

SAO TOME & PRINCIPE

Integrated Ecosystem Approach to Biodiversity Mainstreaming And Conservation in the Buffer Zones of Obo and Principe Natural Parks



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ISSUES

Sao Tome and Principe has experienced a pernicious over-exploitation of its forest resources in recent years. Forest degradation is caused by: i) cutting of forest trees for construction purposes; ii) the over-exploitation of shade forest species with high commercial value; iii) encroachment on forested areas to produce fuel wood; iv) escalation in the number of loggers using chain saws and causing massive waste in the processing of wood; v) deforestation on mountain slopes to plant food crops, thereby increasing the incidence of erosion and further degrading the forest.

Coastal mangroves are also one of the most threatened habitats in Sao Tome and Principe. These fragile ecosystems are amongst the most biodiverse in the country and provide critical services, including natural protection against coastal erosion, and spawning grounds for fish and other marine species. In turn, the reduction of fish stocks due to mangrove degradation has a negative impact on the livelihoods of artisanal fishermen. 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.

In addition, coastal fisheries resources have experienced a constant and substantial decrease. The depletion trend is due to overexploitation, and the replacement of traditional fishing techniques with unsustainable practices, such as grenades, inadequate meshes on fishing nets, and fishing with scuba diving equipment. Professional artisanal fishermen are aging, while a new generation of inexperienced fishermen is emerging. These fishermen do not hold official licenses, and they engage in fishing as a complementary economic resource besides small-scale agriculture or other sources of revenue.

Climate change is also expected to have an impact on the agricultural and fisheries sectors in Sao Tome and Principe. Global climate model projections of future climate change predict that the mean annual temperature will likely increase by 0.8 to 2.4°C by



The Global Environment Facility (GEF) brings together 183 countries, the private sector, civil society organizations and international institutions to address global environmental problems. The GEF-IFAD partnership promotes win-win solutions to deliver both global environmental benefits as well as significant gains for rural poor people.



PROJECT SUMMARY

Total cost: US\$ 13.6m

Approved IFAD loan:
US\$ 8m

GEF grant: US\$ 5.3m

Government of Sao
Tome & Principe:
US\$ 0.29m

Beneficiaries'
Contribution: US\$ 0.1m

Project period:
5 years (2012-2017)

Executing agency:
International Fund for Agricultural
Development (IFAD)

Beneficiaries: 44
communities

Project objective: Promote
integrated ecosystem management
and increased income generation
through biodiversity-friendly production
and sustainable business in the buffer
zones of Obo and Principe natural
parks.

Model projections all indicate substantial increases in the frequency of days and nights that are considered 'hot' in the current climate. When it comes to precipitation, projections of mean annual rainfall averaged over the country indicate increases in total rainfall that falls in heavy events. This is consistent with farmers' perceptions that the climate is becoming increasingly hot and dry, with more unpredictable rain, which is having a negative impact on the main crops of the islands, especially cocoa and coffee.

ACTIONS

The project will address sustainable management in shade forests, marine areas, and mangroves in the buffer zones of protected areas (Obo and Principe natural parks) through the development of participatory management plans in five co-management areas, and the implementation of investments for integrated ecosystem management. The work plan of the project is shaped around two main components: i) Institutional support for biodiversity mainstreaming; and ii) Integrated ecosystem management for biodiversity conservation in Obo and Principe natural parks.

The two sites for the establishment of Managed Marine Areas (MMA) have been identified through an assessment of existing documents and recommendations (park management plans, technical documents of fisheries), and in consultation with the Directorate of Fisheries. The areas are located off the South-eastern coast of São Tomé (Approx. 1,000 hectares) and around the northern portion of Principe (1,000 to 1,500 hectares).

The main beneficiaries and target groups of the IFAD/GEF initiative are the poor farmers and fishermen of the communities around the buffer zones of Obo and Principe natural parks. The project aims to set up farmers' organizations on productive landscapes in the buffer zones and providing target communities with technical expertise and financial support for the production/processing and marketing of organic coffee, cocoa and pepper.

EXPECTED IMPACTS

Institutional Support for Biodiversity Mainstreaming

- An evaluation on the status of fish stocks within a range of 15 nautical miles around Sao Tome and Principe islands was conducted with the support of the Directorate of Fisheries. Efforts are

being made to implement the recommendations of the study.

- A Wildlife Decree that establishes legislation on hunting rights has been finalized and submitted to the relevant authorities for approval.
- New regulations on fisheries management have been produced and submitted to the Government for approval. The regulations establish a new organization for the Directorate of Fisheries and promote an integrated ecosystem approach in the fisheries sector.

Strengthened Legal Framework and Institutional Coordination for Biodiversity Mainstreaming

- Five co-management areas including 44 target communities, including 5,000 hectares of forest have already been defined through a public consultation process. Maps containing bookmarks through the use of GIS are already available. The project is currently undertaking the physical marking of boundaries .
- The project team has been trained to produce detailed GIS-based maps for each of the five co-management zones. The following layers are included in the maps: productive landscapes, crops, existing agroforestry measures and value chains, infrastructure (roads, tracks, community utilities, tourist facilities, areas threatened by human impact, biodiversity hotspots. The process will end with the delivery of 2 sets of GIS-based maps, one for each Park Buffer Zone, at a 1:25.000 scale minimum.
- The project is supporting a diversification of income-generating activities, as part of the co-management plans, which include: i) the expansion of existing certified organic and fair trade crops (coffee, cocoa, pepper); ii) new agricultural products (spices such as wild pepper and ginger, medicinal plants, mushrooms); iii) non-timber forest products; iv) the production of organic fertilizers and pesticides; v) agroforestry measures; and vi) the use of forestry by-products.
- Two marine management areas, covering 2000 hectares off the two islands of Sao Tome and Principe, have been identified and mapped.

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