

WWF International Corals Initiative

East African marine ecoregion

Geographic location: Somalia, Kenya, Tanzania, Mozambique, South Africa

Background

The East African marine ecoregion occupies a coastal and shallow marine area covering more than 480,000 km², and extending approximately 4,600 km along the continent's eastern coast. The ecoregion includes some or all of the territorial waters of each of the countries from Somalia in the north to South Africa in the south, as well as the international waters beyond the 200-mile Exclusive Economic Zone.

East Africa supports a great diversity of plant and animal life, including some of the Indian Ocean's most diverse coral reefs, mangrove forests, sand dunes, sea grass beds, globally significant marine and coastal habitats. The species diversity of the ecoregion is very high, with more than 1500 species of fish, 200 species of coral, 10 species of mangrove, 12 species of sea grass, 1000 species of marine algae, several hundred sponge species, and 300 species of crab. These share their seascape with endangered species higher up the food chain as well, including the dugong, and several species of whale and marine turtle.

The region's location with respect to winds and currents accounts for the high levels of endemism. It is estimated that around 15% of the ecoregion's species are found across the tropical seas, some 60-70% are found only in the Indo-Pacific Ocean, and another 15% are endemic to East Africa alone.

Population

The ecoregion sustains a coastal population in the neighborhood of 22 million people from a diverse range of cultural backgrounds. With population increasing at 5-6% per year, East Africa's marine and coastal resources are vital to the well-being of both coastal and inland inhabitants. In rural areas, most coastal communities are involved in a diverse range of artisanal activities that

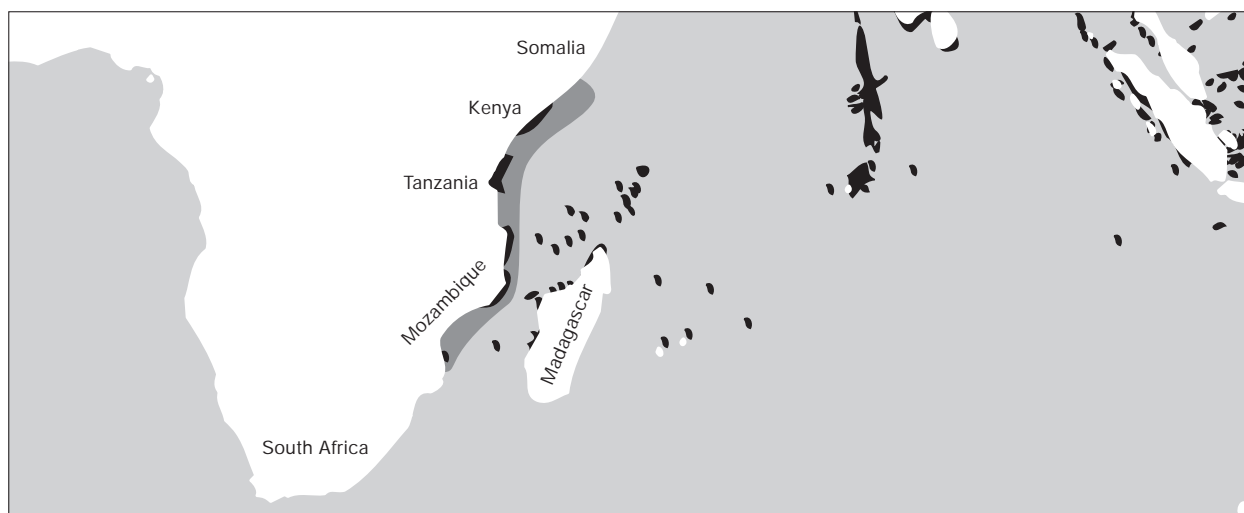
often include fishing, mangrove harvesting, salt production and coral mining. Fishing is the main large-scale commercial activity in the region. However, there is increasing interest in tourism and mining, which already account for a large proportion of the foreign exchange earnings of Kenya, Tanzania and Mozambique.

Threats: need for action

For over a century, increased pressure on marine resources have resulted in significant ecological changes in many parts the East African coastline. Whaling and fishing have resulted in the decline of the great whale populations and valuable fishery species, as well as the degradation of important sea grass beds and coral reef habitats. Demand for building materials such as mangrove poles and coral for lime and the demand for agricultural land have further contributed to habitat destruction.

Over fishing is also serious threat in the East African waters. In Kenya, for example, most fish species are heavily over-fished, with destructive methods such as gill nets and dynamite. These activities disturb the ecological balance, reduce the livelihood opportunities and food security for local populations, and severely damage coral reefs and sea grass beds which are the nurseries for future generations of much marine life.

Marine turtles are slaughtered for their meat, eggs and shells along many parts of the East African coastline. Harvest and trade in turtle products is illegal but capacity for enforcement is limited, resulting in a continued threat to these endangered species. Other factors that contribute to rapid decline of nesting populations of turtles include incidental by-catch, hunting, and loss of nesting beaches. The decline in marine turtle populations may continue to extinction unless measures are taken to protect them.



Over the last two decades, the stresses caused by human activity have exacerbated the effects of climate change. The coral reefs suffered severely from the bleaching-event in 1998, when somewhere between 70-90% of the reefs were destroyed by the temporary rising of the seawater temperature.

WWF and the East African reefs

Since 1999 WWF has coordinated a partnership of interested Eastern African agencies to develop a strategic plan for large-scale conservation approaches in the region. This highly participatory approach centred on the protection of biodiversity as an integral component of protecting the resources and the economies and social fabrics that depend on them. The process established 21 priority seascapes as targets for conservation, involving biological & socio-economic assessment, development of a long-term vision, socio-economic root causes analysis for biodiversity loss, and the design of a conservation action plan.

The WWF program in East Africa recognizes in particular the potential of marine protected areas (MPAs) as a tool for management and conservation of coral reefs and marine resources in general. WWF supports a number of current MPAs across the region and has positively influenced the designation of new MPAs. The declaration by the Government of Mozambique in 2002, for example, of Bazaruto and Quirimbas as marine parks was recognized as a major contribution by WWF with the award of a Gift to the Earth.

With these activities, WWF works towards a healthy environment that provides sustainable benefits for present and future generations of both local and international communities, who in turn understand and actively care for its ecological integrity.

Case Study: Mafia Island, Tanzania

WWF is working with the inhabitants of Mafia to find a balance between marine conservation and preservation of the local human community, evolving strategies whereby locals earn their livelihood in a manner that is not destructive to the fragile ecosystem. The main aim is to collect information on how the marine park can be of help to the locals; what kinds of conservation problems exist; and how the community leaders would respond to any solutions put forward by WWF. It is vital, for example, to communicate to traditional fishermen that reducing fishing activities need not mean a loss of earnings. In fact, years of work with the authorities and local communities have resulted in a dramatic reduction in dynamite fishing, and a resultant increase in the average catch of local fishermen as fish stocks recover.

Fortunately, the island is generous with other opportunities for her people to earn a livelihood. Apiculture for instance; once a cottage industry, it is now being looked at as the next potential 'Big Idea' by islanders. The traditional bee-keepers of Juani are now being convinced to incorporate modern methods to increase profits, in the hope that such ventures will encourage people to turn away from fishing towards viable alternatives. This approach makes the conservation of Mafia Island a project destined to succeed, for the simple reason that the residents of Mafia are the largest stake-holders.

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