



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.

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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)