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# PUDUCHERRY EIACP HUB

(Environmental Information, Awareness, Capacity Building and Livelihood Programme)

Host Centre: Puducherry Pollution Control Committee  
Sponsored by Ministry of Environment, Forest & Climate Change  
Government of India, New Delhi



## World Wetlands Day

Theme: "Revive and Restore Degraded Wetlands"



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## What is Wetlands?

Ramsar Convention on Wetlands of 1971 defines wetlands as - “areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres”. and “may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands”.

## Revive and Restore Degraded Wetlands

Wetlands are ecosystems where water is the primary factor controlling the environment and the associated plant and animal life. A broad definition of wetlands 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 paddies, reservoirs and saltpans.

These lands are critical to people and nature, given the intrinsic value of these ecosystems, and their benefits and services, including their environmental, climate, ecological, social, economic, scientific, educational, cultural, recreational and aesthetic contributions to sustainable development and human wellbeing.

Though they cover only around 6 per cent of the Earth’s land surface, 40 per cent of all plant and animal species live or breed in wetlands. Wetland biodiversity matters for our health, our food supply, for tourism and for jobs. Wetlands are vital for humans, for other ecosystems and for our climate, providing essential ecosystem services such as water regulation, including flood control and water purification. More than a billion people across the world depend on wetlands for their livelihoods – that’s about one in eight people on Earth.

## Why they are in danger

Wetlands are among the ecosystems with the highest rates of decline, loss and degradation. Indicators of current negative trends in global biodiversity and ecosystem functions are projected to continue in response to direct and indirect drivers such as rapid human population growth, unsustainable production and consumption and associated technological development, as well as the adverse impacts of climate change.

Wetlands are disappearing three times faster than forests and are Earth’s most threatened ecosystem. In just 50 years — since 1970 — 35% of the world’s wetlands have been lost. Human activities that lead to loss of wetlands include drainage and infilling for agriculture and construction, pollution, overfishing and overexploitation of resources, invasive species and climate change.

This vicious cycle of wetland loss, threatened livelihoods, and deepening poverty is the result of mistakenly seeing wetlands as wastelands rather than lifegiving sources of jobs, incomes, and essential ecosystem services. A key challenge is to change mindsets to encourage governments and communities to value and prioritize wetlands.

### Wetlands (Conservation and Management Rules) 2017

<https://indianwetlands.in/our-work/wetlands-conservation-and-management-rules-2017/>



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## How do wetlands combat climate change?

Ramsar Convention on Wetlands of 1971 defines wetlands as - “areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres”. and “may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands”.



Wetlands are a natural solution to the era-defining global threat of climate change. They absorb carbon dioxide so help slow global heating and reduce pollution, hence have often been referred to as the “Kidneys of the Earth”. Peatlands alone store twice as much carbon as all the world’s forests combined. But, when drained and destroyed, wetlands emit vast amounts of carbon.

Wetlands also provide a buffer against the impacts of floods, droughts, hurricanes and tsunamis, and build resilience to climate change.

## Ramsar Convention on Wetlands

1. The Ramsar Convention on Wetlands is an international treaty for “the conservation and sustainable use of wetlands”. It is also known as the Convention on Wetlands.
2. It is named after the city of Ramsar in Iran where it was signed on 2nd of February 1971.
3. The 2nd of February each year is World Wetlands Day.
4. The number of parties to the convention (COP) is 171 (as of Jan 2023).
5. At the centre of the Ramsar philosophy is the “wise use” of wetlands.
6. Wise use: Maintenance of ecological character within the context of sustainable development.

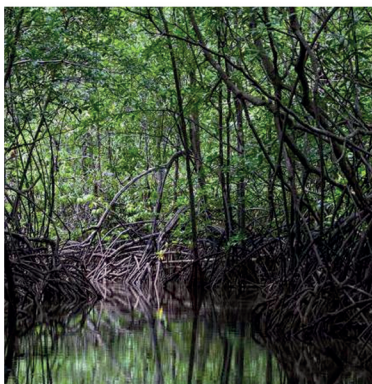
## Why it is Celebrated?

We celebrate World Wetlands Day (WWD) to raise global awareness about the high importance of wetlands for people and our planet. WWD is also an occasion to commemorate the signing of the Ramsar Convention on Wetlands in the Iranian city of Ramsar in 1971.

“Revive and Restore Degraded Wetlands”, the theme for WWD 2023. Wetlands are ecosystems where water is the primary factor controlling the environment and the associated plant and animal life. Wetlands are among the ecosystems with the highest rates of decline, loss and degradation. Though they cover only around 6 per cent of the Earth’s land surface, 40 per cent of all plant and animal species live or breed in wetlands.

This vicious cycle of wetland loss, threatened livelihoods, and deepening poverty is the result of mistakenly seeing wetlands as wastelands rather than lifegiving sources of jobs, incomes, and essential ecosystem services. A key challenge is to change mindsets to encourage governments and communities to value and prioritize wetlands.

***“We are losing wetlands three times faster than forests. There is an urgency to raise global awareness on wetlands to arrest and reverse their rapid loss and encourage actions to restore and conserve these vital ecosystems.”***



## Benefits of Wetlands

This highlights the role wetlands play in:

- clean water
- water supply
- ecosystem resilience
- sustainable livelihoods and jobs
- biodiversity conservation
- storm protection
- carbon storage
- climate change adaptation
- health and well-being
- tourism and recreation
- Erosion Control
- Water Purification
- A Home for Animals
- Rejuvenating Ecosystems
- Release Vegetative Matter
- Prevent Flooding
- Habitat Enhancement.

## What are the different types of wetlands?

**Marsh** - Marsh is the predominant wetland found at Wye Marsh and is often characterized by the presence of cattails and other reeds, rushes and sedges. Marshes are also characterized by slow or standing water.

• **Swamp** - Swamps are wetlands that are characterized by seasonally standing or moving water as well as occasional trees and shrubs.

• **Fen** - Fens are peatlands dominated by grasses, sedges, reeds, black spruce and tamarack.

• **Bog** - Bogs are also peatlands, but are dominated by peat mosses and black spruce trees.

**Open Water** - Shallow or open water is characterized by water depths less than 2 metres and are usually transitions stages between lakes and marshes

## Why Wetlands are called Ramsar Sites?

- In 1971, an international treaty was signed at Ramsar.
- Iran for the conservation and sustainable use of wetlands.
- The mission of the Convention is "the conservation and wise use of all wetlands through.
- Local and National actions and international cooperation, as a contribution towards achieving
- Sustainable development throughout the world".
- Ramsar Convention is an only intergovernmental treaty which gives a solid framework to the nations for the conservation and use of wetlands and their resources and helps to protect such unique ecosystems.
- It is also known as the "Convention on Wetlands". It was adopted in the Iranian city of Ramsar on 2nd February 1971 and came into force on 21<sup>st</sup> December 1975.

## The mission of the Convention

- The mission is "the conservation and wise use of all wetlands through local and international actions and international cooperation, as a contribution towards achieving sustainable development throughout the world".
- Contracting parties vow for international cooperation to protect wetlands in the following three ways known as "three pillars for co-operation".
  1. Make judicious use of all their wetlands.
  2. Designate suitable wetlands for the list of "Wetlands of International Importance" (Ramsar List) and ensure effective management of the wetlands.
  3. International cooperation on transboundary wetlands shared wetland systems etc.





## Wetland Conservation

### Why is wetland conservation anything to be concerned about?

Wetlands are crucial habitat for waterfowl and many other wildlife and plants serving as the ecosystem. Wetlands perform essential services to us that we are mostly not even aware of: mitigate flooding, provide a source of water in droughts, prevent erosion, clean our water and can even help to mitigate climate change by helping to store greenhouse gases.

Most importantly wetlands, just like the Wye Marsh, offer one of the best sources for low impact recreation and learning opportunities for people in all walks of life.

But even with all those crucial roles that wetlands play they are still one of the most threatened habitats/ecosystems on Earth.

Wetland restoration is a long and difficult process so the best practice is to protect the wetlands that remain. And by reading this page you are already becoming aware of the issues that face wetlands and can hopefully make some positive contributions to their protection.

### Wetland losses – a threat to ecological balance

- Dredging, draining, and/or filling wetland areas for conversion to agricultural, industrial or residential lands
- Population growth and urban development
- Sand and gravel mining and mineral extraction activities
- Peat extraction activities
- Timber harvesting
- Oil and gas exploration
- Waste disposal
- Storm-water pollution and water contamination
- Nutrient enrichment

## Map of RAMSAR Wetland Sites in India (As on November, 2022)

(Source: Ministry of Environment & Forests, Government of India)

