



## Clarion Call From Sundarban

This editorial is based on [“To protect the Sundarbans, Delhi and Dhaka must unite”](#) which was published in Hindustan Times on 29/09/2022. It talks about the current state of Sundarban and related issues.

**For Prelims:** Mangrove Forest, Carbon Sequestration, Royal Bengal Tiger, Aquaculture, Olive ridley turtle, Sundarban National Park, Ecotourism.

**For Mains:** Significance of the Sundarban Delta, Challenges Related to Sundarban, Nature-based Solutions.

The [Sundarbans](#), a cluster of **low-lying islands in the Bay of Bengal**, spread across **India and Bangladesh**, is famous for its unique [mangrove forests](#). It occupies a position of importance as a **tourist spot for the scenic beauty** it provides and for the famous and majestic ["Royal Bengal Tiger"](#).

Sundarbans is largely dependent on **fisheries and aquaculture** and any change in the **delicate ecosystem** spells doom not only for the **ecology** but also for livelihoods. Over the past few decades, the mangrove forest cover in Sundarbans has been rapidly diminishing, alarming **environmentalists and policymakers alike**. Thus, a joint collaboration between India and Bangladesh to conserve Sundarban is imperative.

### What is the Significance of the Sundarban Delta?

- The Sundarbans hosts the **largest mangrove forests in the world**, lying on the delta of the **Ganges, Brahmaputra and Meghna rivers on the Bay of Bengal**.
  - **Mangrove ecosystem** is a very specialised environment occurring in **between the land and the sea** in the tropical and subtropical regions.
- Sundarban is the **natural abode of many groups of animals** and a large number of species are known to feed, breed and take shelter in this ecosystem.
  - It is home to many **rare and globally threatened wildlife species** such as the [estuarine crocodile](#), [water monitor lizard](#), [Gangetic dolphin](#) and [olive ridley turtle](#).
- **40% of Sundarban lies in India and rest in Bangladesh**. Sundarban was designated a [UNESCO World Heritage site](#) in **1987 (India)** and **1997 (Bangladesh)**.
- **Sundarban Wetland**, India was recognised as the ‘**Wetland of International Importance**’ under the [Ramsar Convention](#) in January 2019.



## What are the Challenges Related to Sundarban?

- **Sea Level Rise:** Sundarbans faces nearly **double the [sea level rise](#)** compared to other coastal regions.
  - **Also, increasing frequency and intensity of [cyclones](#) in this region poses** a serious threat to its **[carbon sequestration](#)** potential and **other [ecosystem services](#) of this mangrove forest.**
- **Rising Salinity of Water:** With frequent storms over the years, the **[salinity of water](#)** of most of the rivers and ponds has increased in almost **all areas of the Sundarbans.**
  - The rising salinity is **reducing the productivity of fishponds and farmland, resulting in even lower incomes** for poor and vulnerable households.
- **Extreme Poverty:** The **high degree of [climate vulnerability](#)** contributes to extreme poverty in this region. It has a high population density of **980 persons/sq km on the Indian side** and between 370-850 persons/sq km on the Bangladesh side.
  - Moreover, the **average income** is less than **USD 1 per day.** People also suffer from poor infrastructure.
- **Lack of Bilateral Collaboration:** Though India and Bangladesh formed a bilateral **Joint Working Group (JWG) on the Conservation of Sundarbans** but it has met only once, in July 2016, thus **making little or no progress.**
  - The two countries' institutions at the national and sub-national levels are **not integrated to address these issues.**
- **Threat to Wildlife:** Loss of these mangrove habitats due to climate change is also leading to **loss of species that belong to [IUCN](#)'s near-threatened or endangered category.**
  - These settlement mangroves used to be safe havens of diverse **molluscs** and **crustaceans**, but **these are also disappearing due to the polluted discharges** and breeding activities of these species.
- **Impact on Women:** In this area, women **earn their living by selling prawns and fish that they catch in the river.** For this they must remain in waist-deep water for four to six hours per day, the salinity of the water has increased, putting their health at risk through **irregular menstrual cycles and miscarriages.**

## What Should be the Way Forward?

- **India-Bangladesh Collaboration:** The current JWG can be converted into a joint high-powered board and a set of **interdisciplinary experts** to plan and **implement climate resilience** of the Sundarbans and **welfare of the communities dependent on this ecosystem.**
  - Institutional mechanisms should be blended with flexibility to work across multiple

sectors, **engaging locals for tackling the on ground issues effectively.**

- The two nations can learn from several international initiatives such as the **Amazon Cooperation Treaty Organisation** and the **Senegal River Basin Development Organisation**.
- **Multi-Sectoral Approach:** A **multilayered approach to multi-engagement and multidimensional planning** can be followed by the ministries of tourism, disaster management, agriculture, fisheries, and rural development.
  - **Biodiversity mapping, resilient housing and public infrastructure, response systems to chemical/oil spills, [ecotourism](#), early warning systems, and nature-positive and [nature-based solutions](#)** for transforming the future of Sundarban.
- **Responsibilities of Locals:** Apart from the Centre and State government initiatives, the local communities themselves have to take up some action plans.
  - The people can adopt the concept of **backyard farming instead of using the salinated lands**. At times, the salinated lands might be used by the people. In such cases, the local government should recommend crops that can be grown on salinized lands.
- **Journey Towards Global Role Model:** Successful climate-resilient and inclusive development in Sundarban possesses the potential to enhance **India's international image** and serve as a model for other deltaic regions and **[Small Island Developing States](#)**.

### ***Drishti Mains Question***

Examine how climate change is affecting the mangrove ecosystem of Sundarban and suggest measures to mitigate the challenges.

## **UPSC Civil Services Examination, Previous Year Question (PYQ)**

**Q. Consider the following protected areas: (2012)**

1. Bandipur
2. Bhitarkanika
3. Manas
4. Sundarbans

**Which of the above are declared Tiger Reserves?**

- (a) 1 and 2 only  
(b) 1, 3 and 4 only  
(c) 2, 3 and 4 only  
(d) 1, 2, 3 and 4

**Ans: (b)**