



My-Coast: Ecosystem-Based Conservation of Myanmar's Southern Coastal Zone

Project Summary

Myanmar has a relatively large and still productive and ecologically intact coastal zone. The National Biodiversity Strategy and Action Plan (NBSAP) for Myanmar (Government of Myanmar, 2011) highlights the fact that the country hosts an enormously rich and varied biodiversity. Mangroves, coral reefs, seagrass beds, sandy beaches and intertidal mudflats are widely distributed. Myanmar is home to the Irrawaddy Dolphin, the Sea Cow, five species of marine turtle, and many Globally Threatened waterbird species (e.g., Spoon-billed Sandpiper, Indian Skimmer and Nordmann's Greenshank). The project will focus primarily upon the Tanintharyi Region and the Myeik Archipelago, but with potential for project activities to contribute to improved coastal zone management throughout the country.

Tanintharyi houses incredibly high and unique global marine biodiversity and the southern coast of Myanmar is relatively undisturbed. However, this will soon change due to a number of inter-related threats. Recent studies show that Myanmar's coastal fisheries are already showing signs of significant strain, as a result of over-exploitation, habitat degradation, and climate change. If these issues persist, ecosystems will continue to degrade and coastal zone fisheries will suffer further. At the same time, Myanmar is going through a phase of rapid development and economic expansion.

To ensure that ecosystem integrity is maintained, future coastal zone development and resource use must be aligned strategically to enhance fisheries conservation. A recent fisheries survey by a Norwegian research vessel showed that the biomass of pelagic and demersal fish have declined by 90% and 60% respectively since the previous survey in 1980. This is an alarming rate of loss. Moreover, coral reefs have declined by more than 50% due to overexploitation, habitat conversion, and climate change and only a few reefs remain intact. Mangroves have also been heavily degraded by exploitation for timber and fuelwood. The fish stocks of Myanmar's coastal zone support both commercial and artisanal fisheries, but over-fishing, destructive fishing and often unsustainable development are jeopardizing the fragile relationship between these crucial habitats and the livelihoods of rural people who make up a high proportion of the population of Myanmar.

The southern coastal zone of Myanmar is particularly susceptible to environmental impacts from development. Located along the Thai border, this region was until recently quite isolated. This situation has now changed: substantial investments such as the planned Dawei Port project will establish major coastal infrastructure, a free-market zone, and road connections to Southeast Asian markets. Although such investments will bring much needed economic development to the region, they must be accompanied by commensurate coastal zone conservation and planning.

Climate change is also altering the ecological integrity of Myanmar's coastal zone. The Government of Myanmar predicts temperature increases by 2050 of 0.8 to 1.4 °C and more intense rainfall. 10-20%. Ecosystems already under stress will lower the capacity of local communities to adapt to climate change. This will impact coastal fisheries that are critical to the survival of Myanmar's rural poor. Aquatic species with higher levels of resilience are expected to increase, while those with a lower adaptive capacity will decrease.

In order to address these issues, the Government of Myanmar requested FAO (in collaboration with other GEF agencies government agencies, development partners, NGO's and civil society) to prepare this GEF-funded project.

Specifically the project addresses two main barriers:

Barrier 1: Limited institutional and human resource capacity to generate strategic approaches for coastal zone management.

Myanmar's existing laws and policies do not directly address coastal area management in a strategic, integrated manner. Relevant institutional roles are unclear, or even conflicting, and regulatory frameworks governing fisheries, forestry, agriculture, and other development sectors are, in some cases, misaligned and run counter to coastal biodiversity objectives. The agencies responsible for marine fisheries, forestry, agriculture, tourism, energy, transport and other major sectors impacting on coastal ecosystems and their resources reside in different ministries and departments. While the recent establishment of national and region/state level coastal resources management committees represents a positive step, these committees have no non-government representation, and there are no mechanisms in place to coordinate coastal conservation and management efforts on-the-ground among local managers, communities and other coastal resources users.

Commercial and artisanal fishing remains primarily open-access and the coastal fishing effort has risen steadily as many inshore fishermen have switched to larger, engine-powered boats. There is only limited implementation of regulatory controls on some forms of fishing; and moreover, the marine fishery regulations are out of date. This has led to extreme levels of over-fishing, plus on-going conflicts between inshore (within 10 miles of the shoreline) and offshore (beyond 10 miles) fishing boats. Overall, coastal zone development is fragmented and uncoordinated, while coastal zone resource use is not well monitored or assessed for environmental impact, and therefore decision-making is poorly informed.

Barrier 2: Limited experience with the implementation of strategic integrated coastal zone management approaches.

Even if a national enabling environment for ICZM can be developed, good examples of state/ regional ICZM plan implementation on-the-ground will still be needed. There are both common and unique socio-ecological circumstances and threats among the six states and regions that border Myanmar's coastline. Without ground-tested examples of ICZM planning frameworks, implementation mechanisms and examples of "best practice", coastal development will continue to be driven by disconnected, short-term interests with little consideration given to ecosystem health and biodiversity, or to the impacts from climate change on people and nature. Without the capacity to develop and implement ICZM plans at the local level, coastal communities (in village tracts and villages) will not be able to protect their environment and the ecosystem services they depend on for income, food security and safety from extreme weather events.

In summary, it cannot be expected that government, private sector or community stakeholders will be able to embrace and apply ICZM principles unless they are able to witness the practical application of ICZM first hand, and thereby appreciate and support the benefits that integrated coastal resources conservation management and sustainable use can bring to them.

Project Strategy

The *project objective* is *improved coastal zone management to benefit marine biodiversity, food security and climate change mitigation*. The project has two inter-related components. Under Component One, national capacities will be developed to plan and implement strategic coastal

conservation management based on integrated coastal zone management principles.. Under Component Two, equivalent local capacities will be built in Tanintharyi Region and ICZM will be demonstrated in practice. Demonstrations will be conducted within a specific geographic area in the Myeik Archipelago which will be large enough to allow for measurement of impact on an ecosystem scale.

Without the benefit of this investment, Myanmar will not likely have the capacity to engage in meaningful coastal zone conservation strategic planning. The result will be a continued decline in biodiversity, loss of globally significant marine ecosystems, and depleted fisheries. The GEF alternative proposed will provide the catalytic investment required to stimulate and build the capacity to support more strategic coastal zone conservation management designed to promote and maintain ecological integrity and associated ecosystem services. This will deliver substantial and measurable benefits in terms of biodiversity conservation, climate change mitigation/adaptation, and sustainable fisheries management.

Core partners for this project will include:

Ministry of Agriculture, Livestock and Irrigation (MoALI): Department of Fisheries (DoF); Ministry of Natural Resources and Environmental Conservation (MoNREC): Forest Department and Environmental Conservation Department; Local Government, Myanmar Fisheries Federation (MFF), UN Agencies, I/NGOs.

