Marine Protected Areas - Sri Lanka

MPAs are critical to ecological integrity and human well-being

The marine and coastal waters of Sri Lanka encompass a variety of habitat types including estuaries and lagoons, mangroves, seagrass beds, salt marshes, coral reefs, barrier beaches, spits and dunes. These resources and habitats are home to considerable biodiversity and form the foundation for the fishing and tourism industries.

In response the threat of over exploitation, 28 Marine Protected Areas (MPAs) including Fisheries-Management Areas (FMAs) have been established. These mostly protect biodiversity on and around coral reefs, mangroves, and seagrass beds while the FMAs seek to conserve fisheries resources. Certain terrestrial protected areas (TPAs) with marine components also contribute to protecting marine biodiversity.

Marine resources provide valuable ecosystem services

Sri Lanka's MPAs provide sanctuary to many globally threatened species including dugong, dolphins, and sea turtles. The now endangered species of Hump head wrasse (Cheilinus undulatus) are also found among the shallow coral and deep sandstone reef habitats. Sri Lanka's marine resources and coastal habitats are a major attraction for the approx 150,000 tourists who visit the country annually. Meanwhile the coastal fisheries industry directly employs some 100,000 individuals and accounts for some 2.7 percent of GDP.

MPAs need a strong regulatory framework

Protected areas in Sri Lanka are declared and managed by the Department of Wildlife Conservation under the 1993 Fauna and Flora Protection Ordinance. There are two main types of Protected Areas: Marine parks are afforded the highest level of protection possible, with all forms of resource extraction prohibited. Marine sanctuaries, by contrast, are open to non-extractive uses, as well as limited artisanal resource extraction with a permit. Meanwhile, the 1996 Fisheries and Aquatic Resources Act (FARA) allows the Department of Fisheries and Aquatic Resources to protect any area of Sri Lanka's waters (or adjacent land) by declaring 'Fisheries Management Areas'.

MPAs face serious challenges

Recent years have seen increased attention paid to marine resource conservation in Sri Lanka. However, significant challenges still exist to their sustainability and management.

Source: Wiki Commons

The Bar Reef Marine Sanctuary (BRMS) is the largest of the MPAs in Sri Lanka covering an area of 306 km^2. This is the only location in Sri Lanka that has many coastal ecosystems (coral reefs, mangroves, seagrass beds, coastal sand dunes/spits and a lagoon) in a single area.

Source: Wiki Commons

Reefs cover approximately 68,000 hectares throughout the country, the most extensive of which are found in northern Sri Lanka in the Gulf of Mannar

Source: Wiki Commons

The first true MPA declared was Hikkaduwa, along the southern coast in 1961 as a fisheries protected area under Fisheries Ordinance to combat indiscriminate fishing. Subsequently, Hikkaduwa marine sanctuary was declared in 1979 while in 1998 it was declared a nature reserve.

Human impacts lead to degradation and depletion of natural resources

- Compliance with MPA regulations remains low due to a lack of awareness among fishing communities, boat operators and tourist guides
- Overexploitation of reef fish and pelagic species
- Destructive fishing practices such as blast fishing and use of illegal purse seine nets
- Pollution from upstream sources e.g. industrial, municipal and agricultural waste as well as oil
- Invasive species such as the crown of thorns star fish

Poor MPA governance limits effectiveness

- Laws affecting MPAs are unclear and existing regulations are neither implemented nor enforced.
- No proper demarcation of MPAs
- Insufficient coordination among stakeholders
- The competent authority has no direct incentives or financial support to manage MPAs
- Jurisdictions among the authorities responsible for parks, fisheries, harbors and coastal tourism development overlap and are ambiguous

- Participatory approaches are limited, and conflicts persist among stakeholders
- Conflict between traditional resource use and conservation priorities

Recommendations for improving MPA management and effectiveness

- Promote mutual respect amongst local people and scientists for each other's knowledge
- Develop a streamlined, coherent and consistent legal and institutional framework for a cohesive national protected area system
- Develop capacity for relevant agencies managing and enforcing MPAs
- Establish formal multi-stakeholder consultation and information-sharing mechanisms
- Strengthen enforcement through multi-agency collaboration and provision of appropriate penalties
- Monitor biological and socio-economic conditions
- Maximize scientific knowledge to guide MPA decision-making and monitoring/evaluation
- Provide alternative employment opportunities to villagers to help reduce fishing pressure on coral reefs
- Share a percentage of tourism revenues as a compensatory mechanism to fishing communities when any no-take policy is fully enforced
- Allow local communities to claim co-ownership of the MPA, with corresponding rights and responsibilities
- Generate community stewardship through recognizing the rights of local users for tourism, mariculture and fishing within the MPA

For more information:

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