



Seagrass Policy Brief: Myanmar

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Ecological importance of seagrass

Seagrass meadows provide crucial shelter and feeding grounds for many marine species including dugongs and turtles, and serve as important spawning and nursery grounds for a variety of marine invertebrates and fish species which people rely on both commercially and for consumption. Seagrasses are one of the key primary producers of oxygen which support an array of aquatic fauna and act as important carbon sinks. They also play an important role in controlling erosion in coastal areas through stabilizing sediments.

Species Diversity

A total of 12 species of seagrasses have been recorded in Myanmar including *Syringodium isoetifolium*, *Cymodocea rotundata*, *C. serrulata*, *Cymodocea sp.*, *Halodule uninervis*, *H. pinifolia*, *Enhalus acoroides*, *Thalassia hemprichii*, *Halophila beccarii* (IUCN Red list: Vulnerable), *H. decipiens*, *H. ovalis* and *H. major*. The areas with the highest diversity of seagrasses within Myanmar include Zar Det Ngye I. (East) and Pa Law Kar Kyan I. (St. Luke I.) in the Myeik Archipelago and Ma Gyi and Pho Htaung Gyaing along the Rakhine coast. Although only one species is listed as vulnerable and most others are listed as under the IUCN Red list as Least Concern, many have populations which are decreasing.

Threats to seagrass beds in Myanmar

- Runoff from cities and towns and hazardous wastes and oil dispersals released from industrial zones located in the upper areas of natural seagrass beds are seen as serious threats to these habitats.
- Bottom trawlers operating directly through seagrass beds targeting shrimps and other marine species. Indirect threats from such activities include an increase in sedimentation which can smother these habitats.
- Sand mining in the Myeik Archipelago which can indirectly threaten seagrass beds with an increase in turbidity in the waters resulting in reduced ability of seagrasses to photosynthesize.

Recommended Management Actions

To ensure these critical habitats are protected and to guide decision makers in developing conservation plans for seagrass management, the following management actions have been recommended for implementation to assure that the seagrass beds will continue to deliver important ecosystem services:

1. Designation of key seagrass areas as Marine Protected Areas (MPAs) linked with wider spatial planning exercises for the two main coastal areas with seagrass beds notably Rakhine and Tanintharyi.
2. Encourage international support and form partnerships with regional bodies for the conservation of seagrass ecosystems.
3. Share the results of local and regional research on seagrass ecosystem functions and values, and establish national and regional ecological networks and corridors for the management and conservation of seagrass ecosystems.
4. Provide financial and technical support to various Myanmar institutions such as government departments and universities, including capacity development for community-based biodiversity conservation efforts.
5. Improve public knowledge and recognition of the importance of seagrass habitats through nationwide education and awareness programmes targeting policy and decision makers, fishers and local communities and those involved in activities which impact seagrass beds.
6. Strengthen national, regional and international efforts to ensure invasive alien species are controlled, which could cause great biodiversity loss in seagrass communities. This should include the development of an effective work programme on invasive alien species.
7. Intensify water pollution prevention for industrial hazardous wastes from the special economic zone and regularly examine the water quality standards for coastal and marine areas by establishing monitoring systems and effective legal frameworks for conservation of seagrass meadows.
8. Ensure seagrass conservation is included in current and future coastal development projects and in all regional/state development plans.
9. Undertake further detailed research on seagrass habitats including surveys of the ecosystem services provided by seagrass beds with a special focus on their importance to fisheries;
10. Regularly monitor the status of seagrass ecosystems along the coast of Myanmar including on ground surveys and satellite remote sensing analysis.

11. Identify the potential impacts on seagrasses from climate change which may cause these habitats to degrade leading to food security issues for local communities.