Sundarbans Wetlands

Paper-3 Environment and Biodiversity (PT-MAINS)

January 30th 2019 the Indian Sundarban was accorded the status of ‘Wetland of International Importance’ under the Ramsar Convention. It comprises hundreds of islands and a network of rivers, tributaries and creeks in the delta of the Ganga and the Brahmaputra at the mouth of the Bay of Bengal in India and Bangladesh.

Located on the southwestern part of the delta, the Indian Sundarban constitutes over 60% of the country’s total mangrove forest area. It is the 27th Ramsar Site in India, and with an area of 4,23,000 hectares is now the largest protected wetland in the country.

Richness of Sundarbans (PT SHOTS)

- The Indian Sundarban met four of the nine criteria required for the status of ‘Wetland of International Importance’ — presence of rare species and threatened ecological communities, biological diversity, significant and representative fish and fish spawning ground and migration path.
- The Indian Sundarban, also a UNESCO world heritage site, is home to the Royal Bengal Tiger.
- The Ramsar website points out that the Indian Sundarban is also home to a large number of "rare and globally threatened species, such as the critically endangered northern river terrapin (Batagur baska), the endangered Irrawaddy dolphin (Orcaella brevirostris), and the vulnerable fishing cat (Prionailurus viverrinus).
- Two of the world’s four horseshoe crab species, and eight of India’s 12 species of kingfisher are also found here. Recent studies claim that the Indian Sundarban is home to 2,626 faunal species and 90% of the country’s mangrove varieties.

Importance of Ramsar recognition

- The Ramsar status will help to highlight conservation issues of the Sundarbans at the international level.
- The part of the Sundarban delta, which lies in Bangladesh, was accorded the status of a Ramsar site in 1992, and with Indian Sundarban getting it too, international cooperation between the two countries for the protection of this unique ecosystem will increase.
- This could lead to a better conservation strategy for flagship species such as the tiger and the northern river terrapin.
Various threats

While the Indian Sundarban is a **biodiverse preserve**, over four million people live on its northern and northwestern periphery, putting pressure on the ecosystem. Concerns have been raised about natural ecosystems being changed for cultivation of shrimp, crab, molluscs and fish.

The Ramsar Information Sheet lists fishing and harvesting of aquatic resources as a **“high impact” actual threat to the wetland**. The other threats are from dredging, oil and gas drilling, logging and wood harvesting, hunting and collecting terrestrial animals. **Salinity has been categorised as a medium and tourism as a low impact actual threat in the region.** Along with anthropogenic pressures, it is also vulnerable to climate change and requires better management and conservation practices.

In News recently

**Discovery India** and **World Wide Fund (WWF) India** have partnered with the **Government of West Bengal** and local communities in the **Sundarban** to help save the world’s only mangrove **tiger habitat**.

They are working with a vision to create **climate-smart villages** in the Sundarbans.

**Climate Smart Villages** are sites where farmers, researchers, local government and the private sector come together to understand which climate smart agriculture practices are best suited for a particular location.

The project will **use technology** to solve several of the issues faced in the region. This includes building datasets on impacts of climate change on estuarine ecosystem.

Through this project, in partnership with the West Bengal Forest Directorate and **Indian Institute of Science Education and Research(IISER) Kolkata**, two Sundarbans ecological observatories will be set up, each featuring data loggers, monitoring buoys and an onsite laboratory.

- **Farmland productivity:** The initiative also focuses on enhancing farmland productivity through low-cost measures and adjusting crop calendars to deal with climate change.
- The initiative will also include work towards securing habitats for tigers and prey species.
- The project at Sundarbans is part of a global movement, **Project CAT**
(Conserving Acres for Tigers), aimed at building healthy habitats for Tigers by conserving six million acres of protected land across four countries.

Project CAT (Conserving Acres for Tigers)

- Discovery Communications is working with World Wildlife Fund and others to support a worldwide effort to **double the number of tigers in the wild by 2022**.
- It is a mission to ensure a future for tigers and other endangered wildlife by conserving nearly a million acres of protected land on the border of India and Bhutan.
- Tigers face multiple threats from **poaching, habitat loss and fragmentation, conflict with humans and overhunting** of their prey species.
- As a large predator, tigers are an umbrella species. They play a key role in maintaining a healthy ecosystem.
- By protecting tigers and their habitat, the others risk animals that share this habitat, like Asian elephants, greater one-horned rhinos, clouded leopards and important prey species are also getting protected.

Ramsar Convention (PT Shot)

- The Convention on Wetlands of International Importance (better known as the Ramsar Convention) is an international agreement promoting the conservation and wise use of wetlands.
- It is the only global treaty to focus on a single ecosystem.
- The convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.
- Traditionally viewed as a wasteland or breeding ground of disease, wetlands actually provide freshwater and food, and serve as nature’s shock absorber.
- Wetlands, critical for biodiversity, are disappearing rapidly, with recent estimates showing that 64% or more of the world’s wetlands have vanished since 1900.
- Major changes in land use for agriculture and grazing, water diversion for dams and canals and infrastructure development are considered to be some of the main causes of loss and degradation of wetlands.