

Managing an Ecosystem

The Bay of Bengal Large Marine Ecosystem (BOBLME) Project hopes to promote collaborative fisheries management approaches for the Bay of Bengal

The Bay of Bengal Large Marine Ecosystem (BOBLME) Project is now underway in earnest. The BOBLME covers around 4 mn sq km of sea area. The countries involved—Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka and Thailand—are among the most populous in the world. Over 400 mn people live in the Bay of Bengal area, and their numbers are increasing rapidly. The majority of them are poor and rely heavily on the area's marine resources, which are being affected by overfishing, removal or degradation of important marine habitats, and pollution.

The eight countries have committed themselves to work together through the BOBLME Project to improve the lives of the coastal populations through improved regional management of the Bay of Bengal environment and its fisheries.

Over two mn people fish the coastal and offshore areas of the Bay of Bengal. This includes a burgeoning population of small-scale fishers who depend on coastal fisheries for their livelihoods and food security, as well as an increasing number of industrial fishing vessels. Both sectors compete for a wide range of species, including sardines, anchovies, scads, shads, mackerels, snappers, emperors, groupers, congers, pike-eels, tunas, sharks, ornamental reef fish, shrimps, crabs, lobsters, octopus, gastropods and bivalve shellfish, sea cucumbers and seaweeds.

One of the major issues facing the region's coastal fishing communities is the fishing pressure which has increased to levels that cannot be

sustained, and many fish stocks are showing signs of being overfished. While catch information is patchy and highly uncertain, there is some evidence to suggest that the fishing pressure in the Bay of Bengal has increased to the extent that catches have risen tenfold over the last 60 years. This situation is exacerbated further by the illegal incursion of foreign fleets, increased competition and conflicts between artisanal and large-scale fishers, encroachment by nationals into the territorial waters of neighbouring countries, and the prevalence of destructive fishing practices.

One of the major issues facing the region's coastal fishing communities is the fishing pressure which has increased to levels that cannot be sustained...

The objective of the BOBLME Project's resources management component is to introduce and promote collaborative fisheries management approaches for selected key transboundary species (highly migratory species or fish stocks shared by several or all adjacent countries) through the development of regional and sub-regional management plans, and harmonization of data collection and standardization.

Management plans

In the first instance, the Project will focus on hilsa, Indian mackerel and sharks, to help develop management plans, and

*This Profile is by **Chris O' Brien** (Chris.O'Brien@fao.org), regional co-ordinator, BOBLME Regional Co-ordination Unit, Bangkok, Thailand*

strengthen data and information collection and assessments of the status of the stocks.

A second key issue is the continued degradation of highly productive coastal and nearshore marine habitats such as coral reefs, mangroves and estuaries, and seagrass beds, which serve as fish spawning and nursery areas. BOBLME will develop an inventory of critical habitats, and

contribute to improve understanding of large-scale oceanographic processes and climate impacts affecting the Bay.

Over the next five years, during what is expected to be the first phase of the Project, the work will focus on strengthening and harmonizing the management capability in each participating country, and gaining a better understanding of the major marine resources and the environment, so that critical issues and the underlying causal agents that are contributing to a decline in the health of the Bay of Bengal ecosystem can be addressed.

The Project will undertake a transboundary diagnostic analysis to identify and prioritize the major regional environmental concerns and their root causes, and produce a strategic action programme to address and remediate them. The Project will also create an institutional arrangement that will serve as a vehicle for the countries to continue their collaborative work into the future.

The involvement of a wide range of stakeholders is vital to the success of the Project. Some activities will focus on developing ways to enable communities to become involved in resource management. Broad participation from government agencies will also be expected as the Project covers areas that will concern a wide range of Ministries (other than those for Fisheries and Environment). In doing so, it is hoped that the Project will contribute to the strengthening of the working relationships between government agencies, and co-management arrangements between local governments and communities. The Project is also looking to draw on the considerable expertise and experience that exists in the many and varied regional bodies and non-governmental organizations that operate in the area; and the Project team is very interested to hear from any potential collaborators.

The involvement of a wide range of stakeholders is vital to the success of the Project.

assist in developing a regional ecosystem health monitoring framework that addresses regional coastal pollution issues and water quality criteria. BOBLME will also provide support to bi-national, collaborative critical habitat management in two pre-selected pilot areas: the Mergui Archipelago (Myanmar, Thailand) and the Gulf of Mannar (India, Sri Lanka). It will also promote the protection of coastal habitats, in particular the use of fish refugia as management tools to conserve and rebuild fish stocks. On a broader scale, the BOBLME will

ROLF WILLMANN



An artisanal fisherman from Sarawak, Malaysia. The BOBLME project will focus on strengthening the management capability in each participating country

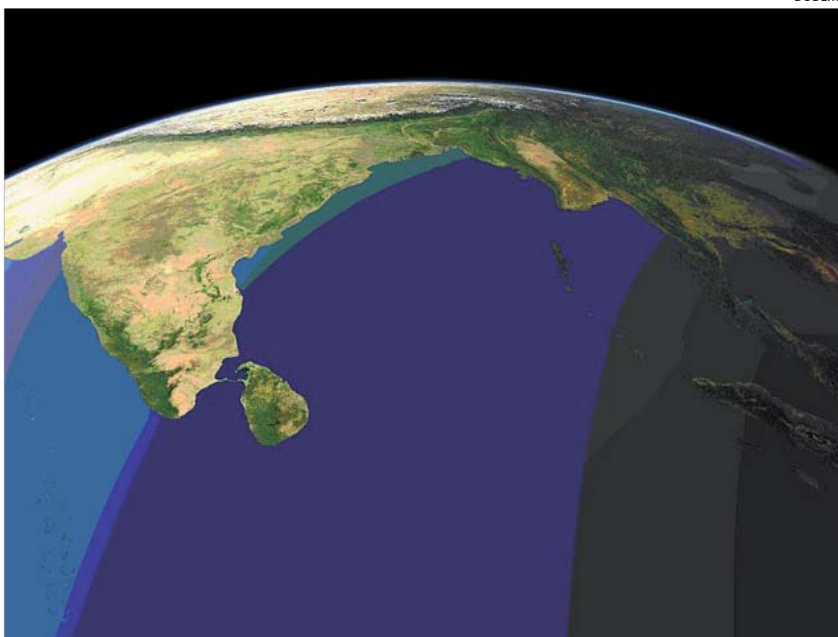
FAO execution

The Food and Agriculture Organization of the United Nations (FAO) Regional Office for Asia and the Pacific in Bangkok is executing the Project. FAO

has been working in the Bay of Bengal area for over 50 years in the areas of agriculture, forestry and fisheries, in support of food security, rural poverty alleviation and institutional and human capacity building. Given FAO's considerable expertise in fisheries and resource management, the Project will also be implementing the ecosystem approach to fisheries (EAF) management that it has championed over the last decade. The EAF represents a move away from fisheries management systems that focus only on the sustainable harvest of target species towards systems and decision-making processes that balance environmental well-being with human and social well-being within improved governance frameworks. It is underpinned by the FAO Code of Conduct for Responsible Fisheries.

The BOBLME Project is ambitious and challenging. But there is a clear willingness by both the governments and the communities to make a change. Although many of the current problems facing the Bay of Bengal countries have been decades in the making and are firmly entrenched, there are encouraging signs that indicate that management is changing its approach. Increasingly, there are reports emerging where critical areas are being identified and protected, unsustainable fishing practices are being banned, and livelihoods are being improved. Importantly, there is a substantial commitment in terms of finance and resources the countries have made to the Project and their determination to work together on common problems and resolve them.

This unique and important project took over ten years for all partners, governments, donors, and United Nations organizations to conceive and jointly design. In many ways, it is an extension of the Bay of Bengal Programme (BOBP). The BOBP was a long-term regional fisheries programme, implemented by the United Nations Development Programme (UNDP) and FAO, which ran for over 20 years and in which Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka and Thailand participated. In



Many of the current problems facing the Bay of Bengal countries have been decades in the making and are firmly entrenched

its first two phases, the BOBP improved the socioeconomic conditions of the small-scale fisherfolk through the development and promotion of new and innovative techniques and technologies. The third phase of the project addressed more directly the serious management problems facing the Bay's fisheries. It assisted the national institutions responsible for fisheries management in setting directions and accelerating the development of sound fisheries management policies and practices. It was during this latter phase that the BOBP countries realized there was a need to manage the coastal and marine resources, including the environmental threats to those resources, in a co-ordinated, comprehensive and integrated manner—so the BOBLME Project was developed.

The BOBLME Project is funded principally by the Global Environment Facility (GEF), Norway, the Swedish International Development Co-operation Agency, FAO, and the National Oceanic and Atmospheric Administration (NOAA) of the United States, with a total estimated budget of US\$31 mn. FAO is the executing agency.

For more



www.boblme.org
Bay of Bengal Large Marine Ecosystem Project

www.lme.noaa.gov
Large Marine Ecosystems of the World

www.seaaroundus.org/lme/
Seas Around us: Large Marine Ecosystems