endangered Species and the Re-zoning of Conservation Areas are underway.

Conservation Areas represent 12.58% of the Country's land mass. These areas include National Parks, Regional Parks, Integral Reserves and Partial Reserves. Within the Conservation Areas Expansion Plan (Plenarca), one can highlight the Expedition to the Carumbo Lagoon, the Survey of the Kumbira Forest, Pingano Mountains and Moco Hills.

The Iona National Park Conservation Project covers an area of 15,150 km² (the largest National Park). Rehabilitation will go through several stages: from the Establishment, Training and Equipping of an operational Team for the Park, through the upgrade and construction of essential infrastructure within the Park, namely, Residential buildings, Offices, Roads, Water supply, Solid waste and Sewage management facilities, Power supply network, Fencing, etc.

The Cross-border Conservation Area of Kaza aims to establish an International Tourism destination in the regions of the watersheds of the Cubango and Zambezi Rivers in Angola, and extending into Botswana,



Namibia, Zambia and Zimbabwe within the context of Regional Integration.

The Kitabanga Project aims at the Conservation of Sea Turtles, and encompassing the primary purpose of *contributing to the knowledge and protection* of sea turtles along the coast. Efforts have been made to preserve them and as a consequence of these actions, there have been recoveries, thus increasing their numbers.

The Plant-A-Million-Trees Project in the Province of Huambo, emphasizes and encourages students, amongst other inhabitants, awareness on the importance of *planting and caring for a tree*.

The Conservation Action Plan for the Cheetah and the Mabeco, aims at ascertaining the existence of the two species in Angola, which face the critical danger of extinction worldwide. The Program contemplates the use of *monitoring and tracking equipment* to locate the two predatory species.

The Black and Red Buffaloes that were erstwhile considered extinct, were relocated into their habitats. The Black Buffalo that until 2012 had been counted at only 100 animals, had an inventory of more than 1000 heads in 2018.

The Mountain Zebra that was practically extinct, had an inventory of more than 14 heads in 2018.

In Angola, the United Nations Organization, through the United Nations Development Program (UNDP), the United Nations Environment Program (UNEP) and the Food and Agriculture Organization of the United Nations (FAO), are collaborating with resources from the Global Environment Facility (GEF) and the Environment Fund, funded by MINAMB, in financing small projects and supporting some Biodiversity Conservation Initiatives in different settings.

The BCC has developed a number of initiatives to respond to the urgent need for coastline adaptation, with the aim of increasing the resilience of vulnerable coastal communities. This is being done through an initiative for the creation of Marine Conservation Areas; through developmental programs in the fisheries and marine resources sector, programs emphasizing Food and Nutritional Security, Poverty Reduction in Angola, better distribution of income, Enhancement of Gender Issues and Strengthening the Role of Women in Society, as well as in Promoting Environmental Sustainability.

The Forestry Classification Project is underway in Angola, with the intended outcome being to obtain a Map of the Vegetation. (SASSCAL Project)

Regional Projects such as SAREP, OKACOM and by the National Geographic in the Okavango International Basin, have produced a number of relevant scientific information on the status of certain species, the degree of endemism, the current state of the ecosystem, as well as the socio-economic status of the regional population.

The Future Okavango Project (TFO) has contributed significantly to a better understanding of the Angolan Miombo, and through it have been created Mechanisms of Forest Recovery, as a result of itinerant crops.

There is also the Sable Antelope Project (Kissama Foundation), which also undertakes a deep study on the Giant Black Sable Antelope, thus enabling knowledge on its evolution. Up to 2012, 80 animals were being monitored; however, in 2018 more than 200 were included in the inventory in the Cangandala National Park and in the Luando Integrated Reserve.



4.3.2. Mechanisms to Support National Implementation (Legislation, Funding, Training, Coordination, etc.)

The Republic of Angola is a Signatory of Six (6) International Environmental Conventions, together with their respective Protocols. Concerned about its contribution to the Protection of Planet Earth and the Rational Management of its most varied natural resources for future generations, Angola is a signatory to the United Nations Conventions on Combating Drought and Desertification (UNCCD), and the Vienna Convention on the Ozone Layer and Biological Diversity. Angola is equally signatory to the Conventions on the Conservation of Wild Migratory Species (CMS), better known as the “Bonn Convention”, the Stockholm Convention on Persistent Organic Pollutants (POPs), and the Convention on Climate Change (UNFCCC). In addition to these Conventions, the Republic of Angola is preparing various documents to accede to a total of Eight (8) other

International Environmental Conventions, such as RAMSAR, which aims to Protect Wetlands of International Relevance. Angola has already identified Eleven (11) Wetlands with the potential to join the RAMSAR Convention, an International Treaty for the Conservation and Rational use of wetlands. The Country has active participation in the SADC Regional Network for the Conservation of Plant Genetic Resources (SADC Plant Genetic Resources Network, SPGRN), etc., the Sustainable Development Goals (ODS), including objective 15.3, which aims to combat desertification, restore degraded lands and soils, including drought and flood-affected lands, and those resulting from other causes, as well as efforts to achieve a Neutral Land Degradation World by 2030.

4.3.3. Some Measures undertaken to Protect Biodiversity in Angola

Environmental Legislation refers to Four (4) types of Environmental Protection Instruments, namely:

- Formative/Training (Environmental Education);
- Preventive (Areas of Environmental Protection, Environmental Impact Assessments, Environmental Licensing);
- Repressive (Audits and Environmental Crimes);
- Reparations (Civil Liability and Environmental Insurance).

From 2011 up until 2018, the Legislative Package had associated to it, Decrees and Laws aimed at protecting the Biodiversity:

- Law N°. 38/11 of 29 December: on the Creation of the Luengué, Mavinga and Maiombe National Parks.
- Law N°. 6/17 of 24 January: Basic Law on Forestry and Wildlife, which establishes the norms that aim at Ensuring the Conservation, the Rational and Sustainable use of the Forests and the Fauna within the National Territory, and including the General Concept for the Exercise of Related Activities.
- Presidential Decree N°. 9/11 of 07 January: on the Creation of the Environmental Fund and Approval of the related Organizational Statutes.
- Presidential Decree N°. 10/11 of 07 January: on the Creation of the National Biodiversity and Conservation Areas Institute, abbreviated as INBAC, and Approval of the related Organizational



Statutes.

- Presidential Decree N°. 11/11 of 07 January: on the Creation of the Institute of Environmental Management and Approval of the related Organizational Statutes.
- Presidential Decree N°. 153/11 of 15 July: Approving the Regulation establishing the Rules on the Production, Export, Re-export and Import of Substances, Equipment and Machinery possessing substances that deplete the Ozone Layer.
- Presidential Decree N°. 194/11 of 07 July: Approving the Regulation on Liability for Environmental Damage.
- Presidential Decree N°. 141/12 of 21 June: Approving the Regulation on Pollution Control of National Waters, with Ratification N°. 9/12 of 24 August, of the afore-mentioned Decree.
- Presidential Decree N°. 184/12 of 17 August: on the Creation of the Center for Tropical Ecology and Climate Change, abbreviated as CETAC, and Approval of the related Organizational Statutes.
- Presidential Decree N°. 190/12 of 24 August: Approving the Regulation on Waste Management.
- Presidential Decree N°. 196/12 of 30 August: on the Strategic Plan for the Management of Urban Waste (PESGRU).
- Presidential Decree N°. 143/13 of 27 September: on the Creation of the Pollution Analysis and Environmental Control Center, abbreviated as CAPA, and Approval of its Organizational Statutes.
- Presidential Decree N°. 46/14 of 25 February: Approving the National Program of Action to Combat Desertification.
- Presidential Decree N°. 160/14 of 18 June: Approving the Regulation on the Management of Hospital and Health Services Waste (Bio Waste).
- Presidential Decree N°. 82/14 of 21 April: Approving the Regulation on the General Use of Water Resources.
- Presidential Decree N°. 181/14 of 28 July: on the Creation of the National Waste Agency, and Approval of its Organizational Statutes.
- Presidential Decree N°. 83/14 of 22 April: Approving the Regulation of Public Water Supply and Wastewater Sanitation.
- Presidential Decree N°. 252/18 of 12 November: Approving the Organizational Statutes of the Management Services of the Mupa National Park.
- Presidential Decree N°. 253/18 of 12 November: Approving the Organizational Statutes of the Management Services of the Mavinga National Park.
- Presidential Decree N°. 257/18 of 13 November: Approving the Organizational Statutes of the Management Services of the Iona National Park.
- Presidential Decree N°. 258/18 of 13 November: Approving the Organizational Statutes of the Management Services of Quiçama National Park.
- Presidential Decree N°. 259/18 of 13 November: Approving the Organizational Statutes of the Management Services of the Cameia National Park.
- Presidential Decree N°. 260/18 of 13 November: Approving the Organizational Statutes of the Management Services of the Cangandala National Park.
- Presidential Decree N°. 261/18 of 13 November: Approving the Organizational Statutes of the Management Services of the Bicuar National Park.
- Presidential Decree N°. 264/18 of 15 November: Approving the Organizational Statutes of the Management Services of the Luèngue Luiana National Park.



- *Ministerial Dispatches*
- Ministerial Dispatch N°. 199/12 of 29 February: Approving the Legal Forms for the Registration of Companies involved in Activities in the Area of Waste Management, Water and Wastewater Treatment. The Official Gazette – 1st Series, N°. 41.
- Ministerial Dispatch N°. 2745/13 of 6 December: Creating the Evaluation Committee for each case of Environmental Impact Study. The Official Gazette – 1st Series, N°. 235.
- Ministerial Dispatch N°. 33/15 of 23 January: Creating the "Monitoring and Implementation Unit for the Strategic Plan of Conservation Areas." The Official Gazette – 1st Series, N°. 1.
- Ministerial Dispatch N°. 113/15 of 07 April: Creating the "Commission for the Revision of the Environmental Education and Awareness Program" (PECA). The Official Gazette – 1st Series, N°. 47.
- Ministerial Dispatch N°. 133/15 of 21 April: Creating the "National Unit for the Control of Wildlife Crimes", responsible for ensuring compliance with the Environmental Legislation on Environmental Crimes. The Official Gazette – 1st Series, N°. 54.
- Presidential Decree N°. 290/18 of 30 November: Approving the Organizational Statutes of the Management Services of the Maiombe National Park. The Official Gazette – 1st Series, N°. 181.
- Presidential Decree N°. 311/18 of 18 December: Approving the Regulation on the Import and Re-export of Wild Fauna and Flora Species Threatened by Extinction. The Official Gazette – 1st Series, N°. 188.
- Presidential Dispatch N°. 30/10 of 21 June: Creating the "Multi-sectoral Technical Commission on the Environment". The Official Gazette – 1st Series, N°. 114.
- Presidential Dispatch N°. 10/12 of 01 February: Creating the "National Commission on Climate Change and Biodiversity". The Official Gazette – 1st Series, N°. 22.
- Presidential Dispatch N°. 68/10 of 28 October: Establishes that the Minister for the Environment should Coordinate the Implementation of the Instruments under the United Nations Framework Convention on Climate Change, as well as develop and ensure the implementation of all Eligible Projects of the Angolan State.
- Presidential Dispatch N°. 86/13 of 18 September: Creating a Task Force, coordinated by the Minister for the Environment, to study and prepare a proposal for the Implementation of the Ecocide Convention in the Legal Order.
- Presidential Dispatch N°. 42/14 of 25 April: Approving the Regulation on the Technical Registration of Environmental Consultancy Firms.
- Executive Decree N°. 92/12 of 01 March: Approving the Terms of Reference for the Preparation of Environmental Impact Studies.
- Executive Decree N°. 137/13: Prohibiting the Importation of Live Wild Animals for Commercial Purposes without Prior Authorization from the Head of the Ministerial Department Responsible for Environmental Policy.
- Executive Decree N°. 469/15 of 13 July: Prohibiting the Slaughtering or Mowing down within the National Territory of Protected Species of Wild Fauna and Flora.
- Executive Decree N°. 470/15 of 14 July: Approving the Rules for Concession of Spaces destined towards the Development of Ecotourism within the Protected Areas of Angola.
- Presidential Dispatch N°. 81/15 of 29 September: Creating the Inter-ministerial Commission on Environmental Crimes related to Wild Fauna and Flora, coordinated by the Minister for the Environment, with Responsibility for enforcing Legislation on Environmental Crimes.
- Decree 51/04 of 23 July: On Environmental Impact Assessment
- Decree 59/07 of 23 July: On Environmental Licensing.
- Decree 1/10 of 13 January: On the Carrying out of Environmental Audits to Public or Approved activities that may cause significant damage to the Environment.
- Dispatch N°. 160/16 of 22 April: Banning the Exploitation, Transportation and Commercialization



- of *Makakata* within the Protected Areas of Angola.
- Dispatch N°. 255/16 of 30 May: Creating a Technical Task Force Responsible for Environmental Education, under the coordination of the National Director for the Environment.
- Dispatch N°. 499/16 of 01 November: Creating a Task Force Responsible for Designing Technical Platforms for collecting, receiving and classifying data, and organizing the Climate Change Program.
- Dispatch N°. 194/17 of 19 April: Creating the Task Force for Organization of the Statistical System of Environmental Indicators, harmonized with the National and Global Strategies and Agenda 2025, as well as the Sustainable Development Goals 2030 - 2050.
- Dispatch N°. 201/17 of 24 April: Establishing the Organizing Committee for the preparation of the celebrations marking the World Environment Day.
- Dispatch N°. 209/17 of 03 May: Creating the Inaugural Commission of the Welfare Fund of the Ministry of the Environment.
- Dispatch N°. 220/17 of 10 May: Creating the Task Force for the Drafting of the Report on the General State of the Environment in 2017.

- Dispatch N°. 223/17 of 11 April: Creating the Organizing Commission for a National Conference on Climate Change and Sustainable Development.
- Dispatch N°. 271/17 of 14 June: Creating the Supervisory Committee for the Preparations relating to the Ceremonies/Central Act commemorating the World Environment Day, 2017, in Quiçama National Park.
- Dispatch N°. 194/17 of 19 April: Instructing that the Technical Unit for Support to Private Investment of the Ministry of the Environment (UTAIP - MINAMB) should collaborate with the (DNPAIA) National Directorate for the Prevention and Assessment of Environmental Impacts, in the processes related to solicitation of Environmental Licensing, leading to the issuance of such licenses during the installation and operations periods in the context of Private Investment Projects, the approval of which is the purview of this Ministry.

4.3.4. Mechanisms for Oversight and Re-appraisal of Implementation

Decree 1/10 of 13 January, 2010, describes the Environmental Audit as a Systematic and Documented Procedure for the Management and Objective Assessment of the organization and operation of the Environmental Protection System. Through Environmental Audits, it is possible to monitor the operations and maintenance conditions of Pollution Control Equipment and Systems, the Measures to be Undertaken to Restore the Environment and Protect Human Health, as well as Measures to Prevent and Limit Environmental Accidents.

The Red List of Angolan Species is therefore a Mechanism for Measuring the Current Status of the Biodiversity. Through its information details, measures can be adopted to change the current worrisome framework. It will also serve as a basis for updating data by using available scientific information and data, every Five (5) years.



FINAL CONSIDERATIONS

Angola marks considerable progress towards achieving the AICHI 2020 Goals, as it seeks to mitigate Biodiversity Loss Coefficients, Deforestation, and enhance the Fight against Poaching and Habitat Degradation, which have been its biggest challenges.

Six (6) AICHI Goals have been met, and the Country is currently on the right track to achieve a further Twelve (12) Goals, whilst no efforts are being spared to realize the remaining Two (2) goals.

Angola has encouraged in various ways the Communities in general, towards the sustainable use of Biodiversity, by disseminating information on the Conservation, Restoration and Importance of the Preservation of Biological Diversity and Ecosystem services.

Biodiversity Conservation is of great merit and contributes to the Country, considering as the Millennium Goals place greater focus on Conservation, Preservation, Awareness and the resultant well-being of Society.



RECOMMENDATIONS

The Drafting of the 6th National Biodiversity Report on the Achievement of the AICHI 2020 Goals by Angola entailed the collection and analysis of the series of information on the theme in question. The Country has marked significant strides, yet difficulties persist, hence the need to continue working on the following points:

- Improve the response capacity of the Institution responsible for the control and supervision of forestry activities through the hiring of new, well-qualified, well trained and equipped Supervisors;
- Adopt more stringent and persuasive legislation to combat poaching in ways that such practices are increasingly discouraged, with stricter enforcement measures being applied to perpetrators;
- Invest more in Biodiversity-related Projects, such as to effectively reduce National and Community vulnerability;
- Increase resilience and help in adapting to the impacts of climate change at all levels, by contributing significantly to their mitigation, including attaining related outcomes;
- Substantially increase and complement domestic biodiversity budgets, for example, through new and innovative mechanisms, and through the structuring of current activities;
- Integrate training, qualification and capacity-building programs, awareness of economic reasoning for biodiversity actions and ecosystem services, and their role in achieving sustainable development. Relevant modules should be included in the curricula of secondary and higher education, and in new and existing programs of civil society and private sector training.
- The Government should convene from time to time a broad dialogue between the Public, Private, and Civil Society stakeholders, on the rationale for integrating conservation and sustainable use principles into various sectors, and on practical options for increasing funding and enhancing integration objectives of conservation and sustainable use;
- Strengthen the data collection program on the dynamics of turtle populations nesting along the coast of Angola;
- Implement selective gathering at the National level.
- To create the necessary conditions to make the Administrations of Conservation Areas more dynamic in order to render them more functional and result-focused.
- Mobilize internal funds (OGE) such as to implement programs aimed at achieving the National Biodiversity objectives.



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