

World Dugong Day

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Why in News?

As the world observed <u>World Dugong Day</u> on 28th May, attention turned toward India's dwindling **dugong population**. With only around 200 individuals remaining in the wild, making their conservation a pressing national priority.

What are Dugongs?

- About: Dugongs (Dugong dugon), also called "sea cows," are marine mammals that graze on seagrass beds, earning them the nickname "farmers of the sea." They are the only herbivorous marine mammals found in Indian waters.
- Distribution: Dugongs are distributed throughout the Indo-Pacific region, and along the Indian coastline, they primarily inhabit the warm waters around the Andaman and Nicobar Islands, the Gulf of Mannar, Palk Bay, and the Gulf of Kutch.
 - The Palk Bay is considered their last stronghold in Indian waters.



- Behaviour: The dugong is a long-lived species, capable of living up to 70 years.
 Typically solitary or found in small mother-calf pairs, large herds common in Australian waters are rare in India.
 - Dugongs reach reproductive maturity at **nine to ten years** and give birth every three to five years.
 - This **slow reproductive cycle**, combined with extended maturity and infrequent calving, limits the population's maximum **growth rate to about 5% per year.**
 - They are closely related to **manatees** but are strictly marine and shy in nature.
 - Manatees are large, herbivorous aquatic mammals of the *Sirenia group*, found in coastal regions of South America, West Africa, and the Caribbean.
- Diet: Dugongs feed on seagrass species such as Cymodocea, Halophila, Thalassia, and Halodule, consuming 20-30 kg per day. Their feeding stirs up the seabed, helping maintain

seagrass health and biodiversity.

- Protection: The Dugong is listed as Vulnerable on the IUCN Red List of Threatened Species.
 - Appendix I of <u>Convention on International Trade in Endangered Species (CITES)</u>
 bans international trade of dugongs or their parts, ensuring strict protection.
 - In India, Dugongs are protected under **Schedule 1 of the Wild Life (Protection) Act, 1972.**
 - India is a signatory to the <u>Convention on Migratory Species (CMS)</u> since 1983 and to the <u>CMS Dugong Memorandum of Understanding since 2008.</u>
 - A national Task Force has been set up to address dugong conservation and CMS implementation.
 - The <u>Dugong Conservation Reserve</u>, established in 2022 in Palk Bay, Tamil Nadu, protects about 122 sq km of seagrass along the coasts of Thanjavur and Pudukottai districts.
- Threats: Habitat loss is a major concern, as seagrass meadows are being destroyed by port construction, dredging, land reclamation, and pollution from agricultural runoff, sewage, and industrial waste.
 - Mechanised fishing has degraded dugong habitats and increased accidental entanglement in nets, often causing fatal drownings.
 - Climate change has added another layer of vulnerability, with rising sea temperatures, ocean acidification, and extreme weather events affecting both food availability and breeding grounds.
 - **Illegal hunting** also persists, especially in remote regions like the Andaman and Nicobar Islands.
 - Additionally, their slow reproductive cycle (maturing at 9-10 years and reproducing only once every 3-5 years) severely limits their ability to recover.
- Dugong Conservation: Protecting and restoring seagrass habitats is vital for dugong conservation. This involves mapping and monitoring seagrass meadows, restricting damaging activities, and promoting community-led stewardship, especially with local fishers.
 - Regulating harmful fishing methods like gill nets and trawling in dugong areas reduces accidental harm.
 - More research funding is needed for long-term dugong studies, supported by citizen science and traditional knowledge. Technologies like tagging and drones aid in tracking and habitat identification.

Seagrass

- Seagrass is an underwater flowering plant, not to be confused with seaweed (macroalgae).
 Classified as wetland ecosystems, seagrass meadows stabilize the seafloor, support fisheries, capture carbon, and shelter marine life.
 - Healthy seagrass is essential for dugongs and marine life such as turtles and fish.
 - A 2022 study by the National Centre for Sustainable Coastal Management documented 516.59 sq. km of seagrass habitat in India. This translates to a carbon dioxide sequestration potential of up to 434.9 tonnes per sq. km each year.
- India's most extensive seagrass meadows occur along the Gulf of Mannar and Palk Bay, off the coast of Tamil Nadu, and together support more than 13 species of seagrass (the highest diversity in the Indian Ocean).
 - Seagrass in Lakshadweep and Kachchh is patchy and threatened by port activities and pollution. Andhra Pradesh and Odisha have minor, limited seagrass habitats unsuitable for dugongs.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q. With reference to 'dugong', a mammal found in India, which of the following statements

is/are correct? (2015)

- 1. It is a herbivorous marine animal.
- 2. It is found along the entire coast of India.
- 3. It is given legal protection under Schedule I of the Wildlife (Protection) Act; 1972.

Select the correct answer using the code given below.

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: C

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