



Mnazi Bay- Quirimbas Transfrontier Conservation Area

Sea turtles deftly glide beneath the surface, passing through the string of ocean pearls that are the Quirimbas Archipelago, visiting coral neighbours along the way and pausing their oceanic journeys to nest among the golden white sandbanks of the north-eastern coast. Travelling further inland, other denizens of sea and sky encounter mangroves, standing sentinel in with their bizarre root-arms in the air. This is an area of surreal beauty, clothed in fantastical wonder.

Countries	Mozambique, Tanzania
Area	8,150km²
Status	Category C: Conceptual TFCA

1. AN OVERVIEW OF THE PARK

In the southeast boarder of Tanzania and extending to the border of Mozambique, the Mnazi Bay-Ruvuma Estuary Marine Park (MBREMP) has an area of 650km²; Quirimbas National Park, stretches 110km along the northeast coast of Mozambique, and is constituted of the 11 southern most islands of the Quirimbas islands covering an area of 7,500km².

With a total area of 8,150km² and the high levels of connectivity, this coastline TFCA is a critical source and refuge for the dispersal and maintenance of reef diversity to downstream areas in the north and south on mainland coastal areas, and to the east side of the Mozambique channel. The complex is globally unique, acting as a critical node for supplying marine organisms to the East African coast (Kenya, Tanzania, Mozambique and northern South Africa).

2. NATURAL HERITAGE

The TFCA falls under the East African Coastal Forest and Scrub Biome. Climate is tropical, with the rainy season from December to April and dryer cooler season from May to September. Daytime temperatures range from 25°C to 35°C and the water temperatures fall between 24°C and 27°C.

This northern Mozambique coast experiences extremely high mixing due to cyclonic and anti-cyclonic eddies generated in the north of the Mozambique channel, and is defined by breakpoints to the north, where the East Africa Coastal Current touches the Tanzania coastline flowing north, and to the south where the narrowest part of the Mozambique channel induces changes in currents and upwelling features on the Mozambique coast.

Mudflats, salt pans, mangroves, rocky and sandy shoreline, coral reefs and seagrass beds which are host to many species all form part of this area. Mangrove forests have an integral part in coastal and marine ecosystems because they are highly productive, producing large quantities of organic matter that serves as biotic food; they are breeding and nursery grounds for invertebrates and fish. These forests trap river sediments that would otherwise smother seagrass beds and coral reefs, stabilizing the coastline by preventing shoreline erosion from wave action and changing sea levels. There are approximately 70km² of mangrove forest in the conservation area, accounting for nearly a tenth of all the



mangrove forests of Tanzania, with seven reported mangrove species.

Coral reefs within the Park are among the most diverse hard coral communities in east Africa. This high diversity is probably due to the influence of the South Equatorial Current and the park's complex range of proximate habitats. In total, 258 hard coral species have been identified in the park - coral fauna is dominated by species in the Acroporidae and Faviidae families.

There is a thousand-metre wide tidal expanse of thick, healthy seagrass beds along the northern end of the Msimbati Peninsula; ten species of seagrass have been reported in MBREMP, and are home to many marine biota.

Approximately 400 species of fish have been identified in the park. Although five species of turtle have been recorded, the most common species are green and hawksbill turtles, both of which nest in the park at various times of year. The IUCN has designated all turtles of the western Indian Ocean as endangered, with hawksbill and leatherback turtles considered critically endangered. Sea turtles are protected internationally under the Convention on International Trade on Endangered Species (CITES).

Several types of cetaceans also occur, including humpback whales, sperm whales, and four species of dolphin (common bottlenose dolphins, Indo-Pacific bottlenose dolphins, Indo-Pacific humpback dolphins, and spinner dolphins).

Avian fauna is understudied, but the area is recognised as an important birding area for shorebirds and waders. The park is home to a large population of crab plovers, although numbers seem to be declining. Other animals of interest include hippos, crocodiles and elephants.

3. PARKS AND COMMUNITIES

Around 30,000 people live in the MBREMP - these people depend heavily on marine resources. Local communities are represented through village councils; each council comprises representatives of the village community (e.g. village leaders, fishermen, farmers, hoteliers, forest users, etc.). The council empowers a village liaison committee to act on their behalf.

The Quirimbas National Park works with an existing and functioning technical working group and NGOs to engage community associations. This networking group has been operating since 2008.

Eco-tourism initiatives that have been establishing over the last few years provide training for local staff that are taken on as employees.

Building the capacity of communities to engage in sustainable use of resources as well as to adapt to climate change in ways that allow them to moderate potential damage are some of the key foci for community engagements.

4. TFCA MANAGEMENT PRIORITIES

The Mnazi Bay – Quirimbas TFCA is a conceptual TFCA that does not have a management plan yet, but aims to contribute to protected areas conserving the exceptional bio-geographical transition of the Swahelian /Maputoland region with the responsibility to improve management and conservation of both inland and coastal zones within one area while promoting sustainable use of natural resources by the local communities.

5. MAIN CHALLENGES

The abundance of coral genera that are vulnerable to bleaching is notable, particularly in the wake of bleaching that occurred in 1998 as a result of strong El Niño conditions, causing rises in sea temperatures and resulting in a decline in the reefs of Mnazi Bay by 30-50%. Evidence from this event is still apparent although

regrowth and re-colonization by hard and soft corals has been robust, this event demonstrated the susceptibility and resiliency of Mnazi Bay's reefs to seawater warming.

Increased sea levels and sea surface temperatures, which are the results of climate change, have been identified as already having major impacts on coastal and marine ecosystems. Impacts include coral bleaching, fresh water influx to corals, and dying of mangrove forests. On both the Mozambican and Tanzanian sides of the TFCA, communities have been trying to adapt to decrease in rainfall through their own efforts. Communities have tended to depend more on coastal resources and forests for construction, fire wood and timber which is posing threats to these coastal ecosystems. Another challenge the TFCA faces is the translation of climate change discourse to local languages to help facilitate explanations to communities. Over-fishing is also a challenge.

6. TOURISM INITIATIVES

There is a range of accommodation options from basic beachfront cottages to luxurious villas. Tourism is increasing as people learn about the TFCA. Strengthening tourism infrastructure and publicizing tourism offerings will help to provide sustainable income for park management.

7. LOOKING TO THE FUTURE

One of the key priorities for the park is the development of management plans and strategies to coordinate sustainability and conservation action plans.

It is an ongoing challenge to raise awareness among community members and TFCA/park staff on climate change effects and different adaptation strategies. The sustainable use of resources is an ongoing discussion with the local communities. Work is currently underway to rehabilitate selected coastal regions to re-establish climate resilience, as well as to introduce improved sustainable resource harvesting practices.

8. CONTACT DETAILS

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