

Country Overview: Indonesia

Introduction

Indonesia has 145 Marine Conservation Areas (MCAs), totalling 164,511 km², comprising 42 nationally managed and 103 locally managed areas. The Indonesian archipelago is an important focal area for seagrass and dugong distribution owing to its position as a conduit between the major basins of the Indian and Pacific Oceans.

Very limited scientific information is available on the abundance, distribution and behaviour of dugongs in Indonesian waters, but they have been observed throughout Indonesia, including in the coastal waters of Sumatra, Java, Kalimantan, Sulawesi, Bali, Nusa Tenggara Timur (NTT), Maluku and Papua Barat. The GEF Dugong and Seagrass Conservation Project in Indonesia will be based in the Bintan district and will focus both on supporting the enforcement of existing national legislation and on raising awareness among communities of the threats to dugongs and their seagrass habitat.

Dugong Population

The size of the dugong population in Indonesia remains unknown. Estimates in the 1970s and in 1994 respectively suggested the Indonesian dugong population comprised 10,000 and 1,000 individuals; however, these figures are considered little more than guesses, and very little scientific data is available on dugong distribution and abundance in Indonesian waters. Aerial surveys have been conducted in parts of Indonesia, especially the Rajah Ampat Islands and the Lease Islands, but most information on dugong numbers is based on anecdotal records.

Seagrass Habitat

Indonesia has a high biodiversity of seagrasses, particularly in Bintan, but there is no complete distribution map of seagrass species across Indonesia, and only limited information exists on the disappearance of seagrass meadows in the region.

Cultural Significance

In some areas of Indonesia dugongs are believed to represent reincarnated women and are revered and protected; however, in others their teeth, tusks, teats and tears (extracted from their tear ducts) are considered to have magical properties – largely as aphrodisiacs – and they are hunted for this purpose. Stranded or incidentally caught dugongs are reportedly unlikely to be released alive owing to the value of these body parts.

Some Indonesian peoples consume dugong meat, while in various areas their tusks are used to make religious artefacts, pipes or tool handles, and in some locations indigenous peoples use dugong bones as a medicament to treat diabetes and high blood pressure.

Current Threats and Conservation Measures

Dugongs face a variety of threats in Indonesian waters including those posed by: incidental by-catch; destructive fishing practices; hunting; and boat strikes. Furthermore, their seagrass habitat is

threatened by general degradation, coastal development, river run-off/siltation and pollution. Blast and sodium cyanide fishing, both of which are illegal, remain fairly common fishing techniques in Indonesia and are major contributors to coral reef degradation in a number of areas. Dugongs face a major threat from the use of gill-nets to catch sharks in Indonesian waters. Shark netting has reportedly increased in recent years in some areas. Large tidal fish traps, known as belat or sero, also pose a threat to dugongs through incidental catches.

Dugongs are protected by national legislation in Indonesia, and a National Conservation Strategy and Action Plan specifically for dugongs was introduced in 2009. However, regulatory enforcement is limited, owing to a lack of resources and personnel.

Key legislation	Content
National Conservation, Strategy and Action Plan for Dugong in Indonesia (2009, NCSAPDI)	A conservation strategy which will be a viable basis for the long term conservation and management of dugong population in Indonesia. Recommendations of the NCSAPDI which align with the outcomes of this GEF Project include mid-term community based conservation projects (Project 1), ground surveys to identify dugong locations (Project 2) and education and awareness programmes (Project 2).
Government Regulation No. 7 of 1999	Protection of Indonesian Flora and Fauna. The only legislation which protects Indonesian dugongs and seagrasses directly
Republic of Indonesia Act No. 5 of 1990	Conservation of living resources and their ecosystems
Law No. 26/2008	Spatial planning
Republic of Indonesia Act No. 5 of 1994	Ratification of the United Nations Convention on Biological Diversity
Republic of Indonesia Act No. 23 of 1997	Management of the living environment
Republic of Indonesia Act No. 27 of 2007	Management of coastal zones and small islands, including Integrated Coastal Zone Management

GEF Projects

Two projects in Indonesia will work to promote dugong and seagrass conservation. ID1 will tackle policy barriers to dugong and seagrass conservation, and specifically those that apply to the enforcement of existing national legislation, namely the lack of a national strategy and action plan to conserve the species and its habitat. The project will primarily seek to facilitate the implementation of existing Government regulation, particularly in areas where the local community is unaware of the dugong's protected status. The project will also develop an updated long-term strategy and national plan of action (NPOA) for dugong and seagrass conservation, and establish a National Dugong Conservation Committee (NDCC).

ID2 seeks to enhance community awareness of dugong and seagrass conservation and management, improve the capacity of dugong and seagrass research and monitoring, and provide scientific information to support related conservation and management activities. In particular, ID2 will seek to promote national awareness of the threats posed to dugongs and their habitats by destructive fishing equipment, stranding, habitat destruction, pollution and coastal development.

Project Partners

Project	Title	Partner
ID1	Strengthening and operationalizing a national policy strategy and action plan for dugong and seagrass conservation	Directorate of Conservation and Marine Biodiversity (CMB), Directorate General of Marine Spatial Management (DG of MSM), Ministry of Marine Affairs and Fisheries (MMAF)
ID2	Improving national awareness and research of dugong and seagrass in Indonesia (ID2).	Directorate of Conservation and Marine Biodiversity (CMB), Directorate General of Marine Spatial Management (DG of MSM), Ministry of Marine Affairs and Fisheries (MMAF)