

## Summary Information

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|---|--|
| Project Title                                       | <b>Landscape Restoration for Ecosystem Functionality and Climate Change Mitigation in the Republic of São Tomé e Príncipe</b>  |
| Project Location – Country/Region/District          | Republic of São Tomé e Príncipe  |
| Project Coordinator & Contact Details               | The Ministry of Agriculture and Rural Development, through the Directorate of Forests and Biodiversity (DFB)   |
| Summary of Proposed Activities<br>(Max 30 words)    | Promote conservation and enhancement of carbon stocks in forest, and other land use, and support climate smart agriculture.<br>Landscape Management and Restoration.<br>Scaling-up sustainable land management through the Landscape Approach.<br>Restored Forest Ecosystems: Reverse the loss of ecosystem services within degraded forest landscapes |
| Summary of Proposed Target Groups<br>(Max 30 words) | 94 rural communities of which 8 on the island of Principe, totalling approx. 17,000. All communities engaged in small scale farming or part of organic/fair trade cocoa, coffee and pepper cooperatives.   |

## ACRONYMS (\*)

|          |  |
|----------|--|
| ADB      | Africa Development Bank  |
| AEO      | Authorized Economic Operator   |
| AFAP     | Agência Fiduciária de Administração de Projetos (GoSTP)                    |
| AFD      | French Development Agency  |
| ASB      | Bank Association of São Tomé and Príncipe                                  |
| AWP/B    | Annual Work Plan/Budget  |
| BH       | Budget Holder  |
| CATAP    | Advanced Agro-Pastoral Training Centre                                     |
| CB       | Capacity Building  |
| CC       | Climate Change   |
| CECAB    | Export co-operative of bio-cocoa producers                                 |
| CECAQ-11 | Export co-operative of fair-trade cocoa producers                          |
| CECAFEB  | Export co-operative of bio-coffee producers                                |
| CEDAW    | Convention on the Elimination of all Forms of Discrimination Against Women |
| CEPF     | Critical Ecosystem Partnership Fund  |
| CEPIBA   | Export co-operative of bio-pepper producers                                |
| CFP      | Communication Focal Point  |
| CIAT     | Agricultural Research and Technology Centre                                |
| COMIFAC  | Central Africa Forestry Commission   |
| CTA      | Chief Technical Advisor  |
| DF       | Directorate General for Forests (GoSTP)                                    |
| DTH      | Directorate General for Tourism and Hotels (GoSTP)                         |
| DSFR     | Directorate of Forests for the Autonomous Region of Príncipe               |
| EBA      | Endemic Bird Area  |
| ECCAS    | Economic Community of Central African States                               |
| ECOFAC   | Conservation and rational use of forest ecosystem in Central Africa        |
| EDF      | European Development Fund  |
| EEZ      | Exclusive Economic Zone  |
| EMAE     | Water and Electricity Enterprise of STP                                    |
| ENIEG    | National Strategy for Gender Equality                                      |
| ENRP     | National Strategy for Poverty Reduction                                    |
| ESIA     | Environmental and Social Impact Assessment (WB)                            |
| ESMF     | Environmental, Social and Management Framework (WB)                        |
| ESMP     | Environmental and Social Management Plan (WB)                              |
| FLP      | Forest Landscape Plan  |
| FLR      | Forest Landscape Restoration   |
| FOF      | Funding Opportunities Forum  |
| FONG     | Federation of NGOs of STP  |
| GCF      | Green Climate Fund   |
| GCP      | Global Child Project   |
| GDP      | Gross Domestic Products  |
| GEB      | Global Environmental Benefit   |
| GEF      | Global Environment Facility  |
| GoSTP    | Government of São Tomé e Príncipe  |
| GPFLR    | Global Partnership for Forest and Landscape Restoration                    |
| HDI      | Human Development Index  |
| HIPC     | Heavily Indebted Poor Countries  |
| IBA      | Important Bird Area  |
| IDA      | International Development Association                                      |
| IFAD     | International Fund for Agriculture Development                             |
| IMF      | International Monetary Fund  |
| INE      | National Statistics Institute, GoSTP                                       |

|        |   |
|--------|---|
| INPG   | National Institute for the Promotion of Gender Equality                       |
| INIEG  | National Institute for Gender Equality  |
| IRD    | International Relief and Development  |
| IUCN   | International Union for the Conservation of Nature                            |
| JDZ    | Joint Development Zone  |
| LoA    | Letter of Agreement   |
| LTO    | Lead Technical Officer  |
| LTU    | Lead Technical Unit   |
| MARD   | Ministry of Agriculture and Rural Development                                 |
| MDG    | Millennium Development Goal   |
| MINRA  | Ministry of Infrastructure, Natural Resources and Environment                 |
| MFCBE  | Ministry of Finance, Commerce and Blue Economy                                |
| NBSAP  | National Biodiversity Strategy and Action Plan                                |
| NCP    | National Child Project  |
| NFFD   | National Fund for Forest Development  |
| NGO    | Non-Governmental Organization   |
| NIM    | National Institute of Meteorology   |
| NPC    | National Project Coordinator  |
| NPRS   | National Poverty Reduction Strategy   |
| NRM    | Natural Resources Management  |
| NWFP   | Non-Wood Forest Products  |
| ODA    | Official Development Assistance   |
| O&M    | Operation and Maintenance   |
| PFM    | Public Financial Management   |
| PFLR   | Platform for Forest and Landscape Restoration                                 |
| PMU    | Project Management Unit   |
| PNOST  | Natural Park Obo - São Tomé   |
| PNP    | Príncipe Natural Park   |
| PPADPP | Project for Agriculture Privatization and the Development of Small Properties |
| PPP    | Purchase Power Parity   |
| PRIASA | Infrastructure Rehabilitation for Food Security Support Project               |
| PSC    | Project Steering Committee  |
| PSRP   | Power Sector Recovery Project   |
| RAP    | Autonomous Region of Príncipe   |
| REDD+  | Reducing Emissions from Deforestation and Forest Degradation                  |
| RSPB   | Royal Society for the Protection of Birds                                     |
| SIDS   | Small Island Developing States  |
| SNMFP  | National Forest and Landscape Monitoring System                               |
| SPEA   | Portuguese Society for the Protection of Birds                                |
| STP    | São Tomé e Príncipe   |
| TRI    | The Reforestation Initiative  |
| UNDP   | United Nations Development Program  |
| UNEP   | United Nations Environment Programme  |
| UNOPS  | United Nations Operational Services   |
| WB     | World Bank  |
| WCA    | West and Central Africa   |
| WHO    | World Health Organization   |
| WRI    | World Resource Institute  |
| WWF    | World Wildlife Fund   |

(\*) Some acronyms are based on the original Portuguese name, i.e. RAP = Região Autónoma de Príncipe, translated as Autonomous Region of Príncipe

## Executive Summary

The island nation of São Tomé and Príncipe (STP) is home to some of the richest and most diverse forest ecosystems in Africa. The islands' fast-growing human population has had a significant impact on the native forests, which are largely restricted to some remote valleys and inaccessible mountain areas. Higher and increasingly competing demands for food, energy, and space are accelerating the degradation of natural resources and ecosystems, which reduces their resilience to climate change.

Approximately one third of the forests have been converted into shade plantations and agro-forestry systems that produce mostly coffee and cocoa, the country's key export crops. STP faces the typical handicaps of a small island economy: high vulnerability to external shocks, the inability to pursue economies of scale, lack of basic infrastructure and services, low human capacity, and a weak private sector. One of the greatest environmental threats is the over-exploitation of forest resources. Fuelwood consumption is very high, and wood is still the main commodity used in the local house construction sector. The deforestation of steep mountain slopes to plant crops and meet the national food demand is increasing the incidence of erosion and further degrading the forest.

The Government of STP has identified reforestation and forest and landscape restoration as a strategic priority for the coming years, together with the fight against illegal tree harvesting, and awareness raising measures. Two natural parks were created in 2006, extending on both islands and including all types of terrestrial ecosystem. Unfortunately, the lack of resources is a serious drawback to the effective functioning of the protected areas.

The project, which is framed into the Reforestation Initiative (TRI) led by FAO, IUCN and UNEP, has the objective to promote the restoration and sustainable management of the forest ecosystems of São Tomé and Príncipe to reduce carbon emissions from deforestation, and stop and reverse forest and soil degradation.

## Part A: Project Aims & Objectives

### A1 Describe the project's aims and objectives

The project is structured into four interlinked components:

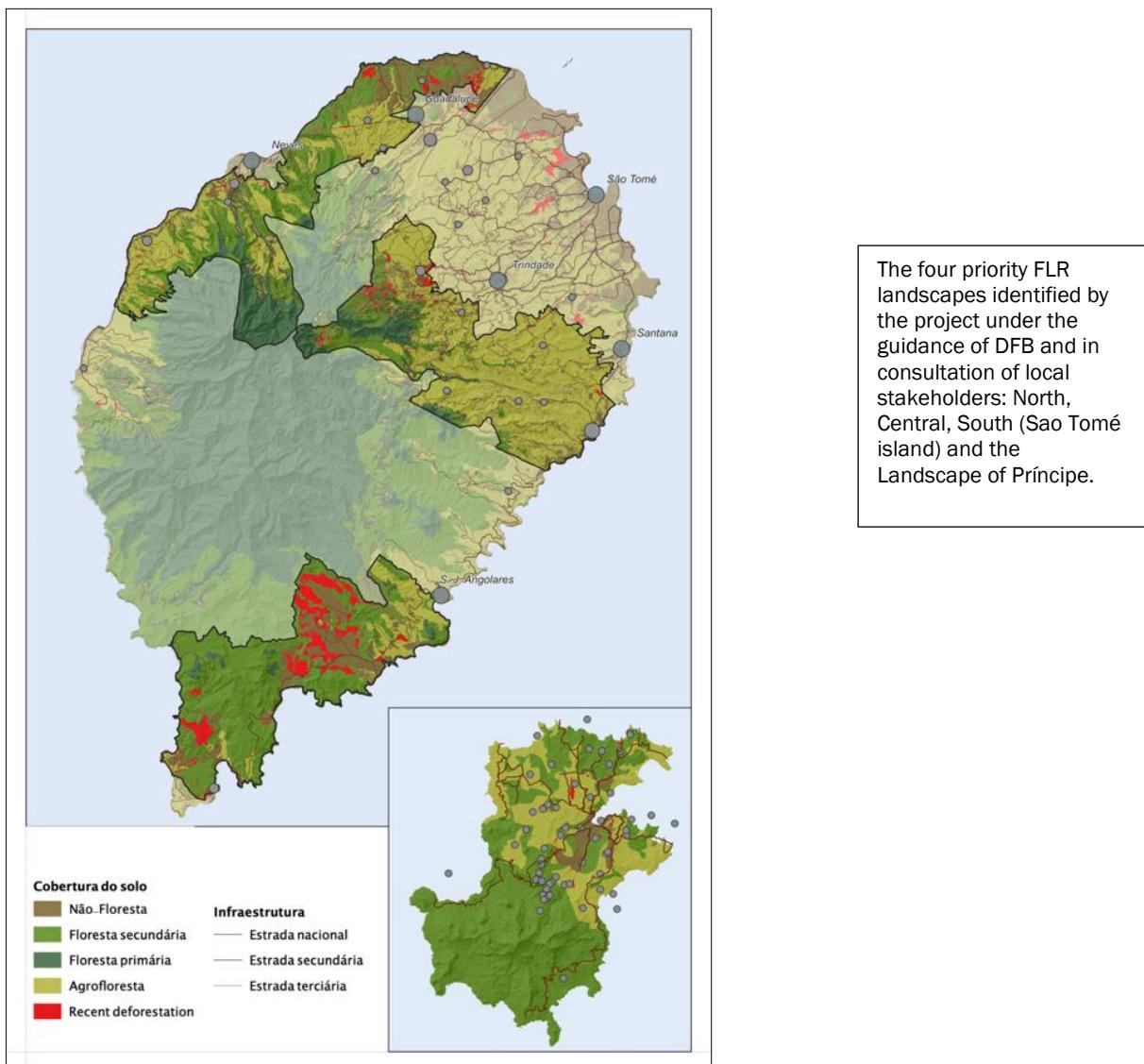
- Component 1 - Policy Development and Integration will create a coordination platform for forest and landscape restoration, including all main concerned members of the national society, which will become the “engine” spearheading future FLR work in the country. It will also empower the Directorate of Forest through training and the establishment of a Forest Landscape Plan to inform and guide future forest management, conservation, and restoration initiatives. The component will also work towards the improvement of the policy framework for FLR, with the amendment of existing, and the adoption of new laws, regulations, and incentives.
- Component 2 - Implementation of Restoration Programs and Complementary Activities will support the implementation of FLR interventions in priority areas of both islands, as well as complementary sustainable land management initiatives. It will target a wide range of ecosystem and management practices. In total, approximately 35,500 hectares of forest landscapes will be directly targeted with a broad range of interventions. For instance, the component will help strengthen agro-forestry practices that have yielded demonstrated economic benefits to rural communities, namely the value chains of high quality (organic, fair trade) products, and diversified income generation through the sustainable use of Non-Wood Forest Products. It will also initiate pilot actions to engage rural communities and the private sector in a more sustainable and efficient exploitation of timber and wood, through improved and more regulated harvesting and utilization of this commodity.
- Component 3- Institutions, Finance and Upscaling is designed to develop the capacity of all relevant actors- institutions, private sector, and civil society – to understand, develop and implement FLR initiatives. It will also promote the establishment of partnerships and definition of arrangements to harness existing domestic public financing structures, design new financial products to support landscape restoration activities, and achieve a more conducive environment for FLR financing, triggering a new flow of public and private finance into restoration and sustainable land management through the promotion of bankable projects.
- Component 4 - Knowledge, Partnerships, Monitoring and Assessments, and linkages with GCP will focus on the set up of a monitoring & evaluation framework for FLR, and on the integration of the STP project into the wider TRI programmatic knowledge management system, with mutual benefits and in close interaction with the Global Learning, Finance, and Partnerships Child project (GCP). Through this component, the project will help the Directorate of Forest build a National Forest and Landscape Monitoring System - a GIS platform to monitor deforestation and forest degradation, take actions and respond to aspects related to forest use, reforestation and cartography, in addition to facilitating administrative processes and technical procedures related to all these aspects.

The Ministry of Agriculture and Rural Development, through the Directorate of Forests and Biodiversity (DFB) is the lead executing partner, with several operational partnerships in place with a broad array of agents to implement project activities, including other branches of the administration (districts, management bodies of the natural parks, autonomous region of Príncipe), private sector enterprises, NGOs, the banking sector, the cooperatives of the cocoa, coffee and pepper value chains, the communities of the areas where the FLR work are being carried out on both islands, and international development agencies. The project pursues the engagement of women and youth in decision-making, training, participatory mapping, and implementation of FLR actions. Activities aiming at improving income generation and the development of bankable projects are actively targeting women and youth. A strong collaboration touching upon the four components of the GEF project has been built with the two baseline co-financing projects, the Power Sector Recovery Project of the World Bank and the PAPAC (Project to Support Small-scale Commercial Agriculture) of IFAD. The DF will host the Project Management Unit.

## Part B: Proposed Project Area

## B1 Description of Project Location

The island nation of São Tomé and Príncipe is situated in the Gulf of Guinea, separated from the African landmass by an ocean approximately 1800 m deep. The islands are part of a volcanic range that includes Pagalu to the southwest and Bioko on the northeast, extending to the African mainland via Mount Cameroon and reaching Lake Tchad. The islands have never been physically connected to each other or the African mainland. São Tomé is the largest island, with a surface of 859 km<sup>2</sup>, while Príncipe has a surface of 142 km<sup>2</sup>, bringing the total size of the country to 1001 km<sup>2</sup>. The sea channel between the two main islands has a width of 160 km, while the distance from the African mainland is of 360 and 269 km, respectively. The island of São Tomé rises abruptly from the Atlantic Ocean, reaching a height of 2014m with Pico São Tomé. Located at latitudes of 0° to 3° N, the climate is typically equatorial, with high temperatures and humidity throughout the year. Mean temperatures hardly vary throughout the course of the year (24° to 27°). The main wet season is between October and May, with around 200 mm of rain fall per month. A brief drier spell occurs in January and February, followed by a dry season in June to September, locally known as *gravana*.



The hydrological network includes 50 freshwater bodies, whose springs are located at high altitude, within the boundaries of the protected areas. The largest river in the country is Yô Grande, with a

watershed of 106 Km<sup>2</sup>, a length of 24 km, and an estimated annual flow of 390 Hm<sup>3</sup>. Other important water courses are: Rio Abade, Ouro, Manoel Jorge, and Contador on São Tomé and, on Príncipe Island, Papagaio. The flow regime of the rivers is irregular and is directly related to rainfall distribution along the year. The rivers of STP receive approx. 2.1 million m<sup>3</sup> of water/km<sup>2</sup>/year, the equivalent to almost 10,000 M<sup>3</sup> per inhabitant (WB, 2016).

The varied relief and different micro-climates of STP favour the formation of different ecosystems: altitude forest, dense and humid forest of low altitude, dry and open tropical forests, secondary forest, shade forest, shrubs, herbaceous grasslands and mangroves. The last national forest survey for São Tomé and Príncipe was conducted in 1999. According to those estimates, 10 percent of the country comprised non-forest land-use, 61 percent was covered by forests and 29 percent by shade plantations. The shade plantations constitute agro-forestry systems that produce mostly coffee and cocoa, the country's key export crops. Much of the islands are covered by degraded forested ecosystems like secondary forests. These are dominated by introduced and invasive species like the breadfruit, the African nutmeg and the oil palm. Native forests are largely restricted to some remote valleys and inaccessible mountain areas. The islands' fast-growing human population has had a significant impact on the native forests. As land has become scarce, people have turned to the forest to sustain their livelihoods. At the same time, the government has licensed large areas of forest to commercial interests.

Table 1. Estimated Surface of forests in São Tomé e Príncipe in 2015 (DF)

| Type of Forests  | Surface (ha)  | Percentage on cover % |
|------------------|---------------|-----------------------|
| Primary Forest   | 28.000        | 28,3                  |
| Secondary Forest | 27.000        | 27,3                  |
| Shadow Forest    | 32.000        | 32,3                  |
| Others           | 12.000        | 12,1                  |
| <b>Total</b>     | <b>99.000</b> | <b>100</b>            |

Source: Directorate of Forests

The forest ecosystems in São Tomé and Príncipe are among the richest and most diverse in Africa. Of the 1,230 plants identified, about 10 percent are endemic (87 species endemic to São Tomé, 32 species endemic to Príncipe, and 4 species endemic to the country). From the conservation point of view, they are classified as follows: (i) 14,9 percent are considered extinct; (ii) 12,8 percent are seriously threatened; (iii) 10,8 percent are threatened; (iv) 41,9 percent are vulnerable; (v) 12,2 percent are almost threatened; and (vi) 7,6 are of conservation concern (GoSTP, 2007).

As far as the fauna is concerned, as it often happens in pelagic islands, the number of indigenous vertebrates is reduced, with the notable exception of birds. More than 50 percent of the 49 species of birds recorded on the islands are endemic. Globally endangered wildlife species include the Grey Parrot (*Psitacus erithacus*), the Dwarf Olive Ibis (*Bostrychia bocagei*), the Newton Fiscal (*Lanius newtoni*), São Tomé Groasbeak (*Neospiza concolor*) and the Green Pigeon (*Treron sanctithomae*). Several species of marine turtles - *Eretmochelys imbricata*, *Dermochelys coriacea*, *Lepidochelys olivacea* and *Chelonya mydas* - lay their eggs in several beaches of both islands. The endemic mammal fauna of STP only includes a few species of bats and insectivores. Many plants and animals were introduced at the time of Portuguese colonisation. Some of these have become invasive, threatening the integrity of the unique ecological features of STP. Among the most aggressive invasive species are the quinine (*Cinchona*

*ledgeriana* and *C. pubescens*) that was imported to provide a remedy to reduce the incidence of malaria, and the oil palm (*Elaeis guineensis*), especially in some areas of the District of Caué.

The outstanding value of the natural heritage of STP has been acknowledged by global conservation organisations such as WWF and Conservation International, which listed the country as one of the world's 200 Global Biodiversity Hotspots. Birdlife International includes the São Tomé and Príncipe forests in Africa's "Important Bird Areas (IBAs)" located in the top 25 of the 218 "Endemic Bird Area (EBAs)" in the world. Three out of the total five IBAs defined in the country by BirdLife International are included within the Natural Park Obo - São Tomé (PNOST). At the time of writing this project BirdLife was planning to develop a new conservation project in the framework of ECOFAC-6 and the CEPF program.

The Obo and Príncipe Natural Parks (PNOST; PNP) were established through two distinct laws (6/2006 and 7/2006), as a response to the recommendations formulated by the National Biodiversity Strategy and Action Plan (NBSAP). The parks cover about 30 percent of the country's surface- 251 km<sup>2</sup> on São Tomé and 71 km<sup>2</sup> on Príncipe, and they include all types of terrestrial ecosystem, from lowland and mountain forests, to mangroves, and savannah. Additionally, PNP includes a marine protection belt with a width of 500 metres from the shore. On a later stage, the Tinhosa Islands and Rola Islet Nature Reserves were created, covering a total of 21ha, and bringing the total surface of the protected areas to 29,537 ha. Despite their relative small size, the protected areas are the last sanctuary of many globally threatened species. According to the IUCN Red List, these include: 31 plant species (Annex II); 3 species of mammals (Annex V); 9 bird species (Annex VI); 4 species of sea turtles (Annex VII); 2 amphibian species (Annex VIII); 1 species of invertebrates. Tinhosa Islands are also classified as a Ramsar Site under the Ramsar Convention for the protection of wetlands.

Soon after their establishment, both protected areas were incorporated into ECOFAC, a regional, multi-year programme supported by the European Union whose goal is to rationally protect and preserve forest ecosystems throughout Central Africa. ECOFAC supported: (i) the setup of the Bom Sucesso Botanic Garden, as the gateway and the headquarters of PNOST and clearinghouse for services related to the fruition of the protected area; (ii) the Management Plan (2009-2014) which includes short, medium, and long-term actions, selected according to their urgency and breadth. The management plans for the two mangrove sites of Malanza and Praia das Conchas (2015-2017) were produced by the NGO Alisei in partnership with Portuguese research institutions, and in the framework of a GEF-5 project led by IFAD.

## **Forest Degradation**

Forest degradation and the illegal/uncontrolled felling of trees. One of the greatest environmental threats is the over-exploitation of forest resources. The people of São Tomé and Príncipe rely heavily on forest resources. Nearly all houses are made of wood, and most food is usually cooked over charcoal or firewood obtained from the forest. These resources have become difficult to access, and there is insufficient timber supply to meet the islands' growing needs. The timber that is available is of a low quality, lasting for only about five years, and is increasingly unsuitable for construction. The last available study (1995) estimated wood consumption requirements for the country at 220,000 cubic meters/year, but the figure has been increasing in the past decades, due to population growth and a change in consumption patterns. Biomass consumption (wood-energy and agricultural residues) remains the main source of domestic energy, and energy in small-scale commercial sectors. As in most of Africa, charcoal constitutes the primary urban fuel, and is a major source of environmental degradation in rural areas. The annual charcoal production in São Tomé & Príncipe for 2011 was estimated to be 8,836 t. (UNEP, 2013).

Few reliable figures are available on the deforestation rate, or on the volume of timber illegally extracted in the protected areas and their buffer zones. The deforestation of steep mountain slopes, to meet the demand of the fast-growing population for food and building material, is increasing the incidence of erosion and degrades the forest further.

Table 3: Estimated tree felling in the past five years, per District:

| District     | Total 2010-2014 (5 years) |            |                                |            |
|--------------|---------------------------|------------|--------------------------------|------------|
|              | Nº Trees                  | % Nº Trees | Total Volume (m <sup>3</sup> ) | % Volume   |
| Água Grande  | 182                       | 3          | 380,1                          | 2          |
| Cantagalo    | 1335                      | 22         | 3713,8                         | 16         |
| Mé-Zochi     | 1946                      | 32         | 5374,4                         | 24         |
| Lobata       | 1010                      | 17         | 2895,8                         | 13         |
| Lémaba       | 321                       | 5          | 5704                           | 25         |
| Caué         | 187                       | 3          | 764                            | 3          |
| R.A.P.       | 1102                      | 18         | 3807,2                         | 17         |
| <i>Total</i> | <i>6083</i>               | <i>100</i> | <i>22639,3</i>                 | <i>100</i> |

Source: Directorate of Forests

DFB identified reforestation as a strategic priority for the coming years, together with the fight to illegal tree harvesting, awareness raising measures targeting the public, and the promotion of community nurseries to accelerate the production of forest and fruit tree species. A market study carried out by AIP/CCI (Entrepreneurs' Association and Trade Chamber of Portugal) in 2004 estimates the need to plant 500-700 Ha of trees every year to supply the growing need for this commodity on the islands. To reverse this negative trend, the NPRS recommends to: lay the institutional and technical foundations for effective forest management, combat excessive and uncontrolled logging; and ensure the timely renewal of forestry resources. To achieve these objectives, the NPRS calls for: (i) a review of the legal framework for forestry management and strengthening of the institutional capacity of the sector; (ii) the promotion of operations involving community management of forested areas; (iii) the adoption of technical measures to replenish and conserve forestry resources.

Forest land conversion. A major contribution to biodiversity loss and environmental degradation in the southern part of the main island is the conversion of thousands of hectares of forests into oil palm plantations. In 2009, the GoSTP made a 5000 Ha concession (5 percent of the country's area) to the company "Agripalma", to produce palm oil for internal markets and exportation. Agripalma is linked to the Belgian society "Socfinco", which manages thousands of hectares of oil palm plantations in Africa and Asia. The initial concession included areas in the island of Príncipe (c. 1000 hectares) and inside São Tomé Obô Natural Park (c. 200 hectares), which were excluded from the initial concession. The operation met widespread opposition from several sectors of the society. According to some international observers, ongoing deforestation activities linked to oil palm plantations do not seem to be in compliance with STP's environmental law, namely with the Law of Forestry (5/2001), the Basic Law for the Environment (10/1999), Law for the Conservation of Fauna, Flora and Protected Areas (11/1999), and the Regulations for Environmental Impact Assessment (37/1999). Palm plantations need large amounts of herbicides, fertilizers and pesticides and are a factor of environmental degradation, absorbing the soil's nutrients and leading to long-term desertification and exposure to fire risk. Furthermore, the factories that process this oil typically produce a large amount of contaminating waste, represented by husks, water and fat residues. ([www.globalvoices.org](http://www.globalvoices.org))

Mangrove degradation. Mangroves forests in STP are formed by the two species *Avicennia germinans* and *Rhizophora mangle*. Mangroves in the north of the country are currently reduced to a few, scattered stands. The largest mangrove ecosystem is the coastal site of Malanza, in the southern part of the main island and within the boundaries of Obo Natural Park. The area has a surface of approx. 200 hectares and suffers from encroachment and illegal tree harvesting. The site is close to one of the island's

tourism infrastructures, which promotes guided canoe trips and bird watching for visitors. The degradation of mangroves often leads to the proliferation of invasive, salt tolerant vegetation, which further hampers the recovery of the indigenous, slow-growing vegetation.

Unsustainable/illegal sand extraction. The extraction of sand from the beaches for building purposes causes the strong erosion of the seashore, leading to the destruction of the coastal infrastructures, and eventually to the loss of jobs. At present, coastal erosion is heavily affecting significantly parts of the coast of São Tomé, where it causes loss of quality of bathing beaches and landscape, erosion of segments of roads and promenades, and magnification of the impact of sea waves. Sand extraction for building purposes also is increasingly taking place in the interior of the island, causing the depletion of volcanic sandy soils and growing erosion on the slopes. The loss of volcanic sand and minerals, especially basalt, may also lead to a decline in soil productivity.

Uncontrolled hunting. Hunting and the use of wildlife resources are an important part of life in rural communities on São Tomé. Game is also on demand in urban areas by buyers with sufficient purchasing power. Hunters have a major impact on both introduced and native wildlife, including endemic bird species of high conservation value as São Tomé Dove and Dwarf Olive Ibis. The opening of new roads for the establishment of plantations has facilitated the access of hunters to the buffer zones, as well as to the core area of the parks. Another important wild source of protein in STP is the harvesting of land conchs. Traditionally, the exploited species was *Archachatina bicarinata* ("Obo conch" or "black conch"), which is endemic to the country. As the population of this species started declining, collectors turned to the introduced *Archachatina marginata* ("red" or "wood conch"). Currently the "wood conch" is undoubtedly the most consumed source of protein in virtually all communities and families in many rural areas on São Tomé.

## B2 Description of Socio-Economic Context (PV requirements 7.2.2-7.2.5)

São Tomé and Príncipe's current population is 194,000 (2015, INE, National Statistics Institute), with a population density of 203 per Km<sup>2</sup> and an estimated growth of 2.76 per year. The capital, São Tomé, is the only urban agglomeration, with 131,000 people (68 percent of the total population) in 2015. The island of Príncipe has a total of about 9,000 inhabitants. Slightly more than 50 percent of the citizens are women, and 62 percent of the population is less than 25 years old. All citizens are descended from people from different countries taken to the islands by the Portuguese from 1470 onwards. Detailed information on the demography of STP is found in [Annex 10](#) to this document.

In 2014, São Tomé and Príncipe ranked 143 out of 188 countries in the UNDP Human Development Index, higher than the average in Sub-Saharan Africa, with a Gross Domestic Product of approx. US\$ 123 million, and a per capita income of US\$ 764/year. The latest Poverty Reduction Strategy Paper of STP (NPRS-II 2012–2016, final version March 2012), shows that there was progress in reducing poverty, albeit far less than expected. One-third of the population still lives on less than US\$1.90 per day in Purchase Power Parity (PPP) terms and more than two-thirds of the population are poor, using a poverty line of US\$3 PPP per day. Primary school completion has witnessed a decline over the past 15 years, from a 97 percent rate in 1990 to a 69.3 percent rate in 2002 (latest data available). Based on the 2010 Household Budget Survey, poverty particularly affects women and is more prevalent in rural areas, resulting in the significant migration of the rural labour force to urban areas. The ratio of the incidence of poverty decreased from 53.8 percent in 2000 to 49.6 percent in 2010, representing a reduction of 4.2 percentage points, which is far below the 10 percent target set in the NPRS-I for 2010.

According to the latest available data, the unemployment rate decreased by 16 percent in 2002 to 13.9 percent in 2008. Unemployment affects young people and women disproportionately, with

unemployment rates of 22.6 percent and 19.6 percent, respectively. The impact appears to be less evident in underemployment, which increased by approximately 48 percent compared to 2002. In the period 2003-2006, jobs created in the primary and secondary sectors decreased by 10 percent and 23 percent, respectively, with the fisheries, agriculture, livestock and forestry sectors and wholesale and retail trade contributing the most, while the tertiary sector grew 14.2 percent.

São Tomé and Príncipe has a distinctive gender profile characterized by a dichotomy between the officially accepted gender equality laws and policies, and the actual gender associated socio-economic status. On the positive side: (i) the unemployment rate for women decreased from 24.9 percent in 2001 to 18.7 percent in 2012; (ii) the illiteracy rate of women decreased from 22.4 percent in 2001 to 14.5 percent in 2012; (iii) the activity rate of the female population aged over 15 increased from 49 percent in 2001 to 50.8 percent in 2012; (iv) women's representation in parliament recently doubled to 10 seats. On the negative side, the difference in poverty levels between women- and men-headed households is still remarkable (71.3 percent and 63.4 percent respectively). According to the 2012 National Housing and Population Census, women's rate of unemployment is twice that of men (18.7 percent against 9.3 percent), and women usually work in informal and/or precarious sectors.

With specific regard to rural women, The Beijing Report of 2014 makes the following references to STP: (i) there have been improvements in the living conditions of women, particularly in rural areas; (ii) the technical capacity of rural women entrepreneurs to form associations has improved; (iii) the land privatization process defined by Law 3/91 allowed the distribution of land to more than 10,000 rural households of whom 1/3 are led by women; (iv) the participation of women in cooperatives, productive business and community activities is increasing, as a result of gender and development education and training held for women from farmers' associations by the National Institute for the Promotion of Gender Equality (INPG) and within various projects. Several projects are promoting the rights and equality of rural women in STP. Among these, actions supported by ADB, WFP, FAO, MARAPA, CIAT, CATAP, UNDP, IFAD and other organizations, on associative policies, management, agro-industry, fish conservation, seed and plant quality, production and marketing of agricultural poultry and spices.

Rural women play an important although often underestimated role in forest management, and the harvesting, processing, marketing and consumption of non-wood forest products (NWFP). These activities have helped to improve the basic conditions of the families. For instance, the project GCP/RAF/479/GER "Strengthening the Contribution of NWFPs to food security in Central Africa" (2007-2014) promoted the use of non-timber forest products in two pilot communities, Plancas 1<sup>a</sup> and Novo Destino, providing training in the field of market analysis and development to 64 rural beneficiaries, of whom 39 (61 percent) were women.

The agriculture sector employs 60 percent of the active population, but only accounts for approx. 22 percent of the GDP (US Foreign Agriculture Service, 2016). Cocoa is the single most important crop on the islands, accounting for more than half of the total cropped area and for roughly 80 percent of export revenues. However, current annual production is only around half of historic levels prior to independence. The sharp fall in cocoa production in the last decades has been caused mainly by the cutting of shade trees, pest and disease attack, lack of investment, lack of know-how, degradation of the old irrigation system. Cocoa export earnings have been affected by a downward trend and the price volatility associated with the cocoa markets. This negative trend has been partly compensated by the increased production of organic and fair-trade produce that gets higher prices on the international markets. This production shift was promoted by the PAPAFPA (now PAPAC) programme launched by IFAD in 2003.

Coffee production is mainly concentrated in the former estate of Monte Café, which has a surface of approx. 750 hectares. In the 1990s, coffee covered approximately 1,000 ha on the island of São Tomé,

but productivity declined considerably over that period, despite large investments during the same decade. Coffee production recently received a new boost, thanks to the creation of a new value chain for organic coffee within PAPAFPA/PAPAC. The project works with 210 producers, over a surface of 417 hectares. The new value chain developed very fast, exporting approx. 8 tonnes of organic coffee by the end of 2011.

#### *National and local governance structures*

The Ministry of Agriculture and Rural Development (MARD) is the authority in charge of forests and agro-forestry in STP. The MARD is comprised of nine Directorates, among which the Directorate of Forests and Biodiversity (DFB) is responsible for the elaboration and implementation of the country's forestry policy. Currently, DFB includes three Departments: (i) Forest Monitoring and Statistics; (ii) Forestry, Reforestation and Research; (iii) Biodiversity, Awareness and Studies. Furthermore, MARD includes the Centre for Agro-technological Research (CIAT); Centre for Technical Improvement Agro-Cattle (CATAP); and Rural Development Support (CADR). The PNOST (Obo Natural Park) is also part of MARD. A Regional Department of Forestry Services exists in Príncipe. STP does not have an Institute for Forest Research, although CIAT is responsible for forestry-related research lines of work.

Another relevant institutional player is the Ministry of Infrastructures, Natural Resources and Environment (MIRNA), which is responsible for the preparation, coordination, execution and monitoring of environment policy instruments. For the fulfilment of their responsibilities on the environment, the MIRNA has two Steering Bodies, namely, the General Direction of Environment (DGA) – responsible for implementing the national environmental management program – and the General Direction of Natural Resources and Energy (DGRNE) – responsible for the design and implementation of policies and strategies for the conservation and rational use of natural resources and energy. This Ministry is also responsible of the implementation of all actions undertaken in the context of the UNFCCC, in collaboration with the National Institute of Meteorology (NIM).

Several “platforms” are officially established in STP to guarantee coordination on environmental matters among the different institutional actors. The CONFFAP – Council for the Conservation of Fauna, Flora and Protected Areas – was established in 1999 as an operational and strategic body for the management of protected areas. The National Committee on Climate Changes was created in 2012 with the task to implement, coordinate, monitor and evaluate all actions undertaken in the context of the UNFCCC. Unfortunately, none of these platforms is operational at the moment. In the framework of TRI-STP, a National Platform for Forest and Landscape Restoration (PNRFP) was officially created by the MARD in 2019, as an advisory body to the project. The PNRFP includes approximately 35 full members from different institutions and bodies (governmental, NGO, private sector) plus “invited members”, mainly international donors and organisations working in STP. The PNRFP is divided into 4 sub-committees (restoration, communications, legislation, and economic development) that meet regularly, with the coordination of a joint secretariat of TRI and DFB.

Since 1980, São Tomé e Príncipe is divided into seven administrative districts (Câmaras distritais): Água Grande, Cantagalo, Caoué, Lembá, Mé-Zóchi, and the Autonomous Region of Príncipe (RAP). With the exception of RAP, which enjoys a certain degree of autonomy and an administrative structure similar to that of the central government, Districts in STP have a limited authority, which does not include competences on forests and agriculture. The smallest administration unit in STP is the Municipality (Câmaras municipais), which also have limited authority and finance.

## **Part C: Identification of Target Groups & Communities**

C1

Summarise information for the participating communities/groups/individuals expected to benefit from the project (PV requirements 1.1, 7.2.1, 7.2.7 & 7.2.8)

- **Population<sup>1</sup>.** The project works with a total of 94 small rural communities, divided accordingly: (i) northern landscape, São Tomé Island: 43 communities, 4677 people (ii) central landscape, São Tomé Island: 30 communities, 5388 people (iii) southern landscape, São Tomé Island :13 communities, 6035 people; (iv) landscape on Príncipe island: 8 communities, 1000 people.
- **Cultural, ethnic and social groups.** Because the islands São Tomé and Príncipe do not hold any population of indigenous people as these are commonly defined, the project does not address any specific ethnic or cultural group. The main beneficiaries of the FLR groups are the members of rural communities on both islands whose revenues come from agro-forestry, including small scale agriculture, as members of cash crop cooperatives (cocoa, coffee, pepper), or collection and processing of Non Timber Forest Products (NTFPs).
- **Marginalised groups.** The target groups and communities are not particularly marginalised, if not for their condition of rural dwellers, and as such having less opportunities than the citizens living in the cities or towns, in terms of education, access to services, transportation, and social/cultural opportunities.
- **Gender and age equity.** As documented in the baseline assessments done by the project, in STP women's participation in community forestry and decision-making processes is quite healthy. Women also play an important part in the economy linked to agriculture, both small-scale and within the cash crops value chains, although their role is on the processing and marketing side rather than direct production. The TRI project is conscious of the importance of sustaining gender and age equity: women and young people are priority beneficiaries of all the actions promoted by the project.
- **Local organisational capacity.** In STP, the organizational capacity of rural communities is mainly linked to the four cash crop cooperatives CECAB (organic cocoa); CECAQ-11 (fair trade cocoa); CECAFEB (organic coffee) and CEPIBA (organic pepper). The cooperatives were established in 2003 as a joint venture of the Government of STP, IFAD, and the French Development Agency, with the ultimate goal to contribute to sustainable improvements in the living conditions and incomes of small-scale farmers. The project supported the creation of farmers' associations organized in cooperatives and facilitated the link between producers and European foreign buyers interested in environmentally and socially sustainable produce. The maintenance of ecologically healthy shadow forests under whose canopy these products are grown is one key requirement for the certification of the products and has always been a strong concern to the cooperatives, although their focus has been rather on production, markets and capacity building of their members and beneficiaries, while the ecological aspects have only been partially addressed,

## Part D: Land Tenure & Carbon Rights

D1 Describe the land tenure context and current understanding of carbon/ES rights for the project area(s) (PV requirements 1.1 & 1.2)

- For smallholders and for community land
- For other land included in the project
- State typical size of land-holdings in the project
- List any conflicts or potential issues related to land tenure, including any national/regional land reforms underway

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<sup>1</sup> The number of community members are accurate estimates

- Assessment of the difficulty in proving land tenure and/or carbon and ES rights, detailing any measures to clarify or strengthen these rights

Current land property regime in STP recognizes different types of rights over land, usufruct being the most common for rural land. Most rural land is privately exploited under usufructs distributed by the government, who maintains ownership. This land was distributed through long-term concession contracts, granted as part of the execution of the agrarian reform of the 1990s. The Ministry of Agriculture and Rural Development (MARD) is responsible for the administration of these rural lands. Private property over rural land is also recognized. Formal transfer of ownership occurs after a deed is signed by the parties involved and registered in the country's Real Estate Registry. Given the lack of a functioning cadaster system, there are gaps in the inventory of privately held rural land. The size of land holdings varies considerably, from the 5,000 Hectares concession to the Belgian company AgriPalma in the south of the main island, to plots of less than one hectare that are typically leased to the members of rural communities.

Agricultural land represents one half of the country's total land, but it employs 24 percent of the working population and its output represents 5.1 percent of the Gross Domestic Product in the country. The lack of an updated land information system also acts as a disincentive for private investment. The uncertainty about ownership and enforcement of contracts produced by informal land tenure along with the impossibility to use land as collateral to access the credit market are the main barriers for investment in the agricultural sector.

The Sao Tomean Government recognizes the absence of a proper land administration system as a limitation to its rural development and tourism initiatives. In order to address this situation a set of actions in the technical, legal, and institutional realms is currently in execution, aiming to positively impact rural and tourism sectors. In terms of the legal framework, a number of regulations were identified as outdated or inefficient to produce the changes sought and therefore their amendment is underway. These include among others, the Land Registry and Notary Codes which require a regulatory decree to enable joint titling, registration of property, and a binding effect to the Inter-Institutional Committee of Registry and Cadastre.

Although the land tenure picture is still confused and with many question marks, the ownership of the process by DFB as part of the MARD and the Government of STP would facilitate the recognition of the community rights to the carbon stored under the scheme, as part of the long-term user rights already recognised to the communities

## Part E: Project Interventions & Activities

**E1** Describe the types of interventions included in the project and envisaged to generate PV Certificates (PV requirements 2.1.1-2.1.4), e.g.:

*Participatory FLR interventions to enhance ecosystem services and mitigate climate change in vulnerable natural forest areas in STP, as a public-private partnership.*

In recent years, the ever-growing demand for timber of commercial value has spurred a variety of scattered initiatives of reforestation, restoration, and seedling production, mostly led or with the participation of the Directorate of Forests. Between 1995 and 2000, thanks to the European Union's funded ECOFAC II Program, pilot reforestation work was carried out in several community areas of São Tomé, namely Mulundo - Diogo Vaz (1ha), Praia das Conchas - Savana (1ha), Campo de Milho - (3ha), Plateau - Milagrosa (1ha), Água Machado - Milagrosa (1ha), Plateau - Milagrosa (1ha). More recently, in partnership with the CECAQ11 cooperative, DF implemented reforestation activities in 9.5 hectares of community areas of the Cantagalo District. In 2012, as part of the pilot Climate Change Mitigation Project for the District of Lobata funded by the Japanese Government and supervised by UNDP, reforestation activities were implemented in Santa Luzia - Guadalupe and Savana de Praia das Conchas

with the support of the NGOs Nature League and CLUB-NEPAD, on approx. 5ha of land. The success of these actions has been very mixed: while some pilot sites are still thriving, most of the reforested lands in the savannah areas of the north were destroyed by fire due to the lack of participation and consensus on part of the local communities or died due to inappropriate reforestation methods. All in all, the work carried out so far was instrumental to build a certain capacity within DF and raise awareness at different levels of the national society, about the need to engage in a more systematic effort of reforestation and restoration of forest habitats.

The project supports the design and implementation of a FLR plan to enhance the ecological functions of the watershed, under the technical leadership of DF and in collaboration with the local authorities and communities.

Mangrove coastal forests are reduced to a few hundred hectares in STP, but they are of capital importance, not only for their biodiversity and conservation value, but because they provide key indirect benefits to nearby coastal communities and the whole population, such as maintaining fish stocks, fighting erosion and regulating biogeochemical cycles. A first survey of mangroves in São Tomé and Príncipe was carried out in 2015, focusing on two areas of São Tomé Island's Obo' Natural Park. The survey identified amongst other things 26 spawning fish species only in the site of Malanza, including four new to the country. Current threats to mangrove sites in STP include the existence of barriers constraining tidal flows and the link between terrestrial and marine environments, overexploitation, introduced species and land-use intensification. Besides the ecosystem services already mentioned, mangrove forests are of increasing importance as destinations for tourists, who use services offered by local communities such as guiding, canoe tours and little restaurants, thereby contributing to rural livelihoods and economic diversification. It is estimated that the site of Malanza is visited by 400 tourists each year.

**Activity 1: 23,000 hectares of natural forestland restored and sustainably managed in degraded areas of STP.**

The assessment and mapping exercise led by DFB for the development of the FLP plan under Activity 1 is the **starting point** for the restoration and sustainable management of approx. 23,000 hectares of forest land, of which approx. 15,500 on São Tomé and 7,500 on Príncipe. Over the past two years, DFB engaged in a participatory mapping exercise with local communities, NGOs, research institutions to draw the exact boundaries of the FLR areas identified during project development phase in the various districts and refine the FLR activities. This involved the organisation of stakeholders' meetings to identify desirable landscape features that should be conserved, problems with the current landscape management and the potential benefits of restoration. At the end of the process, and combining desktop data, field work, and consultation, DFB mapped the four target landscapes where FLR work will be undertaken, and produced FLR plans including: (i) the aim and objectives of the FLR interventions; (ii) a clear statement of the expected benefits from the FLR interventions, (iii) a description of the sites to be restored; (iv) the specific restoration measures and methods that will be used, including provisions for post-restoration maintenance needs and monitoring; (v) implementation schedule, agreeing on the role of each partner and detailing who will be responsible for each FLR task and calculation of the labour required to complete each task; (vi) a detailed budget of planned interventions. The following landscapes have been identified:

1. Northern Landscape, on São Tomé Island
2. Central Landscape, on São Tomé Island
3. Southern Landscape, on São Tomé Island
4. Landscape on the island of Príncipe

More specifically, the FLR initiatives identified during design phase include:

- **Approx. 9,000 hectares** of medium and lightly degraded native forests mainly in the buffer and core zones of PNST in the above-mentioned districts will be restored through enrichment planting with native, high-ecological value tree and bush species, assisted regeneration, eradication of invasive species, and the construction of small structures (check dams, improvement of agricultural patches through proper terracing and other measures, and improvement of the dirt roads network).
- Approx. **2,500 hectares** of seriously degraded forest and pastureland surrounding the site of Praia das Conchas will be restored through assisted natural regeneration. This action will also focus on the conservation and management of the Baobab tree (*Adansonia digitata*, locally known as Micondó) which has outstanding landscape, cultural, and tourism interest, and on fire prevention measures.
- Approx. **4,000 hectares** of seriously degraded savannah, pastureland and woodland in the northern portion of São Tomé island (Districts of Lobata and Lembá) will be restored through assisted regeneration, the plantation of fast growing tree species with an interest for agro-silvo-pastoral economy, and fire prevention measures.
- **Approx. 5,000 hectares** of medium and lightly degraded native forest on Príncipe will be restored through species enrichment and the eradication of invasive species, mainly oil palm *Elaeis guineensis*.
- **Approx. 2,500 hectares** of seriously degraded forest on Príncipe will be restored with the planting of a mix of fast-growing species, species with economic interest such as the coconut palm *Cocos nucifera*, and native slow-growing trees.

DFB is responsible for producing the seedlings needed for this action and has put all its nurseries at the disposal of the project. A seedling production plan was prepared, and DFB is being assisted by the project in the upgrading of existing nurseries and the construction of new ones, and in the procurement of equipment and services needed for seedling production (cold storage, machinery, substrate, biodegradable bags, scissors, hooks, etc.). When it comes to variety, the target of the project is to substantially increase the number of species currently used for FLR work in STP, by at least doubling the 3-5 species used by DFB as an average: an increased species diversity will improve the ecological functionality of the ecosystem, its economic value both in terms of timber and NWFP, and its resilience. The FLR plans will be implemented on the ground under the leadership of DFB, and with the involvement of the District authorities and the communities of the sites, the agriculture cooperatives, NGOs and other local actors.

**Activity 2: 600 hectares of the mangrove sites in STP restored and managed for conservation and recreational purposes.**

Several studies and research were produced in the past years, especially for the mangrove sites of Malanza and Praia das Conchas – both on São Tomé island. These documents are the baseline used by DFB for the elaboration of the FLR interventions in mangrove sites located on São Tomé. With the help of the local authority, DFB and DSRF, in collaboration with PNP, will also carry out a similar participatory assessment in the mangrove sites of Príncipe, which have an estimated size of approx. 400 hectares. Because all mangroves are located in the core zones of the national parks, the restoration work will be carried out in close collaboration with the authorities of the protected areas, and with the involvement of other partners, such as the NGOs Alisei, MARAPA, “Leigos para o Desenvolvimento”, and Jalé Eco-lodge (Malanza), or Príncipe Trust and HBD (Príncipe). The FLR plans include all or most of the following measures, identified during the early assessments: (i) marking of the boundaries of the sites; (ii) improvement of access trails; (iii) restoration of the most degraded parts of the ecosystem through plant enrichment (*Rhizophora*, *Avicennia*) and land modelling to remove structural barriers and facilitate the water natural flow dynamics on which mangroves depend; (iv) adoption of good agro-forestry practices in the lands surrounding the sites; and (v) education and awareness raising actions for nearby schools and communities. DFB and PNST/PP have committed

to give priority to patrolling and surveillance in the mangrove sites, to prevent degradation of this sensitive ecosystem from the increasing flow of tourists. Exchanges of information and areas of collaboration on this specific action are also ongoing with the TRI NCP of Guinea-Bissau, which largely focuses on mangrove restoration.

**Activity 3:** 7,150 hectares of shadow forests supporting high-quality agro-forestry plantations restored and sustainably managed in the buffer zones of Obo and Príncipe Natural Parks.

The FLR work in the shadow forests of the high-quality cocoa, coffee and pepper plantations is implemented as a partnership between DFB and the concerned cooperatives: CECAB, CECAQ11, CECAFEB and CEPIBA. During the project development phase, the team and the cooperatives identified approx. 7150 hectares of shadow forest plantations where the improvement of the forest ecosystem is a priority. Of these, 4,437 ha are managed by CECAB (38 communities and 8,556 beneficiaries), 2,185 by CECAQ11 (18 communities and 4800 beneficiaries), 460 ha by CECAFEB (14 communities and 1156 beneficiaries) and 64ha by CEPIBA (15 communities and 1148 beneficiaries). According to this estimate, 15,600 people belonging to 85 communities of the four PAPAC cooperatives will benefit of the shadow forests restoration interventions of the project.

The PAPAC cooperatives play a critical role, acting as a liaison between the farmers and communities, and DFB, providing part of the materials for the setup of small nurseries, integrating the restoration actions into their annual work plans, and monitoring the forest restoration interventions on a regular basis. DFB will supply the communities with most of the required materials and will organize training courses for representatives of the communities to develop their capacity to carry out the work. Priority will be given to the involvement of women and youth of the communities. The FLR process includes the adaptation/upscaling of the existing nurseries used by the cooperatives for the production of crops and shadow trees, and set up new nurseries for the production of both fast-growing species (native and non-native species that are not invasive) and native/endemic trees. The cooperatives have a long track record of producing shadow trees and their capacity should mainly be built on the production of those species for which they lack experience. The FLR work will be implemented by the communities themselves and it includes a mix of measures such as: increasing the density of the shadow forests with the plantation of both fast and slower-growing species, assisted regeneration in those areas most threatened by soil erosion and loss of fertility, eradication of invasive species, and the construction of small structures to stop or reverse soil degradation (check dams, land profiling, improvement of the dirt roads network). Throughout this process, DFB will keep building the capacity of the cooperative members to monitor the effectiveness and impact of the FLR work (survival rates, health of seedlings, environmental impact).

## **Part F: Identification of Any Non-Eligible Activities**

**F1** Describe any additional activities to be supported or implemented by the project

- Pilot project for the use of portable sawmills to improve the harvesting of trees, making full use of felled logs, and introduce sustainable tree harvesting plans that include planting of new seedlings and restoration of the harvesting areas.
- Improved harvesting of and market access for NWFP through support to community project, focusing on the value chains of wild honey and ground snail
- Implementation of “bankable projects” on sustainable agro-forestry, through a grants scheme targeting small and medium sized enterprises.
- Policy work to improve the policy framework and introduce new laws and regulations that are conducive to an upscaling of FLR work in the country.

- Support to the national banking sector to improve financial framework related to FLR and agro-forestry and access of SME to loans and incentives.

## Part G: Long-Term Sustainability Drivers

### G1 Description of project design that will ensure the project is self-sustaining after carbon/PES revenues cease

The project has been designed to remove identified barriers and create an enabling environment for the implementation of community-based FLR and sustainable forest management. It is expected that by the end of the project, institutions, communities, private enterprises and other stakeholders will be able to give continuity to the activities undertaken by the project. Factors that encourage sustainability in its social, environmental, economic, and capacity-building dimensions are listed below:

#### Social Sustainability and Gender Equality

In the context of the project development phase, a social and gender analysis was carried out, in order to make the proposed project interventions more people-centred and socially inclusive, by ensuring a close fit with local contexts, culture and livelihoods, and to safeguard the interests of the weaker sections of the population, including women. A key challenge to social sustainability in FLR projects is the development of the communities' capacities to access forest resources in an equitable and sustainable way and to take active action in the implementation of FLR work and forest management plans. This challenge will be addressed by ensuring that all participation is voluntary, that all user groups especially women are represented in the process of design of the FLR plans and in the actions to promote economic diversification, that women entrepreneurs and institutions with a balanced gender component are involved in the development of bankable projects, and that the capacity development work promoted by the projects targets a balanced and equitable share of social groups, with a special focus on women and youth.

The project will intentionally promote gender equality. Typically, women in STP are mostly involved in small and medium size business based on the collection and processing of NWFP. With women represented in the participatory processes to design FLR interventions, they will have a say in the development of a hierarchy of relative value of each tree species to be applied in the plans. Participatory forest management allows all forest user groups to have their say over how the forests are used – and for each of them to defend their interests through the governance systems put in place. A minimum quota of 1/3 of women will be required for the setup of the FLR platform to be established under Component 1, while all the CD programs delivered will ensure that at least 1/3 of the participants are women. At the community level, as documented in the baseline assessments, women's participation in community forestry and decision making processes is quite healthy: the project will sustain this and will work to improve it further. Gender and social equitability criteria will also be paramount in the selection of the partner enterprises and organizations for the development of public-private partnerships for nationally-implemented bankable projects under Outcome 3.2 of the project.

Women are highly affected by lack of energy in São Tomé and Príncipe. Women are usually employed in precarious and/or labour-intensive productive activities and spend more time in household management where use of electricity is high. In addition, the transformation of agricultural products that require energy, such as cacao and coffee, is heavily dependent on the seasons. Specifically, the rainy season affects produce drying and requires the substitution of drying machinery, which in turn requires increased electricity consumption. These dynamics, combined with a high tariff and low service quality, result in higher negative impacts on women's income-generating activities and potential. The

partnership between the project and the WB Power Sector Recovery Project will thus enhance gender value and considerations.

### **Indigenous People**

The islands São Tomé and Príncipe do not hold any population of indigenous people as these are commonly defined, because both islands were uninhabited until Portuguese explorers arrived in the 15th century, bringing African slaves with them. The current population of the countries is usually divided into the following categories: (i) Mesticos are descended from African slaves and Europeans, and are also known as filhos da terra, meaning 'sons of the land', (ii) Forros are the descendants of slaves freed at abolition; (iii) Serviçais are contracted African plantation laborers from elsewhere in Lusophone Africa - Angola, Mozambique and Cape Verde; (iv) Tongas is the term describing their children, born on the islands, (v) Angolares are said to be descended from the Angolan survivors of a 16th century shipwreck, and are a traditional fishing people. The sixth group comprises Europeans, mostly Portuguese.

### **Environmental Sustainability**

The project promotes good management of ecosystems to contribute to sustainable use and the reduction of deforestation and land degradation. In this way, the project directly contributes to environmental sustainability. The project aims to demonstrate how the forests and lands of STP can be managed to secure their essential ecosystem services, the production of commodities based on a sustainable and inclusive economy, and for carbon sequestration. The project will be implemented in areas under severe threat of degradation and in a particularly fragile environment -that of a small island state - which is highly vulnerable to the impacts of climate change. The sustainable management of mangroves will have far-reaching positive impacts on sectors such as artisanal fisheries. This project will intensify efforts to manage forests sustainably ensuring the flow of ecosystem services and supporting the diversification of the rural economy. Pressures on the forests will be reduced by improving the efficiency in the use of resources - including providing alternatives to unsustainable/illegal tree felling, minimizing the waste of biomass and improving the harvesting of NWFP. This coupled with assisted natural regeneration and other FLR techniques will allow the rehabilitation of native vegetation as well as sustainable agriculture. Environmental sustainability will also be enhanced by the project's emphasis on integrating resiliency planning into all restoration investments. Thanks to the support of TRI, collaborative, stakeholder-driven forest and landscape restoration planning with the best science and analysis on how resiliency to anticipated climate impacts can be strengthened in restoration investments.

### **Economic and Financial Sustainability**

The financial and economic sustainability of the project will be achieved to the extent that these activities are financially and economically viable for the parties involved, including beneficiaries at the community levels, and the private sector. The restoration of productive agro-forestry ecosystems, such as shade plantations or mangroves, will support and improve the economic activities that depend on their functionality (high quality agriculture productions, fisheries, but also tourism). Economic sustainability will also be ensured through the maintenance and improved use of forest wood and non-wood products and ecosystem services upon which livelihoods of poor community groups rely. Forest and landscape restoration plans will be designed and implemented with the communities in order to ensure that the needs and the aspirations of these communities are met. The achievement of a more favourable framework for FLR financing through Component 3 will also contribute to keep supporting and upscale FLR in STP.

## **Sustainability of Capacities Developed**

Sustainability will be enhanced by the project's capacity building efforts and support for key institutions who will be responsible for carrying on the project work following project closure. The empowerment of the Directorate of Forests will be instrumental at this respect, as the mainstreaming of FLR know-how in this institution will facilitate the long-term provision of the minimum level of ongoing support services to grassroots beneficiaries and stakeholders that is the key challenge to sustainability. The involvement of the PAPAC value chain cooperatives- increasingly solid socio-economic actors in STP – will also contribute to sustainability. Sustainability of outcomes will be strengthened by the project's efforts to engage and catalyse private sector investment in restoration – further demonstrating the potential for restoration to provide a strong return on investment.

### **HUMAN RIGHTS BASED APPROACHES**

The project complies with the HRBA in the sense that it supports both communities right to food, and a decent employment. Land restoration is closely link to food security as it allows to bring back the good functioning of ecosystems that provides numerous services to local communities. For instance, the improvement of agro-forestry system will ensure improved production, and in a sustainable manner that can be sustained in the long term, which will contribute to enhancing the food security of local communities.

The project will also contribute to offering local communities decent employment through the development and strengthening of economically viable and environmentally sustainable bio-enterprises, which will contribute to improving local communities' livelihoods in the long term.

### **CAPACITY DEVELOPMENT**

The project development phase highlighted several capacity gaps at both individual and organizational levels, especially related to the nature, scope and complexity of Forest Landscape Restoration, the concept of ecosystem services and the mechanisms of payment for ecosystem services (PES). This lack of capacity is mainly due to: (i) the fact that no previous project/initiative has dealt with these concepts in a comprehensive way in STP; (ii) the relative isolation of STP and the language barriers that prevent the circulation of lessons learned and good practices. The development phase also identified gaps for the establishment of an enabling environment to the implementation of FLR and sustainable agro-forestry, including the lack of sound regulatory and policy frameworks, weak political commitment, and the absence of financial measures and products to support FLR. All these gaps will be tackled through the capacity development work that is strongly embedded across the work plan of the project.

## **Part H: Applicant Organisation & Proposed Governance Structure**

### **H1 Project Organisational Structure (PV requirements 3.1-3.6)**

The Ministry of Agriculture and Rural Development (MARD) is the institutional anchor of the proposed project. For all activities to be implemented in the island of Príncipe, the MARD works in close coordination with the relevant bodies of the Autonomous Region of Príncipe. MARD is the main executing partner through the Directorate of Forests and Biodiversity (DFB), which works in close collaboration with other relevant ministries (Ministry of Infrastructure, Natural Resources and Environment, Ministry of Finance, Commerce and Blue Economy), participating institutions, local NGOs, related programs and projects and FAO.

Operational partnerships are in place with: (i) other branches of the GoSTP (management bodies of PNST, MINRA, Autonomous Region of Príncipe); (ii) private sector enterprises (ABS, SATOCAO; HBD); (iii) national and local NGOs (FONG, Alisei, Quà Tela, Monte Pico); (iv) the cooperatives of the cocoa, coffee and pepper value chain established through PAPAFPA/PAPAC (CECAFEB, CECAQ11, CECAB and CEPIBA); and (v) the communities of the areas where the FLR is carried out on both islands, mostly of them located in the buffer zones of PNST and PNP.

The Food and Agriculture Organization (FAO) is the GEF Agency responsible for supervision, and provision of technical guidance during project implementation. FAO is also responsible for the financial execution of the project in full consultation with MARD.

The Directorate of Forest and Biodiversity (DFB) of MARD is the institutional actor responsible for overall policy direction and project supervision. The DFB hosts the Project Management Unit headed by a National Project Coordinator (NPC) and supported by a Chief Technical Advisor (CTA), a technical officer, a M&E Specialist and a financial and administration officer. The DFB ensures the contribution of the Government to the project and will be fully accountable for the delivery of project results in accordance with the project document. The DFB participates in the selection of consultants and contracts in accordance with FAO rules and procedures.

A Project Steering Committee (PSC, COPIL in Portuguese) is chaired by MARD. The PSC provides general oversight on the execution of the project and ensures that results are being achieved. The PSC, more specifically:

- i) provides guidance to the Project Management Unit (PMU);
- ii) ensures that all project activities and outputs are in accordance with the project document;
- iii) reviews, amends (if appropriate) and endorses all Annual Work Plans and Budgets of the project;
- iv) reviews project progress and achievement of planned results as presented in Project Progress Reports and Financial Reports;
- v) provides inputs to the mid-term review and final evaluation, review findings and provide comments;
- vi) advises on issues and problems arising from project implementation, submitted for consideration by the Project Management Unit or by various stakeholders;
- vii) Ensures full and fruitful integration of the STP National Child Project in the wider TRI, also through a constant liaison with the Global Child Project of TRI;
- viii) facilitates dissemination and integration of project outcomes into national policies and programmes as appropriate; and
- ix) facilitates collaboration amongst stakeholders and ensure the timely availability of co-financing sources.

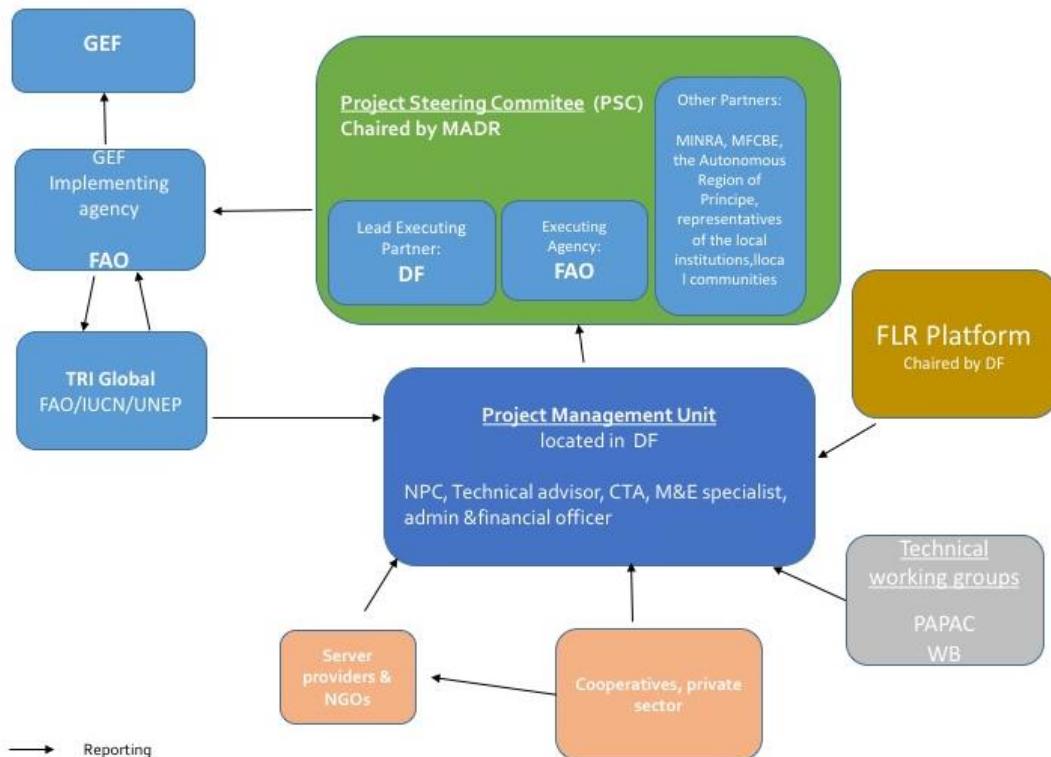
Membership of the PSC includes representatives from the Ministry of Infrastructure, Natural Resources and Environment (MINRA), the Ministry of Finance, Commerce and Blue Economy (MFCBE), the Autonomous Region of Príncipe, representative of the PAPAC and the PSRP projects, and representatives of the local NGOs and private sector institutions involved in the project, representatives of local communities, and FAO.

A Project Management Unit (PMU) is based in São Tomé. The PMU is staffed with a full-time National Project Coordinator, a full-time Project Technical Assistant, an Administrative Assistant, a driver, and short-term consultants paid by the project. An international specialist appointed by FAO on a part-time basis supports the project with the title of Chief Technical Advisor (CTA) to provide technical support to the PMU through frequent visits to STP and remote assistance from his home location. The PMU, under the direct supervision of DF and FAO, is responsible for the day-to-day management of the project and timely and efficient implementation of and monitoring of approved annual work plans.

1 More specifically, the PMU, with the assistance of the CTA, plays the following functions:

- i) Act as secretariat to the PSC;
- ii) Organize project meetings and workshops;
- iii) Prepare **Annual Work Plans and detailed Budgets (AWP/B)** and submit these for approval by FAO and the PSC;
- iv) Coordinate and monitor the implementation of the approved AWP/B;
- v) Prepare **six-monthly Project Progress Reports (PPRs)** and give inputs in the preparation of the annual **Project Implementation Review (PIR)** by the FAO Lead Technical Officer. Ensure that all co-financing partners provide information on co-financing disbursed during the course of the year for inclusion in the PIR;
- vi) Ensure coordination and integration with TRI and its GCP;
- vii) Coordinate the project with other related on-going activities and ensure a high degree of inter-institutional collaboration; and
- viii) Assist in the organization of midterm review and final evaluation.

The diagram below summarises the institutional arrangements of the project



#### Execution of technical components

**H2      Applicant organisation (not necessarily the project coordinator) must provide the following information about itself:**

The Applicant Organisation is the Ministry of Agriculture and Rural Development (MARD) of São Tomé e Príncipe, through its branch the Directorate of Forests and Biodiversity (DFB). The Forest Law (Law N.5/2001) entrusts the management and conservation of all forests to DFB, which operates on the Island of Príncipe through its regional branch under the supervision of the Regional Authority of Príncipe. Pursuant to article 6 of Law no. 5/2001, it is primarily the responsibility of DFB, among others to: (1) create forest nurseries, including with fruit trees for restocking forest and fruit species, (2) encourage re-growth community level, as well as supporting the creation of non-profit organizations dedicated to the protection of nature, (3) conduct research with a view to restoring or the conservation of the balance of the forest ecosystem, as well as the increase of forest production, (4) analyze restocking projects and management plans forestry issuing licenses.

Since its setup, DFB (formerly DF, Directorate of Forests) has been leading all projects and actions related to the management, exploitation and conservation of forests in the country, acting as the official counterpart of international donors and organisations (European Commission, UNDP, FAO, Foreign Aid Agencies and NGOs). DFB is also the recipient and manager of the National Forest Funds (Fondo de Fomento Florestal, FFF), created with the aim of collecting revenues from forest exploitation and felling licences, to reinvest them in forest management and conservation. Unfortunately, the FFF so far has failed to fulfil its purpose of being a robust financial instrument for the implementation of policies and management actions. The TRI-STP project is currently working with MARD to re-assess the FFF and improve its effectiveness.

DFB is the main counterpart of FAO in the implementation of the GEF-TRI project, and it is currently involved in other internationally-driven interventions, such as the project ECOFAC-VI (European Union, BirdLife International) and the GEF project “Legal and Institutional Capacity Development for the Mitigation of Soil Degradation and Deforestation in São Tomé & Príncipe” implemented by UNDP.

## **Part I:      Community-Led Design Plan**

**I1      Submit a plan for achieving community participation in the project, including a mechanism for ongoing consultation with target groups and producers  
(PV requirement 4.1)**

During project development, the project development team met a broad range of stakeholders at the national and local/community levels on both islands, to identify and prioritise project sites, brainstorm on the actions, seek consent to the build-up of partnerships, gather information and validate the project design. Specific activities included the following:

Inception workshop (IW). The IW took place in the capital city of São Tomé on 9 November 2016, with the participation of the GEF Project Design Expert and Representatives of FAO (Rome, Libreville and STP). The objective of the IW was to introduce the project and the project development team, review proposed project preparation activities, review and assess other current initiatives relevant to this project, identify potential co-financing, endorse the project preparation approach, and trigger a preliminary debate on the objectives, scope, and actions of the project.

Stakeholders' Consultations (SC). Several rounds of consultations took place between December 2016 and May 2016 with local stakeholders at proposed project sites to obtain their perspectives on project activities and ensure that the project would meet their needs. The SC were carried out by the three National Consultants, plus the International Consultant appointed to work on FLR Financing (mission

on 1 to 9 February 2017), and the GEF Project Design Expert (mission 28 February to 7 March 2017). The consultation can be divided into three categories: (i) one-to-one meetings with specific stakeholders; (ii) meetings with focus groups (NGOs, private operators in the fields on tourism and NWFP/agroforestry, value chain cooperatives, financial operators); (iii) meetings with rural communities in the villages. The meetings with communities were designed to create an informal atmosphere to make community members at ease. Community leaders were approached in advance and asked to gather representative groups, making sure that women and young people would be equitably represented. The discussions were facilitated by national consultants with an experience in community participation work, who encouraged the participants to identify opportunities and risks related to the future project, express their wishes and concerns, and prioritise actions and interventions.

Peer Consultations (PC). Several consultations took place with national and international institutions responsible for related initiatives, to explore coordination arrangements. These included: UNDP, IFAD, World Bank, ministries and directorates of the GoSTP, private companies (Agripalma, Satocao, HBD, DI etc.), and NGOs.

Validation Workshop (VW). Two VW were held in São Tomé (28 June 2017) and Príncipe (30 June 2017) to review and verify/endorse the project design, secure co-financing commitments, finalise implementation arrangements and proposed project budget.

The outputs of these activities were consultation reports with list of participants, which were used to inform the project development exercise. Whenever possible, at least two meetings were organised for each priority stakeholder, the first one at the early stage, and the second towards the end of the project development process. The team felt a very positive attitude towards the project, with high participation and lively discussions. No major concerns were raised by the interviewees. Among the most frequent recommendations: (i) ensure coordination with on-going initiatives and avoid duplication; (ii) build on past achievements and learn from mistakes and experiences from past projects; (iii) ensure empowerment of local actors and grassroots beneficiaries; (iv) fill capacity gaps through specific training; (v) maximise the use of national expertise and resources; (vi) ensure equal participation of men and women; (vii) work on both islands.

#### Grievance Mechanism

As part of the Project inception phase, in line with the human rights based approach, suitable consent is planned to be reached by all parties involved, notably local communities, on the various project aspects. For this reason, no grievance mechanism has been set up yet as this is planned to be discussed and agreed with local parties. In this regard, it is planned that during the inception phase the project will adopt a set of progressive steps to ensure Free Prior and Informed Consent of local communities is reached, including on grievance mechanisms.

The project will first finalize the identification of local communities and their representatives that may be affected by the project and it will therefore document through a participatory mapping their geographic, demographic and socio-economic situation. After having identified the concerned stakeholders, a participatory communication plan will be designed to ensure discussion as well as access to information throughout the project. Based on the agreed plan the project will proceed to the identification of needs that are to be included and taken into consideration and agree on a feedback and complaint mechanism.

The project, thorough the design of the participatory communication plan will make available appropriate and inclusive channels for feedback and complaints for indigenous people and local communities throughout the project life cycle.

In particular the project will ensure that concerned communities will agree on (i) how to receive and register feedbacks and complaints; (ii) how to review and investigate complaints; (iii) conflict resolution options that are satisfactory to all parties; (iv) how feedback and complaints resolutions will be monitored and evaluated by all parties; (v) how to inform communities about government adjudication

processes and access to justice and (vi) how to formalize, document and publicize the feedback and compliant process.

## Part J: Additionality Analysis

### J1 Description of how project activities additional (PV requirement 5.4)

Since its inception, the TRI-STP initiative has been very concerned about the long-term sustainability of its intervention, and – more broadly – of the capacity of the STP society to develop a solid economy that revolves around the sustainable management of its forests.

TRI-STP is engaged in several actions supporting local communities to: (i) develop a self-sustaining network of small and medium sized business related to sustainable forest exploitation (non-timber forest products, energy, responsible tourism services) and (ii) reduce their impact on the sensitive forest ecosystem without hampering the improvement of their livelihoods (energy efficiency, technological innovation).

Carbon finance is a key component towards the achievement of this sustainability goal and the long-term incentivisation of the shift towards a harmonic coexistence between forest ecosystems and rural communities and, above all, an important opportunity to “gain independence” from short-term international projects that depend on volatile policies and on large international donors.

By creating a framework of collaboration between DFB and local communities, the carbon finance scheme will also help consolidating the institutional role of the governmental body in charge of the conservation and management of forests and will foster a spirit of collaboration revolving around mutual financial benefits, as opposite to the negative “controller-controlled” dynamics that sometimes tend to prevail.

The flow of carbon finance would on one hand, (i) help consolidate the sustainable business initiatives started by the TRI-STP projects at the community level, and on the other, (ii) support the outscaling and replication of these initiatives, involving other communities and improving the networking among small producers and entrepreneurs.

## Part K: Notification of Relevant Bodies & Regulations

### K1 Provide both of the following (scanned copy of letter, or email):

- Evidence of notification of the relevant national regulatory body of the project proposal (e.g. national climate change focal point, Ministry of Forestry, Dept. of Environment, REDD+ Agency, etc.)
- Statement of intention to comply with all relevant national and international regulations

In 2012, the National Committee for Climate Change of STP was created for the implementation, coordination, monitoring and evaluation of the United Nations Framework Convention on Climate Change. The Intended Nationally Determined Contribution (INDC) released in 2015 takes into consideration that the country is already a sink of greenhouse gases. In addition, the country shows vulnerability and fragility conditions as a developing small island state, for which the negative impacts of CC are evident in all sectors of the national economy, such as: Agriculture and Livestock; Forest and Soil; Water, Energy and Fishing; Coastal Zone and Population; Health and Education.

Being a LDC, STP requires external support to implement a CC resilient development. Depending on the availability of such support, the INDC identifies the “development of a national program for sustainable management of the forest and agro forestry ecosystems” as a top priority, and plans to “promote forestry / planting of species resistant to dry and low rainfall by 2030”.

As the project is developed together with government institutions all relevant national regulatory bodies have been identified. The project is a collaborative approach which seeks to include relevant stakeholders in the planning and implementation of the project.

The workshops, meetings, and field visits during project preparation coupled with the feedback received in the inception and terminal workshops helped identify the stakeholders and the different roles they are expected to play in the project. The main stakeholders can be grouped into five main categories: government institutions; local stakeholders, NGOs, private sector, and international development agencies.

*Table 6. Stakeholders and their main roles*

| Stakeholders  | Main Roles  |
|---|---|
| Directorate of Forests  | Lead the planning and implementation of FLR actions, production of FLP; trainers of local partners; users and managers of the SNMFP; beneficiaries of training; member of the PFLR; production of education and technical materials.                                |
| IFAD/PAPAC project  | Planning, implementation and monitoring of FLR work under Output 2.2.1; beneficiaries of training; member of the PFLR.  |
| WB/PRSP project   | Planning, implementation and monitoring of FLR work under Output 2.1.2; beneficiaries of training; member of the PFLR.  |
| Water and Electricity Enterprise of STP (EMAE)                          | Planning, implementation and monitoring of FLR work under Output 2.1.2.   |
| Ministry of Agriculture and Rural Development (MARD)                    | Main project partner (through DF); member of the PFLR; beneficiaries of training.   |
| Other relevant Ministries (MINRA, MFCBE); Autonomous Region of Príncipe | Member of the PFLR; beneficiaries and providers of training; validation of FLR plans; key partners for OP 1.2. Implementation of parts of Component 2.  |
| National Institute of Meteorology                                       | Member of the PFLR; beneficiaries and providers of training.  |
| Natural Park Authorities  | Development, participation and beneficiaries of FLR actions, beneficiaries and providers of training; member of the PFLR.   |
| District authorities  | Participation in FLR actions, beneficiaries of training; member of the PFLR.  |
| PAPAC value chain cooperatives  | Planning, implementation and monitoring of FLR work under Output 2.2.1; participation in FLR actions, beneficiaries and providers of training, member of the PFLR; beneficiaries and leaders of Output 2.2.2; Potential partners and beneficiaries of Output 3.2.2. |
| Communities and Community Associations                                  | Participation and beneficiaries of FLR actions; participation and beneficiaries of income generation activities of Output 2.1; beneficiaries of training, member of the PFLR.   |
| Local research and high education institutions including CIAT and CATAP | Beneficiaries and providers of training; technical assistance for FLR design, implementation and monitoring; members of the PFLR.   |
| FONG-STP  | Beneficiaries and providers of training; possible management of the Info Hub (Output 4.2.1).  |
| Local NGOs  | Potential partners and beneficiaries of Output 3.2.2; Participation in FLR actions, beneficiaries and   |

|  |   |
|--|---|
|  | providers of training, outsourcing of specific parts of the work plan; members of the PFLR; possible management of the Info Hub (Output 4.2.1).       |
| Banks Association of STP (ASB)                                 | Main partner under Output 3.1.2; beneficiaries of training; member of the PFLR.   |
| Small and Medium Size Enterprises                              | Potential partners and beneficiaries of Output 3.2.2; beneficiaries and providers of training.  |
| Large national and foreign companies (Satocao, Agripalma, HBD) | Potential partners and beneficiaries of Output 3.2.1; beneficiaries of training; members of PFLR.   |
| Other UN agencies active in STP (mainly UNDP and UNEP)         | Exchange of information and best practices; collaboration on specific action of Component 2; beneficiaries and providers of training; members of PFLR |

## Part L: Identification of Start-Up Funding

**L1** Provide details of how the project will be financed in the development phase, before full project registration

*Start-up funding is an internal issue for project developers. However, start-up funding can be a significant hurdle for new projects as carbon finance only becomes available after technical specifications have been developed, community training undertaken, and multiple other costs such as hiring staff, travel and external consulting costs have been incurred. Therefore projects are encouraged to consider potential funding sources at an early stage.*

The project has been designed as a way to provide continued financial support to the FLR work promoted by the TRI project beyond the finalisation of the GEF funding in 2024. Revenues from carbon finance will be one of such option, together with the take-off of bankable projects on sustainable value chains and agroforestry, and renewed support from FAO through other internationally funded projects. Meanwhile, the TRI project will support the development phase, also by trying to engage other international projects (i.e. BirdLife International, EU) that have expressed interest in this initiative. A specific budget line with limited funds has been included in the TRI project to support this development stage.