



STATE OF THE WORLD'S MANGROVES - ENVIRONMENT

News: *The Global Mangrove Alliance (GMA) has released a report titled 'The State of the World's Mangroves, 2024' on World Mangrove Day (26 July).*

What's in the news?

Key Highlights of the Report

- **Distribution:**
 - Southeast Asia accounts for 33.6 percent of global mangrove cover with **Indonesia alone having 21 percent** of the world's mangroves.
- **Area under threat:**
 - Mangrove areas of Indonesia, northeast Brazil and northwest Mexico are experiencing significant losses.
 - Mangroves in Lakshadweep archipelago and on the coast of Tamil Nadu are critically endangered.
- **Reasons for Loss:**
 - Conversion to aquaculture, oil palm plantations and rice cultivation together accounts for **43 percent of mangrove losses** between 2000 and 2020.
 - **Shrimp farms** that are mostly constructed within the vital intertidal zones, resulting in the total removal of mangroves.

Mangroves

- A mangrove is a **small tree or shrub** that grows along coastlines, taking root in salty sediments, often underwater.
- Mangroves are flowering trees, belonging to the families **Rhizophoraceae, Acanthaceae, Lythraceae, Combretaceae, and Arecaceae.**
- **Features:**
 - **Saline Environment:** A speciality of mangroves is that they can survive under extreme hostile environments such as high salt and low oxygen conditions.
 - The roots filter out 90% of the salt they come into contact with within the saline and brackish water.
 - **Low oxygen:** Underground tissue of any plant needs oxygen for respiration. The mangrove root system absorbs oxygen from the atmosphere.
 - **Store Freshwater:** Mangroves, like desert plants, store fresh water in thick succulent leaves.
 - **Mangroves are viviparous:** Their seeds germinate while still attached to the parent tree. Once germinated, the seedling grows into a propagule.
- The **Sundarbans in West Bengal** are the largest mangrove region in the world and a **UNESCO World Heritage Site.**
- The second largest mangrove forest in India is **Bhitarkanika (Ramsar site)** in Odisha created by the two river deltas of **Rivers Brahmani and Baitarani.**



Importance of Mangroves

- Act as natural barriers against storm surge, coastal flooding and sea-level rise.
- They provide habitat for a diverse array of terrestrial organisms.
- Mangroves are powerhouses when it comes to carbon storage.
- Sources of Livelihood.



Steps Taken

- **Indian Initiatives:**
 - **Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) Programme:** Aims to protect and revive mangrove ecosystems on the Indian coast while enhancing the socio-economic status of coastal communities.
 - **Conservation and Management of Mangroves and Coral Reefs:** The promotional measures are being implemented through a Central Sector Scheme namely 'Conservation and Management of Mangroves and Coral Reefs' under National



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Coastal Mission Programme of the Ministry of Environment, Forest & Climate Change.

- **Global Initiatives:**

- **Global Mangrove Alliance (GMA):** It is a joint effort of more than 30 organizations, including IUCN, working to expand the global extent of mangrove habitat 20% by the year 2030.
- **Mangrove Alliance for Climate (MAC):** It is an initiative led by the United Arab Emirates (UAE) and Indonesia, which includes India as its member, seeks to educate and spread awareness worldwide on the role of mangroves in curbing global warming and its potential as a solution for climate change.

