Mainstreaming Wetland Conservation

Why in News?

The suo motu public interest litigation by the Meghalaya High Court very recently, to monitor the conservation of wetlands in the State brings the focus back on this important ecosystem.

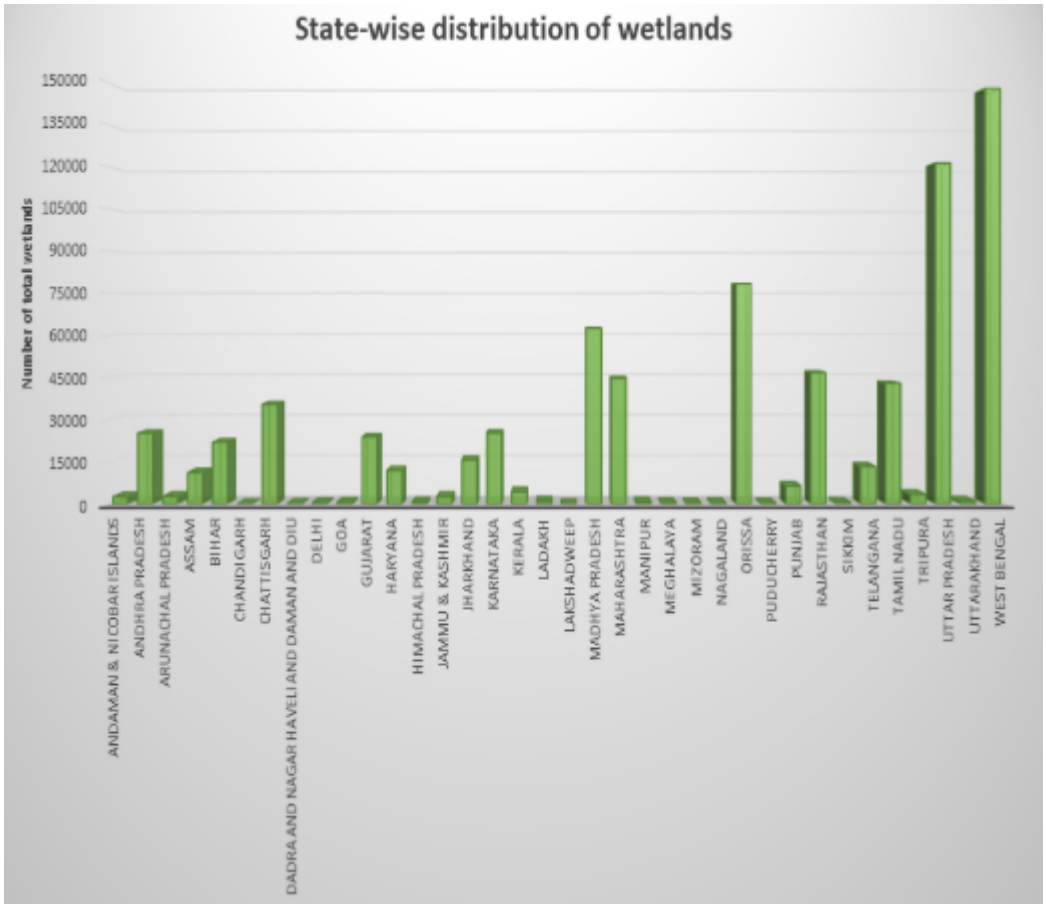
What is the status of wetlands in India?

- **Ramsar sites** – As on February 2025 , India has 89 Ramsar sites , covering 8% of total wetlands area in India.

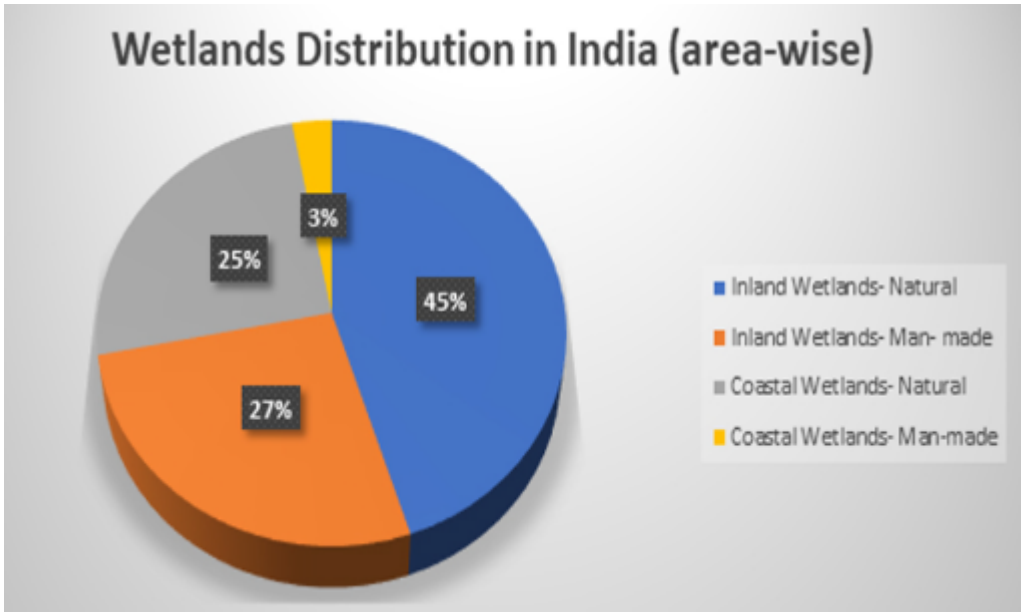
  Since 1971, February 2 is observed every year as ‘World Wetland Day’ to mark the adoption of the Ramsar Convention.

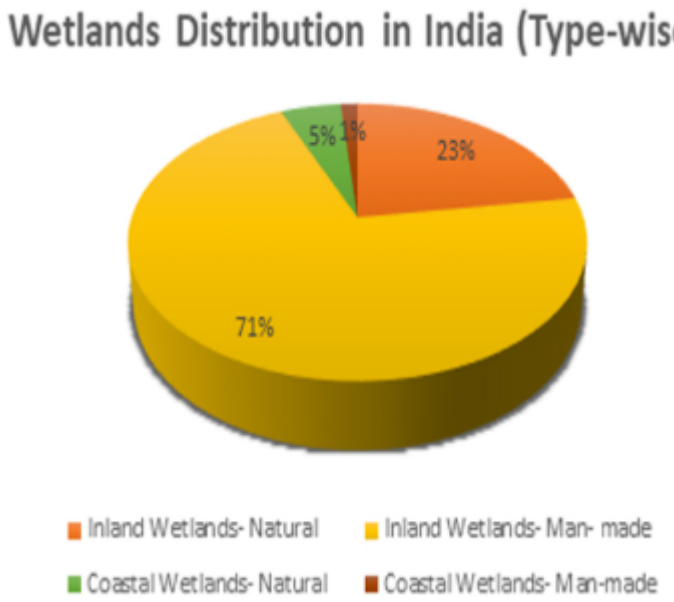
  The theme this year 2025 was ‘Protecting Wetlands for Our Common Future”.

- **Distribution** - These are distributed from the coasts to Himalayan territory, and are diverse in nature.



- **Types** - Based on the location, wetlands are classified as inland and man-made and By 2017-18, India had 66.6% of wetlands as natural wetland (43.9% as inland wetland and 22.7% as coastal wetland).





- **Recent trend** - The general trends indicate a reduction in natural wetlands and an increase in man-made wetlands across the country.
- **Decline in wetlands vegetation** - Nearly 30% of the natural wetlands in India have been lost in the last four decades due to urbanisation, infrastructure building, agricultural expansion and pollution.
- **Urban loss** - The loss is more in urban areas, especially around major urban centres.
- Mumbai lost 71% of its wetlands between 1970 to 2014 and Chennai has lost 85% of its wetlands.

What are the pressures on wetlands?

- **Diversion** - Since 1900, as much as 50% of the area under wetlands has been diverted to accommodate various other uses.
- **Global decline** - Wetland surface area, both coastal and inland, declined by about 35% between 1970 and 2015.
- **Rate of loss** - Globally, the rate of loss estimated with the Wetland Extend Trends (WET) index is (-)0.78% a year.
- It is more than three times higher than the loss rate of natural vegetation as estimated by the Food and Agriculture Organization of the United Nations.
- **Loss of wetland species** - Around 81% of inland wetland species population and 36% of coastal and marine species have declined since 1970.
- **Infrastructure projects** - Construction of dams, weirs, and other water management structures alters natural water flows, affecting wetland health.
- **Non-native plants and animals** - Species like water hyacinth and killer shrimp outcompete native species, disrupt food chains, and alter ecosystem functions.

How wetland conservation is linked with development activities?

- **Agriculture development** – Wetlands ensure a reliable water supply, supporting agriculture and human needs, especially during droughts.
- **Disaster risk reduction** - Wetlands protect against storms and floods, enhancing

resilience in the face of climate-related disasters.

- **Climate regulation** - Wetlands play a crucial role in regulating climate by storing carbon and moderating temperature and humidity.
- **Livelihood support** - Wetlands are crucial for the livelihoods of communities that depend on them for fishing, agriculture, and other economic activities.
- **Job creation** - Wetlands sustain millions of jobs in tourism, fishing, and other industries, contributing to economic growth and poverty reduction.
- **Research and education** - Wetlands serve as valuable sites for scientific research and environmental education.

Ramsar Convention COP14 ,laid stress on preparation of the fifth Ramsar Strategic Plan and recognised that the conservation and management of wetlands cannot be a stand-alone initiative.

How Ramsar convention contributes to other international environmental treaties?

- **Biodiversity conservation** - Wetlands are crucial for maintaining biodiversity and contributes to achieve Kunming-Montreal Global Biodiversity Framework (KMGBF).
- **Climate change mitigation**- Natural carbon sequestration capability of wetlands supports UNFCCC goals by reducing atmospheric CO2 levels.
- **SDG** - Wetland conservation is integral to achieving several SDGs including those related to clean water (SDG 6), climate action (SDG 13), and sustainable agriculture (SDG 2)
- **Combating desertification** - Wetlands play a crucial role in maintaining soil moisture , preventing land degradation and contributes to the implementation United Nations Convention to Combat Desertification (UNCCD).
- **Migratory species protection** - The Ramsar Convention collaborates with the Convention on Migratory Species (CMS) to protect migratory waterbirds and their habitats.
- **World Heritage Sites** - Many Ramsar sites are also designated as World Heritage Sites, highlighting their global significance

What lies ahead?

- Recognise the larger dimension and investigate the physical, social and economic factors affecting wetland degradation.
- Evaluate the drivers which have led to modifications in wetland surroundings, and the ex-situ pressure contributing to wetland degradation.
- More effective and comprehensive management strategies are required in response to escalating stress from various climatic and anthropogenic factors.
- Mainstream wetland conservation within the development plan, as advocated during the Ramsar COP14.

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Reference

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