

WWF MWIOPO's priority landscapes

Manambolo - Tsiribihina

Biodiversity Value

The Manambolo Tsiribihina landscape stands for approximately 70,000 ha of mangroves which are home to various endemic species listed in the IUCN red list such as the Madagascar fish eagle (Haliaeetus vociferoides, CR, and only 20 couples remaining), Madagascar sacred ibis (Threskiornis bernieri, EN), Humblot's heron (Ardea humbloti, EN), and the Bernier's teal (Anas bernieri, EN). The mangrove forests are contained in the Manambolomaty and Menabe- Antimena protected areas, both of which have temporary protection status. The mangrove ecosystems have important ecological functions and act as a production site for aquatic resources such as crabs, shrimps and fish: more than twenty species of fish, including four endemic species.

Strategic Value

The Manambolo Tsiribihina landscape includes the largest, most intact stretches of mangroves in the western Madagascar, one of the WWF's 35 Priority Places in the Global 200 ecoregions. The Manambolo Tsiribihina mangrove forests provide an array of ecological and economic functions, which support livelihoods of about 50,000 inhabitants.

It plays also an important role in carbon sequestration (forest and sediments). The Manambolo Tsiribihina landscape is an implementation site showcasing consolidation of communitybased mangroves management, improvement of communities' livelihoods and innovative approaches facing climate change.



Challenges and opportunities

In recent years, immigration to the area has become more pronounced and has resulted in overexploitation of fisheries and mangrove resources and increased clearing of mangroves for rice production. The Sakalava and Vezo ethnic groups rely on fishing, rice production, and animal husbandry, while they lack of organizational and technical capacity to properly manage natural resources; and this is worsened by inadequate governmental authority to address issues such as migration, land tenure conflicts, low literacy rate, access to markets, health and education services.

Since the recent discoveries, oil and gas development will be also an emerging issues for the all the Western coasts of Madagascar. The very high values of mangroves which underpin the Menabe/Melaky region's economy offer a sound justification to empower local communities and civil society

organizations. Previous WWF's work in the area has facilitated the establishment and increased ownership of successful community-based mangrove management. Apart the increased human pressures linked to growing human vulnerability, climate change is also a new threat to mangroves and is likely to affect the productivity and conservation values of these unique ecosystems. The development of community-based mangroves management has the potential to reduce degradation and uphold the integrity of mangroves, while addressing the socio-economic needs of local populations.

In addition, promoting the implementation of adaptation measures will help to strengthen the resilience of mangrove ecosystems and the local communities who depend on it.

Vision and Goals

Vision: By 2025, the mangroves ecological functions of the Manambolo Tsiribihina are preserved to ensure their integrity and contribution to the economic and social welfare of local communities.

- Goal 1: By 2016, mangrove habitat quality and populations of target species associated are maintained at their actual level;
- Goal 2: By 2016, the vulnerability of the Manambolo Tsiribihina mangroves to climate change has been assessed and adaptation plans are initiated;
- Goal 3: By 2016, the potential of blue carbon, as a sustainable financing mechanism to enhance conservation and human welfare is explored.

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WWF's role

WWF will promote biodiversity conservation through interventions that bring economic benefits to local stewards through an approach that combines community-based mangrove management, ecological restoration, climate change adaptation, livelihood enhancement, environmental

education, capacity building, and policy improvement.

In order to reach its goals, WWF will liaise with and support local and regional partners, civil societies and community based organizations.

Status of planning and Key Achievements to date

The Manambolo Tsiribihina mangroves are one of WWF's priority landscapes. Following Madagascar's commitment to triple its protected area coverage in 2003, a mangrove conservation programme was initiated in 2005. Since then, the main achievements include:

- The establishment of community-based mangrove management initiatives in Kivalo, Kaday, Bevavà, Antanandahy, Andramasay, Ambakivao and Beanjavilo totaling 15,000 ha, which include the most intact mangrove areas in the region;
- Building organizational, institutional and technical capacities of 7 community-based associations in the management of mangroves and associated resources;
- The emergence of public inter-communal cooperation organization (OPCI) Alokaina regrouping five communes and aiming at managing coastal and marine resources;
- Empowerment of the Regional Committee (CR-GIZC) regrouping actors involved in coastal management and the one dealing with fisheries and aquaculture;
- Developing extensive training in improved fishing practices and fish processing techniques to coastal villages in collaboration with local and regional partners such as the OPCI Alokaina, Lalanda Consortium, CREPA and the decentralized fisheries services (DRPRH);
- Integration of the 15,000 ha of community-based mangrove management into the new protected area of Menabe-Antimena;
- Contribution to the development of a mangrove management plan for the Menabe- Antimena protected area;

- Support of civil society organization network in leading regional advocacy process linked to the sustainable use of natural resources;
- Development of an Action Plan related to crab fisheries and market in collaboration with local fishermen, government institutions, local and regional authorities, private sectors and NGOs and project/programmes;
- 374,500 propagules effectively and efficiently planted in 2 years with the participation of local communities in eight villages in the framework of a community-based restoration programme;
- Community-based mangrove management and Climate Change programme objectives taken into consideration in the Regional Development Plan of the Region of Menabe;
- Initiation of literacy campaigns for Fishermen and CBOs;
- Building capacity among fishermen to improve the quality
 of their production, to have access to market and be able
 to establish a professional structure like a cooperative;
- Diversification of diet (linked to food security) through a feasibility study of beekeeping programme;
- Development of historical and projected data for the Manambolo Tsiribihina Landscapes;
- Assessment of the vulnerability of mangroves to climate change and the local communities who depend on it;
- Promoting pilot adaptation measures such as beekeeping and community based ecotourism;
- Climate change adaptation training for local authorities, NGOs, civil society and communities.

Partners and Stakeholders

- Regional authorities of Menabe and Melaky;
- District authorities of Morondava, Maintirano, Antsalova and Belo sur Tsiribihina:
- The rural communes of Bemanonga, Beroboka, Tsimafana, Belo sur Tsiribihina, Aboalimena, and Masoarivo;
- The Public Organism for inter-communal Cooperation (OPCI Alokaina);
- The decentralized technical services of Ministries of Environment and Forest, Fisheries, and Tourism;
- Community-based Organizations, fishermen associations and local NGOs (Saragna, Fanamby, Code, Lalanda Consortium, Fitame);
- Regional Commission on Fishing and Aquaculture (CREPA); Regional Committees for Integrated Coastal

- Zones Management (CR GIZC), Rural Development Working Group (GTDR);
- International NGO: Durrell Wildlife Conservation Trust, Louvain Cooperation, Blue Ventures Conservation;
- Regional Programmes: EU funded SmartFish Programme, Regional Fund for the Agriculture Development;
- National Centre for Training, Studies and Research in Environment and Forestry (CNFEREF).





Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature

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