



DEMOCRATIC REPUBLIC OF S. TOMÉ AND PRINCIPE
MINISTRY OF PUBLIC WORKS, INFRASTRUCTURES, NATURAL RESSOURCES AND
ENVIRONMENT

(Unity, Discipline and Works)



VI NATIONAL BIODIVERSITY REPORT

March 2019

SOMMAIRE

Acronyms and abbreviations

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Acronyms and abbreviations

CBD	Biodiversity Convention
ZEE	Exclusive Economic Zone
APA	Access and Benefit Sharing
STP	Sao Tome and Principe
IEC	Information, Education and Communication
ONG	Non-Governmental Organizations
CITE	International Convention for the Traffic in Species
BD	Biodiversity
PNOST	Management Plan for the Obô de São Tomé Natural Park
IUCN	International Union for Conservation of Nature
ST	Saint Thomas
RAP	Autonomous Region of the Prince
DFB	Directorate for Forestry and Biodiversity
PNP	Principe Natural Park
PFNL	Non-Timber Forest Product
FAO - STP	Food and Agriculture Organization of the United Nations -
PNOST	Obô de São Tomé Natural Park
UNEP	United Nations Environment Program
UNESCO	United Nations Educational, Scientific and Cultural Organization.
GPS	Geographic Positioning System
PAPAFPA	Small Family Agriculture and Artisanal Fisheries Support Program
ECOFAC	Central African Forest Ecosystems
MARAPA	Sea, Environment and Artisanal Fishing -NGO
EIA	Environmental impact study

GEF - PAPAC	GEF - Support Program for Small Commercial Agriculture.
PNUD	United Nations Development Program.
BAD	African Development Bank.
ODS	Sustainable Development Objectives.
PRIASA	Project for the Rehabilitation of Agricultural Infrastructures and for Food Security.
FIDA	International Fund for Agricultural Development
PNDF	National Agricultural Development Plan
COOPAPIP	Cooperative of Beekeepers of the Autonomous Region of Ilha do Príncipe.
ATTPRAP	Association of Traditional Therapists of the Autonomous Region of Prince
AGTP	Príncipe's Tourist Guides Association
CEPIBA	Export Cooperative of Pepper and Vanilla
CECAB	Organic Cocoa Export Cooperative
CECAFEB	Cooperative for the export of organic coffee

Approach

The format of the national report of Biodiversity Convention on Biological Diversity (CBD) revolves around the national biodiversity goals and how do they relate to and have made progress towards the Aichi targets 20. The National targets for Sao Tome and Principe were established through the National Strategy and Plan of Action for 2015-2020, which sets out five key objectives, each with a corresponding set of actions.

In the main body of this document describes the main reasons that led to adoption of each of the five key objectives, the measures taken to fulfil each of objectives, including their respective actions, and a summary of the country profile in the field of Biodiversity.

The inscribed measurements are illustrated with maps and figures reproduced with permission from other sources. In compliance with the guidelines provided by the CBD Secretariat, the document is equipped with documentary resources inserted in its body, functioning as a bibliographic resource for the described measures, corresponding to each objective.

The information provided is based on the knowledge and experience of the author with many years of work in the country and in the sectors that have to do with Biodiversity (6 years of residence and work in the Principe as consultant for Island), and in formal and informal discussions with an variety of stakeholders from almost all public and private sectors.

PART I

Information on Objectives identified at the National Level

Sao Tome and Principe adopted national biodiversity targets or endorsed equivalent engagements in accordance with the 2015-2020 Strategic Plan for Biological Diversity and the d'Aichi Goals for Biodiversity.

Main objective 1: The conservation of coastal and marine biological diversity

Basis of this national goal

This national target was deduced from the following problems relating to the conservation of coastal and marine biodiversity:

- Disorganized use of space in coastal areas;
- Increasing human pressure on the coastal areas and on the natural Resources therein;
- Acceleration of coastal erosion and degradation of the biological component of the coastal ecosystem;
- Threat of sea turtle population;
- Unregulated fishing activities and weak monitoring;
- Reduced income of fishermen and poverty of the population of the coastal zone because of the unregulated and very unsustainable exploitation of the halieutic Resources;
- Lack of equipment to carry out monitoring and follow up of fishing activities in the EEZ;
- Insufficient application of the Fisheries Law;
- Degradation of Halieutic Resources and corresponding biological diversity; and
- No knowledge of the characteristics of national fisheries resources:

Level of application:

Regional/Multilateral

National

Infranational

Aichi's main objectives to which the national objective correspond.

- | | | | | | | | |
|-------------------------------------|---|-------------------------------------|----|--------------------------|----|--------------------------|----|
| <input type="checkbox"/> | 1 | <input checked="" type="checkbox"/> | 6 | <input type="checkbox"/> | 11 | <input type="checkbox"/> | 16 |
| <input type="checkbox"/> | 2 | <input type="checkbox"/> | 7 | <input type="checkbox"/> | 12 | <input type="checkbox"/> | 17 |
| <input checked="" type="checkbox"/> | 3 | <input type="checkbox"/> | 8 | <input type="checkbox"/> | 13 | <input type="checkbox"/> | 18 |
| <input type="checkbox"/> | 4 | <input type="checkbox"/> | 9 | <input type="checkbox"/> | 14 | <input type="checkbox"/> | 19 |
| <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> | 10 | <input type="checkbox"/> | 15 | <input type="checkbox"/> | 20 |

Other Aichi objectives to which the national objective corresponds.

- | | | | | | | | |
|-------------------------------------|---|-------------------------------------|----|-------------------------------------|----|--------------------------|----|
| <input checked="" type="checkbox"/> | 1 | <input type="checkbox"/> | 6 | <input checked="" type="checkbox"/> | 11 | <input type="checkbox"/> | 16 |
| <input type="checkbox"/> | 2 | <input checked="" type="checkbox"/> | 7 | <input checked="" type="checkbox"/> | 12 | <input type="checkbox"/> | 17 |
| <input type="checkbox"/> | 3 | <input type="checkbox"/> | 8 | <input checked="" type="checkbox"/> | 13 | <input type="checkbox"/> | 18 |
| <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 9 | <input type="checkbox"/> | 14 | <input type="checkbox"/> | 19 |
| <input type="checkbox"/> | 5 | <input type="checkbox"/> | 10 | <input type="checkbox"/> | 15 | <input type="checkbox"/> | 20 |

Other relevant information

In accordance with the 2015 – 2020 National Strategy Plan for Biological Diversity, main objective 1 includes sub-objectives and their actions, which are described as follows:

Sub-Objective 1: Reinforcement of conservation "in situ", including the following actions:

1. Spatial ordering of the Coastal Zone and Sustainable Management of its Resources;
2. Promote studies and projects in order to better understand and know marine ecosystems and their biodiversity;
3. Sensitization of populations living in coastal areas; and
4. Monitoring actions to protect and conserve coastal areas.

Sub-Objective 2: Reinforcement of conservation "in situ", which includes the following actions:

1. Creation of a National and Regional Marine Park;
2. Creation of a protected marine area on both Islands where control of fisheries and catches is monitored, thus contributing to the creation of a sanctuary where fish stocks can reproduce and have a kind of sanctuary to be fished as adults and after they have been reproduced.

3. Marine Fisheries Resources Studies;
4. Sustainable Management of the Santomenean Exclusive Economic Zone;
5. Protection of Sea Turtles.
6. Conservation and protection of cetaceans;
7. Implementation of scientific research projects on the population of cetaceans present in the waters of STP.
8. Census of seabirds in two main islands and several different smalls islands
9. Implementation of measures to protect seabirds, with control of hunting and disturbance of nesting areas.

Sub-objective 3: Strengthening the institutional framework by:

1. Reinforcement of inter-sectorial actions of the various Government Institutions in the field of conservation and sustainable management of the marine and coastal ecosystem; and
2. Creation of a control action plan with own funds or with external financing, this guarantees oversight.

Main objective 2: The conservation of biological diversity and the preservation of Inland Water Ecosystems.

Basis of this national goals

This national target was deduced from the following problems relating to the conservation of biological diversity and the preservation of Inland Water Ecosystem:

- The Wetlands surrounded by inland waters are not classified at national level as protected area, even though it is considered rich in biodiversity;
- Lack of knowledge about the characteristics of the biological resources of inland waters prevents;
- Pollution of the inland waters of the intermediate zone and low with agrochemicals; and
- Indiscriminate cutting of trees in river basins, bordering lagoons and aquifers.

Level of application:

Regional/Multilateral

National

Infranational

Aichi's main objectives to which the national objective corresponds.

1 6 11 16
 2 7 12 17
 3 8 13 18
 4 9 14 19
 5 10 15 20

Other Aichi objectives to which the national objective corresponds:

1 6 11 16
 2 7 12 17
 3 8 13 18
 4 9 14 19
 5 10 15 20

Other relevant information

In accordance with the 2015 – 2020 National Strategy Plan for Biological Diversity, main objective 2 includes sub-objectives and their actions, which are described as follows:

Sub-objective 1: Reinforcement of conservation “in situ ”, which will include the following actions:

1. Conservation of Biological Diversity and Biological Resources of Inland Waters;
2. Elaboration of Studies on the Wildlife (Fauna) of the Inland Waters;
3. Elaboration of the Management Plan for Wetlands;
4. Creation of Protected Areas in Wet Ecosystems.

Sub-objective 2: Strengthening of the institutional framework, whose action will be:

1. Reinforcement of intersectoral actions of the several government institutions in the field of conservation and sustainable management of inland waters.

Main objective 3: The Conservation of Biological Diversity of

the Forest Ecosystems.

Basis of this national goals

This national target was deduced from the following problems relating to the conservation of Biological Diversity of the Forest Ecosystems:

- Use by small farmers of existing trees in their plots as an immediate financial resource for solving their economic problems without obeying sustainable management with long-term objectives;
- Drastic reduction of high-value timber species, speeding up of soil erosion, destruction of habitats of various species, degradation of river basins, reduction of rainfall and deterioration of the quality of life of the rural population, thereby compromising development prospects;
- The population living in rural areas, particularly in areas that are peripheral to protected areas, do not have the economic means to free themselves from the need to exert pressure on natural resources available in protected areas;
- Use by the rural population of inadequate agricultural techniques and particularly incompatible with the preservation of the areas concerned;
- Non-inclusive participation of the local population in the management of protected areas in order to ensure the controlled use of available biological resources and the more equitable distribution of the resulting benefits;
- Degradation of the landscape for agroforestry and livestock, with the combined effect of soil erosion, anarchic forest exploitation, reduction of fallow periods, cultivation on fragile lands, particularly those susceptible to erosion, and consequent reduction of fertility;
- The sectors currently have no reliable information on the distribution and stock of wild animal species in Sao Tome and Principe. The strong pressure exerted on them and the lack of population data limit the effectiveness of all exercises designed to conserve or manage these resources sustainably;
- Wild species are hunted in the country throughout the year, not respecting their natural life cycle and reproduction;
- Space made available to the Botanic Garden very limited; and
- Failure to take into account the traditional knowledge of the local population in the purposes of Biodiversity conservation.

Level of application:

Regional/Multilateral

National

Infranational

Aichi's main objectives to which the national objective corresponds.

1 6 11 16

2 7 12 17

3 8 13 18

4 9 14 19

5 10 15 20

Other Aichi objectives to which the national objective corresponds;

1 6 11 16

2 7 12 17

3 8 13 18

4 9 14 19

5 10 15 20

Other relevant information

In accordance with the 2015 – 2020 National Strategy Plan for Biological Diversity, main objective 3 includes sub-objectives and their actions, which are described as follows:

Sub-objective 1: Reinforcement of conservation "in situ", which will have the following actions:

1. Raising awareness of populations living in protected areas;
2. Monitoring of protection and conservation actions of protected areas;
3. Perforation of coherent policies and funding for protected areas;
4. Reforestation of degraded areas.

Sub-objective 2: Reinforcement of conservation "ex situ", which will include the following actions:

1. Creation of an Arboretum ;
2. Extension and enrichment of the current Botanical Garden and Herbarium; and
3. Creation of a seed bank of endemic and indigenous species.

Sub-objective 3: The valorization of the biodiversity of the Forest Ecosystem through the following actions:

1. Studies related to the Systematics of poorly explored species;
2. Vulgarization of appropriate techniques for the use of plants for medicinal purposes;
3. Cultivation and sustainable use of medicinal plants;
4. Monitoring of activities related to hunting of endemic species;
5. Protection of breeding and nesting areas of endemic species;
6. Adequate management of tree species of commercial value;
7. Structuring and operationalization of ecotourism;
8. Study of ornamental species and their valorization;
9. Study of species used in the making of handicrafts and their multiplication; and
10. Development of an IEC program on the protection of fauna and flora.

Main objective 4: The conservation of the biological diversity of Agrarian Ecosystem.

Basis of this national goals

This national target was deduced from the following problems relating to the conservation of the biological diversity of Agrarian Ecosystems:

- Genetic erosion caused by the promotion of improved genetic crops and the disappearance of traditional knowledge linked to the practice of traditional crops;
- An uncritical introduction of improved varieties, which have partly replaced local and traditional varieties;
- Relegation to the background of research on local varieties, usually more resistant to certain pests;
- Lack of knowledge on nutritional value of Sao Tomeans fruit species and the characteristics of their life cycle;
- Non-valuation and threat of extinction of some fruit species due to the high degree of vulnerability of the areas where they develop;
- Vulnerability of some fruit species due to certain practices and habits that are unsuitable for their preservation;
- Limited national territorial space for agricultural development, leading to a lack of enough quality pasture;
- Lack of a Center for Research and Livestock Development; and
- Lack of policy in the sense of fostering protection and valorization) of the rustic species,

in a perspective of conservation of the country's agricultural and livestock heritage.

Level of application:

Regional/Multilateral

National

Infranational

Aichi's main objectives to which the national objective corresponds.

1 6 11 16

2 7 12 17

3 8 13 18

4 9 14 19

5 10 15 20

Other Aichi objectives to which the national objective corresponds;

1 6 11 16

2 7 12 17

3 8 13 18

4 9 14 19

5 10 15 20

Other relevant information

In accordance with the 2015 – 2020 National Strategy Plan for Biological Diversity, main objective 4 includes sub-objectives and their actions, which are described as follows:

Sub-objective 1: Strengthening *in situ* conservation of plant species through the following actions:

1. Establishment of a national collection of spontaneous fruit species with a view to their conservation and sustainable use;
2. Preservation of a controlled form of species in their natural habitat and; Computerization of data;
3. Inventory of endangered varieties; and
4. Information, Education and Communication (IEC), aimed at technical staff and farmers, in the field of biodiversity conservation and sustainable management of biological resources.

Sub-objective 2: Reinforcement of conservation "*ex situ*" of plant species, through the following actions:

1. Enrichment of plant germplasm fields by the contribution of genes from abroad and other local varieties.

Sub-objective 3: The valuation of plant biodiversity, which will comprise the following actions:

1. Adoption of an erosion control program and implementation of food crops in appropriate areas;
2. Promotion of organic production of cocoa and other agricultural export products;
3. Promotion of food and fruit crops with a view to ensuring food security;
4. Development of the existing potential of ornamental plants, including market research; and
5. Promotion of research centers to deepen research on biological control methods against pests and diseases.

Sub-objective 4: Reinforcement of *in situ* conservation of animal species through the following action:

1. Protection in situ of the rustic species.

Sub-objective 5: Reinforcement of conservation "*ex situ*" of animal species, by the following action:

1. Creation of a center for research and development livestock.

Sub-Objective 6: The value of animal biodiversity, through the following actions:

1. Promotion of the creation of more common animal species (*i.e., pigs, cattle, sheep, goats, birds and rabbits*);
2. Increase in sheep population;
3. Greater and better control of animals for slaughter; and
4. Creation of transformation units for agro-products.

Main objective 5: The conservation of biodiversity and

the use of its resources based on a more vigorous and current Institutional, Legal and Socioeconomic Framework.

Basis of this national goals

This national target was deduced from the following problems relating to the conservation of biodiversity and the use of its resources based on a more vigorous and current Institutional, Legal and Socioeconomic Framework:

- Lack of regulation of the legal framework to regulate effectively the use of the biological resources present in each of the ecosystems, so as to allow the sustainable management of these ecosystems;
- Low institutional and technical-operational capacity of the sectors responsible for ex-situ conservation, namely lack of necessary equipment, adequate technical capacity of human resources and their motivation; and
- Non-institutionalization of a broad and permanent program of information, education and communication among the population in general and of political, administrative and economic decision-makers, in particular, with a view to building a new mentality and changing the behavior of the population in general, conservation and sustainable management of biological diversity resources:

Level of application:

Regional/Multilateral

National

Infranational

Aichi's main objectives to which the national objective corresponds.

1 6 11 16
— — — —

2 7 12 17
 3 8 13 18
 4 9 14 19
 5 10 15 20

Other Aichi objectives to which the national objective corresponds:

1 6 11 16
 2 7 12 17
 3 8 13 18
 4 9 14 19
 5 10 15 20

Other relevant information

In accordance with the 2015 – 2020 National Strategy Plan for Biological Diversity, main objective 5 includes sub-objectives and their actions, which are described as follows:

Sub-objective 1: Strengthening of the Institutional Framework through the following actions:

1. Reinforcement of the cross-sectoral actions of the various government institutions in the field of conservation and sustainable management of Biodiversity;
2. Strengthen legal framework for fisheries and hunting inspection;
3. Training of qualified additional human resources in the field of conservation and sustainable management of Biodiversity, including rangers, eco-guards / eco-guides, botanists, zoologists, ecologists and others;
4. Reinforcement of the management activities of the Natural Parks in Sao Tome and Principe;
5. Elaboration of a technical improvement program in Agroforestry , Ethnobotany and Pharmacopoeia;
6. Establishment of a public structure for the promotion and follow-up of the appropriate use of medicinal plants;
7. Creation of a national system for the collection and processing of technological information on the operation of Botanical and Herbal Gardens at the international level;
8. Approval and application of the National Forest Development Plan;
9. Creation of a Trust Fund;
10. Promotion of partnerships between the private sector, NGOs and local populations in the field of Biodiversity;
11. Increased State involvement in processes and actions aimed at improving the operationally

and effectiveness of existing support structures (small farmers' associations, medium-sized agricultural cooperatives, agricultural extension programs and others).

Sub-objective 2: Strengthening of the legal and regulatory framework through the following actions:

1. Establishment of mechanisms conducive to the effective implementation and observance of legislation already approved and published on the conservation and sustainable management of Biodiversity;
2. Strengthen laws and reinforcement of the use of living beings as crafts , such as uncontrolled capture;
3. Development of legislation on the safeguarding of plant genetic resources;
4. Elaboration of the corresponding legal framework with a view to the better functioning and utilization of the potential of the existing Botanical Garden and Herbarium;
5. Elaboration, approval and enforcement of legislation on the export, importation and trafficking between Islands of species in accordance with CITES;
6. Elaboration, approval and application of the Livestock Code;
7. Elaboration of laws that integrate the notion of accessibility and fair and equitable sharing.

Sub-objective 3: The creation of mechanisms for access and fair and equitable sharing of biological resources through the following actions:

At the national level

1. Maintain the integrity of forest ecosystems;
2. Promotion of support to structures for protection and community management of biological resources.

At the international level

1. Strengthening cooperation mechanisms for the acquisition of genes abroad, according to needs and national development programs;
2. Institutionalization of the eco - certification process of agroforestry products; and
3. Ensuring regular access to zoo-sanitary information and scientific and technical innovations worldwide.

PART II

Measures of Implementation undertake, Evaluation of its Effectiveness, Obstacles and Scientific and Technical Needs to Reach National Objectives.

The following measures were taken to implement the São Tomé and Príncipe's National Biodiversity Strategy and Action's Plan.

Measures undertaken to Conserve Biological Diversity and Preserve Coastal and Marine Ecosystems.

Measures taken to spatial planning of the coastal zone and sustainable management of its resources, and assess their effectiveness

Measures taken to obtain the desired results	Degree of effectiveness evaluation				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Establishment of the Natural Park Obô de Sao Tome and the Natural Park Principe.					<p>Their administrations poorly installed and lacking the necessary and sufficient technical staff;</p> <p>Boundaries of two protected areas not properly affixed and always disrespected;</p> <p>Project ECOFAC 6 perspectives solve this problem in the near future.</p>
Recognition of Principe's island as UNESCO World Biosphere Reserve in 2012;					<p>Principe Biosphere Reserve administration not yet optimally installed;</p> <p>Technical and administrative staff to ensure the operation of the reserve in constitution;</p> <p>Much of Reserve's biological diversity resources still exploited irrationally;</p>
Strengthening of the Basic Law of the Environment and the Decree - Law on Inert Extraction in Principe Island,					<p>Record of some reduction in irrational exploitation of inert (beach sand) as an impact of the application of these legislative texts and the dredging of sand on the high seas;</p> <p>Emergence of flooded moats causing collapse of housing and road infrastructure due to illegal extraction of inert (sand), which still occurs;</p> <p>Destruction of habitats of</p>

					certain species in some coastal areas where sand is extracted
Extraction of sea sand by a private company and the government of RAP (in 2016) ensured that the investment;					Persiste ainda a extração da areia de forma insustentável nas praias e nas terras ao litoral (ver os detalhes anteriores)

Internet sites, Internet links and relevant files:

- Document - Law No. 7/2006 - Law of the Principe Natural Park
- Document - DECREE No. 35/1999 - Decree Law on the Extraction of Inertes in Coastal Areas and Rivers
- Document - Law N10 / 99 - Basic Law of the Environment
- Website - Sao Tome and Principe Adaptation to Climate Change Project
- Website - <http://www.unesco.org/the-island-of-principe>

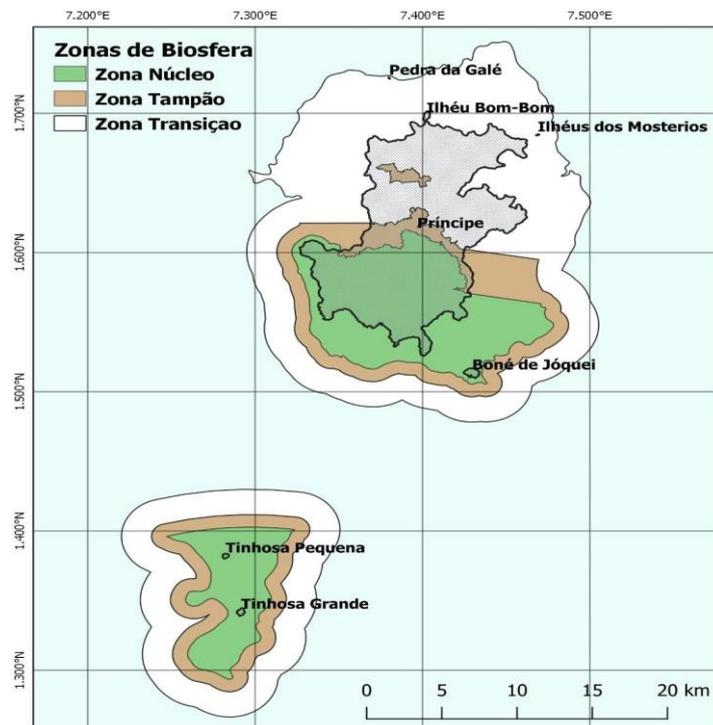


Figure 1.1. Zoning of the UNESCO Biosphere Reserve of Island of Principe. Map produced for this document by Frazer Sinclair.

Measures taken to promote studies and projects in order to better understand and know marine ecosystems and their biodiversity, and assess their effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Studies on demersal species were performed with's fundamental objective to check the trend of the potential of the species that constituted the study objects.					The potential trend of demersal species is known, but compliance with the recommendations made for the conservation of these species has been deficient.
Studies to define maritime areas that can be protected (MMA). This studies both on Sao Tome and Principe Islands and was coordinated by Alessio Satta - President of MEDSEA;					Outcome of undisclosed and disseminated study among potential actors.
There was also a study on sea cucumber (Echinoderms of the class Holothuroidea) whose main habitat is the coastal zone, realized with the aim of knowing its potentiality;					Result of the study not sufficiently disseminated and, therefore very little known among potential actors.
Tuna marking for purposes of studying the dynamics of populations of the species <i>Thunnus obesus</i> (locally known as <i>olede</i>) , <i>Katsuwonus pelami</i> (Zude) , <i>Thunnus albacares</i> (<i>olede</i>) , <i>Auxis thazard</i> , and <i>Ethinnus alenteratus</i> (locally known as <i>fulufulu</i>);					The potential trend of demersal species is known, but compliance with the recommendations made for the conservation of these species has been deficient.

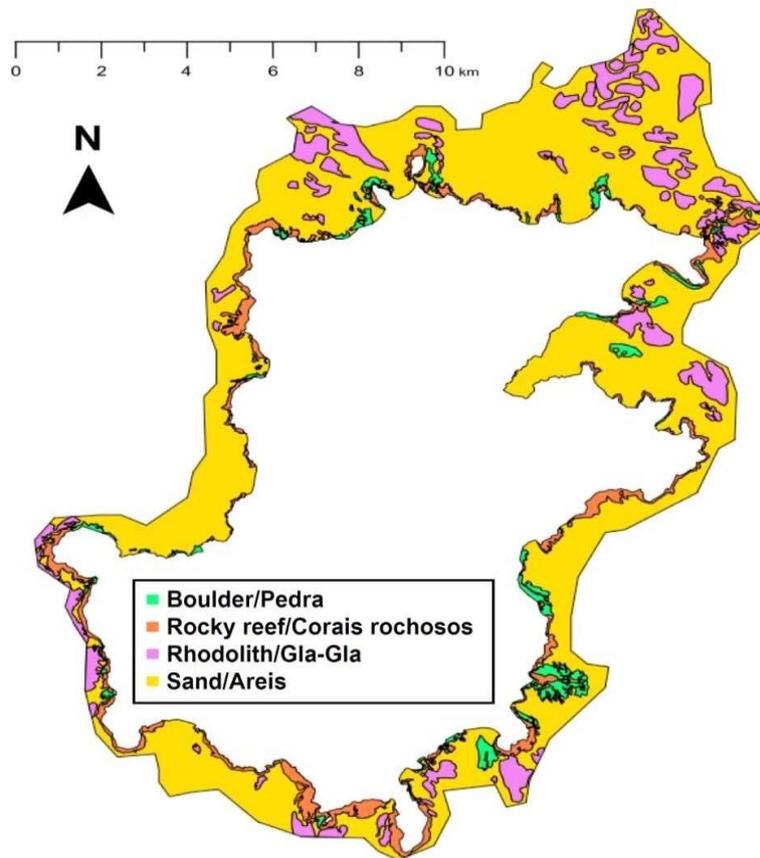


Figure 1.2. Map of habitats of the coastal shoreline (0-25m deep) around Principe showing the distribution of Stones, Rocky Corals, Rodoliths and Sand. Reprinted by permission of the Principe Trust Foundation.

Internet sites, Internet links and relevant files:

- Marine Habitats of Prince - Description and Map
- Web video - BRUVs - Surveying marine life in Principe Island
- Website - <https://omaliprincipeen.weebly.com/>
- Web video - Video tagging of Green Turtle
- Website - <http://www.reefcheck.org>
- Website - <http://www.rastoma.org>

Measures taken to awareness of people living in coastal areas, and assess their effectiveness

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Three of the six fishing communities in RAP received awareness of the new fisheries regulations through the <i>Appui Participatif à l'Agriculture Familiale et à la Pêche Artesanal</i> (PAPAFPA);					Knowledge of fisheries regulations and understanding of the need to conserve fish stocks is already beginning to make a mentality in fishing communities. However, the change in behavior has not yet reached such an extent that fishing practices have been kept to a minimum;
The following projects were also implemented in RAP in the awareness of coastal communities: <ul style="list-style-type: none"> Project Omali Vida Nón (Sea Our Life), achievements. Project ProTetuga, 					Projects have been implemented but their impacts, relative to the objectives they were aimed at, are not sufficiently known.
Establishment of a Community fund financed with revenue from tourists visiting the nesting areas of sea turtles, in order to finance projects of the community that are socially Beneficial.					The community fund have been established but their impacts, relative to the objectives they were aimed at, are not sufficiently know.

Other relevant products of the Projects Omali Vida Nón and Project ProTetuga.

- **Project Omali Vida Nón (Sea Our Life), achievements:**
 - Evaluating social perceptions for the conservation and management of the marine environment, serving as a basis for conception of conservation interventions both regionally and nationally;
 - In 2017 there were also implemented an initiative called "Community Ideas", with the aim of promoting the dynamism of the community and support the implementation of measures that have a positive impact on the sustainability of traditional fisheries; and
 - Selection and implementation of six ideas to diversify income - generating activities and promote collaborative work within the communities.
- **Project ProTetuga**
 - Promote the awareness on best practices of coastal communities through an initiative called 'Community Competition.

Internet sites, Internet links and relevant files:

- Rapport of supervision - PAPAFA 20153
- Website - <https://omaliprincipeen.weebly.com/>
- Document - ProTetuga Project RePport 2017/184

Measures taken to monitoring of actions to protect and conserve coastal areas, and to assess their effectiveness :

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Monitoring and surveillance of the Exclusive Economic Zone of Sao Tome and Principe.					The STP EEZ has been monitored and monitored through international technical cooperation. However, monitoring and surveillance activities should be intensified as there is still fishing and other illegal incursions into this area.
Daily boat patrols to record and report the incidence of malpractice, such as poaching of sea turtles, use of fishing nets within the bays, or use of fine mesh fishing nets.					The Coast Guard in conjunction with International Cooperation has implemented this measure. But due to the lack of technical and human resources, the problem still persists.
Beach nocturnal patrols during the breeding season of sea turtles to record the activities of females - climbs, attempts and spawning.					Encouraging results have been reported in the implementation of this measure, but turtle capture and egg collection are still ongoing.

Internet sites, Internet links and relevant files:

- Document - ProTetuga Project Report 2017/184

Measures taken to creation of a national and regional marine park, and the evaluation of its effectiveness

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Project to establish a network of marine protected areas in Sao Tome and Principe					Project announced but not yet officially launched
Proposal for the creation of a maritime protected area around the Seven Rocks or the <i>Ilhéu Santana</i> , at the level of Sao Tome.					Project conceived but launch of its implementation unknown.
Proposal for the creation of a maritime protected area in the localities between <i>Praias Cruz / Gamboa as well as Ilhéu das Cabras</i> , in Sao Tome;					Idea of the project official but the elaboration of Prodoc still unforeseen.

Internet sites, Internet links and relevant files:

- Website – <https://www.blueactionfund.org>
- Website – https://www.blueactionfund.org/Facsheet_FFI.pdf
- <http://www.unesco.org/the-island-of-principe>

Measures taken to creating a maritime area protected in both Islands, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Monitoring and control of fisheries and catches, thus contributing to the creation of a sanctuary where fish stocks;					A sensible and unanimous measure among all authors of biodiversity, but the sanctuary for the incubation of fishery species does not yet exist to be publicly known.

Measures taken to Studies of marine fishery resources, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Socio-economic characterization of the use of marine natural resources (i.e. fisheries, dolphins, turtles, sharks, rays and birds) and dependence on households of marine ecosystems					Study carried out but results are poorly disseminated among actors and partners; The recommendations developed are also very little known and therefore poorly materialized.
Identification of small-scale fishing areas using a participatory mapping with GPS devices given to fishermen.					Study carried out but results are poorly disseminated among actors and partners; The recommendations developed are also very little known and therefore poorly materialized.
Evaluation of the sexual maturity of demersal fish selected, with special focus on the Red Earth (<i>Lutjanus fulgens</i>). Recording of fish caught twice a week in six fishing communities from December 2016 to December 2018.					Study carried out but results are poorly disseminated among actors and partners; The recommendations developed are also very little known and therefore poorly materialized.

Internet sites, Internet links and relevant files:

- Website – <https://omaliprincipien.weebly.com/>

Measures taken to sustainable management of the exclusive economic of Sao Tome's Zone, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Realization of an Environmental Impact Study in connection with the probable operations of one of the oil blocks located in the Exclusive					Successful study but very little-known results, recommendations produced are not known if they are being appropriate for implementation by the competent institutions;

Economic Zone of Sao Tome and Principe (EEZ;					
Patrol and monitoring of the STP Exclusive Economic Zone under bilateral cooperation agreements between Sao Tome and Principe and countries such as Brazil, Portugal and Spain;					Measure successfully executed; but needs to be intensified as cases of illegal fishing and other illegal activities continue to be reported within the EEZ - STP.

Measures taken to Protection of sea turtles, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Continuation of the Sea Turtle Conservation projects in Sao Tome and Principe;					<p>As part of this project, it has been developing: i) an inclusive awareness campaign throughout the country, especially in fishing communities; ii) conducted surveys on the population of turtle species; and a law on the protection of sea turtles was drafted.</p> <p>In spite of these actions, there is still turtle capture and slaughter but with great difficulty and therefore very rare.</p>

Internet sites, Internet links and relevant files:

- Document - [REGIONAL LEGISLATIVE DECREE No. 3/2009 - Protection and Conservation of Sea Turtles](#)
- Document - [Law no. 6/2014 - Approves the Regulation on Capture and Marketing of Sea Turtles and their products](#)
- Document - [Prote tuga Project Report 2017/184](#)

Measures taken to conservation and protection of cetaceans, and the evaluation of its effectiveness :

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Environmental Impact Studies in the EEZ – STP, that will contribute greatly to the conservation and protection of this biological group;					Successful study but very little-known results, recommendations produced are not known if they are being appropriate for implementation by the competent institutions.

Measures taken to census of birds in different islets, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
The <i>Tinhosas</i> rocky Islands have been designated as a Ramsar site since 2006 and have been recognized as a globally important area for birds (IBA) since 2001;					Tinhosas Islands is located on the sea of Principe Island, conasagrada as World Biosphere Reserve. This location facilitates its conservation as the habitat of a unique bird, which has benefited from all species conservation actions, undertaken under the management of this reserve.
Intensification of research on the Birdlife farming of Sao Tome and Principe, especially on endemic species, which have a status of conservation of risk;					Research activities on endemic birds have been carried out, them. Investigations developed mainly within the theme Conservation Biology have produced relevant information for science and aroused a high international interest of scientists; It remains to appropriate this new knowledge and capitalize it to be used for the socio-economic and environmental development of the country.

Internet sites, Internet links and relevant files:

- Website - [Tinhosas Islands IBA factsheet](#)
- Document - [Vale e tal 2016 – Population estimates of the breeding birds of the Tinhosas Islands](#)

- Document - Bollen e tal 2017 – An updated assessment of seabirds breeding at Principe and Tinhosas
- Document - Thesis of PhD of the Ricardo Lima

Measures taken to reinforcement of cross-sectoral actions of the various institutional structures in the field of conservation and sustainable management of marine and coastal ecosystems, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Reinforcement of the Project collaborative in Coastal Zone, strengthened ties between the various stakeholders in Sao Tome and Principe;					The Project collaborative, such as Tatô, an Adaptation to Climate Change in Coastal Zone, Omali Life Nón and ProTetuga, strengthened ties between the various stakeholders in Sao Tome and Principe. Although this cohesion existed for the conservation of coastal and marine biodiversity, there are still practices that are not conducive to sustainable use of resources;

Other relevant products of the Reinforcement of the Project collaborative in Coastal Zone.

This project collaborative including government entities (Unit Biosphere Reserve Management Unit guard Coast, Directorate General for Fisheries, Director Regional Fisheries, Directorate General Environment, Director Regional Environment and Nature Conservation), private companies (HBD, Eden Africa), NGOs (MARAPA), research institutions (University of Sao Tome, University of Exeter , CIBIO), and civil society groups (Sao Tome and Principe Fishermen 's Association, *Palaiês (women that sale fishes)*' Association of Island of Principe and Association of Tourist guides of the Principe).

Measures undertake to Conserve Biological Diversity and Preserve Inland Water Ecosystems.

Measures taken to conservation of biological diversity and biological resources of inland waters, and Preparation of studies on inland water fauna, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Conducting preliminary study on three mangroves in Principe.					The study gives us a preliminary view of its conservation status and its biodiversity. But implementation of the recommendations stemming from the study are not sufficiently known.
Studies on some of the most important mangrove swamps and elaborated Action Plans for its conservation;					The study gives us a preliminary view of its conservation status and its biodiversity. Implementation of mangrove conservation projects has been launched.

Other relevant details of the conservation of biological diversity, biological resources of inland waters, preparation of studies on inland water fauna, and the evaluation of its effectiveness.

The major rivers of Sao Tome and Principe, (Figure 2.1), have their s springs in the Natural Parks of these two islands. So, these rivers are automatically protected by the decisions of the laws governing these parks and the measures provided for to their respective Management and Management Plans in force.

Pollution situations happen in the middle sections and downstream, derivatives by obstruction of beds with illegal logging waste of trees, the insecticides present in mosquito nets and residues of agrochemicals used in agricultural activities.

The National Forestry Law (Law no. 5/2001) states that land immediately adjacent to rivers, streams and lakes should be designated as a non- productive forest reserve, up to ½ the width of the water body in all its margins:

- In Sao Tome, these restrictions have not been applied and the clearing of trees and clearings for establishment of crops has been carried out.
- In Principe this decision has limited the construction and the widespread slaughter of riparian forests or riversides vegetation but limited resources for one to monitor mean that cutting selective and other activities harmful stay to be a problem.

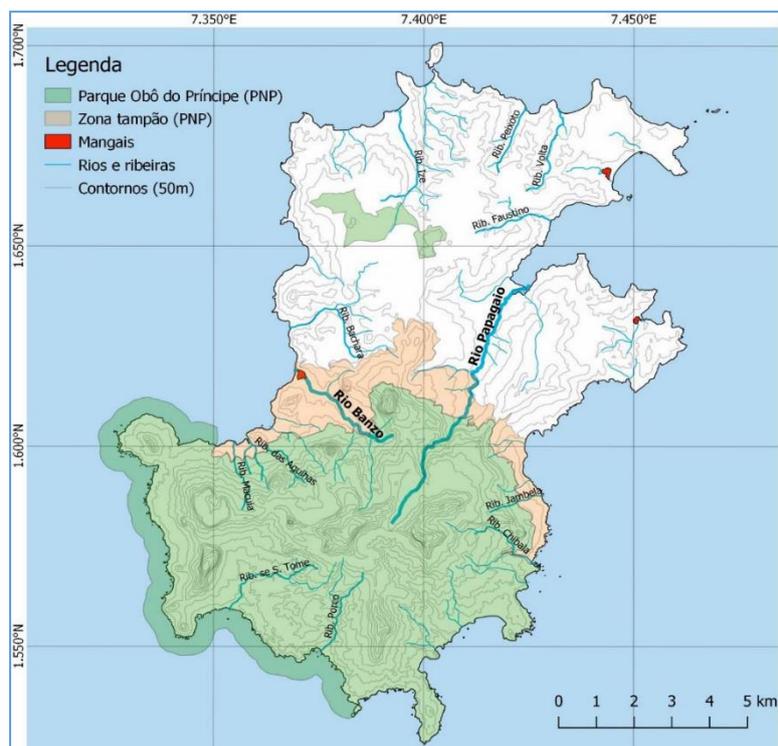


Figure 2.1. Map of the inner-city ecosystems of the Principe. Produced for this document by Frazer Sinclair.

Internet sites, Internet links and relevant files.

- Document - Law no. 5/2001 - Forest Law;
- Document - Laws Nos. 6 and 7, of the Natural Parks of ST and Principe;
- Document - Management and Management Plans of PNOT and PNP;
- Document - Preliminary characterization of the Mangroves of Island of Principe;
- Document - Study on the Sao Tome mangroves; and;
- Document - Action plan for the conservation of the Sao Tomé.

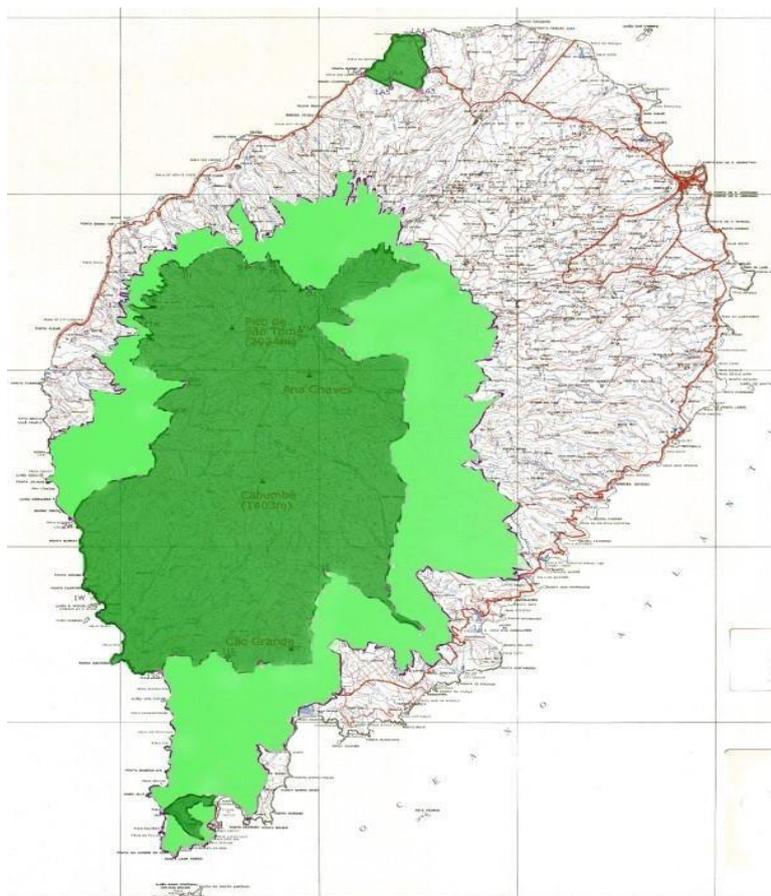


Figure 2.1a. Location of the PNOT and its buffer zone in the interior of São Tomé Island.

Measures taken to Elaboration of the marshland management plan, and the evaluation of its effectiveness:

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Management Plan of the Main Wetlands, prepared by the company.					The Management Plan of the Main Wetlands was drafted more than 10 years ago, and even then, although publicly validated, it was never adopted by the government as a sectoral development policy document.

Measures taken to creation of protected areas in humid ecosystems, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Obô's Sao Tome Natural Park and Principe's Natural Park integrate the main humid ecosystems of the country;					Wetlands integrated into the Natural Parks are managed simply as parcels of these protected areas. It is necessary to establish a concertation between the administration of these parks and the representation of the RAMSAR Convention, so that these zones will enjoy this Convention in reinforcement.

Internet sites, Internet links and relevant files

- Document - Principe Island Botanical Sampling Follow Up Work
- Document - Planos de Gestão e de Manejo do PNOT
- Document - Planos de Gestão e de Manejo do PNP

Measures undertake for Conservation of Biological Diversity and Preservation of Forest Ecosystems

Measures taken to Raising awareness of populations living in protected areas, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Promotion of participatory methodology in the process of creating the São Tomé and Príncipe Natural Parks and the consecration of Príncipe as a World Biosphere Reserve;					The Process of creating this protected areas have been participatory actions that included the integration of all local communities.

Other relevant details concerning the assessment of the effectiveness of the raising awareness of populations living in protected areas.

The process of creating the Obô de Sao Tome Natural Park and the Principe Natural Park (since 2006) and the classification of the Prince as a UNESCO World Biosphere Reserve (since 2012) have been participatory actions that included the integration of all local communities, thereby increasing their awareness of the benefits and importance of biodiversity conservation and natural heritage. Publicity activities included: public tours to sites of interest within the Natural Park; seminars and public presentations; exhibitions at local festivals; a weekly "Biosphere Time" program on local radio; and frequent messages on various social networks.

Internet sites, Internet links and relevant files:

- Website - <http://www.unesco.org/the-island-of-principe>
- Website - <https://www.facebook.com/principereserva/>
- Website - <https://www.facebook.com/Parque-natural-do-principe>

Measures taken to monitoring of protection and conservation actions of protected areas, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Monitoring of activities human and animal populations endangered species within the Obô natural park of Sao Tome and the Natural Park Principe.					Expected in the near future, through the project ECOFAC VI (2018-2023), Project Treasury d'Obo, project restoration of Forest the Degraded and landscapes and the Obô Carbon Project.
Implementation of the Plan of Action for Critically Endangered Thrush-Blood Principe (2018-2020).					Implementation of this Plan, will also be developed and implemented a monitoring protocol for endangered animal species in the area protected.

Internet sites, Internet links and relevant files.

- Website - <https://www.protectedplanet/management-effectiveness-Documents-ECOFAC-6-Project-Factsheet>;
- Website - <https://www.cepf.net/implementing-action-plan-critically-endangered-principe-thruh>;
- Document - Prodoc Project Restoration of Forests and Sights; and
- Document - Prodoc Project Tesouro d'Obô Document - Prodoc Project Obô Carbono.

Measures taken to reforestation of degraded areas, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Launch of a reforestation / restoration program by the Directorate of Forests and Biodiversity; and					The DFB has deployed reforestation projects, either on its own or with the support of projects, such as Renewable Energy and Integrated Management of Hydraulic Basins , and in the near future Oof the Restoration of Forests and Landscapes Project.
Reforestation / restoration of about 30 ha in Principe.					The Regional Directorate for Forests encourages the reforestation of degraded areas through partnerships with private land owners, providing seedlings of commercially valuable species forever planted

Other relevant details concerning the assessment of the effectiveness of the reforestation of degraded areas.

The deforestation phenomenon itself does not exist in Sao Tome, except for the specific cases of clearing for establishments of industrial export crops, operated by SATOCAO (Agricultural concession for quality cocoa production) and AGRIPALMA (Agricultural concession for quality palm oil production).

What has occurred regularly in Sao Tome is the degradation of forest lands due to the downfall of trees, but uncontrolled, for the production of lumber, logs and charcoal.

The reforestation / restoration program aims to restore 36 thousand hectares of forests in Sao Tome and Principe.

The areas of deforestation in the Principe are not extensive, and are largely confined to the north of the island (see Figure 3.1).

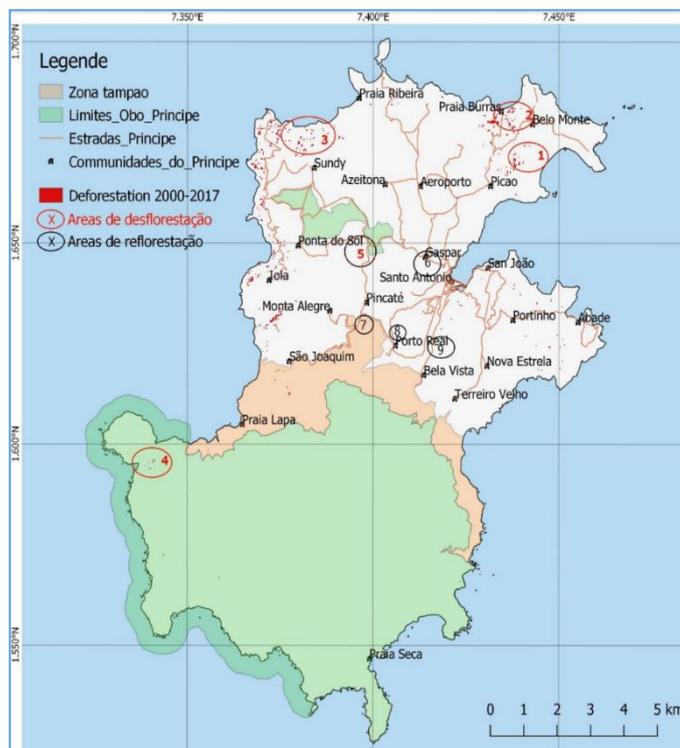


Figure 3.1. Map of deforestation and reforestation in Island of Príncipe. Deforestation data originated from <https://www.globalforestwatch.org/>, covering the period 2000-2017.

Measures taken to extension and enrichment of the current botanical garden and Herbarium, and the evaluation of its effectiveness.

Measures taken to obtain the desired results	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Existence of a Botanical Garden with which a National Herbarium was associated.					Since its founding in the 1990s, the Botanical Garden of Sao Tome has never had any significant intervention aimed at widening and enrich it.

Other relevant details concerning the assessment of the effectiveness of the extension and enrichment of the current Botanical Garden and Herbarium National.

With respect to enrichment of the Botanical Garden, there has been introduction of species, but sporadically by interested parties, without being included in the implementation of some official initiative.

As for the National Herbarium, in recent years there has been some enrichment, through small initiatives developed by students in thesis works and by isolated researchers.

Since 2016, the Global Tree Campaign (GTC) has supported the Obô of Príncipe Natural Park in the establishment of a herbarium (small collection - unofficially registered) with about 70 species, and copies of the various samples collected in the Príncipe are then sent to five international herbariums and also to the National Herbarium of Sao Tome. An orchid garden with about 15 species of live orchids is also kept in the park's headquarters.

Internet sites, Internet links and relevant files

- Document - Príncipe Island Botanical Sampling Follow Up Work - GTC Phase 2 (2008).

Measures taken to studies related to the systematics of poorly explored species, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Systematic study and classification of the Príncipe's most endangered tree species is being conducted.					Very important results were obtained from this study, but their application in biodiversity conservation interventions are still very little determinant.
Plants of S. Tome and Príncipe, exploited for their medicinal properties, have been extensively studied.					From this study a book was published and there have been some initiatives to materialize the results contained therein. But in general, interventions have not yet been able to produce expected changes in terms of conserving the biological diversity of medicinal plants.

Internet sites, Internet links and relevant files:

- Document - Madureira Study M.C., et al., 2008. Ethnopharmacological of Medicinal Plants of S. Tome and Príncipe.

Measures taken to vulgarization of appropriate techniques for the use of

plants for medicinal purposes, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Meetings and public presentations held and instructional videos shared on the internet.					The FORBIO.STP project (2016-2017) included several components of local empowerment and transmission of traditional knowledge about medicinal plant species and how these can be used
Implementation of the Tesouro d'Obô Project and a new project on the development of NTFPs, to be proposed by FAO - STP.					The first project is already underway and the second has already been officially launched.

Internet sites, Internet links and relevant files:

- Website - <https://www.segredosdafloresta.com/>;
- Document - Prodoc of the Tesouro d'Obô Project; and
- Document - Prodoc of the Gigante d'Obô Project.

Measures taken to Cultivation and sustainable use of medicinal plants, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Management a forest plot with about 1ha for the cultivation of medicinal plants in agroforestry systems, by traditional therapists.					Since 2017 that the Association of Traditional Therapists of the Autonomous Region of the Principe (ATTARP) manages this forest plot.
Creation of an association of Traditional Therapists in Sao Tome an Association.					This Association of Traditional Therapists is created but has developed very few activities.

Internet sites, Internet links and relevant files:

- Document-FORBIO – STP Project Report 201815.

Measures taken to monitoring of activities related to hunting of endemic animal species, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
It is currently conducting a questionnaire-based survey in local communities to investigate hunting levels and other threats to endemic animal species.					Questionnaire conducting in the ambit of the Principe's Critical Ecosystem Partner Fund project entitled 'Implementation of the Critically Endangered Thrush of the Principe' Action Plan (2018-2020);
Implementation and monitoring of hunting legislation in the Obô de Sao Tome Natural Park and the Principe Natural Park.					Activities expected through the ECOFAC6 project, which aims to train and equip eco-guards to conduct patrols using space monitoring tools (SMART)

Internet sites, Internet links and relevant files:

- Document - Law no. 1/2016 - Regulation on hunting;
- Website - <https://www.cepf.net/implementing-action-plan>;
- Website - [criticallyendangeredprincipe-thrush](http://criticallyendangeredprincipe-thrush.org) ;
- Document - ECOFAC 6 Project Factsheet ; and
- Website - <http://smartconservationtools.org/>

Measures taken to protection of breeding and nesting areas of endemic species, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
The National Hunting Law (Law n.1 / 2016) prohibits the hunting of all endemic bird species in Sao Tome and Principe, and also specifically prohibits any hunting or disturbance in their breeding grounds;					There are not an effective enforcement and enforcement of the law.

Other relevant details concerning the assessment of the effectiveness of the protection of breeding and nesting areas of endemic species.

The National Hunting Law (Law n.1 / 2016) in specifically prohibits any hunting or disturbance in their breeding grounds. In addition, the breeding grounds of several endemic species - including the Principe's Thrush and the Principe Kitoli do Principe, the

Sao Tome Mountain Stream, the rediscovered Anjolo - are also protected by the law of the Obô de Sao Tome Natural Park and of the Principe.

Internet sites, Internet links and relevant files:

- Document - Law no. 1/2016 - Regulation on hunting;
- Document - Melo and such. - 2010 - Multiple lines of evidence support the recognition of a very rare bird species: the Prince Thrush;
- Document - Melo & Dalimer 2009 - Is there undiscovered endemic Scoops OWI on Prince; and
- Website - <http://smartconservationtools.org/>

Measures taken to adequate management of tree species of commercial value, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Provision of seedlings of commercially valuable species for reforestation (see also 3.1.4);					Seedling supply has been implemented by DFB but has not yet reached the proportion capable of offsetting the exploitation of trees of commercial value.
Installation of nurseries in rural communities;					some nursery centers have been set up in rural communities. More nurseries need to be created and the existing ones efficiently managed;
Reforestation activities in various communities and forest areas under the management of the DFB;					Reforestation activities need to be intensified and massified to respond to the need to restore forest cover and heritage;
Instituted annual closed seasons (during March, June, September and November) - supported by a Presidential Decree.					Period established only in Principe, in São Tomé, the largest territorial portion of the country, was not instituted.

Other relevant details concerning the assessment of the effectiveness of the adequate management of tree species of commercial value.

With the support of the Energy and Integrated Management of Hydrographic Basins (UNDP) and Restoration of Forests and Degraded Landscapes (FAO - STP) projects, reforestation and restoration activities will experience better days.

Within the closing period, any cutting and felling of trees is prohibited; and the total prohibition of cutting species in particular, when the population becomes over exploited (currently the cut of Amoreira (*Melicia excelsa*) or gogo (gogo Carapa or *Strephonema* sp .) is prohibited.

Measures taken to structuring and operationalization of ecotourism, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
A National Strategy for Tourism Development in STP was developed, in which ecotourism development is one of the priorities.					Policy strategy for the development of ecotourism conceived, the infrastructural base and human capacity for all levels to implement the strategy need to be created.
Organization of a 650-hour professional training in Eco- Tourism.					Successful training, care must be taken to ensure that graduates are operational in the ecotourism.
Creation of the Príncipe Tourist Guides Association.					The intervention of ecoguides in the Príncipe Natural Park, guiding the tourists, is oriented through this association.
Preparation of the Regional Development Plan, based on the UN sustainable development goals, with a special focus on ecotourism.					Plan adopted by the Regional Government of Príncipe, which needs to create all the conditions for its operation;

Other relevant details concerning the assessment of the effectiveness of the structuring and operationalization of ecotourism.

The Training in Eco-tourism is organized during 2016/2017 per the Island de Principe Biosphere Reserve, in partnership with the Prince Trust Foundation, with the support of ISAL (Superior Institute of Administration and Languages). During the course, several specialists taught various modules, including marine and terrestrial conservation, English, Portuguese, History and Heritage, First Aid and Ecology. A total of 22 prince residents completed the course and received their certificates.

The Príncipe Tourist Guides Association was created in 2017, with more than 20 founding members. The Obô do Principe Natural Park facilitated training for members of the association to ensure best practices within the protected area and protection of the species and ecosystems of the Island.

The Government of Principe is currently involved in Prince 2030 plan preparation, the Regional Development Plan, based on the UN sustainable development goals, with a special focus on ecotourism.

Internet sites, Internet links and relevant files:

- Document - ECOTOURISM TECHNICAL COURSE -2016/1719
- Document - Statutes of the Association of Tourist Guides Principe August
- Document - Príncipe 203021

Measures taken to development of an IEC program on the protection of fauna and flora, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
A National Strategy for Communication in Forests and Biodiversity was developed.					Strategy not yet adopted as one of the Government's national forest policy strategy documents.

Internet sites, Internet links and relevant files:

- Document - National Strategy for Forest Communication.

Measures undertake to Conserve Biological Diversity and Preserve Agrarian Ecosystems.

Measures taken to Information, education and communication, aimed at technical staff and farmers, in the field of Biodiversity conservation and sustainable management of biological resources, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Transition from organic farming to biological farming,					Although national authorities have already publicly expressed their willingness to massify agricultural practice throughout the country, it is still concentrated in cooperatives where they are already traditional.

Popularization of the techniques to compound production and construction of soil protection mechanisms - sidewalks, terraces and others.					These techniques were introduced to the rugged farmland of the interior of São Tomé as part of a project, and today there is a tendency for them to spread to other agricultural circles.
Emission of a presidential decree in RAP banning the import of chemical fertilizers in 2015.					Decree issued and applied in the autonomous region of Príncipe.
Conducting two permaculture training sessions, both for local farmers and government officials.					Training carried out but it is necessary to rigorously materialize the lessons learned.

Other relevant details concerning the assessment of the effectiveness of the Information, education and communication, aimed at technical staff and farmers.

The Government of Sao Tome and Principe is committed to transition from organic farming to biological farming, in order to support the conservation and sustainable management of biological resources. Already there are two cooperatives producing cocoa biological with many encouraging results - the CECAB and CECAQ11, a producer cooperative of biological coffee - the CECAFEB and pepper production cooperative and biological vanilla - EC PIBA.

Still in Sao Tome, Directorate of Agriculture and Rural Development, it has been committed in recent years to popularizing techniques of compound production and construction of soil protection mechanisms, with a view to training technicians and farmers and sensitizing them to gradually dissociate themselves from the use of agrochemicals.

In RAP, the Regional Directorate of Agriculture conducts an ongoing education program in local communities regarding the dissemination of the decree, with alternative good practice advice in agriculture.

During 2014-2016 there were two permaculture trainings, one funded by HBD and another by PRIASA, both for local farmers and government technicians.

Internet sites, Internet links and relevant files:

- Website - <http://priasa.org/project>

Measures taken to enrichment of plant germplasm fields by the contribution of genes from abroad and other local varieties, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Conducing of advanced training in agriculture of improved varieties of maize, cassava, sweet potato, soybean and yam, to the farmers and agricultural co-operatives at national level.					Activities implemented with bilateral cooperation support but its result was very poorly reported

Internet sites, Internet links and relevant files:

- Website - <http://www.icdf.org.tw>

Measure taken to adoption of an erosion control program and implementation of food crops in appropriate areas, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Development of a sectoral policy strategy, based on a National Strategy and Plan of Action for Soil Conservation.					Implemented with the support of bilateral cooperation and today there is the vulgarization of the techniques introduced.
Training of two technicians from the Prince's Agriculture Department, in seed bank management.					Technicians have been successfully trained and are performing their duties in the institution that has delegated them;

Other relevant details concerning the assessment of the effectiveness of the adoption of an erosion control program and implementation of food crops in appropriate areas.

Under a TCP funded by the FAO, titled Project for Soil Protection in the District of Mé-Zochi, Rwandan specialists were contracted to train national technicians and farmers in appropriate techniques of soil conservation on sloping terrain. There were exchange and

exchange of experience visits to Rwanda, with participation from director, engineers to farmers.

During 2013 and 2016, two technicians from the Prince's Agriculture Department visited Taiwan to receive training in seed bank management. However, after the end of diplomatic relations between Taiwan and Sao Tome in 2016, few future actions have been taken.

Internet sites, Internet links and relevant files.

- Website - <http://www.icdf.org.tw>;
- Document - Prodoc Soil Protection Project in the Mé- Zochi.

Measure taken to promotion of biological production of cocoa and other agricultural products for export, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Creation of National Cooperatives for biological production of pepper (CEPIBA), cocoa biological (CECAB and CECAQ11), and coffee biological (CECAFEB).					Established cooperatives are fully operational and encouraging results are achieved. However, interventions are needed for growth and consolidation of their performances.

Internet sites, Internet links and relevant files.

- Document - Supervisory Rapport – PAPAFFPA.

Measure taken to promotion of the creation of the most common animal species (pigs, cattle, goats, birds and rabbits), and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Strengthening pig and beef production through the PRIASA II project					Initiative with promising results. but it needs to be expanded and consolidated.

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Other relevant details concerning the assessment of the effectiveness of the promotion of the creation of the most common animal species (pigs, cattle, goats, birds and rabbits).

PRIASA II project (2016-2020) is supported by the African Development Bank. The Taiwan-ICDF- Piggery (2012-2016) project, supported by the Government of Taiwan, imported high quality genetic varieties, including 110 Brazilian cows and 53 British pigs.

In order to improve the genetic makeup of local pig breeds, it was also created one Cooperative Pig farming in the community 's agricultural of Sao Tome and Principe , and were formed s and capable s with best practice techniques for pig farming.

Internet sites, Internet links and relevant files.

- Website - <http://priasa.org/project>
- Website - <http://www.icdf.org.tw>

Measures taken to greater and better control of animals for slaughter, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Training on best practices for the control of slaughter animals administered to breeders and technicians of the public administration of the livestock and agriculture sector.					An appropriate legal framework and necessary resources are currently lacking.

Other relevant details concerning the assessment of the effectiveness of the greater and better control of animals for slaughter

Technical Directorate of Livestock and Department of Agriculture of the Regional Government of Principe, as well as the Breeders Cooperative received various trainings on best practices for the control of animals for slaughter by PRIASA II and design Taiwan-ICDF- development Piggery (see also 4.6.1).

Measures undertaken to Conserve Biodiversity and Use its Resources, Based on an Institutional, Legal and Socioeconomic Framework, More Vigorous and Current.

Measures taken to reinforcement of the intersectoral actions of the various state institutions in the field of conservation and sustainable management of Biodiversity, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Rectification of the organic structure of the atmosphere of official institutions and nature conservation, both the level of Govern the Central and at the level of Government Regional Blood Prince;					These restructurings were carried out in order to foster partnership and synergy between the institutions in the coordination and management of actions related to the conservation of BD. However, the impact of this is not yet evident.
Involvement of official institutions in numerous partnerships with local and international NGOs.					Usually in these partnerships, the mandate of each party is not defined and the national NGOs are at a disadvantage because they do not have the same level of technical performance as the international ones.
It is in institutionalizing ways a National Platform of Forests,					The platform is still in the institutionalization phase and its operation is not yet a reality;

Other relevant details concerning the assessment of the effectiveness of the reinforcement of the intersectoral actions of the various state institutions in the field of conservation and sustainable management of Biodiversity.

After the 2018 elections, measures are being taken to improve the coordination in between the institutions in governance related to the conservation and sustainable management of biodiversity.

No the Autonomous Region of Principe, it was rectified the structure of the atmosphere of official institutions and nature conservation through the creation of a Regional Secretariat for the Environment and Infrastructure, which integrates the environment and conservation of nature, the Forestry Department Regional, the Management Unit of the Biosphere Reserve and the Obô do Príncipe Natural Park.

Official institutions are also involved in numerous partnerships with local and international NGOs, Research Institutions, civil society groups, and private companies.

Internet sites, Internet links and relevant files:

- Document - Draft Statute of the National Platform for Forests.

Measures taken to Strengthen the legal framework for fisheries and hunting surveillance, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Strengthening the legal framework for fishing and hunting.					<p>The legal framework for the existing fishing and hunting sector, if applied effectively, is already capable of sustaining the subtle management of the resources of these sectors.</p> <p>It is necessary to mobilize the necessary and sufficient technical and human resources for the optimal execution of this legal framework.</p>

The legal framework on fishing and hunting has been strengthened by the following legislation:

- Regional Beekeeping Law (2017)
Document - Regional Legislative Decree number ... / 201722
- National Hunting Law (2016)
Document - Law No.1 / 2016 - Regulation on hunting
- National law Protection d Sea Turtles (2014)
Document - Law No. 6/2014 - Approves the Regulation on the capture and Comercialação of Marine Turtles and their produtos.
- Regional Law for the Protection of Marine Turtles (2009)
Document - REGIONAL LEGISLATIVE DECREE No. 3/2009 - Protection and conservation of sea turtles
- Law of the Obô de Sao Tome Natural Park (2006)
Document - Law No. 6/2006 - Law of the Obô de Sao Tome Natural Park
- Law of the National Park Obô do Príncipe (2006)
Document - Law No. 7/2006 - Law of the Parque Natural do Principe
- Law of Fisheries (2001)
Document - Law No. 9/2001 - Fishing Law and helictical resource.

Measures taken to training of human resources, qualified in the conservation and sustainable management of biodiversity, and the

evaluation of its effectiveness

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Participation of the Technical Staff of Environment and Nature Conservation, Forests and Biodiversity, São Tomé and Príncipe's Natural Parks, often in international training and vocational training to develop their professional skills;					It is necessary to create a mechanism that allows the capitalization of the lessons learned in these capacities so that it is really used for the conservation of biodiversity.
Stakeholders projects Sector Diversity Biological in implementation currently in the country have provided reinforcement sessions to operational capabilities in the field of Conservation and Sustainable Management of Biodiversity.					The country needs to adopt a procedure so that after the projects have finished the knowledge acquired, they do not dissipate in time. that are sustainable and contribute to good sustainable management practices of BD.
Other training initiatives in the Príncipe: i) Professional Ecotourism Course; ii) Island of the Príncipe Botanic Formation; and iii) Professional Ecotourism Course.					Knowledge acquired from these courses is essential for ecotourism services, which are growing rapidly in Príncipe;

Other relevant details concerning the assessment of the effectiveness of the training of human resources, qualified in the conservation and sustainable management of biodiversity

Institutions whose technician regularly participates in training abroad

- Directorate General for the Environment;
- Directorate for Nature Conservation;
- Forest and Biodiversity Directorate;
- Obô de Sao Tome Natural Park Directorate; and
- Regional Secretariat for Environment and Infrastructure.

Stakeholders projects Sector Diversity Biological

- Obô Carbon;
- Treasury d'Obo; and
- ECOFAC6, and
- Energy Renewable and Integrated River Basin.

Under the aegis of the " Energy ... " project , for example, two phases of Capacity

Building were implemented for Forest Guards, both from Sao Tome and Principe.

The ECOFAC project 6 in partnership with Treasury d'Obo , lately prepared a group of Ecoguias.

Internet sites, Internet links and relevant files

- Document - SPEA_Training_Report_201824;
- Document - ECOTOURISM TECHNICAL COURSE - 2016/1719;
- Document - Prince Island Botanical Training 201625;
- Document - Guards Capacity Building Manuals Forest; Ecoguardas, I and II Phase;
- Document - ECOFAC Project 6; ECOGUIAS course.

Measures taken to reinforcement of the management activities of the Natural Parks in Sao Tome and Principe, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Management training and the development of an updated management plan, as well as strengthening the administration of these parks are being supported by the ECOFAC6 project (2018-2023);					Funding, technical and human resources guaranteed under the ECOFAC 6 Project, make the implementation of the measure.

Internet sites, Internet links and relevant files

- Document - Management Plan 2015-2020 Natural Park Principe 14P;
- Document - Management Plan 2015-2020 of the Parque ;
- Document - ECOFAC 6 Project Factsheet;
- Website - <https://www.fauna-flora.org/conservation-programmes>.

Measures taken to creation of a national collection and processing of technological information systems on the Botanic Gardens operation and Herbarium at international level, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Establishment of criteria were for the collection of botanical resources on the two islands and their future incorporation into the National Herbarium of Sao Tome and Principe (STPH).					There have been no botanical inventories to collect samples of flora species to systematically enrich the National Herbarium. This has happened specifically in the context of projects with intervention in this area unless
Establishment of a small herbarium collection, with about 70 copies, attached to the Principe Natural Park.					There needs to be adequate space for the RAP Herbarium and to undertake its enlargement.

Other relevant details concerning the assessment of the effectiveness of the creation of a national collection and processing of technological information systems on the Botanic Gardens operation and Herbarium at international level.

At the national level, a Protocol of Collaboration was created in 2014 between the Botanic Garden of the University of Coimbra and the Ministry of Agriculture and Rural Development of Sao Tome and Principe. In the framework of this protocol a senior technician, Sao Tome, with extensive experience in collecting and identifying plant samples, received training at the Herbarium of the University of Coimbra on new technologies for collecting, treating and disseminating botanical samples.

At the Principe's regional level, the collection is managed with support from a local Principe Trust Foundation technician who received one month of advanced training in herbarium methods at the Botanical Garden of Sao Paulo, Brazil, during 2018.

Measures taken to approval and application of the National Forest Development Plan, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Finishing of the National Forest Development Plan (2018-2030).					PNDF awaits the approval of the National Government.

Internet sites, Internet links and relevant files:

- Document - National Forestry Development Plan (2018-2030).

Measures taken to promotion of partnerships between the private sector, NGOs and local populations in the field of Biodiversity, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Promoting partnerships between government institutions, private sector companies, NGOs and the local population.					It is an important component of the Regional Sustainable Development Strategy - as described in the 2030 Principe Sustainable Development Plan (currently under development), and in the 2030 National Forest Development Plan

Other relevant details concerning the assessment of the effectiveness of the promotion of partnerships between the private sector, NGOs and local populations in the field of Biodiversity.

One exemplere Centes such partnerships is the following case:

As part of the ProTetuga project's 'Community Competition' initiative - Since 2016, private sector hotel companies (including HBD and Roça Belo Monte) have organized visits to turtle nesting beaches, and the fees for these visits have reverted to a community fund that is administered by a local conservation NGO (Principe Trust Foundation). Local coastal communities can submit proposals for socially beneficial projects, and the winning projects are selected by the Regional Secretariat for the Environment and Infrastructures , based on audits done to the communities to evaluate the follow-up of the guidelines best practices.

Internet sites, Internet links and relevant files:

- Document - Plan and Agenda for Sustainable Developmen Island of the Prince 2012);
- Document - Prince 203021; and
- Document - ProTetuga Project Report 2017/184

Measures taken to increased Governmental involvement in processes and actions aimed at improving the operability and effectiveness of existing support structures, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Establishment of the agricultural support structures such as cooperatives; support the development of statutes and other procedural documents for cooperatives; providing training and materials (eg improved varieties) to groups of farmers.					International development programs have provided funding for the teams of the technical institutions, to encouraging the formation of agricultural support structures such as cooperatives; support the development of statutes and other procedural documents for cooperatives; providing training and materials to groups of farmers.

Other relevant details concerning the assessment of the effectiveness of the increased Governmental involvement in processes and actions aimed at improving the operability and effectiveness of existing support structures.

The National Government has formed several recent partnerships with international development programs to implement agricultural projects in Sao Tome and Principe. These projects have generally provided resources for the teams of the Directorate of Agriculture and Rural Development, the Directorate of Forests and Biodiversity and the Regional Department of Agriculture.

Recent projects included:

- Participatory Development Program for Small Farmers and Artisanal Fisheries (PAPAFPA) - supported by the International Fund for Agricultural Development (IFAD); and
- Rehabilitation of infrastructures with the Food Security Support Project (PRIASA) - supported by the African Development Fund.

Internet sites, Internet links and relevant files:

- Document - Infrastructure Rehabilitation for Food Security Support Project PRIASA;
- Website - https://www.ifad.org/sao_tome_and_principe.

Measures taken to creation of mechanisms conducive to the application and compliance with legislation already approved and published, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Mechanisms to support the application of national law					Number of existing mechanisms capable of promoting sustainable management of BD resources. Lack of technical and financial support weighs heavily on their Implementation.

Mechanisms to support the application of national law are considered to be:

- National Forest Development Plan (PNDF) - supports the implementation of the Forestry Law (Law no. 5/2001);
- National Communication Strategy for the Conservation of Forests - supports the implementation of the Forests Law;
- Management Plan for the Obô de São Tomé Natural Park - supports the implementation of the Law of the Obô de Sao Tome Natural Park;
- Principe Natural Park Management Plan (2015-2020) - supports the implementation of the Obô do Príncipe Natural Park Law (2006);
- The Conservation Action Plan for the Principe Thrush (2014-2018) - supports the implementation of the Obô do Príncipe Natural Park Law (2006), and the National Hunting Law (2016).

Internet sites, Internet links and relevant files:

- Document - Management Plan 2015-2020 Parque Natural Obô of Principe ;
- Document - Management Plan for the Obô de São Tomé Natural Park ;
- Document - Law no. 6/2006 - Law of the Obô de São Tomé Natural Park;
- Document - National Conservation Communication Strategy of Forests;
- Document - Law No. 7/2006 - Law of the Principe Natural Park;
- Document - Single Species Action Plan for the Principe Thrush (2014- 2018);
- Document - Law No.1 / 2016 - Regulation on hunting;
- National Forest Development Plan (PNDF);
- Forestry Law (Law no. 5/2001);

Measures taken to strengthen laws and inspection of the use of living beings for handicrafts, such as uncontrolled capture, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
National and regional laws explicitly prohibit the use of tortoise shells for handicrafts.					The law is having a very significant impact on the protection of sea turtles. But in the meantime, its application still needs to be intensified because turtle capture and killing cases continue to be reported.

Other relevant details concerning the assessment of the effectiveness of the strengthen laws and inspection of the use of living beings for handicrafts, such as uncontrolled capture.

Awareness of the law, monitoring and reporting of any malicious practices are supported by NGOs sites.

Further dissemination of best practices to local stakeholders was carried out through the FORBIO.STP project , which organized the workshop on "Good Practices for the Sustainable Exploitation of Biodiversity in Ilha do Príncipe" in November 2017.

Internet sites, Internet links and relevant files:

- Document - Report of the Good Practice Training Action for the Sustainable Development of Biodiversity on Principe.

Measures taken to elaboration of laws that integrate the concept of accessibility and fair and equitable sharing, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
National legislation, including a Strategy, Law and Implementation Regulation of the Nagoya Protocol, is currently under development.					The mechanisms and legal framework for the implementation of the Nagoya Protocol is being prepared awaiting the approval of the government as one of the sectoral policy strategy documents.

A National Actors Charter for Implementation of the Access and Fair and Equitable Sharing of Benefits from the Use of Genetic Resources - APA, has been prepared validated in a participatory forum.					The APA - STP Letter of Actors awaits the approval of the National Authorities to take effect.
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Internet sites, Internet links and relevant files

- Document - Letter of Actors APA of Sao Tome and Principe

Measures taken to promotion of support to structures for protection and community management of biological resources, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Creation of Associations of Small Farmers and almost all Agricultural Communities (Former Agencies of Agricultural Enterprises) of Sao Tome and Principe.					In almost all agricultural communities there are associations of small farmers, but rare are those that are active, fulfilling the missions for which they were created.
The Principe Tourism Guides Association (AGTP) promotes sustainable tourism practices.					The Principe Tourist Guides Association has thus been corresponding to the rapid growth of eco-tourism in this region.
Agricultural cooperatives, including the regional branches of CEPIBA, CECAB and CECAFEB - promote best practices for biological agroforestry.					This Cooperatives branches is not operational in Principe. The Government of this region is currently finding a way to reactivate them.

Other relevant details concerning the assessment of the effectiveness of the promotion of support to structures for protection and community management of biological resources.

The overall mission of these associations is to ensure the conservation and sustainable

management of biological resources in the cacao and coffee plantations distributed to small and medium-sized farmers.

The Principe Tourism Guides Association (AGTP) promotes sustainable tourism practices, avoiding the degradation of natural attractions and ensuring that appropriate fees are charged.

Internet sites, Internet links and relevant files:

- Document - Statutes of the Association of Prince's Tourist;
- Document - Rapport of supervision - PAPAFA 20153;
- Document - Statute of Small Farmers' Associations.

Measures taken to institutionalization of the eco-certification process of agroforestry products, and the evaluation of its effectiveness.

Measures taken to obtain the desired result	Evaluation of the effectiveness of the implementation's measures				Relevant details to support the evaluation of the measures taken
	Measure were effective	Measure were partially effective	Measure were ineffective	Unknown	
Some biological certification of agro - forestry products, including pepper, cocoa and coffee, at National and Regional level, was coordinated by the PAPAC program.					PAPAC Program coordinates this certification in partnership with renowned international market operators and the National Product Certification Services of the Directorate of Industry.
The Principe Biosphere Reserve Management Unit has developed a "Principe responsible" certification scheme for local products and services.					Eligible local producers or enterprises are evaluated annually according to a range of environmental, social and efficiency criteria, and those who achieve certification receive better publicity and credibility.

Internet sites, Internet links and relevant files:

- Website - https://www.ifad.org/sao_tome_and_principe;
- Document - Responsible Principe Certification Regulation.

Obstacles and scientific and technical needs related to the measure taken:

- Unemployment and poverty of populations;
- Anarchic development of cities and urban and rural communities;
- Insufficient specialists or professionals in the institutions in charge of the areas protected;
- Inadequate field staff;
- Insufficient technical and scientific staff;
- Low involvement of local authorities;
- Insufficient financial resources for the control institutions;
- Lack of financial and technical support for NGOs;
- Absence of funding for the monitoring and evaluation of studies;
- Low involvement of the population in the management of protected areas;
- Superposition of permits in protected areas;
- Low level of training of local NGO animators in conservation of biodiversity, both at the field level and at the level of seeking financing;
- Lack of National Strategy and National Conservation Action Plan and protected area management;
- Weakness in the knowledge of resources and their dynamics;
- Weakness in the implementation of international conventions in and around protected areas;
- Lack of financial and technical support for NGOs;
- Absence of funding for the monitoring and evaluation of studies;
- Absence of the protected area sector in national training institutions;
- Absence of means of control of fishing;
- Absence of dynamic collaboration between institutions;
- Weakness of income-generating activities;
- Weaknesses of regular inventories;
- Weakness of a real organization of the agriculture sector.
- The protected areas are not managed sustainably

Part III.

Assessment of progress towards each national target

Conservation of Coastal and Marine Ecosystems



2019 - Progress towards target but at an insufficient rate

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

19 Jun 2019

Summary of the assessment of progresses toward the implementation of the selected target

The assessment was conducted through consideration of progress towards achieving the compliance indicators, as set out in the NBSAP 2015-2020 and detailed in the table below. There is progress in meeting a number of indicators, but at an insufficient rate, according to the assessment of indicators.

Objective	Compliance Indicators	Assessment
Conservation of marine and coastal biological diversity	National Strategy for the Conservation of Coastal and Marine Ecosystems	National strategy not currently implemented
	Number of protected species in relation to the total of threatened species	The compliance indicator is at moment is not clear and cannot be assessed
The increase of <i>in situ</i> conservation	Plan for the spatial ordnance of the coastal zone	Plan not currently in place, but National Land Use Plan that will include the coastal zone is in preparation

Strengthening of <i>ex situ</i> conservation	Up and running national network of protected areas for marine species	Network not currently in place, but a project to establish a network through a co-management approach was launched in 2018.
	National Plan for the Sustainable Use of Fisheries Resources	Plan not currently in place
	EEZ surveillance equipment installed nationwide	Some surveillance equipment (e.g. patrol boats) installed
	Turtle breeding grounds protected at national level	National sea turtle conservation law established in 2014, and projects established to monitor and protect nesting sites on both Islands
	Stabilization of turtle populations	Data from both islands indicate stable nesting numbers, but there has been an alarming increase in plastic related deaths in recent years

Additional measures to strengthen conservation of coastal and marine ecosystems in São Tomé & Príncipe include:

- Establishment of Natural Parks that include coastal zones on both Islands (established 2006, with updated management plans in 2015)
- Designation of Príncipe and its coastal areas as a UNESCO Biosphere reserve in 2012.

Brief history of measures to enhance in situ conservation in marine and coastal ecosystems.

The establishment of the Natural Park Obô de Sao Tome and the Natural Park Principe in 2006 (Law s n.6 and n.7 / 2006) introduced a protection law for a southwestern coastal and northern Sao Tome and much of the southern part of the coastal area of Principe. In Principe the protection was complemented by the recognition of this island as UNESCO World Biosphere Reserve in 2012, which included whole islands and coastal areas (see Figure 1.1), thus strengthening the commitment of the Regional Government for management coastal zone.

The *Basic Law of the Environment* and the Decree - Law on Extraction of Inerts are two pieces of legislation which complement each other in the general regulations for the extraction of all kinds of aggregates in the country. These diplomas were strengthened in Príncipe with the entry into force in 1999 of Decree No. 35/99, which strictly prohibited the extraction of sands on the Island.

In fulfillment of what's requirements established in these laws, STP Government has implemented the sand dredging the sea through a private company and the government of RAP (in 2016) ensured that the investment agreements with companies to c private tor, with commercial construction projects of greater relevance only when using imported sand.

A national assessment was carried out for the risks of climate change in the framework of the Project to Combat Climate Change for Sao Tome & Principe (2011-2017), in which a selection of communities with the highest risk was made. As coastal community of *Malanza, Ribeira Afonso* and Santa Catarina in Sao Tome, and the *Burras Beach* in Principe Edward Island, have been identified as having a high s risk d and flooding, because the rising level of sea waters. In these communities, lagoon filling, construction of devices for breaking waves and resettlement of the population are ongoing.

Indicators and Activities

The country has not used indicators to assess progress towards this national target.

Indicator(s)used in this assessment

Compliance indicators were set out in the NBSAP 2015-2020, and are detailed in the table above.

Relevant websites, links, and files

[Omali Vida Non project website](#)

[UNESCO Príncipe Island Biosphere Reserve](#)

[Kike da Mungu project website](#)

[Establishment of a Network of Marine Protected Areas - Project Fact Sheet](#)

[Legislação-Ambiental-de-São-Tomé-e-Príncipe.pdf](#)

[Tartarugas_Nacional.pdf](#)

[Tartarugas_Regional.pdf](#)

[PdG_PNPrincipe_2015.pdf](#)

[PdM_PNPrincipe_2015.pdf](#)

[NBSAP_2015-2020_pdf](#)

[PdG_PNOSão Tomé_2015-pdf](#)

[PdM_PNOSão Tomé_2015-pdf](#)

[Project Document for the Adaptation of Coastal Zones to Climate Change](#)

[Project Document WACA](#)

Level of confidence

Level of confidence of the above assessment

Based on partial indicator information and expert opinion

Level of confidence of the above assessment

Although indicators were identified in the NBSAP 2015-2020, a monitoring plan was not established and progress was not tracked. The assessment is therefore based on opinion of progress towards the indicators.

Adequacy of monitoring information to support assessment

No monitoring system in place

Conservation of the Inland Waters Ecosystems



2019 - No significant change

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

No significant change.

Date the assessment was done

19 Jun 2019

Summary of the assessment of progresses toward the implementation of the selected target

The assessment was conducted through consideration of progress towards achieving the compliance indicators, as set out in the NBSAP 2015-2020 and detailed in the table below. The selection of *No significant change* was based on a lack of progress towards most indicators.

Objective	Compliance Indicators	Assessment
Conservation of biological diversity of inland water ecosystems		
Identify components of biological resources of inland waters and evaluate their potential	Plan for the Conservation and Exploitation of Biological Resources of Inland Waters completed	Plan not currently in place
Stimulate the recovery of these resources	Plan for the Inventory of the Fauna of Inland Waters completed	Plan not currently in place
	Management Plan for Marshy Areas completed and in implementation	Plan completed but not fully under implementation. A further project to update of plans for key mangrove sites will commence in 2019
	Biodiversity inventory of humid ecosystems completed and with the Conservation Plan in implementation	Coordinated inventory and conservation plan not complete. Some advances in knowledge of humid ecosystem biodiversity made through conservation projects and field studies. The most important humid sites on both islands are within Natural Parks, and are featured in their Management Plans for 2015-2020.

Additional measures to strengthen conservation of inland water ecosystems in São Tomé & Príncipe include:

- Updated management plans for the Natural Parks that include the headwaters of most major rivers (both islands), mangrove forests (São Tomé), and cloud forests (both islands).
- Designation of Príncipe Island as a UNESCO Biosphere reserve in 2012.

Brief history of measures to enhance the conservation of biological diversity and biological resources of inland waters.

The major rivers of Sao Tome and Principe - *Rio Yô Grande, Rio Contador, Rio Quija, Rio Xufe-Xufe River parrot and Rio Banzo* (Figure 2.1), have their springs in the Natural Parks of these two islands. Soon, the passages to the amount of these rivers and their resources diversity biological are - If automatically protected by the decisions of the laws governing these parks and the measures provided for in their respective Management and Management Plans in force. Pollution situations happen in the middle sections and downstream, derivative s by obstruction of beds with illegal logging waste of trees, the s insecticides present in mosquito nets and residues of agrochemicals used in agricultural activities.

The National Forestry Law (Law no. 5/2001) states that land immediately adjacent to rivers, streams and lakes should be designated as a non-productive forest reserve, up to ½ the width of the water body in all its margins:

- In Sao Tome, these restrictions have not been applied and the clearing of trees and clearings for establishment of crops has been carried out.
- In Principe this decision has limited the construction and the widespread slaughter of riparian forests or riversides vegetation but limited resources for one to monitor mean that cutting selective and other activities harmful stay to be a problem.

Indicators and Activities

Indicator(s) used in this assessment

Any other tools or means used for assessing progress.

Compliance indicators were set out in the NBSAP 2015-2020, and are detailed in the table above.

Relevant documents, websites, links, and files

[Participatory Management of Malanza and Praia das Conchas Mangroves in São Tomé](#)

UNESCO Príncipe Island Biosphere Reserve

Legislação-Ambiental-de-São-Tomé-e-Príncipe.pdf

Project document sustainable management of the Rio Basin

Project Document Promotion of Climate-Resistant and Environmentally Sound Network / Isolated Electricity Network and through an Integrated Perspective in São Tomé and Príncipe.

Level of confidence

Level of confidence of the above assessment

Based on partial indicator information and expert opinion

Level of confidence of the above assessment

Although indicators were identified in the NBSAP 2015-2020, a monitoring plan was not established and progress was not tracked. The assessment is therefore based on opinion of progress towards the indicators.

Adequacy of monitoring information to support assessment

No monitoring system in place.

Conservation of the Forest Ecosystems



2019 - Progress towards target but at an insufficient rate

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

19 Jun 2019

Summary of the assessment of progresses toward the implementation of the selected target

The assessment was conducted through consideration of progress towards achieving the compliance indicators, as set out in the NBSAP 2015-2020 and detailed in the table below. Progress has been made in meeting some indicators, but at an insufficient rate, on the basis of the lack of progress of various indicators.

Objective	Compliance Indicators	Assessment
Conservation of biological diversity of forest ecosystems		
Promote the sustainable exploitation of productive forests	The Sustainable Forest Management Plan in place	National Forest Development Plan (2018-2030) is submitted but not yet adopted
Restore the areas of degraded forests	Degraded forest areas reforested	Some reforestation of degraded areas has taken place on both islands, and further projects are currently underway
Make Natural Parks and protected areas a key element in the agrarian development	Population of the peripheral zone of the Natural Park integrated in its management	Buffer zone communities were consulted during preparation of Management plans for (2015-2020), and projects to facilitate further integration are currently underway (e.g. ECOFAC VI will support community stewardship and monitoring of parks, and Obô-Carbono will support co-management of mangrove areas).
Conduct a thorough inventory of wild fauna in each habitat	A plan for the conservation and sustainable use of wildlife resources completed and in implementation	Plan not currently in place

Prepare technical filing cards on the main tree species in the country	An inventory and a reference collection of the main trees in the country completed	Substantial advances have been made towards completing an inventory and reference collection for native tree species
Systematically update the catalogue of floristic species, most notably the endemic	Bom Sucesso Botanical Garden with a greater extent of floristic diversity	Bom Sucesso Botanical Garden continues to improve its collection of floristic diversity
Integrate traditional practices and customs in the conservation strategy of forest biodiversity and sustainable use of resources	A conservation plan based on traditional methods completed and in implementation	Plan not currently in place, but some advances in this area (e.g. the establishment of traditional medicine therapist groups on both islands).

Additional measures to strengthen conservation of forest ecosystems in São Tomé & Príncipe include:

- Establishment of a Príncipe regional herbarium in 2016 with approximately 70 species.
- Establishment of a programme to Red List the endemic trees of São Tomé and Príncipe (from 2018).
- National hunting law introduced in 2016, prohibiting hunting of endemic species and/or within breeding grounds.
- Conservation Action Plans established for the Critically Endangered Príncipe Thrush (Príncipe, 2014-2018), and the Critically Endangered Dwarf Olive Ibis, São Tomé Fiscal, & São Tomé Grosbeak (São Tomé, 2014-2018).
- Updated management plans for the Natural Parks on both islands (2015-2020), and the launch of the ECOFAC VI project to build capacity and support implementation and further update of management plans.
- Establishment and enforcement of Regional Presidential Decree (in Príncipe from 2010) to prevent all harvesting of timber during four months per year (March, June, September, & November)
- Establishment of a National Strategy for Communication in Forests and Biodiversity (2018)

Brief history of measures to restore the areas of degraded forests.

The deforestation phenomenon itself does not exist in Sao Tome, except for the specific cases of clearing for establishments of industrial export crops, operated by SATOCAO and AGRIPALMA.

What has occurred regularly in Sao Tome is the degradation of forest lands due to the downfall of trees, but uncontrolled, for the production of lumber, logs and charcoal. In order to overcome this situation, the DFB has deployed reforestation projects, either on its own or with the support of projects, such as Renewable Energy and Integrated Management of Hydraulic Basins , and in the near future 0of the Restoration of Forests and Landscapes Project . The project aims to restore 36 thousand hectares of forests in Sao Tome and Principe.

The areas of deforestation in the Principe are not extensive, and are largely confined to the north of the island (see Figure 3.1). The Regional Directorate for Forests encourages the reforestation of degraded areas through partnerships with private land owners, providing seedlings of commercially valuable species forever planted. Through this initiative, about 30 ha have so far been reforested (see Figure 3.1).

Indicators and Activities

Indicator(s) used in this assessment

Any other tools or means used for assessing progress.

Compliance indicators were set out in the NBSAP 2015-2020, and are detailed in the table above.

Level of confidence

Level of confidence of the above assessment

Based on partial indicator information and expert opinion

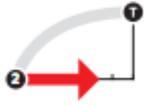
Level of confidence of the above assessment

Although indicators were identified in the NBSAP 2015-2020, a monitoring plan was not established and progress was not tracked. The assessment is therefore based on opinion of progress towards the indicators.

Adequacy of monitoring information to support assessment

No monitoring system in place

Conservation of the Agrarian Ecosystems



2019 - No significant change

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

No significant change

Date the assessment was done

19 Jun 2019

Summary of the assessment of progresses toward the implementation of the selected target

The assessment was conducted through consideration of progress towards achieving the compliance indicators, as set out in the NBSAP 2015-2020 and detailed in the table below. The selection of *No significant change* was based on a lack of progress towards most indicators.

Objective	Compliance Indicators	Assessment
Conservation of biological diversity of agro-ecosystems		
To gather data and relevant information on the agrarian ecosystems, with a view to a better management and sustainable use of resources	A database with the main biological resources of the agro-ecosystems. Established	Database not currently established
To constitute a national reference collection on the major food crops and vegetables	A collection of major food crops and vegetables. Established	Collection established (through CIAT)
To promote the conservation, valuation and	A collection of the main spontaneous fruit species. Established	Collection not currently established

sustainable use of spontaneous fruit species		
Identify species more adaptable to different soil and climatic zones	Genotype fields installed and/or enriched	Genotype fields not currently installed
Safeguard the identity of the genetic characteristics of locally adapted livestock species	Research Centre on livestock species created and running	Research centre not created

Additional measures to strengthen conservation of agrarian ecosystems in São Tomé & Príncipe include:

- Establishment of national biological agriculture cooperatives for cocoa, coffee, pepper, and vanilla
- Establishment of a suite National level projects to improve incomes and food security from agriculture and agroforestry (from 2018)
- Regional Presidential Decree for Príncipe in 2015, prohibiting the import of agricultural chemical fertilizers and pesticides to the Island.

Indicators and Activities

Indicator(s) used in this assessment

Compliance indicators were set out in the NBSAP 2015-2020, and are detailed in the table above.

Level of confidence

Level of confidence of the above assessment

Based on partial indicator information and expert opinion

Level of confidence of the above assessment

Although indicators were identified in the NBSAP 2015-2020, a monitoring plan was not established and progress was not tracked. The assessment is therefore based on opinion of progress towards the indicators.

Adequacy of monitoring information to support assessment

No monitoring system in place

Strengthening Institutional, Legal, and Socioeconomic Framework



2019 - Progress towards target but at an insufficient rate

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

20 Jun 2019

Summary of the assessment of progresses toward the implementation of the selected target

The assessment was conducted through consideration of progress towards achieving the compliance indicators, as set out in the NBSAP 2015-2020 and detailed in the table below. The selection of *Progress but at an insufficient rate* was based on the limited progress towards several indicators.

Objective	Compliance Indicators	Assessment
The conservation of Biodiversity and the use of their resources, based on a coherent, stronger and up-to-date institutional and legal framework		

<p>To develop mechanisms for the equitable sharing of benefits from the sustainable use of these resources</p>	<p>Laws and regulations related to the conservation of biodiversity are approved and in force</p>	<p>New conservation laws have been established, including National hunting law (2016), National Sea Turtle Conservation Law (2014), and Príncipe Regional Beekeeping Law (2017)</p>
<p>To develop research in biotechnology, for the conservation of biological diversity and the sustainable use of its components</p>	<p>Legislation on biosafety approved and in force</p>	<p>Legislation to support implementation of the Nagoya protocol is currently in preparation</p>
<p>To have human, technical and material capacity, which ensure a better ex-situ conservation of biological diversity</p>	<p>National staff, trained and with adequate technical competence, attached to the issue of biodiversity</p>	<p>A coherent needs based training programme is lacking, but some training and improvements in capacity have been achieved</p>
<p>Encourage changes in attitude and behaviour of the population in relation to biological diversity</p>	<p>National authorities and population, in general, sensitized and active in biodiversity conservation</p>	<p>Measures have been taken to engage national authorities and population in biodiversity issues, including radio and media campaigns, environmental education campaigns for schools, and the hosting of local events to coincide with international initiatives such as World Environment Day. However, there has been no monitoring of the effectiveness of these actions.</p>
<p>To promote and encourage research to improve knowledge about the different ecosystems of the country and the animal and plant species</p>	<p>Amount of grants awarded in the field of Biodiversity</p>	<p>Numerous grants from international funding sources have been awarded in the field of biodiversity, but there has been no tracking of this indicator and it is difficult to estimate as projects are not always well coordinated and/or communicated.</p>
<p>To promote the expertise, in biodiversity, of researchers and trainers</p>	<p>Amount of workshops realized for the presentation of research results</p>	<p>Numerous workshops have been realised, but there has</p>

		been no tracking of this indicator.
To disseminate research results		
To promote the social learning and global appropriation of the biodiversity concept in the different sectors of society	The issue of information and awareness on biodiversity to be a specific function of MIRNA	MIRNA has taken an active role in raising awareness on biodiversity
Awareness, information and training of the whole society on the concepts of biodiversity and its conservation and preservation		

Additional measures to strengthen the institutional, legal, and socioeconomic framework in São Tomé & Príncipe include:

- Re-organisation of Príncipe Regional government departments - bringing together the Directive of Environment, the Natural Park, the Biosphere Management Unit, and the Forestry Division into a single secretariat - to achieve greater prioritization and coordination of conservation and environmental issues.
- Establishment of a National Platform of Forests to strengthen coordination between programs, projects, and initiatives.
- Establishment of numerous civil society organisations that promote sustainable livelihoods and contribute to the sustainable management of natural resources (e.g. tourist guide associations, and co-operatives for agricultural products, honey, handicrafts etc).
- Establishment of a suite of National Level projects, supported by the EU, FAO, and African Bank, that support capacity building of government departments and civil society groups, and promote sustainable livelihoods (e.g. through agro-forestry, reforestation, and NTFP management and market development)

Indicators and Activities

Indicator(s) used in this assessment

Compliance indicators were set out in the NBSAP 2015-2020, and are detailed in the table above.

Level of confidence

Level of confidence of the above assessment

Based on partial indicator information and expert opinion

Level of confidence of the above assessment

Although indicators were identified in the NBSAP 2015-2020, a monitoring plan was not established and progress was not tracked. The assessment is therefore based on opinion of progress towards the indicators.

Adequacy of monitoring information to support assessment

No monitoring system in place

Section IV.

Description of national contribution to the achievement of each global Aichi Biodiversity Target

1. Awareness of biodiversity values

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

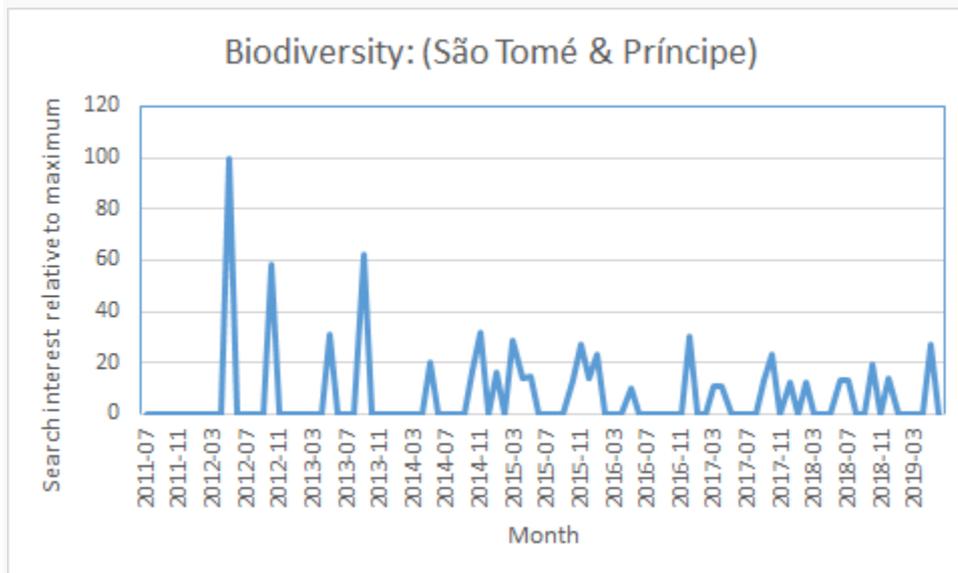
Activities to promote awareness of biodiversity values in São Tomé and Príncipe have included:

- Participation in International initiatives such as World Environmental Day, Bird Global Big Day etc, through the holding of local events
- Campaigns on sustainable use of marine resources, targeted at coastal communities
- Campaigns to raise awareness of new conservation laws, including National Sea Turtle Conservation Law (2014), and Príncipe Regional Beekeeping Law (2017).
- Numerous environmental education campaigns for school children
- Weekly Regional radio show about the Príncipe Biosphere Reserve

It is likely that young people have had greater exposure to awareness raising activities - e.g. in Príncipe, several conservation projects have in recent years run environmental education campaigns for all schoolchildren. However, there has been often been a lack of coordination between the organisations and/or projects delivering the activities, and a

general lack of monitoring of who has been reached by the activities and how effective they have been at increasing awareness.

Data from Google Trends on the frequency of 'Biodiversity' as a search topic suggest generally low levels of interest, especially in recent years, but this should be interpreted with caution due to low and patchy levels of internet access within the country.



2. Integration of biodiversity values

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Biodiversity considerations have been integrated into several development plans, including:

- National Tourism Strategy (2018-2025)
- National Forest Development Plan (2018-2030)
- Príncipe Sustainable Development Plan (2018-2030)

However, there has been a lack of valuation studies, and biodiversity considerations are yet to be integrated into national reporting and accounting systems.

3. Incentives

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

There are several national and localized incentive schemes focusing on conservation and sustainability issues, including:

- National micro-credit schemes for fishers, fish traders, and agriculturalists.
- Material support for coastal communities in both islands to develop sustainable livelihood initiatives, administered by marine conservation projects.
- A competition for coastal communities in Príncipe, distributing revenue from sea turtle based tourism to the 3 communities that demonstrate the best environmental practices

However, no concerted review of incentives has been undertaken for São Tomé and Príncipe, and so a more detailed assessment of potential impacts on biodiversity and ecosystem services is not possible.

4. Use of natural resources

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Recent actions to reduce the impact of production sectors on biodiversity have included the following:

- National commitment to BIOSPHERE© certification scheme, to promote sustainability throughout the tourism industry
- Legislation to regulate agricultural practices and related production areas (e.g. Regional Presidential Decree prohibiting the import of agricultural pesticides and fertilizers to Príncipe Island, and Regional Beekeeping Law for Príncipe (2017))
- Establishment of National Forest Development Plan (2018-2030)

Rapid population growth is putting increasing pressure on natural resources including timber, fish stocks, and sand (for construction), with expected consequences for biodiversity, but in the absence of a firm knowledge base it is not possible to assess impacts or the sustainability of various production sectors.

5. Loss of habitats

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Data on habitat loss/change in São Tomé and Príncipe is currently lacking, and sources such as Global Forest Watch should be interpreted with caution as the frequent high levels of cloud cover over the islands can impede the analyses of remote sensing data. Major losses have largely been avoided, but degradation of forests and other habitats (e.g. mangroves) – through illegal extraction of timber and unsustainable use of other resources - remains a serious concern, particularly in São Tomé. Mechanisms to help address these issues have recently been introduced, including a National Forest Development Plan for 2018-2030, but ensuring effective implementation represents a major challenge.

6. Sustainable fisheries

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Accurate long-term data on fisheries in São Tomé and Príncipe is lacking, but local entities and fishermen report that stocks have decreased considerably due to the use of non sustainable fishery techniques, like fishing in the bays, use of dynamite, and fine-meshed nets. A Fisheries Plan was produced for 2010-2025 to regulate non sustainable fishing techniques, but there has been a lack capacity for inspection and other control practices to implement the existent laws.

In recent years, some improvement in fisheries data, and appreciation of sustainability issues within fishing communities has been achieved through projects including Omali Vida Nón in Príncipe (<https://omaliprincipeen.weebly.com/>) and, more recently, the Kike da Mungo project (<https://kikedamungu.weebly.com/>) in São Tomé.

With the available knowledge and the concerns of the local communities, a national project to establish a network of marine protected areas across São Tomé and Príncipe through a co-management approach was started for 2018-2024 (www.blueactionfund.org), to designate the first MPAs across São Tomé and Príncipe and establish a system of participatory fisheries management and conservation, prioritizing community engagement within an ecosystem level governance approach to planning.

If community members and local government jointly design MPAs and sustainable use zones; if fishers are enabled to co-manage and patrol these areas; if the existing livelihoods of local households are more sustainable and sources of income more diverse, and if there is increased government capacity for informed decision-making, policy development and law enforcement; then the key drivers of marine biodiversity loss and protect species and habitat around São Tomé and Príncipe will be addressed.

7. Areas under sustainable management

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Development of a National Land Use Plan began in 2018, funded by the African Bank for Development. The project is part of São Tomé and Príncipe's National Strategy for Poverty Reduction (SNRP), which aims to guide interventions in the fight against poverty and improve the quality of life of the population. The SNRP envisages the elaboration of a National Territorial Planning and Urbanization Policy, to contribute to the development and reduction of poverty through better use, occupation and transformation of the territory, allowing more inclusive and sustainable socio-economic development .

Regarding Agriculture, FAO has been one of the mayor players in the country, supporting several agricultural projects. There has been recent support for food and agriculture-related policies and legislative frameworks, as well as a wide variety of regional and national development projects in areas such as fishery technologies and marketing, governance of tenure, response to soaring food prices, and improved agricultural and livestock production. FAO assistance in Sao Tome and Principe is centered on four priority areas: Development of a sustainable and diversified agriculture sector, including access to organized commercial markets; Sustainable natural resource management, including strategies to combat deforestation and land degradation; Resilience to agricultural and food and nutrition shocks and crises, with a focus on resilience building and disaster risk reduction and management in support of vulnerable communities; Institutional capacity building, with a view to achieving more inclusive governance of the agriculture and rural sector.

A National Forest Development Plan has been submitted, and is currently awaiting approval and adoption by the Government.

The new Ministry of Finance, Commerce and Blue Economy had began discussions with FAO about aquaculture in the country, but plans have yet to be formalized.

8. Pollution

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Measures or controls to limit point sources of pollution include:

- National Report on Persistent Organic Pollutants (2003)
- Management Plans for Wetlands and Solid Waste (2005)
- National Implementation Plan of the Stockholm Convention on Persistent Organic Pollutants (2006)
- Biomedical Waste Management Plan (2009)
- Plan for the Management of Disposal of Hydrochlorofluorocarbons (2010)
- National Integrated Management Plan for Organic Solid Waste (2010)

However, no measures or identity, limit or to address diffuse sources of pollution have been put in place, so it is not possible to measure if ecosystems have experienced significant change.

9. Invasive Alien Species

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

As a Small Island Developing State, São Tomé & Príncipe is at particular risk of negative impacts from invasive alien species (for details see <https://www.cbd.int/island/invasive.shtml>). Invasive species of mammals (including Mona monkey - *Cercopithecus mona*, black rat - *Rattus rattus*, and African civet - *Civettictis civetta*) occur on both island and are considered a threat to endemic species, as identified in the Conservation Action Plans for the countries 4 Critically Endangered bird species. Invasive plant species are also present throughout, with likely consequences for native fauna and flora. However, detailed data on the number, spread, and impact of invasive alien species is currently lacking, and represents a serious knowledge gap that was not addressed by the NBSAP 2015-2020.

10. Vulnerable ecosystems

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

São Tomé & Príncipe, with the World Bank Support, developed a multi-sectoral investment Plan to integrate the resilience to climate change and disaster risk in the management of the coastal zone of São Tomé and Príncipe (2017). This addressed the main vulnerabilities according to the priorities established in the nationally determined contributions and the 2030 Vision for development. The plan aims to inform all coastal activities in São Tomé & Príncipe, and ensure a resilient development. As this is a recent measure, it is not yet possible to assess if and how pressure is being reduced.

11. Protected areas

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The Obô Natural Parks of São Tomé and Natural Parks of Príncipe were created to protect important forest and coastal areas. This Park is a Category II (National Park) from IUCN, and covers:

- 235 Km² in São Tomé - 27% of the territory
- 85 km² in Príncipe - 60% of the territory

This encompasses the most important tracts of tropical forest in the country and holds significant populations of globally threatened endemic species. The effective protection of the Parks, following designation in 2006, has been hampered by limited staff, funding, and capacity for enforcement and management, including poor boundary demarcation and visible staff presence within and around the Parks. New management plans were developed for 2015-2020, but implementation has hindered by lack of funds.

There are no permanent communities within the protected area, but there are approximately fifty communities in the buffer zones. Agricultural cooperatives, especially for pepper, are active in the buffer zones, contributing towards its sustainable management. Worryingly, in recent years parts of the buffer zone of the São Tomé

Natural Park have been utilized by intensive agricultural production companies (Agridalma, SATOCAO).

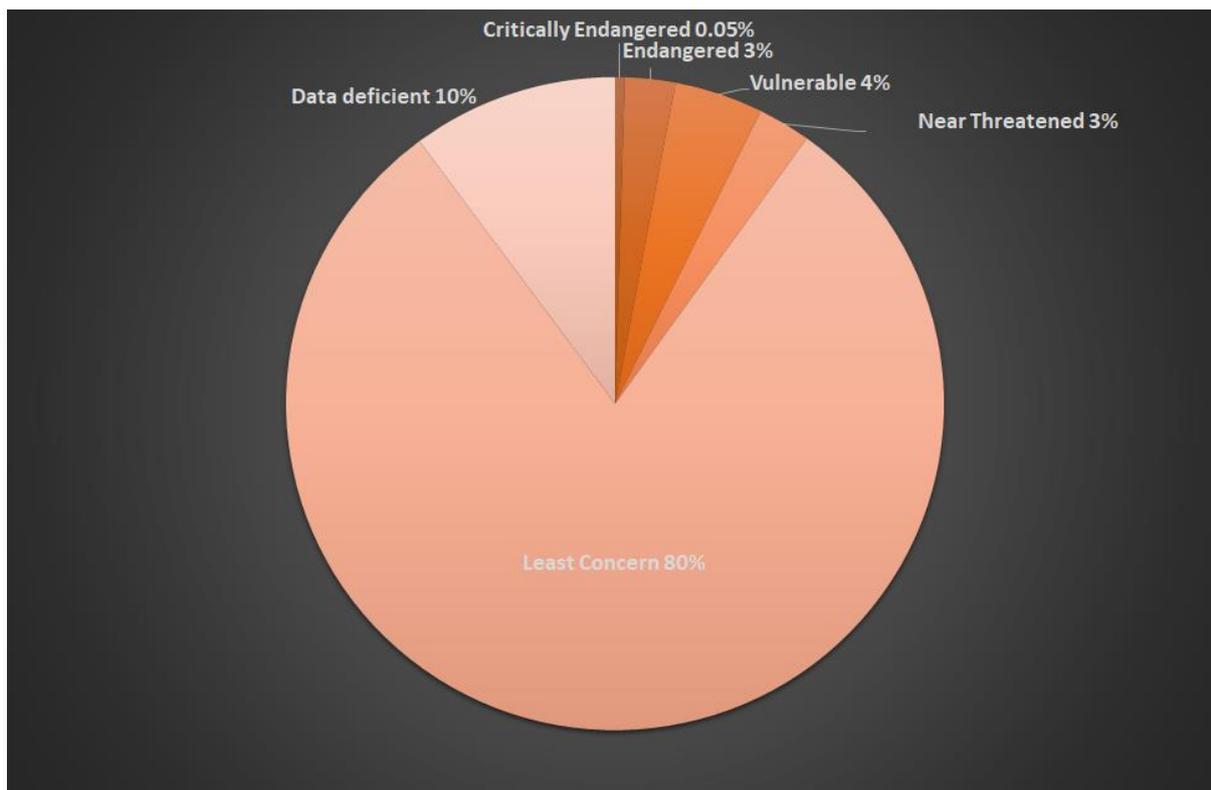
The recent ECOFAC VI initiative (2018-2022) will support the management of the protected areas through improving capacity for enforcement, monitoring and planning, and through further integrating local communities into management frameworks.

12. Preventing extinctions

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The IUCN Red List contains 848 species for Sao Tome & Principe (this includes terrestrial and marine species). Of these, 62 (7.3%) are globally threatened, including 4 that are critically endangered (see chart below). No species are known to have gone extinct in recent years.

Birds are one of the best understood groups, and 13 of Sao Tome & Principe's 98 species are globally threatened. Of these, 11 are endemic to one of the Islands (Sao Tome 9, & Principe 2). Conservation Action Plans were established for 2014-2018 for all of the critically endangered species (Sao Tome 3, & Principe 1), and these are due to be updated in the near future.



Red List status of species for Sao Tome & Principe (total = 848)

13. Agricultural biodiversity

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

A live collection of commercially valuable crop species has been established in São Tomé, but there has been a lack of coordinated progress in other areas including livestock research, genotype fields, and the identification & conservation of rare or threatened varieties.

14. Essential ecosystem services

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Data on ecosystems services in São Tomé and Príncipe is lacking, and it is not currently possible to assess their value, or how they have changed. Improved data is expected to

be available in the near future, through the TESA approach as implemented by the ECOFAC VI project.

15. Ecosystem resilience

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Data on the extent and changes in degraded habitats in São Tomé & Príncipe are lacking. Restoration activities have largely focused on forests, including mature areas that have been degraded by timber extraction and charcoal production, and areas of secondary growth that established following abandonment of plantations, especially coconut and oil palms. Activities have included partnerships between the government and private landowners to facilitate planting of trees with high commercial value.

Further coordinated restoration action is expected in coming years, following the launch of national projects under The Restoration Initiative (<http://www.fao.org>)

16. Nagoya Protocol on ABS

Intérim national report on the implémentation of the Nagoya Protocol [ABSCH-NR-ST-238749-1](#) Rapport national intérimaire sur la mise en œuvre du Protocole de Nagoya.

Letter from the Actors involved in the implementation of the APA Process.

Interim National Report on the Implementation of the Nagoya Protocol

17. NBSAPs

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

An NBSAP for the period 2015-2020 was prepared by the Ministry of Infrastructure, Natural Resources and Environment, to address the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. It set out a series of 5 fundamental objectives (i.e. targets), with action plans, compliance indicators, and project outlines for each, but it did not include a monitoring plan for tracking progress or measuring impact. Issues of

resources and capacity impeded the coordinated implementation of action plans, but important progress was made in several areas (see section III).

18. Traditional knowledge

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Measures to respect the knowledge, innovations, practices and customary use of biological resources by local communities include:

- International researcher's contributes for the understanding of the traditional knowledge resulting in publications regarding the uses and knowledge of the medicinal plants.
- For.Bio.STP project (2015-2017), funded by the European Union, resulted in the organization of a Association of Traditional Therapists and in the collection of their knowledge in a website to ensure the dissemination and perpetuation of the knowledge (<http://www.segredosdafloresta.com/>)
- The Government had provided the local Associations of traditional therapists with plots of land to promote the plantations of medicinal plants
- A new project funded by the African union will have a strong component that will involve the local communities and the local knowledge to contribute to the sustainable reduction of poverty, ensuring greater food, nutritional security and sustainable agriculture, in order to reduce hunger and improve the well-being of the population of São Tomé and Príncipe.

There are currently no systems in place for granting prior informed consent from local communities regarding access to their knowledge, innovations and practices, but a national commission for the Nagoya Protocol was established in 2018 to work on this issues.

19. Biodiversity knowledge

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The base of knowledge about the biodiversity of São Tomé & Príncipe continues to grow, largely through collaborations between local government and NGO's with international research institutions including the California Academy of Science, the Missouri Botanical Gardens, and the Universities of Coimbra, Lisbon, Free University of Brussels and Porto. Outputs have included new species descriptions, and Red Listing of all birds, mammals, and reptiles, and many endemic trees. Much of the scientific and more general

information is made publically available through the website of the Biodiversity Observatory of the National Directive of Environment (<http://dga.st/pt>).

20. Resource mobilization

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

São Tomé & Príncipe has not yet completed the Financial Reporting Framework, that would detail its contribution towards this target.

PART V Updating of the Country Profile on Biodiversity

Diversity of Species

Flora Species

According to the current state of knowledge about the flora of the country (Figueiredo E., Paiva, J. *et al* , 2011) , the estimated number of vascular plant species in the archipelago is 1260 , of which 132 are endemic . Within the vascular plants, the vegetal diversity of spermatophytes for Sao Tome is 1107 taxa, constituting the Angiosperms the main group with 1104 species, and there are only 3 species of Gymnosperms, one of which is endemic to Sao Tome and Principe.

The National flora also includes 156 pteridophytes (ferns , and the like) and which are distributed in 28 different families and have 13 endemic species (E. Figueiredo, 2013).

There are also 220 non-vascular plant species (Briófitas), with 91 taxa representing mosses and 129 taxa representing lichens and the like (Garcia, C., 2013).

The flora of S. Tome and Principe has a great diversity of endemism: among the 1,104 species of Angiosperms (301 introduced), we have 135 families (29 introduced), 624

genera (172 introduced), and currently being recognized 119 taxa as endemic to the monkeys for the two islands. The most representative families are Orchidaceae, Rubiaceae and Euphorbiaceae, also representing more than half the number of endemic taxa. The Orchidaceae family is especially rich, including 135 species (Stewart, T. & Oliveira, F., 2008)

From the point of view of endemic species, the following families stand out: Rubiaceae (with 27 endemic species), Orquidáceas (22 endemic species),

Euphorbiaceae (11 endemic species), Melastomataceae (8 endemic species out of a total of 17 species, ie 47% of endemism) and Begoniaceae (6 endemic species out of a total of 11, or 55% of endemism) (5th CBD Report, 2014).

According to data from the State of Biodiversity Report of São Tomé and Príncipe in 2014, a total of 148 plant species (14% of the national flora) are endemic in the country, 50 of which are present in Príncipe and 123 in São Tomé. that 14.9% of endemic species of Sao Tome and Principe have Statues t the vulnerable (VU), 12.2% are near threatened (NT) and 73 % have a wide distribution area having a status Little Concern (LC) (IUCN, 1994)

Fauna Species

Fauna biodiversity is especially rich in birds, reptiles and amphibians and invertebrates. In general it consists of small mammals (10 species), 49 species of birds, 14 of reptiles, 5 of amphibians, as well as other taxa with considerable representativeness in Sao Tome and Principe. With 1001 square kilometers, the birds of Sao Tome and Principe is represented by 28 endemic species of birds (Sao Tome = 21 endemic species and Principe = 7 endemic species).

Since 1990, the Sao Tome and Principe avifauna has been considered to represent 25% of the endemic species of the 218 "Endemic Bird Regions" (EBAs) worldwide. Very recently, the two islands were included in the "Important Bird Region" (IBAs) of Africa.

Table 1 : Wealth in species and endemism of São Tomé and Príncipe

Classes	Islands	N. Species	Endemism%
	Sao Tome	10	30

Mammals	Principe	5	20
Bats	Sao Tome	9	55
	Principe	4	50
Birds	Sao Tome	49	57
	Principe	35	54
Reptiles (crawler)	Total for country	16	44
Amphibians	Sao Tome	6	100
	Principe	3	100
Insects / Butterflies	Sao Tome	47	38
	Principe	42	21
Molluscs	Sao Tome	39	77
	Principe	32	78
Upper plants	Country total	1260	132

Source: 5th CBD Report, 2014; cited by ENPAB II

Diversity of Ecosystems

Forest Ecosystems

Low Altitude Rainforest Region

(Vai from sea level up to 800 meters high.)

In this zone one can distinguish four types of plant formations: *Secondary Forest*, characterized mainly by the predominance of exotic and cultivated species and pioneer species with fast growth that became naturalized; the *Shadow Forest*, consisting of wild species survivors of the original forest and introduced species for shade effect on cocoa plantations (*Theobroma cacao*) and coffee (*Coffee sp.*); *Savanna*, edafo-climatic formation occupying part of the coastal strip; and the *Mangues*, that are distributed by the mouth of the waterways.

Mountain Forest Region

(occupying the entire area between 800 and 1400 meters of altitude).

It is characterized by a change in the composition of the species in relation to the lower elevations, due to the decrease in temperature with increasing altitude, higher precipitation and humidity, constant fog and considerable fog, which reduce the levels of luminosity.

Fog Forest Region

(it goes from 1400 to 2024 meters of altitude).

Predominant in this zone are typical endemic species, such as an endemic Gimnospérmiã of the country, the Pinheiro de S.Tomé (*Podocarpus manii*) and the giant *Lobelia* (*Lobelia barnsii*). Orchids, ferns, mosses and lichens are also frequent as well as a great abundance of epiphytes and ferns.

Autonomous Region of the Prince (ARP)

On the island of Príncipe no Savana formations were developed in the northern part, as might be expected, by analogy with that of São Tomé, perhaps because the combination of meteorological and horological conditions did not favor the emergence of this ecosystem. All primary forest in the northern and central part of the island of Principe was replaced by plantations of cocoa, coffee, coconut and banana, and the south, due to the difficulties of access, was little intervened.

The dense and wet (primary) forest in Principe is similar to the low-lying rainforest of São Tomé, although it is relatively less dense. In Prince's forests the following endemic species of flora can be found: *Rinorea insularis*, *Ouratea nutans*,

Casearia mannii, *Croton stellulifer* (Cubango) and *Erythrococca columnaris*. This forest is particularly rich in Euphorbiaceã, among which stand out five endemic species of this island. Near the summit of Pico do Príncipe (948 m), the forest is slightly similar to a mountain formation, but there the altitude is not so high that it could develop fog forests, as is the case of São Tomé.

Agricultural Ecosystems

Agriculture

Based on the criterion purpose of the commercial product, the different vegetable species Sao Tome and Principe, or species are cultivated and are pontâneas can be grouped as follows: *i*) industrial species, *ii*) food species, *iii*) (*iv*) medicinal species and (*v*) ornamental species . The main species belonging to each of these groups can be found in Annex X.

Real Estate Management

In Sao Tome and Principe, animal husbandry concentrates on cattle / cows, pigs, chickens and goats, although there are smaller production of other animals (PMPNOST, 2009-2014) . It assures continuous pasture of these animals, the following species: *Aeschynomene indica*, *Desmodium uncinatum*, *D. intortum*, *Centrosema pubescens* , *Pueraria phaseoloides* . *Leucaena leucocephal*, *Mimosa farnesiana* , *Commelina spp.* (Bódó- bódó), *Setaria megaphylla* (Uagá - uagá) as forage species. The small breeders use the so-called secondary forages consisting of banana leaf, fruit, jackfruit and erythrina leaves, in animal feed.

Inland Water Ecosystem

The inland water ecosystems of STP are classified in lotic, latic and brackish waters. The lotic waters are the bodies of flowing water, for example the rivers and the streams, while the lentic waters are the masses of stationary or standing water, such as marshes, puddles, muds. Brackish waters form at the mouths of the rivers, that is, at the intersection between fresh water and salt water from the sea.

Marine and Coastal Ecosystems

The predominant flora in this ecosystem coincides almost entirely with the coastal zone of *the Shaded Forests*. Only the mangroves specify a little the flora of the coastal sub-ecosystem , being the species of *Rhizophora mangle* and *Avicenia sp* the emblematic ones.

Five of the seven species of sea turtles live in the territorial waters of São Tomé and Príncipe, namely Tatô (*Lepidochelys olivacea*), Ambô or White Hand (*Chelonias mydas*), Sada (*Eretmochelys imbricata*), Ambulance (*Dermochelys coriacea*) and the Headed Turtle (*Caretta caretta*) ;

There is part of the ichthyofauna santomense, the great pelagic vertebrates, the small pelagic vertebrates and the demersal or bottom fishes. The best represented families are *Carangidae* (14 species), *Serranidae* (11 species) and *Gobiidae* and *Scombridae* (8 species each).

Cetaceans are very common in the southernmost part of the island of Sao Tome and Principe; among others are the sub-order Mysticetes and the species *Balaenoptera musculus* and *B. nodosa*, etc. One of the most common examples of Odontocetes observed is the *Delphinus delphis*.