

World Wetlands Day

2ND FEB
2023

Theme: "Wetlands Restoration"

Introduction

World Wetlands Day is celebrated every year on 2nd February, it aims to raise global awareness with the vital role of wetlands for people and plants. This day also marks the anniversary of the Convention on Wetlands, which was adopted as an international treaty in 1971, in the Iranian city of Ramsar.

National Plan for Conservation of Aquatic Ecosystems (NPCA)

- National Plan for Conservation of Aquatic Ecosystems (NPCA) is a single conservation programme for both wetlands and lakes.
- It is a centrally sponsored scheme, being implemented by the Union Ministry of Environment and Forest (MoEF).
- It was formulated in 2015 by merging of the National Lake Conservation Plan and the National Wetlands Conservation Programme.
- NPCA seeks to promote better synergy and avoid overlap of administrative functions.

Types of Wetlands

The Convention on Wetland uses a broad definition of wetlands that includes both freshwater and marine and coastal ecosystems such as all lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peatlands, oases, estuaries, deltas, and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fishponds, rice paddles, reservoirs and saltpans.

Why Wetlands are important

- **Wetlands are important for humanity but it is at a tipping point.**
- **Only 2.5 % of water on earth is freshwater, mostly stored in glaciers and aquifers, less than 1% is usable and 0.3% is found in wetlands such as rivers and lakes.**
- **Wetlands store more carbon than forests. Coastal wetlands like mangroves sequester and store carbon up to 55% times faster than tropical rain forests.**
- **It helps to cope with storms and flooding. Inland, a single acre of wetland can absorb up to 1.5 million gallons of floodwater.**
- **Wetlands are a source of livelihoods and food. It provides rice for 3.5 billion people and more than a billion people live from fishing, aquaculture and tourism.**

Wetlands are disappearing

- ◆ **Wetlands are among the ecosystems with the highest rates of decline, loss and degradation.**
- ◆ **Wetlands are disappearing three times faster than forests and are Earth's most threatened ecosystem.**
- ◆ **Human activities are driving wetland degradation. It is being filled in for agriculture and urban construction.**
- ◆ **More than 80% of all wetlands have disappeared since the 1700s.**
- ◆ **Wetland species are facing extinction.**
- ◆ **81% of inland wetland species and 36% of coastal and marine species have declined in the last 50 years.**
- ◆ **Water pollution and over fishing has also contributed in harming the wetland ecosystem.**

Best ways to restore Wetlands



- ✓ Develop a restoration plan.
- ✓ Involve the community.
- ✓ Address the causes of degradation.
- ✓ Restore native flora and fauna.
- ✓ Clean up the degraded area.
- ✓ Structure access to the wetlands.

Nagaland has 421 wetlands, spreading over 215 sq km across the state.

Benefits of restoring Wetlands

- 1. Revive Biodiversity:** 40% of the world's species live or breed in wetlands. Restoring wetlands powers the local food chain and attracts wildlife.
- 2. Improve Water Quality:** Water can intercept runoff from surfaces prior to reaching open water and remove pollutants through physical, chemical, and biological processes. It also provides cost effective alternative to traditional wastewater and storm water treatment.
- 3. Acts as a source of water:** Wetlands serve as a primary source of freshwater. Over 95% of the available freshwater is found in aquifers, making them the most important source of drinking water and irrigation.
- 4. Serves as flood and storm buffers:** They reduce droughts and serve as flood buffers. It operates as sponges in the upper part of a basin, absorbing precipitation and snowmelt and allowing water to gently percolate into soil.
- 5. Acts a source of diverse products:** Wetlands that are sustainably managed can provide a variety of plants, animals and mineral goods. Coastal wetlands are the source of about two-thirds of all fish.

6. For recreation and tourism: Wetlands are excellent locations for recreation and tourism due to their natural beauty and diversity of plant and animal life.

7. Home to indigenous species: Several wetlands serve as the home to many indigenous species that are either threatened or highly threatened.

8. Serves as a habitat for migratory birds: Thousand bird species travel thousands of miles between breeding and non-breeding places on a seasonal basis. Wetlands are used by migratory birds as rest stops, feeding grounds and nesting grounds.

How do Wetlands combat climate change?

- ◆ They absorb carbon dioxide to help slow global heating and reduce pollution, hence it is often referred to as the “Kidneys of the Earth”.
- ◆ Peatlands alone store twice as much carbon as all the world’s forests combined.
- ◆ Wetlands also provide a buffer against the impacts of floods, droughts, hurricanes, and tsunamis, and build resilience to climate change.

75 Ramsar sites in India

- On 75th year of independence (2022), India added 11 new wetland sites to its list of Ramsar sites, bringing the total to 75 sites spanning a total area of 13, 26,677 hectares.
- As per the record in August 2022, the state Tamil Nadu has the most Ramsar sites in India (14), followed by the state of Uttar Pradesh with 10 sites.
- Goa, Karnataka and Mizoram got their first Ramsar sites in 2022.

