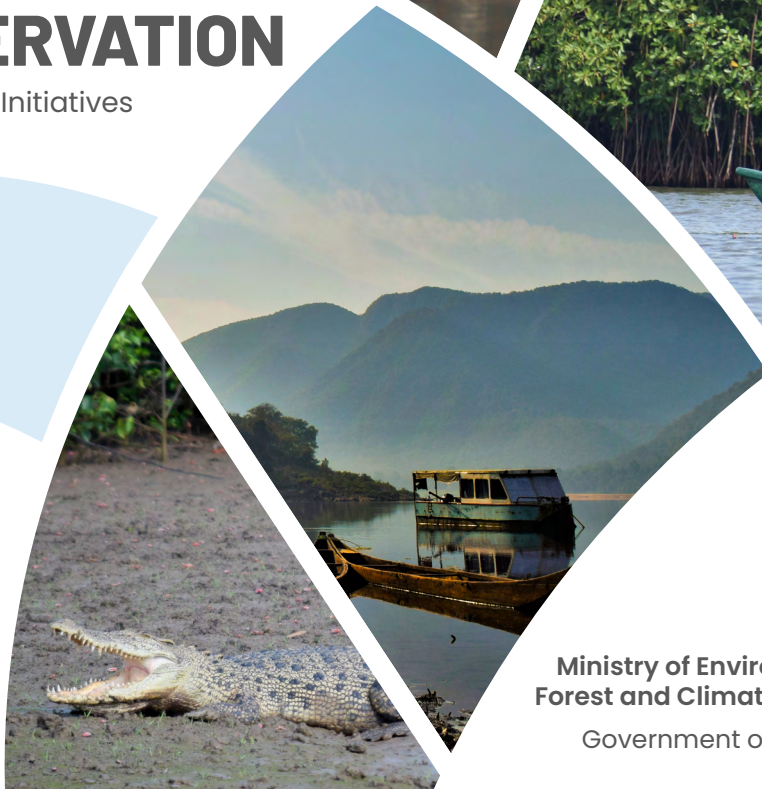




WETLANDS CONSERVATION

Approach and Initiatives



Ministry of Environment,
Forest and Climate Change
Government of India

WETLANDS

WETLANDS ARE ECOSYSTEMS AT THE INTERFACE OF LAND AND WATER.

The Ramsar Convention, an intergovernmental treaty on wetlands, 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 tides does not exceed six meters.*’

India, owing to the extremes of climatic, geological and topographic diversity, is endowed with a rich diversity of wetlands ranging from high-altitude lakes in the Himalayas, marshes and swamps in the *Terai*, floodplains and ox-bows in the Gangetic-Brahmaputra alluvial plains, saline flats in the great Indian Desert, tanks and reservoirs in the Deccan region and extensive mangrove marshes and coral reef areas interspersed along the country’s over 8,000 km long

coastline. These ecosystems range from small village ponds (having areas less than an acre) to large lagoons such as Chilika and Vembanad backwaters with an expanse of over a thousand square kilometres.

As per the National Wetlands Atlas, India has 15.98 million ha under wetlands, accounting for nearly 4.86% of her geographical area.

ECOSYSTEM SERVICES AND BIODIVERSITY VALUES

Wetlands are important societal assets and are referred to as ‘cradles of human civilisation’ and ‘kidneys of landscape’. Some of the major societal benefits (ecosystem services) and biodiversity values of wetlands are as follows:



Serve as a principal source of freshwater such as drinking and water for irrigation



Act as a ‘natural storage reservoir’ enabling water storage and buffer for floods and droughts



Mangroves, Coral reefs and Seagrass beds help mitigate the impacts of tropical cyclones and tsunamis, as well as stabilise shorelines



Peatlands, mangroves and salt marshes act as natural carbon sinks by storing atmospheric greenhouse gases and help in mitigating climate change impacts



Provide a range of plants, animals and minerals for human use. Rice and fish are some of the key wetland products that sustain humanity



Purify water by locking up pollutants and heavy metals in wetland sediments and vegetation



Serve as habitats for over 1200 plant and 18000 animal species, including several of high conservation value locally, nationally and globally



Provide stopovers for thousands of migratory bird species for resting, feeding and breeding during their journey of miles to avoid the harsh winters of the temperate region



Have deep connections with our culture and traditions, providing avenues for recreation and tourism



WETLAND CONSERVATION POLICY AND PROGRAMMING

The Ministry of Environment, Forest and Climate Change is the nodal agency for all policy and programmatic aspects of wetlands conservation. The Ministry has a dedicated Wetlands Division to coordinate its various initiatives related to wetlands.

Wetland conservation draws strength from India's rich legacy of environmental conservation enshrined in various policies, legislations and regulatory regimes. *The Indian Constitution encapsulates this spirit in Article 51-A (g), stating that "it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures."*

Policy framework: The National Environment Policy of 2006 lays down specific policy elements for wetlands. Wetlands have been identified as components of 'freshwater resources', and the recommended policy actions for

wetlands conservation include integration in developmental planning, management based on the prudent use strategies, promotion of ecotourism, and implementation of a regulatory framework. Provisions of the Indian Forest Act, 1927 and the Indian Wildlife (Protection) Act, 1972 define the regulatory framework for wetlands located within forests and designated protected areas. Similarly, the Indian Fisheries Act, 1897, Water (Prevention and Control of Pollution) Act, 1974, and Biological Diversity Act, 2002 provide substantive legal and regulatory conditions for conservation of Indian wetlands. India's *National Wildlife Action Plan (2017-2031)* identifies the conservation of inland aquatic ecosystems as one of the 17 priority areas and envisages the development of a national wetlands mission and a national wetlands biodiversity register as key interventions. The *National Action Plan on Climate Change* includes wetland conservation and sustainable management in the *National Water and Green India Mission*.

Support for integrated wetlands management: The MoEF&CC established a national programme on wetlands in 1986 to assist State Governments in implementing management plans for prioritised wetlands. The national wetlands programme is currently known as the *National Plan for Conservation of Aquatic Ecosystems (NPCA)* and has subsumed the programme on urban wetlands.

Regulatory Framework: Wetlands receive protection from several centrally enacted rules and

regulations. Provisions of the Indian Forest Act, 1927, the Forest (Conservation) Act, 1980 and the Indian Wildlife (Protection) Act, 1972 defines a regulatory framework for wetlands located within forests and designated protected areas. MoEF&CC notified Wetlands (Conservation and Management) Rules, 2017, under the provisions of the Environment (Protection) Act, 1986. As per the provisions of these Rules, State/UT Wetland Authorities have been constituted as the main policy and regulatory bodies within States/UTs.

Wetlands Inventory: A remote sensing-based national wetlands inventory provides the spatial data framework for policy making and programming. The *National Wetland Atlas* has been prepared by the Space Applications Centre using satellite imagery on a 1:50,000 scale.

Knowledge and research: A national wetland portal was launched in 2021 as an information hub for wetland authorities, site managers, administrators, decision-makers, students, and citizens. The portal currently has information on wetlands inventories; health cards of more than 600 wetlands; capacity building, education, participation and awareness activities; and learning and knowledge products and e-learning material.

Participatory management with a 'Whole of Society' approach: In May 2022, the Ministry launched *Mission Sahbhagita* as an important step towards participatory conservation and wise use of wetlands. The mission is structured on the whole of society and whole of government approach, bringing communities



and primary stakeholders to the forefront.

To strengthen the role of citizens in wetlands conservation and management, the MoEF&CC launched the Save Wetlands Campaign in 2023. The campaign

aims to sensitise people about the values of wetlands, increase the coverage of wetland mitras and build citizen partnerships for wetland conservation. Through the *Save Wetlands Campaign*, the Ministry envisages making wetland conservation a people's movement and inspire, infuse pride and ownership amongst stakeholders to adopt sustainable lifestyles for healthy wetlands and promote wise-use of wetlands, aligning with *Mission Lifestyle for Environment (LiFE)* for wetlands.

In June 2023, the Ministry launched the Amrit Dharohar Initiative to promote the unique conservation values of the Ramsar Sites. The

three-year initiative, through its four components, namely Species and Habitat Conservation, Wetlands Livelihoods, Nature Tourism and Wetlands Carbon, aims to create, demonstrate, replicate and upscale the effect on wetlands of national and international importance.

Communication and Outreach:

The Ministry regularly organises events and publishes knowledge material for communication and

outreach. Annual celebrations of World Wetlands Day are organised at wetlands of international and national significance to raise awareness about the vital role of wetlands for people and the planet. A six-monthly newsletter, *Anup*, is also published by the Ministry to keep the stakeholders updated on major developments in the States and the Central Government. The MoEF&CC also steers the development and refurbishment of wetlands interpretation centres as a hub of communication, education, participation and awareness activities. The MoEF&CC has also launched a Wetlands of India portal that provides a platform for the people of the country to learn more about wetlands and get involved in their conservation and management.

Private sector engagement: The MoEF&CC also champions private-sector partnerships in wetlands conservation. A Memorandum of Cooperation has been signed between the *Indian Business and Biodiversity Initiative* (established by the MoEF&CC and the Confederation of Indian Industries to enable Indian Businesses to make commitments for biodiversity conservation and sustainable use) and the MoEF&CC to foster participation of corporates in wetlands management and conservation efforts. The *India Wetland Coalition (IWC)* was launched in 2022 to enable

business partnerships for Wetlands Conservation, addressing the risk of nature loss and building resilience to climate change.

Capacity development: To strengthen the capacity of wetland managers and stakeholders for effective management of wetlands, the Ministry has executed technical handholding for many years. Regional workshops under the aegis of *Mission Sahbhagita* are organised to provide a platform for wetland managers to share best wetland management practices and discuss key challenges and issues. Online courses and training materials have been developed and published on the national wetlands portal. The Ministry has also come out with guidelines and publications for the dissemination of information regarding wetlands. The Guidelines provide a roadmap for implementing regulatory frameworks and initiatives launched by the Ministry.

Knowledge Partners: The Ministry also provides technical handholding through regional workshops and review meetings with the Knowledge Partners to strengthen the capacity of wetland managers and stakeholders for effective management of wetlands and creating an enabling and participatory governance environment.

INTERNATIONAL COOPERATION

India ratified the Convention on Wetlands, known as the Ramsar Convention in February, 1982. The Convention provides a framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. As a contracting party, India is committed to the three pillars:

- I. designating wetlands to the *List of Wetlands of International Importance*;
- II. working towards the wise use of wetlands, and
- III. cooperating internationally on transboundary wetlands, shared wetlands and shared species.

The Ministry is also working in partnership with bilateral and multilateral organizations to improve wetlands management in India. Currently, two projects are active with international stakeholders:

- I. *Wetlands Management for Biodiversity and Climate Protection*—Commissioned by German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU) under International Climate Initiative (IKI).
- II. *Integrated Management of Wetland Biodiversity and*

Ecosystem Services (IMWBES)—with support of Global Environment Facility (GEF) and UN Environment Programme.

International cooperation projects help in strengthening the capacities and institutional framework for wetlands' management, monitoring as well as effective implementation of the NPCA.

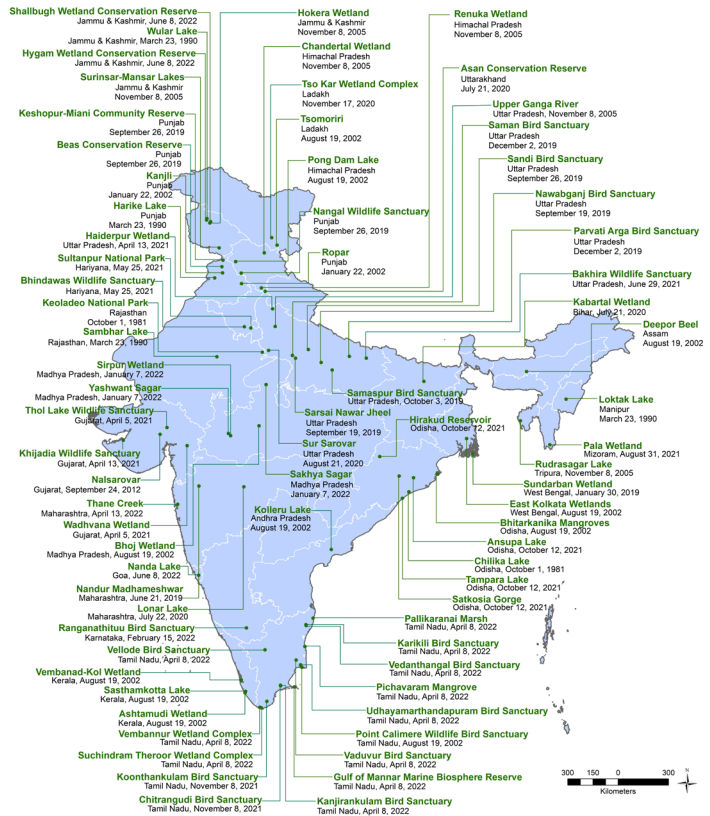
RAMSAR SITES OF INDIA

India has the largest network of Ramsar Sites in South Asia

The MoEF&CC has designated 75 wetlands, spanning 1.33 million Ha (~8% of known wetland regime), to the *List of Wetlands of International Importance*.

The vision of designating the Ramsar Sites is to 'develop and maintain an international network of wetlands which are important for the conservation of global biological diversity and for sustaining human life through the maintenance of their ecosystem components, processes and benefits/ services.

Designating wetlands to the Ramsar Sites network is an affirmation of India's commitment towards 'maintenance of ecological character', also referred to as wise-use.



The Indian Ramsar List includes diverse wetlands ranging from...

Himalayan high-altitude wetlands: Tso Kar Wetland Complex, Tso Moriri, Chandertal

Lakes and marshes: Wular, Hokera, Kolleru, Renuka, Keoladeo, Kabartal, Nawabganj, Loktak, Deepor, Rudrasagar, Sandi, Parvati Arga, Saman, Keshopur-Miani, Sultanpur, Nalsarovar, Sasthankotta, Haiderpur, Khijadia, Bakhira, Pala, Nandur-Madhmeswar, Shallbugh, Ansupa, Pallikarnai, Kanjirankulam, Samaspur, Sarsai Nawar and Hygam

River stretches: Upper Ganga River, Beas Conservation Reserve, Kanjili, Ranganathithu and Satkosia

Salinas: Sambhar

Crater lake: Lonar

Mangrove swamps: Sundarbans, Pichavaram, Bhitarkanika, Point Calimere

Lagoons, estuaries and near-shoreline marine areas: Chilika, Ashtamudi, Vembanad-Kol, Thane Creek, Tampara and Gulf of Mannar Biosphere Reserve

Assemblages of sewage fed fish farms: East Kolkata Wetlands

Water storage areas: Pong Dam, Harike, Ropar, Bhoj, Surinsar-Mansar, Bhindawas, Sur Sarovar, Asan, Wadhvana, Thol, Ranganathithu, Udhayamarthandapuram, Vedanthangal, Nanda, Sakhya Sagar, Koonthankulam, Sirpur, Karikili, Vembannur, Yashwant Sagar, Nangal, Hirakud, Vaduvu, Chitrangudi, Suchindram Theroor, and Vellode





THE WETLAND PLEDGE

The following wetland pledge, reminding citizens of their fundamental duties towards wetlands, is aimed at securing their participation and stewardship in conservation and management efforts. Over 1,30,000 individuals have taken this pledge so far and the number continues to grow.

We have volunteered as Wetland Mitras to keep our wetlands healthy

We recognize that wetlands play a vital role in social, economic and environmental well being

We understand that the degradation of wetlands by encroachment, disposal of solid and liquid waste and overuse of resources has impacted the health of people, nature and our diverse biodiversity

We recognize and uphold that collective and individual efforts shall bring a positive change towards wetland conservation

We pledge to take necessary actions and join hands with different stakeholders to protect and conserve our wetlands

We shall keep the wetlands free from solid and liquid waste, create awareness and motivate others to join this endeavour

We are proud to be Wetland Mitras

Our Wetlands, Our Heritage

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