

## **DUGONG: ENVIRONMENT**

**NEWS:** Farmers of the sea: India's dugongs must stay a conservation priority

### **WHAT'S IN THE NEWS?**

Dugongs, once widespread in Indian waters, have seen their population decline to around 200 due to habitat degradation, fishing threats, and coastal development. Conservation efforts like the Dugong Conservation Reserve in Tamil Nadu aim to protect this endangered marine mammal reliant on seagrass habitats.

### **About Dugong (Dugong dugon)**

Dugongs are large, herbivorous marine mammals often referred to as “Sea Cows” due to their grazing habits on underwater seagrass meadows. They belong to the order Sirenia, which also includes manatees. However, unlike manatees that can survive in both fresh and saltwater, dugongs are strictly marine animals and prefer shallow, warm coastal waters.

### **Habitat and Distribution**

Dugongs are native to the coastal and island waters of more than 40 countries in the Indo-Pacific region. In India, their presence is primarily noted in areas with extensive seagrass beds, which are essential for their feeding. Key regions where dugongs are found in India include:

- The Gulf of Mannar and Palk Bay in Tamil Nadu
- The Gulf of Kutch in Gujarat
- The waters around the Andaman and Nicobar Islands

These areas provide the shallow, warm, and nutrient-rich waters with abundant seagrass meadows required for the survival of dugongs.

### **Biological Characteristics**

- Dugongs are herbivores and feed exclusively on seagrasses, particularly of the genera *Cymodocea*, *Halophila*, *Halodule*, and *Thalassia*.
- They can live up to 70 years in the wild, although this lifespan is increasingly threatened by human activities.
- Dugongs have a low reproductive rate. Females give birth to a single calf after a gestation period of 13–15 months. After birth, the mother nurses the calf for up to 18 months, making reproduction a slow and infrequent process.
- Dugongs play an important ecological role as grazers. By feeding on seagrass meadows, they maintain the health of these underwater habitats, preventing overgrowth and promoting biodiversity.

## Ecological Importance of Seagrass

Seagrass beds, the primary habitat of dugongs, are critical for several reasons:

- They stabilize the seabed and prevent coastal erosion.
- They act as a habitat and nursery for many marine organisms.
- They trap sediments and improve water quality.
- Seagrasses are also carbon sinks, capturing and storing significant amounts of carbon dioxide, thereby helping to mitigate climate change.



## Threats to Dugongs

Dugong populations are declining globally due to a variety of threats, most of which are anthropogenic:

- **Habitat loss:** Coastal development, port construction, and destructive fishing practices have led to the degradation of seagrass beds.
- **Fishing-related threats:** Accidental entanglement in fishing nets and boat strikes are major causes of injury and death.
- **Pollution:** Oil spills, plastic waste, and chemical pollutants damage seagrass habitats and directly affect dugong health.
- **Climate Change:** Rising sea temperatures and extreme weather events impact seagrass growth and distribution.
- **Illegal hunting and traditional exploitation:** In some areas, dugongs are hunted for meat, oil, and traditional purposes.

## Conservation Status

- The International Union for Conservation of Nature (IUCN) lists dugongs as ‘Vulnerable’ globally.

- In India, the dugong is classified as ‘Regionally Endangered’.
- Under the Wildlife Protection Act of 1972, dugongs are listed in Schedule I, granting them the highest level of legal protection.
- They are also listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which bans international trade of dugongs and their derivatives.
- The dugong is included in Appendix I and II of the Convention on Migratory Species (CMS), and India signed the Dugong MoU under CMS in 2008 to enhance conservation co-operation.

### **Conservation Measures in India**

- In 2022, India established its first Dugong Conservation Reserve in the Palk Bay region of Tamil Nadu. This area is rich in seagrass beds and is expected to act as a safe haven for the remaining dugong population.
- The Government of India has set up a Dugong Task Force under the Ministry of Environment, Forest and Climate Change to study dugong habitats and implement conservation plans.
- Research and awareness campaigns have been initiated to educate coastal communities about the importance of dugongs and the need for conservation.
- Initiatives such as sustainable fishing practices and community-based marine management are being encouraged to reduce human impact on dugong habitats.

### **World Dugong Day**

- May 28 is observed as World Dugong Day every year to raise awareness about the plight of dugongs and the urgent need for conservation efforts to prevent their extinction.

**Source:** <https://www.thehindu.com/sci-tech/energy-and-environment/world-dugong-day-india-vulnerable-conservation-priority/article69624446.ece>