Wetlands International South Asia

Annual Report

2023 – 2024

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Cover Photo: An aerial view of Ashtamudi estuary, Ramsar Site of Kerala
Back Cover Photo: Fishing boats along the shorelines of Chilika Lagoon, a Ramsar Site of Odisha

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ABOUT US

Wetlands International South Asia is a non-government organisation working to conserve and restore wetlands in the South Asia region.

Wetlands International South Asia is a global, independent, non-profit organisation dedicated to the conservation and restoration of wetlands, and presently works in over 100 countries through a network of 19 regional and national offices and expert networks with a Global Office in The Netherlands. It Is also an International Organisation Partner of the Ramsar Convention.

Wetlands International South Office in New Delhi was established in 1996 as a part of the Wetlands International network. In 2005, Wetlands International South Asia was registered under the Societies Registration Act of the Government of India .

The organisation deals with issues related to wetland loss and degradation and their restoration through various methods, which includes technical knowledge, policy dialogues, capacity development, and time-to-time dialogue with wetland managers and stakeholders to address various issues related to wetland conservation and restoration. The work spans over the following areas:

- Integrated management planning for securing wetland features and addressing risks of adverse change
- Mainstreaming wetlands in development plans, programmes and investments to reduce conservation-development trade-offs and enhance co-benefits
- Strengthening policy and institutions for effective implementation of wetland management actions
- Communication and outreach to promote affirmative societal behaviour for wetlands ecosystem
- Capacity and knowledge development to bridge the science-policy-action divide

GOVERNING BODY

Dr Sidharth Kaul,
President
Former Advisor (Wetlands), Ministry of Environment and Forests, Government of India

Prof JK Garg,
Vice-President
Director, Tribhuvan College of Environment and Development Sciences - Nalanda University Centre

Mr Pijush Sinha,
Treasurer
Board Member, Avendus Finance Private Limited

Prof CK Varshney
Professor Emeritus, Environmental Sciences, Jawaharlal Nehru University and Distinguished Adjunct Professor, AIT, Bangkok

Dr Sara Ahmed
Adjunct Professor, Indian Institutes of Science Education and Research (IISER), Pune and Founder, Living Waters Museum

Prof BB Dhar
Former Director, Central Institute for Mining Research, Council of Scientific and Industrial Research

Dr Lalitha Vijayan
Honorary Director, Salim Ali Foundation, Thrissur, Kerala

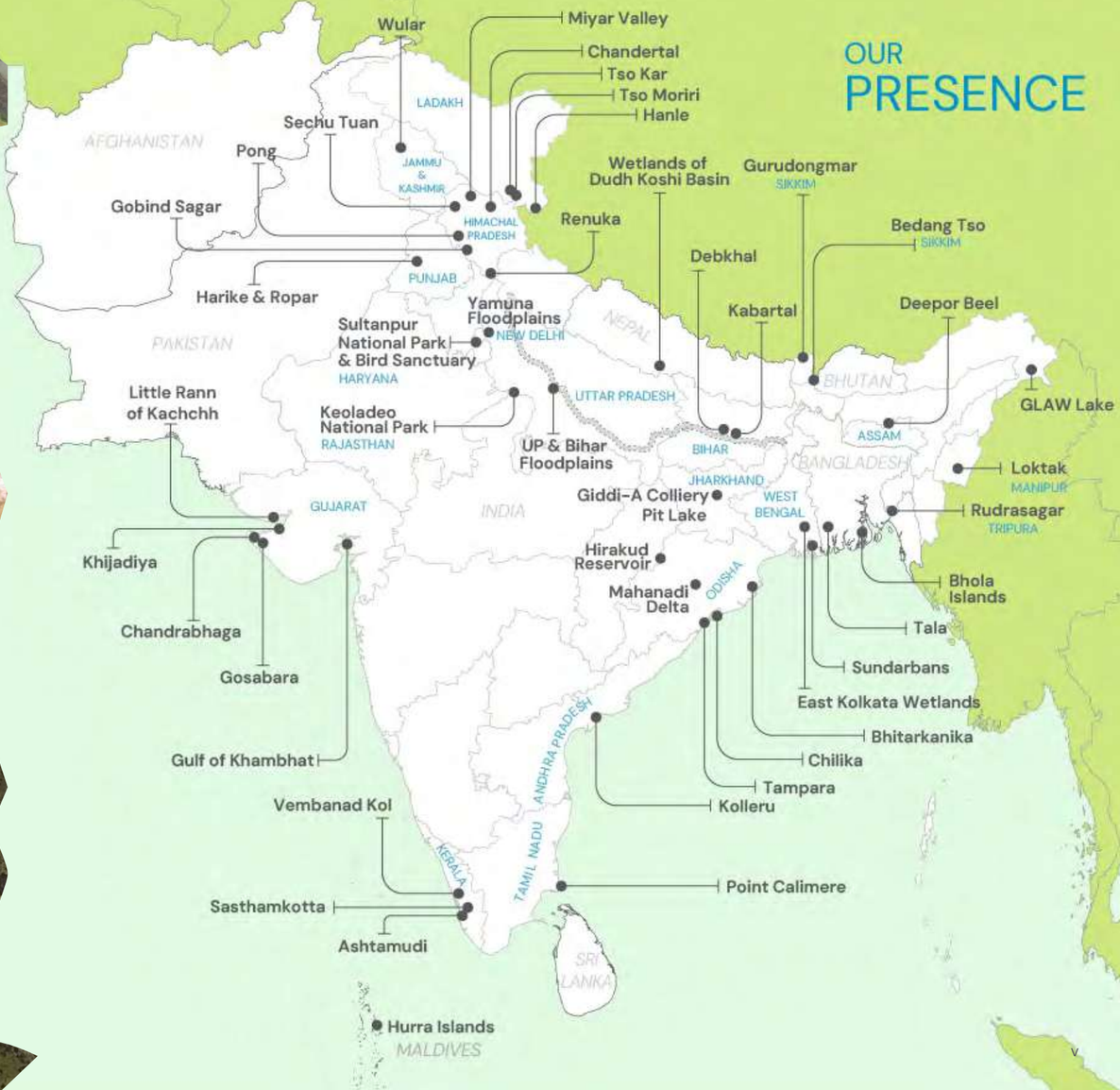
Prof MN Murty
Former Director, Institute of Economic Growth, New Delhi

Prof KV Jayakumar
Professor Emeritus, Civil Engineering Department, National Institute of Technology, Warangal, Andhra Pradesh

Dr Manoj P Samuel
Executive Director, KSCSTE-Centre for Water Resources Development and Management (CWRDM)

Mr Han De Groot
Chief Executive Officer, Wetlands International Global office, The Netherlands (ex-officio)

OUR PRESENCE



FROM
THE PRESIDENT

Our organisation, to date, has been instrumental in steering the cause of wetland conservation not only in India but in the South Asian region as well.

Our role has been appreciated at different levels, which is evident from the fact that we have been selected as knowledge partners by the Ministry of Environment, Forest and Climate Change, the Government of India, and several other states. The role of our organisation has grown in varied directions. Despite our continuous efforts in this direction, we need to improve the organisation's visibility at the global level. There is a need to work on more thematic areas in wetland conservation, which can be developed further and refined. The Annual Report will serve as a strong instrument for this purpose, highlighting the strengths of the organisation along with our constraints. With this background, I am highly delighted to present the 2023–24 annual report, which we tried to improve further through your substantive inputs. I also thank all our members for reposing faith in me and unanimously electing me as president for the third time for this triennium 2024–26.

During this triennium, we have been successful in establishing two regional offices, one on Himalayan Wetlands and the other on Coastal Deltas, to work exclusively on these thematic areas, which have not been worked on in detail, and we would like to bridge some gaps to make these programmes more viable. These new offices are funded through the corpus for the first two years, during which it is envisaged to work as per South Asian regional strategy. We have also initiated some activities in Ladakh, Jammu & Kashmir, Himachal Pradesh and Arunachal Pradesh under the Himalayan programme. Under the coastal front, we will work on management gaps in Tamil Nadu, Kerala and Karnataka. The Government of Arunachal Pradesh recently signed a Memorandum of Understanding with our organisation to support their wetland conservation programme and help them manage their wetlands in general and high-altitude wetlands in particular.

We have been instrumental in expanding our programmes in different directions. One of the programmes on peatland mapping has given us the vision to locate peat formations in the Himalayan region, and soon, we will be coming up with a map of Peatlands in India, on which very limited work has been carried out to date. We are also working on the loss of wetlands in different states to know precisely the reasons for the degradation, deterioration and conversion of these wetlands for some non-wetland purposes so that ameliorative measures are put in place for their restoration to some extent. We are helping the MoEF&CC identify and designate Ramsar Sites and develop some strong mechanisms for monitoring and evaluation so that ecological interventions for better management are rightly put in place.

Under the State of Indian wetlands project, the wetlands trend index now provides a more comprehensive and realistic picture of the status of these ecosystems. We have continued supporting the management of Ramsar Sites through management plans, capacity development measures and effective national programming changes. Our work on the development of climate change and disaster risk reduction co-benefits assessment, prioritisation of floodplain wetlands of Uttar Pradesh and Bihar, support for conservation of foxnut wetlands and wetlands as nature-based solutions are aimed at integrating wetlands in development plans and programmes at various levels. Notably, the Government of India has now put in place a dedicated programme for Ramsar Sites by the title *Amrit Dharohar*.

We have taken measures to improve the Society's governance. The Rules and Regulations have been amended with substantial changes in membership provisions, rules of the Governing Body, office bearers and the election process. These amendments will ensure that participation in society governance is based on specific skills and qualifications, instilling confidence that the organisation is being steered towards greater heights.

I take this opportunity to thank all the members of the Governing Body, General Body and office bearers for their direction and guidance. Thanks, are also due to our technical and administrative staff for their devoted and dedicated involvement.

Dr Sidharth Kaul
President

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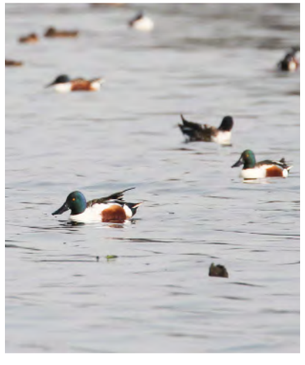


FROM
THE DIRECTOR'S DESK

India has made significant strides in Ramsar Site designation, increasing the number of Ramsar Sites to 85 wetlands recently, which accounts for nearly one-eighth of the known total wetland area of the country.

While the designation of the Ramsar Site is the most celebrated event, the actions on wetlands conservation after the designation determine whether the actual commitment to 'maintain ecological character' is met. Towards this end, serious efforts are needed to ramp up investment in formulating and implementing integrated management plans that can secure ecosystem services and biodiversity values of Ramsar Sites for the long term. Equally important is the need to systematically monitor the condition of Ramsar Sites to assess whether management is delivering requisite results. We are engaging on both these aspects—by picking up management planning for Ramsar Sites such as Deepor, which need coordinated action by multiple sectors, and secondly, by bringing more and more Ramsar Sites within the ambit of management effectiveness.

A critical barrier that limits coverage of integrated management plans is the need for more capacity within states to formulate such plans. The national management planning guidance, which we have helped shape, calls for a diagnostic approach to evaluate wetlands and identify threats, and needs a systematic evaluation and decision-making framework. Without carefully evaluated values and threats, action plans tend to invest in sub-critical activities that are insufficient to preserve the site's ecological character. Working with other knowledge partners, we were able to effect an amendment in the national guidelines and introduce the concept of a Framework Management Plan. This one-year arrangement provides the site managers an opportunity to undertake necessary assessments needed to prepare a robust management plan, as well as begin implementation of 'no-regrets' action.

We are, however, conscious that in the absence of any formal training mechanism, capacity bottlenecks will continue to be a dampner. There is a compelling need to build capacity in wetlands management planning amongst a broader set of organisations and to this direction, we have begun work on an e-curriculum. With more and more sectors building wetlands-related programmes in their portfolio, we are also working on simplified guidance that can be used across the sectors. A beginning has been made with guidance for disaster risk management professionals on integrating wetlands as nature-based solutions for buffering water-related risks. In Uttar Pradesh and Bihar, we are working with the concerned state wetland authorities and National Mission on Clean Ganga to design basin-scale management plans which will enable working on a set of wetlands connected with the river regimes.

We are also conscious that stemming wetlands loss and degradation needs actions beyond management plans. There is a need to build an environment wherein the society at large appreciates the diverse values of wetlands and takes affirmative steps towards their conservation and wise use. There are emerging examples of local level action wherein an environmentally conscious community is taking action to rejuvenate water regimes of wetlands, address pollution and siltation and build local level institutions to protect these ecosystems. These innovations are particularly taking place in small wetlands. We are making conscious efforts to map these interventions and identify enabling mechanisms so that such approaches can be replicated and upscaled.

Recently, the Rajya Sabha Committee on Sub-ordinate Legislation in their report on the Wetlands (Conservation and Management) Rules, 2017, expressing a dim opinion on the ability of the rules to regulate developmental pressures on wetlands. This report of the Committee may provide the needed window of opportunity for bringing changes in the regulatory framework for wetlands to make them more comprehensive and effective.

I thank all the Governing Body members for their guidance and support to our work. The spirited and highly dedicated Wetlands International South Asia team is working hard towards implementing the vision and mission of the organisation with true zeal, and to them goes my heartiest appreciation. And finally, our work remains dedicated to the Founder Director, Late Dr CL Trisal who taught us to work hard, honest and for long-term.

Dr Ritesh Kumar
Director

LIST OF ABBREVIATIONS

AWC	Asian Waterbird Census
BDO	Block Development Officer
BDES	Biodiversity and Ecosystem Services
BNHS	Bombay Natural History Society
CAF	Central Asian Flyway
CoP	Conference of Parties
CWRDM	Centre for Water Resource Development and Management
DDMP	District Disaster Management Plan
DoECC	Directorate on Environment & Climate Change
DRR	Disaster Risk Reduction
DPS	Delhi Public School
Eco-DRR	Ecosystem based Disaster Risk Reduction
FMCG	Fast-Moving Consumer Goods
FMP	Framework Management Plan
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GITAM	Gandhi Institute of Technology and Management
GPA	Global Peatland Assessment
ICIMOD	International Centre for Integrated Mountain Development
ICFRE	Indian Council of Forestry Research and Education
IMWBES	Integrated Management of Wetland Biodiversity and Ecosystem Services
IMP	Integrated Management Plan
INR	Indian Rupee
IKI	International Climate Initiative
IUCN	International Union for Conservation of Nature
IWC	International Waterbird Census/ India Wetland Coalition
IWMI	International Water Management Institute
KSMDB	Kumbalathu Sankupillai Memorial Devaswom Board College
KSCSTE	Kerala State Council of Science, Technology & Environment
METT	Management Effectiveness Tracking Tool
MoEF&CC	Ministry of Environment, Forest and Climate Change
NbS	Nature Based-Solutions
NDC	Nationally Determined Contributions
NFP	National Focal Points
NGO	Non-Government Organisation
NIDM	National Institute of Disaster Management
NIRDPR	National Institute of Rural Development and Panchayati Raj
NIT	National Institute of Technology
NPCA	National Plan for Conservation of Aquatic Ecosystems
NMCG	National Mission for Clean Ganga
NMHS	National Mission on Himalayan Studies
PCCF	Principal Chief Conservator of Forest
PEDRR	Partnership for Ecosystem based Disaster Risk Reduction
PRI	Panchayati Raj Institutions
RRCEA	Ramsar Regional Centre East Asia
SAC	Space Application Centre
SAPCC	State Action Plan on Climate Change
SECURE	Securing livelihoods, conservation, sustainable use and restoration of high range Himalayan ecosystems
SIDA	Swedish International Development Corporation Agency
SIRD	State Institute of Rural Development
SOP	Standard Operating Procedure
SOC	Soil Organic Carbon
SWAK	State Wetlands Authority Kerala
TML	TATA Motors Limited
UT	Union Territory
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UPSWA	Uttar Pradesh State Wetlands Authority
WET	Wetland Trend Index
WISA	Wetlands International South Asia
WRI	World Resource Institute
WWD	World Wetlands Day

2023–2024
YEAR AT A GLANCE

PROGRAMME IMPLEMENTATION

Management planning for four existing and potential Ramsar Sites (Deepor Beel, Sasthamkotta, Kabartal, and Gobind Sagar) was initiated. Ecological character baselines and management frameworks established in consultation with stakeholders. The management plans for three Ramsar Sites of Himachal Pradesh (Chandertal, Renuka, and Pong Dam Lake) were approved by the State Wetland Authority.

A Practitioner's Guidebook for Management Effectiveness Tracking for Indian Wetlands was published. By the close of the year, management effectiveness assessments for 17 Ramsar Sites were completed. To strengthen the management of Ramsar Sites, Wetlands International South Asia contributed to the development of *Amrit Dharohar*, an initiative of the MoEF&CC to promote the unique conservation values of Ramsar Sites. In collaboration with the knowledge partners of the MoEF&CC, the organisation supported the revision of national guidelines on wetland management to include the provision of a Framework Management Plan.

As a designated knowledge partner to the state of Arunachal Pradesh, field visits to priority wetlands of the state were held and a Memorandum of Understanding with the State Wetland Authority firmed up to support wetlands conservation in the state.

Dialogue for the establishment of the South Asia Ramsar Regional Platform was progressed through a roundtable meeting in Pokhara, Nepal, with representatives of Ramsar National Focal Points. The mission, vision, objectives, operational modalities, and activities for inception were firmed up.

Hydrogeomorphic assessments of the Gangetic floodplain wetlands of Bihar were initiated, covering a 10 km buffer around the River Ganga main channel spread across three sub-basins. Surveys of 125 wetlands were completed. The Uttar Pradesh floodplain wetland assessment report was concluded during the year, and three sub-basin plans were approved for implementation.

To support the integration of wetlands in climate change adaptation and disaster risk reduction, the development of a toolkit for assessment of adaptation co-benefits of wetlands management was initiated, and revision of the district disaster management plan of Ganjam to support the incorporation of wetlands undertaken on a pilot basis. A trainers toolkit on ecosystem-based disaster risk reduction and wetlands management was developed.

A pilot programme for rejuvenating 1,000 ha of foxnut wetlands in three districts of North Bihar was initiated, and linkages were developed to support fare value realisation for the farmers. To support the integration of wetlands in rural development programmes, training programmes for rural development professionals were organised with the National Institute of Rural Development and the Panchayati Raj.

Asian Waterbird Census 2024 covered 872 wetlands, recording 0.6 million counts of waterbirds and wetland-dependent bird species.

The State of Indian Wetlands project was initiated to prepare a comprehensive report on the status and trends in wetlands, drivers, major interventions, gap areas, and suggested future pathways. A wetland trend index for 1985–2022 computed from over 11,000 wetlands indicated a decline in natural wetlands by 37%. The inland and coastal wetlands have declined by 32% and 39%, respectively. The decline in natural wetlands in urban areas (36%) is higher than in rural wetlands (31%). Similarly, the extent of decline of natural wetlands outside protected areas was higher (33%) than that of those located within the protected areas (26%).

A national scale mapping of peatlands was initiated, and peatland probability maps for the western and eastern Himalayas were prepared.

World Wetlands Day was celebrated as a public event in New Delhi on February 2, 2024. Ms Sunita Narain, Director of the Centre for Science and Environment, was the chief guest and delivered the keynote address. A panel discussion on wetlands as a nature-based solution was held. Outreach events were held in schools in New Delhi, Odisha, and Kerala, connecting over 6,000 students on youth-led wetlands conservation.

GOVERNANCE

Amendments to Society Rules and Regulations were adopted with significant changes in membership provisions, roles of Governing Body, Office Bearers and the election process.

Elections for 2023–26 triennium were held. Dr Sidharth Kaul was elected as President. Governing Body was constituted of nine elected members.

Five members were added to the Society as General Body Members. The total membership base of the Society as of September 15, 2024, included 12 Founder Members, 14 Nominated Members, 1 Institutional Member, 17 General Members and one Student Member.

FINANCE AND ACCOUNTS

During April 2023–March 2024, the organisation's funds receipts were INR 50.70 million. Of this, INR 44.54 million was on account of project funds received from 10 donor agencies, and the balance of INR 6.16 million was as interest earned on the reserves. The total expenditure during the year was INR 48.93 million. Direct overheads stood at INR 7.58 million.

The total reserves at the end of the financial year stood at INR 119.53 million, which is an increase of INR 2.26 million over the last year.

PROGRAMS

1 / STRENGTHENING INTEGRATED WETLANDS MANAGEMENT

2 / REJUVENATING WETLANDS FOR WATER SECURITY

3 / WETLANDS AS NATURE-BASED SOLUTIONS FOR DISASTER RISK REDUCTION

4 / NURTURING WETLANDS LIVELIHOODS

5 / CONSERVING WETLANDS BIODIVERSITY

6 / SAFEGUARDING WETLAND CARBON

Strengthening Integrated Wetlands Management

PROJECTS

+ Protection and Sustainable Management of Aquatic Resources in Northeastern Himalayan Region of India (Funded by GIZ-India)
+ Integrated Management of Wetland Biodiversity and Ecosystem Services (Funded by MoEF&CC-GEF-UNEP)
+ Conservation and Wise-Use of Five Wetlands in Three Himalayan States to Secure Habitats of Birds Migrating Within the Central Asian Flyway (Funded by NMHS, MoEF&CC)
+ Wetlands for Biodiversity and Climate Protection (Funded by IKI-GIZ)

Management Planning Progressed

DEEPOR BEEL, ASSAM

Located on the western margins of Guwahati City and within a shallow depression between the Brahmaputra River channel on the north and the Rani Garbhanga Forest on the south, Deepor Beel is a floodplain wetland critical for the ecological and economic security of the region. With an amoebic shape and a span of 1,592 ha, Deepor provides a critical flood defence to the city of 1.36 million people. Over 507 plants and 408 animal species have been recorded here, of which nine are globally threatened, and 54 are indigenous to Assam State. The wetland forms an important part of the Central Asian Flyway, serving as a stop-over site for over a hundred waterbird species, of which 20 are globally threatened. The livelihoods of nearly 20,000 people living on its shorelines are inextricably intertwined with the rich wetland resources. The observance of practices such as '*Beel Mara*' and '*Ganga Puja*' reflect the close connections communities have with the wetland.

The management measures undertaken so far have been highly inadequate in addressing the multiple pressures that the Ramsar Site faces. The Deepor Beel Management Authority, constituted in 1997 to provide a multi-departmental input into wetland management, has remained largely non-functional. The Boragaon landfill site, operational on the wetland margins since 2006, has severely contaminated the wetland waters. The recent shifting of the landfill alongside an inflowing tributary continues to be a pollution source. Declining forest cover in the catchment has led to a 36% increase in sediment transport into the wetland. In addition, the wetland continues to receive untreated sewage from

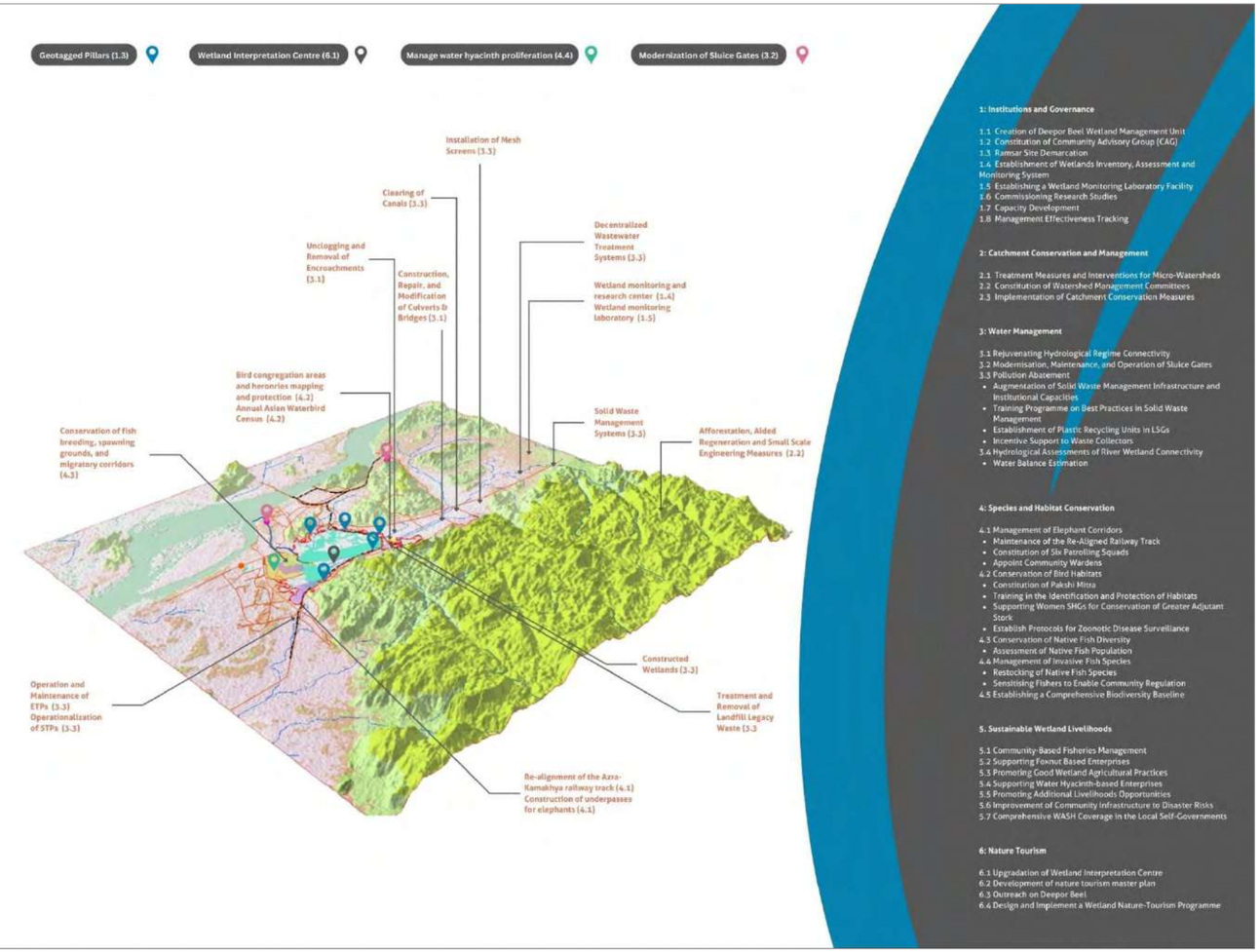


FIGURE: A graphic representation of Integrated Management Framework for Deepor Beel prepared in consultation with stakeholders

Guwahati City, as the three proposed Sewage Treatment Plants are only likely to be operational by 2028. Over the years, the wetland regime has been extensively fragmented and encroached upon by a dense network of roads and rails and the ever-expanding Guwahati City. While the process of wildlife sanctuary notification was initiated in 1989, the physical demarcation of the boundary was only recently completed. These adverse changes have led to a gradual decline in fisheries, the rapid proliferation of aquatic invasives, particularly water hyacinth, and resource conflict between different users.

Deepor Beel was designated as a Ramsar Site in 2002. However, as of now, no active Integrated Wetland Management Plan is in place. To address this, the preparation of an Integrated Management Plan for the Deepor Beel Ramsar Site has been made a priority under the MoEF&CC-GIZ project titled '*Protection and Sustainable Management of Aquatic Resources in Northeastern Himalayan Region of India (NERAQ)*'. This plan, being developed by Wetlands International South Asia, aims to guide the management of the site from 2024 to 2029.

District-level stakeholder consultation meetings and consultations were initiated in November 2023 with the support of the Assam Forest Department and GIZ to discuss management challenges, set management goals and purpose, and gather inputs for the management plan. A management framework for the wetland summarised in the figure has been finalised. The management plan will be completed by October 2024.

SASTHAMKOTTA, KERALA

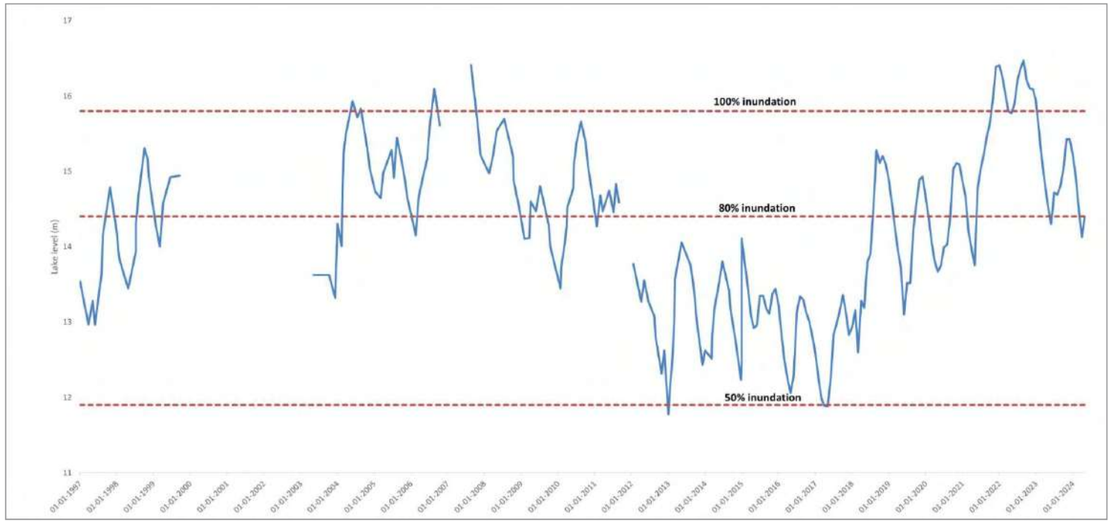
Sasthamkotta, the largest freshwater lake in Kerala, is located in Kunnathur Taluk of Kollam District. Spanning 373 ha, the wetland forms part of an extensive wetland regime formed on the alluvial deposits of the river Kallada. In 2002, the Ramsar Convention designated Sasthamkotta a Wetland Of International Importance. The Ramsar Site sustains water supply for nearly 0.5 million people living in Kollam City and its suburbs. It serves to cycle nutrients received from the agricultural catchment, which are utilised within the ecological production processes and the food chain. The wetland is home to 19 species of fish (six endemic to the country), one species of crustacea, 14 species of

A panoramic view of Sasthamkotta Lake. This Ramsar Site is the main source of water for Kollam City.

waterbirds, 23 species of butterflies, and 11 species of flora. The Sastha temple, from which the lake is believed to have its name, is an important cultural centre.

Despite high ecological and socioeconomic significance, the management of Sasthamkotta has received little attention in the region's developmental programming. The wetland is gradually evolving towards marshy conditions, impacting its ability to act as a freshwater source and support biodiversity habitats. Some major threats that disturb the stability of the wetlands systems are changes in the natural hydrological regime, increasing urbanisation within catchments, mining activities, unsustainable water extraction and excessive pollution. Excessive water withdrawal leads to frequent drying up of the wetland, causing Sasthamkotta to evolve into a marsh-dominated stage. Sasthamkotta is one of the three demonstration sites under the MoEF&CC-GEF-UNEP funded Integrated Management of Wetland Biodiversity and Ecosystem Services (IMWBES) project, which seeks to enhance management effectiveness of wetlands of national and global significance and integration in developmental planning. During the year, the updation of the existing management plan, which had expired in 2022, was initiated. In collaboration with the State Wetland Authority Kerala, wetland bathymetry was conducted along with ecosystem services assessments, biodiversity surveys, water quality assessments, and socio-economic surveys of the communities living in and around the wetland.

A critical issue facing the wetland is its increased frequency of drying in response to changes in precipitation patterns and an increase in water withdrawal. The management plan stresses rationalising water use from the wetland so that its natural regimes are not adversely affected. A wetlands learning centre is being established at KSMDB College on the shorelines of the Ramsar Site. Stakeholder consultation for finalisation of management plan and alignment with panchayat plans and departmental plans for Kerala Water Authority, Soil and Water Conservation, Local Self Goverment, Agriculture and others is underway and will be concluded by October 2024.



Water level variations in Sasthamkotta lake (1997–2024). The frequency of breaching 80% inundation has increased in recent years.

Waterbirds at Lunhu marshes of Sutlej River upstream of Gobind Sagar Dam

GOBIND SAGAR, HIMACHAL PRADESH

Gobind Sagar is one of the five project sites where Wetlands International South Asia and Bombay Natural History Society, under the aegis of the National Mission on Himalayan Studies (NMHS), are developing integrated management plans for wetlands conservation and wise use, with specific emphasis on preserving migratory birds and their habitats.

Gobind Sagar was formed due to the construction of the Bhakra Dam in 1962 over River Sutlej in the lower Shiwalik Hills of Bilaspur District of Himachal Pradesh. The wetland spans over 16,800 ha and hosts a variety of habitat types, such as deepwater lacustrine systems, riverine mud flats, and marshes. The wetland supports a large population of migratory birds, such as River Terns, Northern Shoveler, among others. The wetland is also known for its rich cultural heritage and livelihood support values such as fisheries, agriculture, tourism, and livestock grazing.

In 2023–24, Wetlands International South Asia assessed key wetland features to formulate the Integrated Management Plan for Gobind Sagar. The assessments indicated marginal shifts in land use and a stable flow regime. The bird census indicated the presence of 144 species, including three of high conservation significance. The water quality has, however, deteriorated with a significant increase in faecal coliform levels attributed to the pollution input from the nearby towns. The fish landings declined by over 78% during 2012–2022, creating hardships for fisher communities.

The management plan framework for Gobind Sagar includes actions for conserving wetland catchments, enhancing water allocation efficiency, conserving species and habitats, sustaining fisheries, and promoting nature tourism. A wetland monitoring plan has also been prepared. The final plan will be presented to the stakeholders by the close of 2024.

KABARTAL, BIHAR

Kabartal, a floodplain wetland located in the lower reaches of the Gandak-Kosi interfan in North Bihar, is the largest of 18 shallow permanent and ephemeral wetlands within a depression between the Burhi Gandak River and the paleochannel of the Bagmati River. Spanning 2620 ha, Kabartal plays a crucial role in the region's hydrological balance, acting as a vital water source and providing flood protection for nearby communities by absorbing runoff and overflow from the Burhi Gandak River. Approximately 20,000 households from 23 surrounding villages depend on the wetland for fishing and harvesting aquatic plants for food, fodder, and thatch. During the winter, Kabartal attracts a large number of waterbirds, including migratory ducks and coots, making it a key congregation area in North Bihar. In July 2020, Kabartal was designated as a Wetland of International Importance under the Ramsar Convention, facilitating the development and implementation of conservation and sustainable management strategies. The Ramsar Site is situated within the Kanwar Lake Bird Sanctuary, which was notified in 1989 under the Indian Wildlife (Protection) Act, of 1972.

Kabartal faces multiple challenges. The current wetland area of the Ramsar Site is a remnant of a larger wetland regime spanning at least 4,200 ha in 1965. Remote sensing data from 2009–2019 reveals a doubling of permanent agricultural land within the Ramsar Site, with increased cropping cycles and a shift to water-intensive crops. These changes have disrupted natural inundation regimes, reduced fishery yields, and altered aquatic vegetation patterns, favouring stress-tolerant species. Although poaching has decreased since its designation as a bird sanctuary, habitat quality has declined, evidenced by a reduction in waterbird species from 166 in 1988–91 to 155 in 2021. The local social contract between farmers and fishers has deteriorated, increasing livelihood vulnerability among the dependent communities.

Kabartal is one of the three demonstration sites under the MoEF&CC-GEF-UNEP funded Integrated Management of Wetland Biodiversity and Ecosystem Services (IMWBES) project, which seeks to enhance the management effectiveness of wetlands of

Ravi Prakash, Wetlands Specialist, training Bihar Forest Department officials on wetland water quality assessment

national and global significance and integration in developmental planning.

During the year, the existing management plan, which expired in 2020, was updated. Socio-economic baselines were updated through surveys in 12 villages, recent information on wetland hydrology, ecology, and biodiversity was incorporated, and stakeholder consultations were held. The management plan was submitted to the Bihar State Wetland Authority in November 2023 for final approval and initiation of implementation.

Dhruv Verma, Senior Technical Officer, at the stakeholder consultation meeting held on February 7, 2023 to finalise the management plan for Pong Dam Lake, Himachal Pradesh

Management Plans Approved

CHANDERTAL, RENUKA, AND PONG DAM LAKE, HIMACHAL PRADESH

In 2022–23, Wetlands International South Asia, in collaboration with GIZ and Himachal Pradesh State Wetland Authority, prepared the integrated management plans for Chandertal, Renuka, and Pong Dam Lake.

A multi-stakeholder workshop for finalising the Integrated Management Plans for Renuka and Pong Dam Lake was held on May 11, 2023, at Shimla. The workshop was held under the aegis of IKI-funded *Wetlands Management for Biodiversity and Climate Protection* project. The management plans were discussed at length and formally approved. The two management plans and the management plan of Chandertal (approved earlier in the year 2022–23) were placed for approval at the meeting of the Himachal Pradesh State Wetland Authority held on August 10, 2023. The three plans were formally approved for implementation and forwarded to the MoEF&CC for financing support under the National Plan for Conservation of Aquatic Ecosystems (NPCA).

Management Effectiveness Tracking

In 2022–23, Wetlands International South Asia and GIZ developed a practitioner's guidebook on management effectiveness tracking tool (METT) for Indian wetlands to enable evaluation of how well wetland management is being carried out to achieve its set goal and objectives. The tool was developed as a part of the MoEF&CC-GEF-UNEP funded Integrated Management of Wetland Biodiversity and Ecosystem Services project and the BMU-IKI-funded Wetlands Management for Biodiversity and Climate Protection Project. The guidebook was released by the MoEF&CC at the national celebrations of World Wetlands Day held at Sirpur, Indore, on February 2, 2024.

Further, a decision has been made to establish the baseline METT score for all Ramsar Sites by 2026. During the year, METT evaluations were carried out for ten sites in addition to seven covered in the previous year. Of the 17 sites, four have METT scores of 70% and above, nine have scores between 50% and 70%, and the remaining four have scores less than 50%.

Support to Establishment of a Dedicated Initiative for Ramsar Sites

The network of Ramsar Sites designated by India has grown steadily in the last four years from 42 sites in 2020 to 82 sites at present, covering nearly one-eight of the known wetland regime of the country. To cater to the management needs of these wetlands and especially meet the wise use commitments to the Ramsar Convention, the MoEF&CC introduced the *Amrit Dharohar* initiative in the budget of 2023. The three-year initiative aims to promote the unique conservation values of the Ramsar Sites and is structured around four major components, namely species and habitat conservation, nature tourism, wetlands livelihoods, and wetlands carbon. Wetlands International South Asia worked closely with the MoEF&CC towards the development of the initiative and its implementation strategy.

Support to Revision of National Guidelines for Wetland Management Planning

The NPCA as the flagship scheme of the MoEF&CC for wetlands conservation, lays down the guidelines for preparing integrated management plans. These plans outline the strategies, specific actions, and implementation arrangements for conserving wetlands and securing their diverse values. Preparation of these management plans, however, is constrained by a lack of capacities and resources with the State Governments/UT Administrations.

Wetlands International South Asia worked with the knowledge partners of MoEF&CC to develop a proposal for simplifying the management planning process and taking a phased approach to planning in a time-bound manner.

Based on discussions with the State Governments, a Framework Management Plan (FMP) was introduced, enabling wetland managers to take 'no-regret' actions for wetlands conservation and systematically prepare detailed management plans based on comprehensive assessments and stakeholder consultations over a year. The MoEF&CC has now revised the NPCA guidelines to incorporate the FMP as an intermediate approach to enable acting on the available information and build an evidence base through assessments and stakeholder consultations for developing a comprehensive integrated management plan of the sites. The revised guidelines were released by the MoEF&CC on World Wetlands Day 2024.

Support to Arunachal Pradesh State Wetland Authority for Integrated Wetland Management

Wetlands International South Asia has been designated by the MoEF&CC as a knowledge partner to the State of Arunachal Pradesh to support wetland conservation actions in the state. A preparatory mission to GLAW Lake, located in Kamlang Tiger Reserve, and high-altitude wetlands in Tawang was undertaken from April 15 to 21, 2023.

GLAW Lake is a near-pristine wetland. Located within the densely forested catchments of the Kamlang Tiger

WETLANDS INTERNATIONAL SOUTH ASIA WORKED WITH THE KNOWLEDGE PARTNERS OF THE MOEF&CC TO DEVELOP A PROPOSAL FOR SIMPLIFYING THE MANAGEMENT PLANNING PROCESS AND TAKING A PHASED APPROACH TO PLANNING IN A TIME-BOUND MANNER

An aerial view of a canal in Kuttanad region

Reserve, the wetland reflects the health of the landscape and is closely linked with the hydrological regimes and nutrient inputs received from the inflowing streams and rainfall. The wetland can very well be used as a reference site for guiding wetlands restoration and management efforts in the entire northeastern region. During interactions with the site manager, it was proposed that the management plan for GLAW Lake should ideally be aimed at preserving the naturalness of the site. Activities that may be considered include: **a)** upgrading the trekking route (to prevent accidents and also to cater to medical emergencies); **b)** establishing a monitoring station at the wetland site; **c)** installing signage at the wetland as well as at the Mithun Gate (the entry to the trek) on the ecological importance and values of GLAW Lake; **d)** upgrading camping infrastructure at the wetland, including renovation of the tourist huts, installation of solar lights; and **e)** implementing a systematic wetland monitoring programme to develop consistent datasets on key ecological and hydrological features of the wetland.

The high-altitude wetlands of Tawang play a vital role in regional hydrology and climate. Pangateng Tso is the main source of water for Tawang Town. During the visit to Sugestar Lake, the team observed extensive tourism infrastructure development by the Indian Army. The wetland itself is not the focus of tourism, and there are no signages or interpretation materials to sensitise the tourists on the ecological and cultural importance of this unique ecosystem. This is despite the sizeable economy linked to tourism to this lake. During discussions with the site manager, it was suggested that conducting community campaigns for conserving these wetlands, involving the local taxi drivers, tour operators and hoteliers, would sensitise the visitors to the importance of high-altitude wetlands and stress the need for 'responsible behaviour'.

Based on the field mission and discussions with officials, Wetlands International South Asia is firming up an MoU with the State Wetland Authority to address management gaps and support the development of management plans for key wetlands.

Dr Sidharth Kaul, President, Wetlands International South Asia, fifth from the right and Dr Ritesh Kumar, Director, Wetlands International South Asia, seventh from the right with the officials of the Department of Forest, Arunachal Pradesh at GLAW Lake

Capacity Development for Integrated Wetland Management

With the increasing scope and coverage of National Wetlands Programme, it is pertinent to augment existing capacities for formulating and implementing integrated management plans. During the year, under a project supported by Rainmatter Foundation, a competency mapping of wetland managers, knowledge partners of MoEF&CC, and subject matter experts for integrated wetland management was completed.

Based on the mapping, an e-learning module would be developed to enable wider dissemination of wetland managment planning methods and practices.

An electronic module for an introductory course on Wetland Conservation and Management in India was also prepared under the aegis of the GEF-IMWBES project in collaboration with GIZ-India. The course provides a basic understanding of wetlands, their values and services, wise use of wetlands, and clarity on principles of integrated management planning for wetlands, including sectoral coordination and wetland governance. The e-learning module has been prepared for a general audience and for wetland site managers, forest frontline staff, members of the State/Union Territory Wetland Authority, District Wetland Committee, Wetland Mitras, and NGOs and is available on the National Wetland Portal (https://indianwetlands.in/resources-and-e-learning/online-courses-training-material/)

TEAM • Dr Asghar Nawab • Suchita Awasthi • Dhruv Verma • Harsh Ganapathi • Arghya Chakrabarty • Ravi Prakash • Kalpana Ambastha • Kamal Dalakoti • Apoorva Thapa • Diana Dutta • Sakshi Saini • Anil Fartiyal

An aerial view of Renuka Lake, Himachal Pradesh. The red patch is an algal bloom

Firming up the Framework for the South Asia Ramsar Regional Platform

Participants at the roundtable meeting of Ramsar national focal points of the South Asia region, Pokhara, Nepal

Wetlands International South Asia is working with the National Ramsar Focal Points of the South Asia region and International partners to establish a South Asia Ramsar Regional Platform. The platform aims to support the implementation of the Ramsar Convention commitments and share best practices for wetland management to secure conservation and wise use of these ecosystems.

Wetlands International South Asia joined hands with the International Centre for Integrated Mountain Development (ICIMOD), Nepal, to bring together Ramsar Wetlands National Focal Point representatives from South Asia countries to develop modalities for the operation of the Regional Platform for Wetlands Conservation and Wise Use. The Roundtable meeting was held in Pokhara, Nepal, from December 13–5, 2023 and was attended by representatives from Bangladesh, Bhutan, India, Nepal and Sri Lanka.

This meeting was the third in the series, beginning from the first one held at Ramsar COP 13 in Dubai, wherein the representatives of the national governments and international organisations concurred with the idea of developing a regional platform for wetlands managers of South Asia. This was followed by a regional meeting of the National Focal Points (NFPs) at the International Water Management Institute (IWMI) headquarters in Colombo in 2019, wherein the possible roles of the platform were identified. In 2022, a virtual training programme on wetlands and water management was also organised by Wetlands International South Asia in collaboration with Ramsar Regional Centre-East Asia (RRC-EA). Subsequently, in COP 14, at a side event on 'Regional Collaboration for Wetlands Conservation and Wise Use in South Asia' held on November 8, 2022, the national governments endorsed the need for a South Asia Regional Platform to enable capacity development, information exchange and sharing of best practices to address the complex development contexts in which the region's wetlands are placed.

A key outcome of the meeting was an agreement on the overarching framework of the regional platform. It was agreed that the platform would be designed within the following framework:

- **VISION:** A well-conserved and effectively managed wetland network as a contribution to sustainable development in the South Asia region
- **MISSION:** Support all stakeholders in inclusive and integrated wetland management through international cooperation, networking, knowledge development and exchange of best practices, funding support and capacity development
- **OBJECTIVES:** a) supporting implementation of Ramsar Convention commitments and Strategic Plans; b) enhancing regional coordination, cooperation and networking in South Asia; c) building capacity of stakeholders to design and implement wetland conservation and management programmes; and d) operationalising a Wetlands Fund to support implementation of strategic priorities for the conservation and wise use of wetlands in South Asia region
- The Regional Platform's geographic coverage will include the present Ramsar Convention Contracting Parties in South Asia and the new countries as they become members of the Ramsar Convention.

A three-tier Governance Framework for the Regional Platform was adopted. The Steering Committee to include the Ramsar National Focal Points is to be constituted as the nodal authority and which meets at least once a year. An Advisory Committee, exclusively for South Asia to be constituted, the committee to recommend topics and issues for the development of the work programme of the Regional Initiative. An Executive Committee to appoint thematic leads and to oversee fund raising for programme implementation. The South Asia Regional Platform would collaborate with different national and international organisations through Memorandum of Understanding, Technical Cooperation, and Funded projects approved by the Steering Committee.

Rejuvenating Wetlands for Water Security

PROJECTS

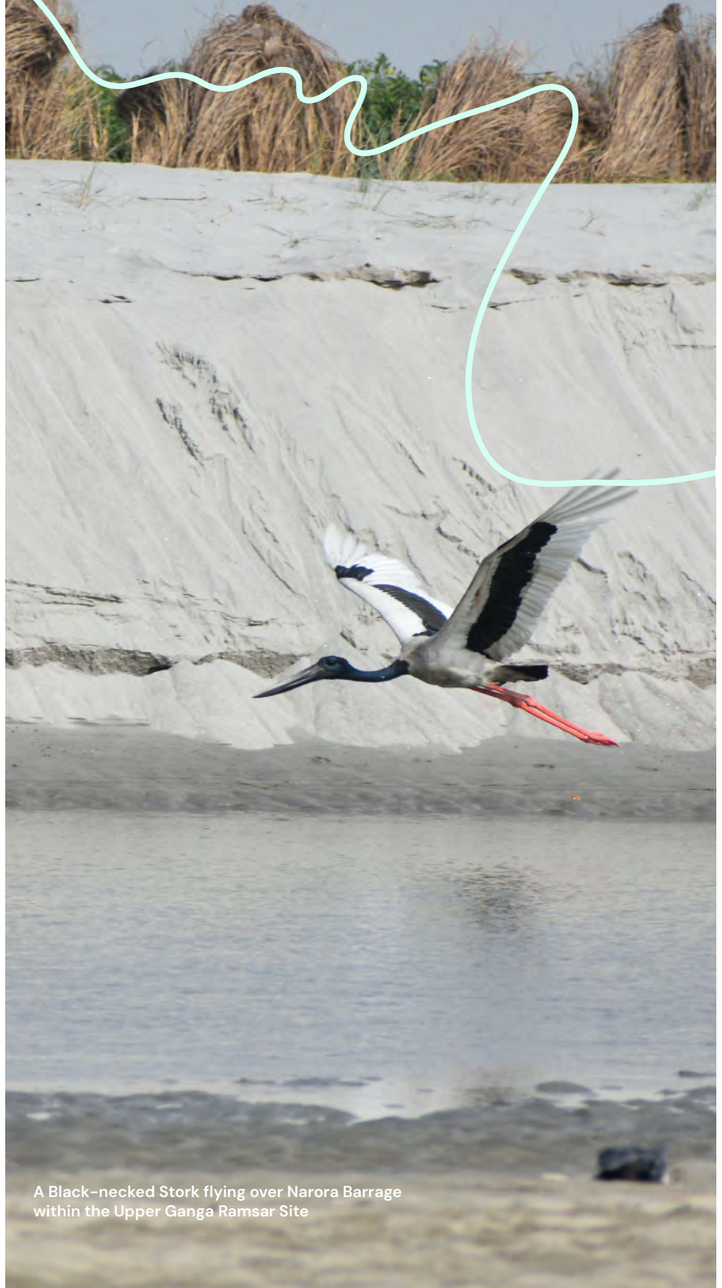
+ Conservation and Sustainably Managing Gangetic Floodplains Wetlands of UP (Funded by NMCG-UPSWA)
+ Conservation and Sustainably Managing Gangetic Floodplains Wetlands of Bihar (Funded by NMCG-DoEFCC)

Mapping Gangetic Floodplain Wetlands in Bihar

River Ganga flows in west-easterly direction criss-crossing 12 districts of Bihar and covering a distance of 445 km from its entry at Buxar and exit at Katihar. The floodplain wetlands adjoining the main channel provide an ecological and hydrological continuum rendering vital ecosystem services and biodiversity habitats. Effective management of these wetlands is crucial for achieving river integrity and food and water security for the dependent communities.

In October 2023, with the financial support of the National Mission on Clean Ganga (NMCG) and in collaboration with the Environment, Climate Change & Wetlands Wing of the Department of Environment, Forest & Climate Change, Bihar, Wetlands International South Asia launched a project aimed at developing an integrated plan for the conservation of wise use of floodplain wetlands of River Ganga in Bihar. The project entails the assessment and development of a functional inventory of floodplain wetlands of River Ganga and the development of an integrated wetlands conservation and management plan.

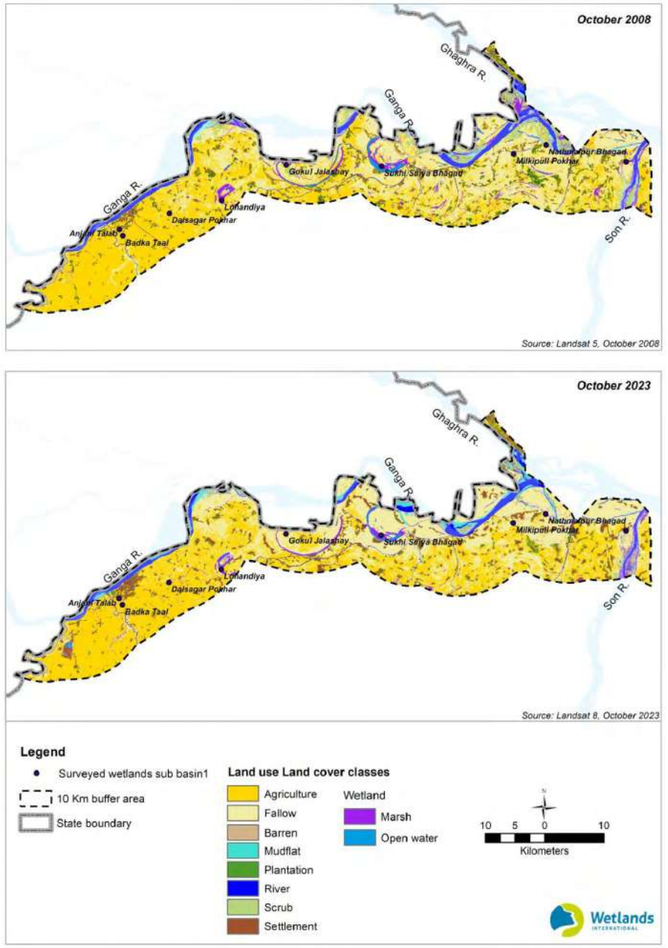
Training workshop for wetlands managers being conducted by the Wetlands International South Asia in collaboration with the Environment, Climate Change & Wetland Wing of the Department of Environment, Forest & Climate Change, Bihar



A Black-necked Stork flying over Narora Barrage within the Upper Ganga Ramsar Site

The project was launched with an inception workshop on August 04, 2023, at Patna. Subsequently, the forest officers were given field training on rapid wetlands assessment techniques. The workshop, held on December 27-28, 2023, at Patna and Begusarai, was attended by more than 50 forest department officials of the River Ganga districts.

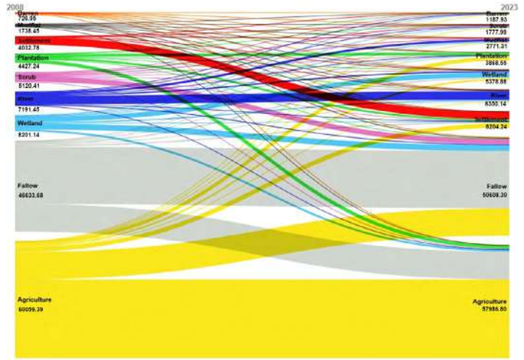
Baseline assessments indicated the presence of 526 wetlands spanning 9,399.25 ha in the 10 km buffer around the River Ganga main channel[1]. These wetlands are distributed in three sub-basins, namely Ghaghar, Ghaghara to Gomti Confluence and Sone, Gandak and others, Kosi, and Bhagirathi and others. Land use and land cover change analysis for sub-basin one, i.e. Ghaghar, Ghaghara to Gomti Confluence and Sone for 2008–2023, indicated that the wetland area in the sub-basin has shrunk by 34% (i.e. from ~ 8,201.14 ha to ~ 5,378.77 ha). Wetlands lost have been converted to permanent agricultural lands. A majority (6 out of 9) of wetlands exhibited low ecosystem health (i.e. bad to worse), with pollution, extraction of water and overfishing being the major drivers of change.



Land use and land cover for Ghaghar, Ghaghara to Gomti Confluence and Sone sub-basin for 2008 and 2023

A total of 125 wetlands were identified from across the three sub-basins (i.e. Ghaghar, Ghaghara to Gomti Confluence and Sone, Gandak and others and, Kosi, Bhagirathi and others) covering 12 districts for ground truthing and data collection.

In the coming year, the project will focus on analyses of the data for sub-basins two and three, respectively, developing a functional inventory of floodplain wetlands, stakeholder consultations and formulation of framework management plans.



Floodplain Wetlands Rejuvenation in Uttar Pradesh

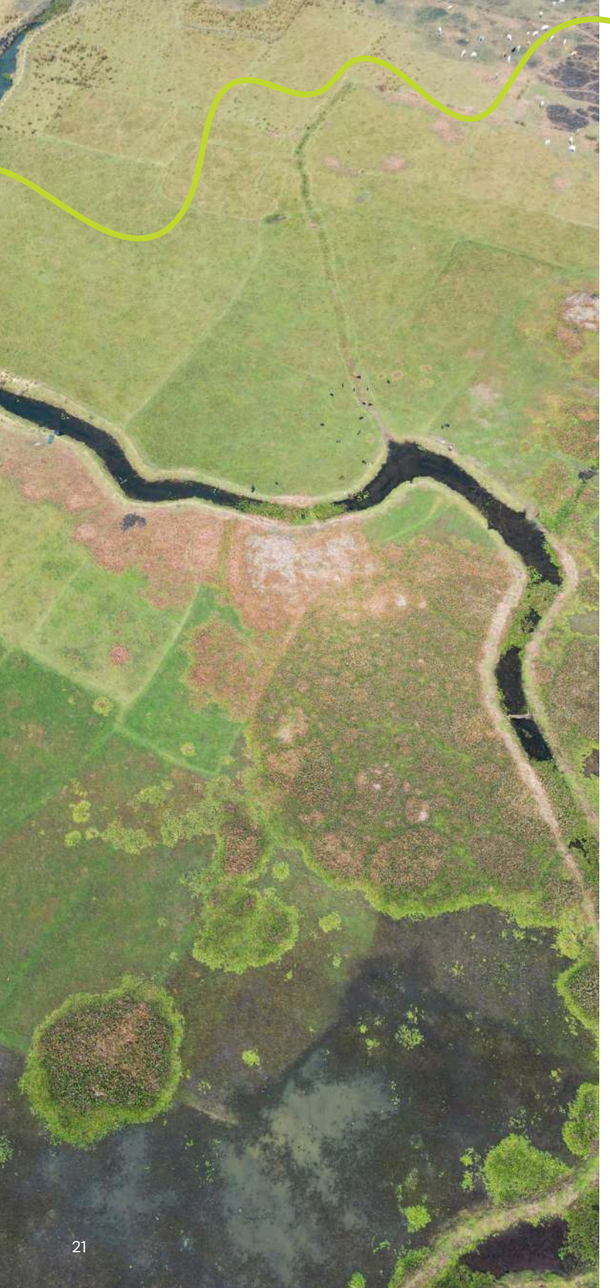
During 2020–2022, Wetlands International South Asia prepared management plans for the three sub-basins (i.e. Above Ramganga Confluence, Upstream of Gomti Confluence to Muzaffarnagar and Ghaghra Confluence to Gomti Confluence) under the project '*Conservation and Sustainably Managing Gangetic Floodplain Wetlands of Uttar Pradesh*'. The management plans are based on the wetlands management planning guidelines of the MoEF&CC's NPCA, 2019.

In the Fifth Meeting of the UP State Wetland Authority held on December 6, 2023, the management plans were formally approved by Dr Arun Kumar Saxena, Minister of State (Independent Charge)–Forest, Environment, Zoological Park and Climate Change. Consequently, the UPSWA has prioritised three wetlands (i.e. Kalewala Jheel, Muzaffarnagar District, Numaiya Dahi Jheel-Kheduva Taal, Prayagraj District and Dahtal Reoti wetland, Ballia District) for implementing the recommended management actions. These management plans will be implemented from 2023 to 2026, with financial support from the NMCG. Wetlands International South Asia is providing hand-holding support for implementing these management plans.

The UP floodplain assessment report being released by Dr Arun Kumar Saxena, Minister of State (Independent Charge)-Forest, Environment, Zoological Park and Climate Change; Chairman, UP State Wetland Authority, at the Fifth Meeting of the Authority held on December 6, 2023 at Lucknow

TEAM • Dr Asghar Nawab • Kalpana Ambastha • Kamal Dalakoti • Ravi Prakash • Saadan Hussain

Muggar Crocodile basking on the banks of Satkosia, Odisha



Wetlands as Nature-based Solutions for Disaster Risk Reduction

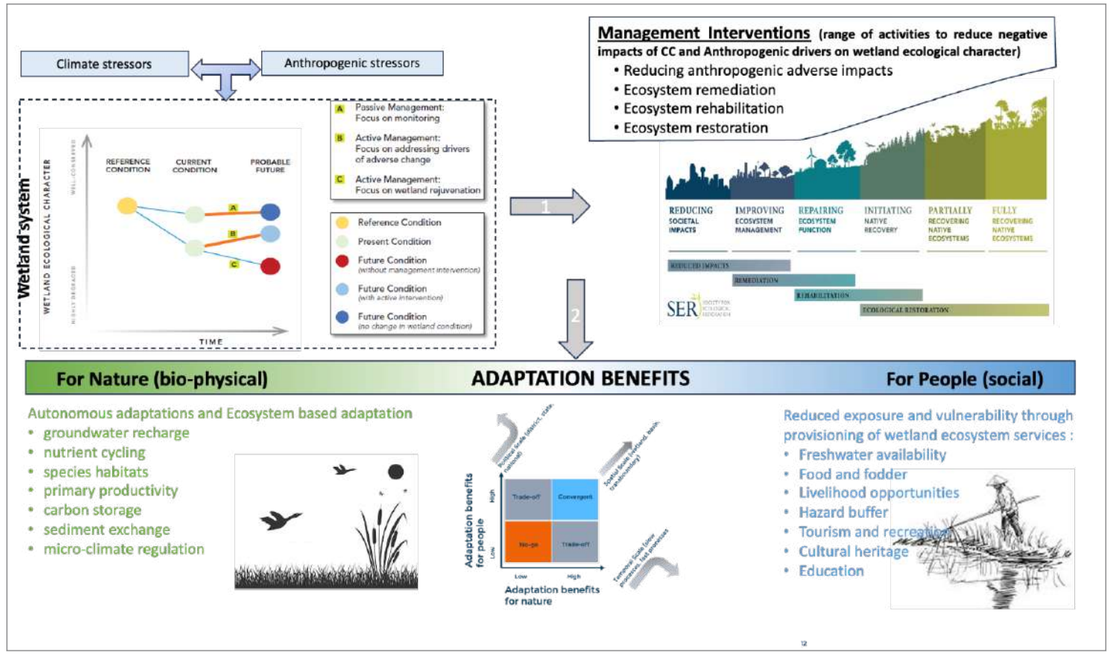
PROJECTS

+ Assessing Climate Change and Disaster Risk Co-Benefits of Wetlands Management (Funded by GIZ-India)
+ Wetlands4Resilience (Funded by SIDA-WI)
+ Upscaling Ecosystem Based DRR (Funded by WI)

A Toolkit to Assess Climate Change Adaptation Co-Benefits of Wetlands Management

In October 2023, Wetlands International South Asia, in partnership with Perspectives Climate Group, initiated a one-year project on '*Developing a methodology for assessment of climate change adaptation and disaster risk reduction benefit of wetland management*'. This assignment is a part of the '*Indo-German Support Project for Climate Action in India*', implemented by GIZ in partnership with the MoEF&CC under the International Climate Initiative (IKI).

The assignment includes: **a)** assessment of existing methodologies for assessing adaptation and DRR benefits of wetlands management, **b)** development of a tool for identifying and quantifying adaptation and DRR co-benefits of wetlands management, and **c)** field test of the tool in four Ramsar Sites. The project inception took place through an online meeting in October and the scoping of available methods was completed in March 2024. The methodology is being developed in two tiers. Tier 1 focuses on a simple and qualitative analysis of benefits, while Tier 2 explores deeper, quantifying benefits. The tool will be piloted in four Ramsar Sites, namely Vembanad-Kol, (Kerala), Chandertal (Himachal Pradesh), Kabartal (Bihar) and Pallikaranai (Tamil Nadu).



Framework for assessing climate change adaptation benefits of wetlands management

Wetlands for Resilience

In 2023–24 the Wetlands4Resilience Initiative, developed by Wetlands International and Swedish International Development Cooperation Agency (SIDA), was launched. The ten-year program aims at: **a)** bringing together and sharing the learnings and methodologies for holistic, ecosystem-led resilience building; **b)** designing and applying a W4R-4R model approaches, and **c)** catalysing wetland landscape generation through upscaling of W4R-4R model approach to different landscapes. Within South Asia, the Sunderbans (Bangladesh) and Mahanadi Delta (India) have been selected as lighthouse landscapes under this initiative.

Wetlands International South Asia team (Harsh Ganapathi, Ravi Prakash and Nikita Mishra) holding roundtable discussions at a stakeholder workshop on the application of landscape returns framework at Mahanadi Delta, Odisha held on November 27–28, 2023 at Gopalpur

During the year, the inception of W4R at the Mahanadi Delta landscape was completed. In a stakeholder workshop setting, the 4-R (four returns—natural return, social return, financial return, and inspirational return) framework for landscape assessment was completed. The experiences of 4-R framework assessment will be implemented in the Sunderbans in the coming year as the basis of building partnerships and a program of work for enhancing the returns.

Integrating Disaster Risk Reduction in Wetlands Management

Wetlands International South Asia, in collaboration with the UN Environment Programme, the Regional Ramsar Center-East Asia (RRC-EA) and the Worldwide Fund for Nature, developed a Guidance Toolkit for Trainers on Ecosystem-based Disaster Risk Reduction and Wetlands Management. The toolkit consolidates existing training materials into two modules, namely **Module 1:** Introducing Key Concepts of Wetland Management and Eco-DRR and **Module 2:** Incorporating DRR Principles in Wetland Management. The toolkit is based on *Wetlands and Disaster Risks Reduction: A Guide for Wetland Managers (2022),* which was produced by the collaborators along with the Ramsar Convention Secretariat. The toolkit aims to support a pool of trainers to support wetland managers in integrating ecosystem based disaster reduction interventions in wetlands management planning.

Eight senior wetland managers from across Asia-Oceania participated in and provided inputs in the toolkit's development during a four-day training of trainers held on August 2-5, 2023, in Suncheon City, Republic of Korea. The toolkit will be hosted on the Partnership for Ecosystem-based Disaster Risk Reduction (PEDRR) and RRC-EA websites.

The primary audience includes practitioners working directly with wetlands, Ramsar Sites, or protected areas.

Dhruv Verma, Senior Technical Officer, as a resource person to the Training of Trainers on Eco-DRR shared experiences on integrating DRR in wetlands management

Integrating Wetlands in District Disaster Management Plan for Ganjam, Odisha

Ganjam, a thickly populated coastal district of Odisha, is one of the most water-related hazard-prone area in India. To enhance the disaster resilience of the district, and at the behest of the District Collector, Wetlands International South Asia initiated the integration of wetlands in the District Disaster Management Plan for Ganjam. The work is being done under the BMUV-IKI funded project '*Mainstreaming ecosystem service and climate risks in integrated wetlands management planning*'.

Wetlands International South Asia team meeting the Block Development Officer, Ganjam to discuss integration of wetlands in District Disaster Management Plan (DDMP)

During the year, the Wetlands International South Asia team met with the District Officials in October 2023 to identify the scope of integrating nature-based solutions into the DDMP. The existing DDMP was reviewed, and specific wetland-related actions during the disaster management cycle were identified and communicated to the District Disaster Management Authority. The plan is currently under consolidation.

India NbS Forum

Wetlands International South Asia is one of the core partners of the India Forum for Nature-based Solutions — India's first national coalition platform for urban nature-based solutions. The Forum was launched at the 11th World Urban Forum (2022) in Poland and aims to climate-proof 100 million residents and infrastructure worth $100 billion in Indian cities by 2030.

As a core partner, Wetlands International South Asia contributes to the Knowledge, Capacity and Policy Task Force wherein, along with partners, a Standard Operating Procedure for integrating wetlands and blue-green infrastructure in City Disaster Management Planning is being prepared. The SOP will be completed within 2024.

TEAM • Harsh Ganapathi • Dayadra Mandal • Anil Fartiyal • Dhruv Verma • Pradeep • Nikita Mishra • Ravi Prakash

A Pond Heron perched on foxnut leaves in Deepor Beel

Nurturing Wetlands Livelihoods

PROJECTS

+ Integrated Management of Wetlands Biodiversity and Ecosystem Services (Funded by MoEF&CC-GEF-UNEP)

+ Conserving Foxnut Wetlands in North Bihar (Internal funding)

Conserving Foxnut Wetlands of North Bihar

Foxnut (*makhana*) is a popular wetland product known for its nutritional benefits, being rich in protein, fiber, and antioxidants. North Bihar contributes to 85% of India's foxnut production. Natural wetlands are crucial for producing foxnuts as they provide a conducive environment for their survival and growth, such as shallow water, nutrients, and soil. Over the past few decades, the natural foxnut wetlands have diminished by nearly 50%, leading to increased dependence on chemical-intensive field systems. Consequently, the area under foxnut cultivation has decreased from 20,000 ha to 11,802 ha.

Despite its dominance, the foxnut industry faces significant challenges. The production process is labour-intensive and hazardous, often involving prolonged exposure to water for fishers and heat and smoke during processing.

The *makhana* market is further constrained by limited access to markets and financing. Fishers and processors are often forced to borrow from local lenders at exorbitant interest rates. This financial pressure compels them to sell their produce to wholesalers immediately, usually at unfavourable prices, as they lack adequate storage facilities. Consequently, fishers receive only 28% of the retail price, while processors get 49%, significantly reducing their profit margins.

In response to these challenges, Wetlands International South Asia has initiated a pilot programme for 1,000 ha of foxnut wetlands in three districts of North Bihar. The intervention strategy includes rejuvenating the natural wetlands, establishing market linkages for fair value realisation for the producers, and addressing linked livelihood issues.

During 2023-24, baseline assessments on the status of foxnut wetlands and the livelihood of fishers were undertaken in Darbhanga District. Collaborations with Simply Fresh, a precision farming company, and a local Farmer Producer Organisation in Bihar were also established to create direct market linkages, ensuring that fishers and processors receive fair prices for their produce and are not exploited by middlemen. In the coming year, work on wetland rejuvenation will be undertaken.

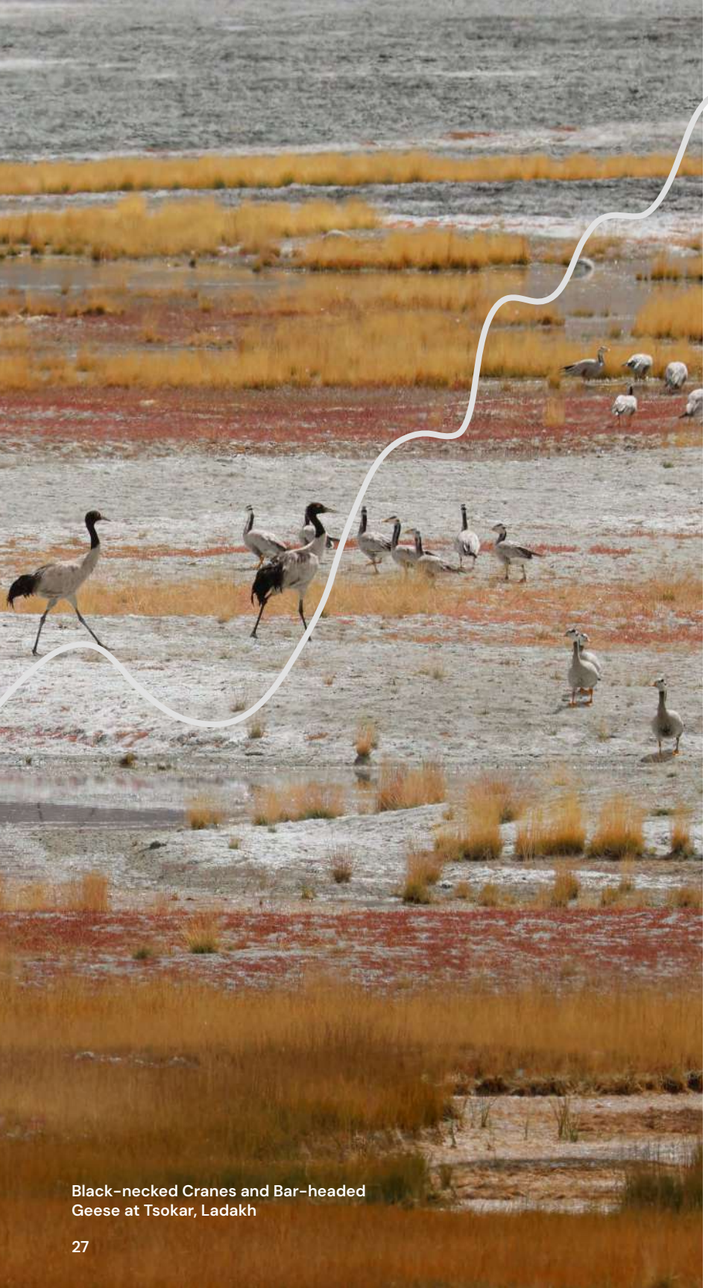
Integrating Wetlands in Rural Development Training Programmes

The Global Environment Facility-funded Integrated Management of Wetland Biodiversity and Ecosystem Services (IMWBES) project, through its Component 2, seeks to build the capacity of managers of the national network of wetlands to deliver and apply integrated management in cross-sectoral settings. With an aim to integrate wetlands conservation in developmental plans, programmes and investments, Wetlands International South Asia is working with the National Institute of Rural Development and Panchayati Raj (NIRDPR), Hyderabad, towards integrating wetland conservation actions within the village development plans.

In the year, three training programmes on integrating wetlands in rural development plans were conducted and attended by over 70 rural development professionals. In the coming year, systematic training modules will be developed to support Panchayati Raj institutions in integrating wetlands into village development plans.

Kalpana Ambastha, Technical Officer, interacting with members of *mallah* community involved in foxnut cultivation

TEAM • Suchita Awasthi • Kalpana Ambastha • Ravi Prakash



Black-necked Cranes and Bar-headed Geese at Tsokar, Ladakh

Conserving Wetlands Biodiversity

PROJECTS

+ Asian Waterbird Census (Internal funding)
+ State of Indian Wetlands (Internal funding)
+ Economic Valuation of Biodiversity and Ecosystem Services in SECURE Himalaya Project Landscapes in Himachal Pradesh (Funded by UNDP)

Asian Waterbird Census 2024

The Asian Waterbird Census (AWC) is a citizen science project coordinated in India by the Bombay Natural History Society (BNHS) and Wetlands International South Asia.

As part of the International Waterbird Census (IWC), the AWC aligns with similar regional monitoring efforts in Africa, Europe, West Asia, the Neotropics, and the Caribbean. Spanning 25 countries and regions across Asia and Australasia, the AWC encourages local conservation enthusiasts to monitor waterbird diversity and wetland health.

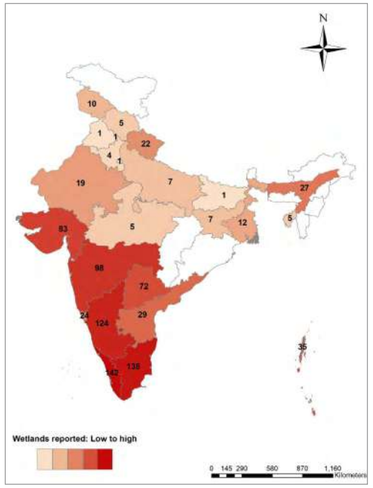
The 2024 mid-winter census was conducted in 26 States and three Union Territories, covering 872 wetlands and recording about 0.6 million counts of waterbirds and wetland-dependent bird species, as per reports until March 2024. Sightings of several IUCN Red-Listed Threatened species, such as Baer's Pochard, Common Pochard, Indian Skimmer, Lesser Adjutant, and Pallas's Fish Eagle, were also reported.

The results of 2023 census were published during the year. As per the data provided by

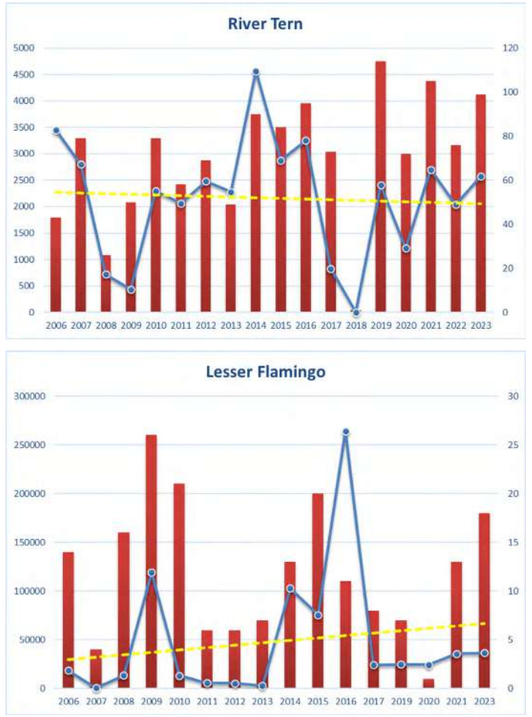
Arif Ahmad, State Programme Associate, Ladakh at the Asian Waterbird Census 2024 held at Nubra Valley

the state coordinators, the census took place in 606 wetlands of 25 states and union territories. Presence of 209 waterbird and wetland dependent bird species with 0.36 million counts was recorded. Over 1800 volunteers participated in the census. The State Biodiversity Boards in nine states also contributed to the census.

With over 30 years of count data, the AWC provides opportunities for assessing the long-term trend of waterbirds at sites. River Tern, a globally endangered species, has been consistently reported in several sites. Although the number of wetlands from which this species has been sighted has increased by 130% during 2006–23, its count has declined by 25.5%. The Lesser Flamingo, a Near threatened species during the same period, exhibited an almost doubling of counts with only 29% increase in coverage.



The coverage of sites of the Asian Waterbird Census 2024



Trends in counts of two threatened species—River tern and Lesser Flamingo during 2006–2023

Mapping Biodiversity and Ecosystem Services of Lahaul Pangi Landscape

Wetlands International South Asia, under the UNDP-GEF funded SECURE Himalayas Project, has completed an assessment of the economic valuation of biodiversity and ecosystem services (BDES) in Himachal Pradesh. This project involved: **(a** evaluating the current status and trends of biodiversity and ecosystem services, identifying key drivers and potential scenarios for climate change impacts under a business-as-usual approach, and **(b** the assessment mapped essential ecosystem services and identified priority economic sectors that either depend on or impact BDES.

Chandertal in Himachal Pradesh is a crucial high-altitude Ramsar Site renowned for its rich biodiversity and vital ecosystem services. This distinctive glacial wetland, which supports rare species such as the snow leopard, is essential for regional water resources and cultural practices. However, it faces significant threats from climate change, including glacier retreat and altered precipitation patterns.

Arghya Chakrabarty, Technical Officer and Saadan Hussain, Junior Technical Officer, conducting vegetation sampling in Lahaul Valley, Himachal Pradesh

Economic values for five ecosystem services, namely water supply and storage, fodder provision, flood buffering, and tourism, were assessed. The economic values were assessed to be in the range of INR 26 Billion to INR 30 Billion.

An in-depth analysis of the tourism industry and its constituent sectors operating within the landscape helped shape recommendations for integrating biodiversity and ecosystem service values. Opportunities in the tourism industry suppliers (such as the hospitality sector, FMCG sector) include improvement in efficiency of water use, adopting renewable energy, and promoting biodiversity awareness amongst their vendors and contractors. Opportunities for the tourism industry operators (such as tour operators and travel organisers) include promoting conservation practices, avoiding overcrowding, and respecting local customs among their local collaborators, travel agenda, etc. Opportunities in the tourism industry customers (such as tourists) include minimising waste, using water wisely, and following eco-friendly practices.

The sector integration report was presented during a dissemination workshop held on March 27, 2024, in Shimla, Himachal Pradesh. The workshop saw active participation from ten representatives of the State Forest Department of Himachal Pradesh, UNDP, and ICFRE-Himalayan Forest Research Institute. Shri Anil Thakur, PCCF (Wildlife) of the Himachal Pradesh Forest Department, expressed a keen interest in commissioning further studies to assess the tourism-carrying capacity of the landscape. He also proposed the development of operational guidelines for check posts and introducing an online ticketing system for tourists.

A Wetland Trend Index for India

In 2023–24, the Governing Body approved the State

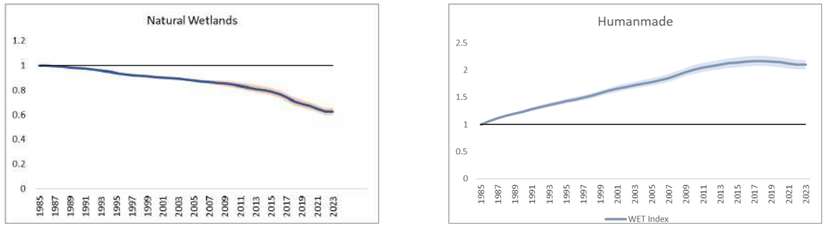
PCCF Himachal Pradesh Forest Department (fourth from right) releasing the tourism sector integration report at dissemination workshop held on March 27, 2024 at Shimla

of Indian Wetlands Project, which aims to develop a coherent and systematic picture of the wetlands' status and trends, drivers of change, impacts of various management interventions, and future scenarios. Such an information base is expected to trigger collaborative action on addressing the adverse drivers of wetlands degradation through policy harmonisation and gap-filling, better spatial and sectoral targeting of interventions, and replication and upscaling of best practices.

Work during the year included developing a national wetlands extent trend for 1985–2022 using the established Wetland Trend Index (WET) method[2] . Time-series data on 11,128 wetlands were used to construct the index.

According to the trend analysis, natural wetlands in the country declined by 37% from 1985 to 2022. Inland and coastal natural wetlands declined by 32% and 39%, respectively. In contrast, human-made wetlands increased by 386%, with inland human-made wetlands increasing by 427% and coastal human-made wetlands increasing by 109%.

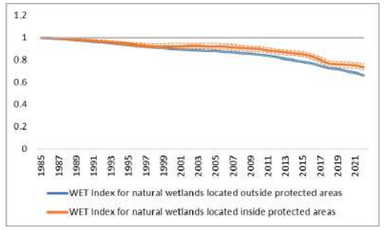
A positive impact of designating wetlands as protected areas on arresting the decline in wetland extent was observed. Natural wetlands located within protected areas declined by 26% during 1985–2022 whereas those located outside protected areas declined by 33%. Wetlands located within urban areas declined by 36% as compared with rural wetlands which declined by a lower proportion (31%).



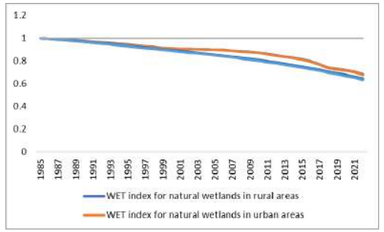
a)

b)

Wetland Extent Trend (WET) index relative to 1985 for a) Natural wetlands and b) Human-made wetlands



a)



b)

Wetland Extent Trend (WET) index relative to 1985 for a) Natural wetlands located within and outside protected areas and b) Natural wetlands in urban and rural areas

TEAM • Dhruv Verma • Apoorva Thapa • Harsh Ganapathi • Arghya Chakrabarty • Dayadra Mandal • Pradeep • Nikita Mishra • Preethi Vasudevan

Apoorva Thapa, Technical Officer conducting soil coring at Changthang Plateau, Ladakh

Safeguarding Wetland Carbon

PROJECTS

+ Inventory Assessment of Peatlands in India (Funded by GIZ-India)
+ Himalayan Peatlands (Internal Funding)
+ Mainstreaming Ecosystem Services and Climate Risks in Integrated Wetlands Management Planning (Funded by IKI-GIZ)

Developing a Peatland Probability Map for India

Peatlands, despite covering around 3–4% of the global land surface area, contain up to one-third of the world's soil carbon and are critical for achieving global climate goals.

The extent of peatlands in India, however, is uncertain given the lack of detailed studies and highly varying estimates (from 0.4 million ha[3] to 1.35 million ha[4] and 5.7 million ha[5]) provided by global assessments.

Wetlands International South Asia seeks to include peatlands within India's national climate action plans and programs. Towards this, the mapping of peatlands in India has been taken up as a priority work program in 2023–25.

Financial support for this work is provided by the organisation's corpus funds and a funded project under the International Climate Initiative (IKI) of the Federal German Government. Since accurate data on the extent and distribution of peatlands in India is limited, this initiative aims to create a comprehensive peatland probability map using geospatial techniques. Baseline information on carbon content in select peatland hotspots (Ladakh, Lahaul-Spiti, Khecheopalri, Loktak and Myristica swamps of Western Ghats), and evaluate threats for preparing monitoring plans and management strategies.

The IKI project is being implemented with support from the MoEF&CC and GIZ and in partnership with the Peatlands Team at Wetlands International Global Office. Launched in January 2024, the project convened a multi-expert consultation meeting in February 2024 to understand the current state of knowledge on peatlands in India, exchange research and management experiences, considerations for preparing country-level definition and inventory for India, and identify opportunities for partnerships to advance peatland programme in India.

Wetlands International South Asia also prepared a synthesis report on the current state of knowledge on peatlands in India, a global classification scheme and key considerations for developing peatland definition, and a detailed review of peatlands mapping at various spatial scales that can be used for initiating peatlands mapping in diverse bio-geographic regions of India.

Wetlands International South Asia is committed to releasing India's peatland probability map on World Wetlands Day 2025.

Wetlands International South Asia Team (from right to left), Shivani Negi, Junior Technical Officer, Apoorva Thapa, Technical Officer and Dhruv Verma, Senior Technical Officer, with officials of State Wetland Authority Kerala conducting peatland assessments at Kuttanad, Kerala

Assessing the Contribution of Wetlands to Climate Change

India, as a part of the Nationally Determined Contributions, has committed to achieving a net zero target by 2070, reduction of annual emission by 1Gt CO2 equivalent by 2030 and creation of an additional carbon sink of 2.5 to 3 Gt equivalent by 2030. The integration of wetlands in climate mitigation action has been very peripheral to date and limited to a few a wetland type.

During 2023–2024, desk research was undertaken to assess the mitigation potential of Indian wetlands based on extrapolation from existing studies. Overall, 32 studies have documented the carbon storage in Indian wetlands. Based on the available area estimates, Indian wetlands are estimated to have a 1.56 Gt CO2 equivalent stock.

Wetlands are also the largest natural methane source and are estimated to account for one-third of total emissions. The study indicates that the Indian wetlands release 0.002 Gt Methane, approximately one-tenth of the total national emissions.

The carbon sequestration potential of Indian coastal wetlands is 0.014 GtCO2 equivalent. If coastal wetlands are restored and protected, an additional potential of 0.0003 Gt CO2 equivalent can be achieved.

Integrating wetlands into climate action can be supported by a range of actions including **science and knowledge** (mapping the potential of wetlands and pathways to contribute to India's NDCs and Net-Zero ambitions, building a national-scale knowledge base on wetlands and climate mitigation action, mapping the potential of peatlands and permafrost), **policy** (building the policy case for integrating wetlands in national and state level climate action, demonstrating the integration of wetlands-mediated climate mitigation action in SAPCCs), and **practice**(building partnerships for voluntary credit generation through wetlands restoration, promoting wetland restoration as avoided emissions and emissions removal, supporting technology innovation).

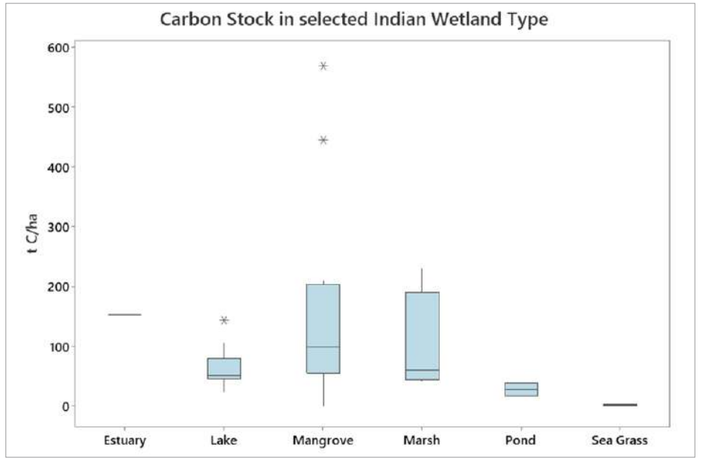


FIGURE: Carbon stock in different wetland types in India

TEAM • Dhruv Verma • Shivani Negi • Harsh Ganapathi • Dayadra Mandal • Apoorva Thapa • Arghya Chakrabarty • Pradeep Vashisht • Arif Ahmed

Peatland Map of Western Himalayas

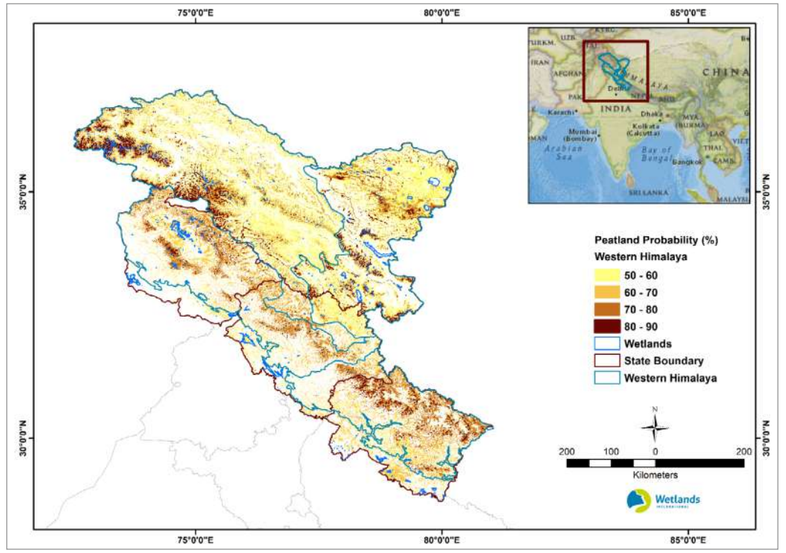
PROJECT
Himalayan Peatlands

Harsh Ganapathi, Senior Technical Officer and Dhruv Verma, Senior Technical Officer, conducting peatland sampling in Chandertal, Himachal Pradesh

The presence of peatlands has been sporadically reported from patches in the Indian Himalayan Region. To develop a comprehensive picture, the Wetlands International South Asia team prepared the peatland probability map for the Western Himalayas.

Peatland probability maps indicate the likelihood of presence of peatlands on the basis of peatland forming conditions (such as organic matter accumulating topography, water saturation, and high moisture content and low temperature). Multiple thematic layers capturing these data are overlaid on the biogeographic zones to estimate the probability of the presence of peatlands. Field samples are collected from different locations to correlate ground conditions with mapping and modelling results. The peatland probability maps are subsequently improved based on the results derived from the field studies.

The peatland probability map developed for the Western Himalayas is presented in the adjoining figure. This map captures the results from sampling in 41 locations as well as other studies. The analysis indicates nearly 26,500 Ha of peatlands in the Western Himalayan landscape, which accounts to 0.09% of the total geographical area of the Western Himalayan landscape. Of this, 25-30% of the high probability peatland areas fall under protected area status as per the Indian Wildlife (Protection) Act, 1972. Moreover, a majority of these high probability peatland areas are nested in the rangeland and forest land use land cover classes of mid and high-altitude areas of the landscapes.



Peatland probability map of Western Himalayan Landscape

TEAM • Dhruv Verma • Harsh Ganapathi • Arghya Chakrabarty • Pradeep • Apoorva Thapa • Arif Ahmed • Dayadra Mandal • Saadan Hussain • Shivani Negi

Young Expert Training Program (YEP)

Dayadra Mandal, Junior Technical Officer-Water Management, represented Wetlands International South Asia; she completed the Young Expert Program (YEP), which provides opportunities for young professionals worldwide.

As one of the Young Experts from nine countries in Batch 29 (2023–2025), Dayadra underwent a two-year training program organized by the Netherlands Water Partnership and commissioned by the Dutch Ministry of Foreign Affairs. The program focused on three key areas: Individual Development, Collective Development, and Networking and Innovation. During the training, she engaged in five critical learning tracks.

The Context track equipped her to navigate various local and new environments, which is essential for her water management role. The Communication track enhanced her ability to articulate ideas and solutions clearly and persuasively. She grew professionally through the Personal Development track, sharpening her leadership abilities through project management courses and coaching sessions. Lastly, the Inter-cultural Leadership track prepared her to lead effectively across different cultures, a crucial skill in today's globalized work environment.

A Black-necked Crane with its chick at Changthang Wildlife Sanctuary

Dr Sidharth Kaul, President, Wetlands International South Asia and Ms Sunita Narain, Director General, CSE, at the opening ceremony of World Wetlands Day Event

COMMUNICATIONS & OUTREACH

World Wetlands Day

WETLANDS CONSERVATION BEYOND RAMSAR SITES: WORLD WETLANDS DAY 2024

On February 02, 2024, Wetlands International South Asia celebrated World Wetlands Day (WWD) at Juniper Hall, India Habitat Centre, New Delhi, focusing on the theme 'Wetlands and Human Wellbeing.' The event underscored the critical role wetlands play in human prosperity, including physical, mental, and environmental well-being. Ms. Sunita Narain, Director General of the Centre for Science and Environment, served as the Chief Guest, addressing an audience of 63 dignitaries from government, academia, civil society, and international organisations.

Dr. Sidharth Kaul, President of Wetlands International South Asia, reflected on the 25 years of wetlands conservation efforts, highlighting the organisation's expansion from two sites to 17 states and neighbouring countries. The event also saw the release of the 'Wetlands and Human Wellbeing' poster and the newsletter *Sarovar*, focusing on the ecological restoration of wetlands.

In her keynote address, Ms. Narain emphasized the need to broaden wetlands conservation beyond the Ramsar designation. She advocated for integrated, cross-sectoral strategies that recognize wetlands as essential components of water and food security, particularly in urban planning. She also stressed the importance of livelihood-centered approaches, citing the case of *Makhana*, to make conservation more impactful and community-driven.

A panel discussion on 'Wetlands: Nature-Based Solutions' followed, chaired by Prof JK Garg, Vice President of Wetlands International South Asia. Panelists, including Dr Anupam Joshi from the World Bank, Mr Nimal Raghavan of Mega Foundations, and Ms Archana Chatterjee from IUCN India, discussed the role of wetlands in poverty eradication, climate resilience, and community engagement. The session concluded with a call for localized action, investment in wetlands restoration, and the use of ecologically informed interventions to guide conservation efforts.

Panel discussion in progress (From left to right: Dr Anupam Joshi, Prof JK Garg, Mr Nimal Raghavan and Ms Archana Chatterjee)

Empowering the Next Generation: Students Champion Wetland Conservation Across India

Wetlands International South Asia has been advocating a deeper connection between youth and nature through a series of workshops and events aimed at educating students about the importance of wetlands and their conservation. These initiatives are part of a broader effort to promote an "all of society" approach to wetlands conservation, focusing on interactive learning methods that resonate with young minds.

On January 18, 2024, Delhi Public School, RK Puram, hosted a session titled "Wetlands as a Biological Supermarket." The event emphasized the importance of wetlands, the threats they face, and the crucial role of youth in conservation. A follow-up visit to Hauz Khas Lake on January 24 provided a hands-on learning experience, deepening their understanding of wetland conservation, ecosystem services, biodiversity, and cultural values.

Wetlands International South Asia conducted similar educational sessions on February 5, 2024, at Oxford Public School and Government High School, Medical Campus, Berhampur, in Odisha. Nearly 400 students from grades VIII and IX participated, learning about the significance of wetlands, the need for conservation efforts, and the Ramsar Sites in Odisha. These workshops emphasized the importance of youth involvement, inspiring students to preserve these vital ecosystems.

Exposure visit to Haus Khas to provide hands-on, immersive learning experience for the students of DPS RK Puram

TEAM • Suchita Awasthi • Harsh Ganapathi • Sarthak Danda • Dayadra Mandal • Diana Datta • Nikita Mishra

Beds of Indian Lotus in Wular, Kashmir

GOVERNANCE

Wetlands International South Asia is registered as a Non-Government Organisation under the Societies Registration Act of the Government of India. The Society is governed under a three-tier structure.

- **The strategic directions and policies of the organisation are set by a General Body which comprises eminent experts and conservation planners.**
- **The overall management of the society is vested in its Governing Body. The Office Bearers, comprising the President, Vice President, Treasurer and Secretary maintain oversight of the implementation of various decisions and programme operations.**
- **The Director, appointed by the Governing Body, serves as the principal institutional representative of Wetlands International South Asia and responsible for implementing the strategy and activities of the organisation.**

16th Annual General Body Meeting in progress

Annual General Body Meeting

The 16th Annual Meeting of the General Body was held on September 27, 2023 and attended by 21 members (and 08 requests for leave of absence). The annual report and audited financial statements for the period April 2022–March 2023 were adopted.

Meetings of Governing Body

The Governing Body met thrice to consider management issues arising from the decisions of the General Body as well as from the implementation of technical programmes.

The 24th Meeting of the Governing Body was held on April 26, 2023. The reserves policy of the organisation was approved. The Annual plan for 2023 was also discussed and approved.

The 25th Meeting of the Governing Body (Extraordinary) was held on July 15, 2023 wherein the report of Society elections, introduction of new members and constitution of Office Bearers were approved.

The 26th Meeting of the Governing Body was held on September 15, 2023 wherein the Governing Body approved the annual report and audited financial statements for presentation at the Annual General Body Meeting.

24th Governing Body meeting in progress

Meetings of Office Bearers

The Office Bearers met 3 times during April 2023–March 2024 to assess the implementation of decisions taken in various meetings of the Society, review technical programmes and prepare agendas for the meetings of Governing Body and the General Body.

Elections

The elections for Wetlands International South Asia Society for the 2023–2026 triennium were initiated in June 14 and concluded on July 1, 2023.

Dr Sidharth Kaul was elected as President of Wetlands International South Asia Society for the triennium.

The following members were elected to the Governing Body:

- Prof KV Jayakumar
- Prof JK Garg (nominated as Vice President)
- Dr CK Varshney
- Dr Lalitha Vijayan
- Dr Sara Ahmed
- Mr Pijush Sinha (nominated as Treasurer)
- Prof BB Dhar
- Dr Manoj P Samuel
- Prof MN Murty

Rules and Regulations Amendment

The General Body approved amendments to the Society Rules and Regulations in their 16th meeting. Key amendments included putting a buffer of three years before a General Member can exercise their vote and participate in decision-making matters, creating a provision for suspension of membership when a member does not attend three consecutive meetings without providing a valid reason, making membership to the General members' category and Students category available on application, removing the category of Life Members, instead, members can be nominated as Counsellors of Honour, amongst others.

New General Body Members

The following were inducted to the General Body during 2023–24:

Dr Sujana Dhar, Independent Hydrologist

Mr Jigyas Boruah, Biologist, Aaranyak, a scientific and industrial research organisation

Dr Sabita Madhvi, Scientist D/Joint Director, National River Conservation Directorate, Ministry of Jal Shakti, Government of India

Dr Shubha Avinash, Assistant Professor and Head, Department of Civil Engineering, GITAM (Deemed to be University), Bangalore Campus

Mr Karamshi Desai, Livestock Inspector (Wildlife), Gujarat Forest Department

Fringes of Chilika, Ramalenka, Odisha

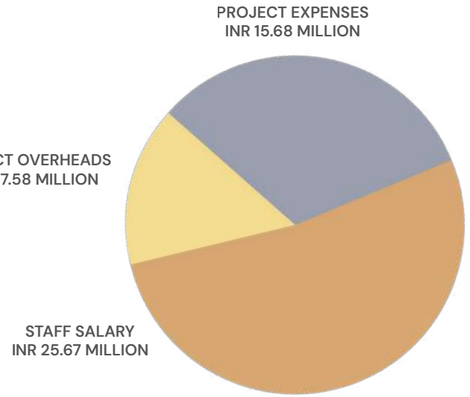
ACCOUNTS & AUDIT REPORT

During the period April 2023 – March 2024, a total income of INR 50.70 million was received. Of this, INR 44.54 million was on account of project funds received from 10 donor agencies, and the balance, INR 6.16 million as interest earned on the reserves.

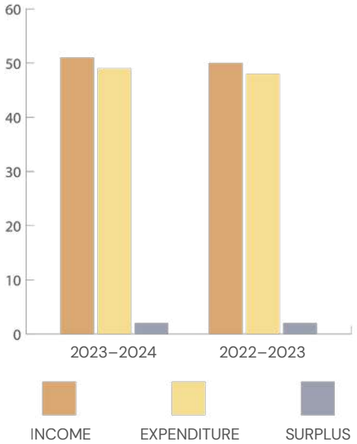
The Ministry of Environment, Forest & Climate Change and the UN Environment Programme-Global Environment Facility provided 40.10% of the funds for implementing the Integrated Management of Wetland Biodiversity and Ecosystem Services (IMWBES) during the year.

The total expenditure incurred during the year towards various programmatic activities was INR 48.93 million. Direct overheads stood at INR 7.58 million, forming 15.49 % of total expenditure. Project expenses were INR 15.68 million, including INR 25.67 million towards staff salary.

On a net, a surplus of INR 1.78 million was accrued. The total reserves at the end of the financial year stood at INR 119.53 million, which is an increase of INR 2.26 million over the last year. Overall, the expenses made under projects were fully covered by project incomes. Similarly, the overheads were also well covered by the incomes accrued under staff time.



Total Expenditure: INR 48.93 million
April 2023–March 2024



Income, Expenditure & Surplus
(in INR Millions)

Balance Sheet

All figures in Rupees

PARTICULARS		2023-2024	2022-2023
SOURCE OF FUNDS			
CAPITAL ACCOUNT		1,410,796	1,410,796
GENERAL RESERVE			
	Opening Balance	117,275,088	102,824,616
	Add Transfer during the year	2,256,797	14,450,472
	Closing Balance	119,531,885	117,275,088
INCOME & EXPENDITURE ACCOUNT			
	Opening Balance	9,160,918	21,354,593
	Add Surplus during the year	1,775,767	2,256,797
	Less Transfer to General Reserve	(2,256,797)	(14,450,472)
	Closing Balance	8,679,888	9,160,918
CURRENT LIABILITIES		4,224,312	5,478,084
TOTAL		133,846,881	133,324,887
APPLICATION OF FUNDS			
Fixed Assets			
	Opening Balance	8,090,882	2,406,528
	Additions during the year	1,506,354	7,195,204
	Less : Sale	-	(222,351)
	Less: Depreciation	(1,623,358)	(1,288,499)
	Closing Balance	7,973,878	8,090,882
CURRENT ASSETS, LOANS, ADVANCES, DEPOSITS& CASH BALANCES		125,873,003	125,234,005
TOTAL		133,846,881	133,324,887

Income and Expenditure Statement

All figures in Rupees

PARTICULARS		2023-2024	2022-2023
INCOME			
	Project Income	44,539,333	45,520,196
	Other Income	6,162,717	4,479,484
TOTAL		50,702,050	49,999,680
EXPENDITURE			
OVERHEAD COSTS			
	Salary	840,120	750,000
	Office running expenses	5,452,323	5,305,609
	Governance expenses	505,745	769,870
	Depreciation	1,623,358	1,288,499
PROJECT COSTS			
	Salary	24,826,340	20,982,837
	Sub-contractor/Project Grant	2,380,952	10,345,531
	Travel Costs	5,601,813	1,144,695
	Project Material	163,274	178,226
	Communication	199,783	178,019
	Financial charges	(111,643)	(135,897)
	Publications	2,334,220	2,769,225
	Training/Workshops/Meetings	5,109,998	4,166,469
TOTAL		48,926,283	47,743,083
SURPLUS DURING THE PERIOD		1,775,767	2,256,597
TOTAL		50,702,050	49,999,680

DONORS, PARTNERS & COLLABORATORS

Donors

Department of Environment Forest and Climate Change, Bihar

Central Coalfield Limited

United Nations Development Programme (UNDP)

Rainmatter Foundation

India Water Partnership

Bombay Natural History Society (BNHS)

Wetlands International Global Office, Netherlands

GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit)

Perspective Climate Group (PCG)

MoEF&CC-GEF-UNEP

Partners & Collaborators

Wetlands Division, MoEF&CC

National Mission for Clean Ganga, Ministry of Water Resources, River Development and Ganga Rejuvenation

Agencies of United Nation
UNEP, UNDP

Wetland Authorities
Chilika, Loktak, East Kolkata Wetlands, Wular, Sultanpur

State Wetland Authorities
Arunachal Pradesh, Assam, Bihar, Kerala, Madhya Pradesh, Uttar Pradesh, Himachal Pradesh

NGOs and NGO Consortia
WWF India, SEEDS India, Asian Development Research Institute, Aranyak, Progressive Research Organization for Welfare (PROW), NetCoast, Action for Protection of Wild Animals (APOWA), India NbS Forum, India Water Partnership

Knowledge and Research Organizations
National Centre for Sustainable Coastal Management (NCSCM), Salim Ali Centre for Ornithology and Natural History (SACON), GEER Foundation, CWRDM, WRI

State Forest Departments
Bihar, Uttar Pradesh, Himachal Pradesh, Jammu and Kashmir, Ladakh

International Organizations
Perspectives Climate Group, GIZ

Private Sector Platforms
India Business & Biodiversity Initiative by MoEF&CC and Confederation of Indian Industry (CII-IBBI)

Capacity Building and Training Institutes
NIDM, NIRDPR

State of Indian Birds Coalition
Nature Conservation Foundation, National Centre for Biological Sciences (NCBS), Ashoka Trust For Research In Ecology And The Environment (ATREE), BNHS Conservation Education Centre, Indian Institute of Science (IISc), Foundation for Ecological Security (FES), National Biodiversity Authority (NBA), SACON, WII, Wildlife Trust of India (WTI), WWF India, Zoological Survey of India (ZSI)

Asian Waterbird Census Network
Mandar Nature's Club, Neo Foundation, AERO, Wild Orissa, Deccan Birders, BNHS, Bird Count India, National Biodiversity Authority

OUTLOOK 2024-2025

Wetlands International South Asia's work is structured around the following themes: strengthening wetlands management, securing wetlands carbon, conserving wetlands biodiversity, rejuvenating wetlands for water security, and wetlands as nature-based solutions for disaster risk reduction.

The organisation has established regional offices for its Programmes on Himalayan Wetlands, and Coasts and Deltas. These offices are funded through the corpus for the first two years, during which it is envisaged that funded programmes within the South Asia Regional Strategy framework will be established. Permissions to work in Ladakh, Jammu and Kashmir, Himachal Pradesh and Arunachal Pradesh have been received for the Himalayan Programme. Similarly, the coasts and deltas programme has initiated work on strengthening the management of key wetlands of Kerala, Tamil Nadu and Karnataka. During the year, the focus will be on supporting the ongoing wetlands conservation initiatives of the State Governments / UT Administrations to enhance the effectiveness of management interventions and catalyse actions on priority sites (activities for support being wetlands inventory, health assessment, constitution and developing capacities of multi-stakeholder groups, and formulating and implementing management plans for prioritised sites).

Wetlands International South Asia team conducting peatlands surveys at Khecheopalri, Sikkim

Strenghtening Wetlands Management: Management Plans for Deepor Beel (Assam), Sasthamkotta and Ashtamudi (Kerala), Gobind Sagar (Himachal Pradesh), Wular (Jammu & Kashmir), and Bedang Tso (Sikkim) would be completed (or revised as may be the case), and approval secured through the concerned State Wetland Authorities. In the three Ramsar Sites (Sasthamkotta, Kerala; Kabartal, Bihar; Harike, Punjab) for which implementation funding has been secured, inception phase actions would be completed during the year. The first cycle management effectiveness assessment of Ramsar Sites initiated in 2023 would be extended to cover 50 Ramsar Sites.

In August 2024, the State Government of Arunachal Pradesh signed a Memorandum of Understanding with Wetlands International South Asia, formally recognizing the organisation as a knowledge partner, and collaboratively building a programme for conservation of significant wetlands. During the year, Wetlands International South Asia shall support integration of wetlands within the State Action Plan on Climate Change, as well as develop integrated management plans for two priority wetlands. An updated wetlands map of the state to serve as a basis for prioritisation will also be developed.

Securing Wetlands Carbon: The peatlands probability map of India would be completed and made available in public domain by World Wetlands Day 2025. The Indian peatlands coalition would be established and first meeting held in the year to jointly identify conservation priorities, on-ground actions needed to secure existing sites as well as initiate restoration in degraded sites, and enhancing appreciation of the these ecosystems within public at large through communication and outreach. Actions for safeguarding peatlands in Chandertal would be initiated. A tier-1 assessment of carbon stock, sequestration, and GHG emissions would be completed.

Nurturing Wetlands Livelihoods: We will further our work on conservation of foxnut wetlands in North Bihar. Resource development for implementing conservation actions in wetlands in Darbhanga and Katihar

districts would be a focus. In collaboration with the NIRDPR, a training programme on integrating wetlands within rural development programmes for the local self-governments would be established.

Wetlands and Disaster Risk Reduction: The tool for assessing climate adaptation and DRR co-benefits of wetlands management would be developed and field tested in four Ramsar Sites. A guidance document on integrating wetlands and blue-green infrastructure in city disaster management plans would be developed in partnership with NIDM and WRI. The work on integrating wetlands in district disaster management plans would be extended to two additional districts of Odisha and Jammu & Kashmir.

Wetlands and Water Security: Inventorisation and functional assessment of floodplain wetlands of Bihar would be completed. Based on the assessment, restoration and management interventions in atleast three sites would be initiated. A Standard Operating Protocol for integrating wetlands in river basin management for use of policy planners and managers in River Ganga Basin would be completed based on the experiences of assessments of River Ganga floodplain wetlands of Bihar and Uttar Pradesh.

Conserving Wetlands Biodiversity: A two years' programme titled '*Wetlands and Winged Voyagers*' and aimed at identification and conservation of important wetlands along the Central Asian Flyway (CAF) around the production facilities of the TATA Motors Limited is close to finalisation. Implementation during first year shall entail mapping wetlands around TML facilities and creating baseline ecological profiles. A full size GEF project on Conservation of Migratory Wildlife and Habitats in Central Asian Flyways and River Basins of India is under development and would be completed during the year. The Asian Waterbird Census would be continued in collaboration with BNHS, Bird Count India, and the National Biodiversity Authority.

Towards development of an enabling environment for wetlands conservation Wetlands International South Asia will work at establishing an e-learning platform for wetland managers on integrated wetlands management, and a national training curriculum on wetlands through a regional network of training institutes. The reach of our communications and outreach programmes will also be extended through: increased media visibility, diversified portfolios of outreach activities, and continued emphasis on engaging with youth and students. The State of Indian Wetlands Report compiling the available information on wetland status, trends, and drivers of change would be completed during the year.

With the framework for establishment of Ramsar Regional Initiaitve for South Asia at the Pokahra (Nepal), work during the year would be focused on formalisation of the initiative within Ramsar Convention processes. This will be through seeking formal concurrence of Ramsar National Focal Points for the establishment of Regional Initiative. Within the framework of the MoU with RRCEA, a capacity development workshop on wetlands inventory and assessment shall also be organized.

We will also continue to provide hand-holding support to wetland authorities with which Wetlands International South Asia has a long-standing association. Through wetlands authorities and other fora, we will continue to engage with the state government by raising relevant issues also enabling State Governments to take actions for effective regulation and management.

Rice paddies of Kuttanad, Kerela

OUR TEAM

List as of July 2024
Total members: 31

DIRECTOR

Dr Ritesh Kumar

PROGRAMME HEADS & SENIOR TECHNICAL OFFICERS

Dr Asghar Nawab
Programme Head/
AQUATIC ECOLOGY

Suchita Awasthi
National Project Coordinator/*IMWBES*

Harsh Ganapathi
Senior Technical Officer/*ECOHYDROLOGY*

Dhruv Verma
Senior Technical Officer/
WETLANDS CONSERVATION

Sridhar A
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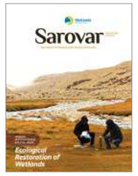

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- Ecosystem Services Assessment of Lahaul-Pangi
- Economic Valuation of Landscape Functions of Chandratal
- Economic Valuation of Landscape Functions of Myar Valley
- Economic Valuation of Landscape Functions Sechu Tuan Nalla Wildlife Sanctuary
- State of India's Birds: Volume II (Contributor)

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TESTIMONIALS

GIZ-India

"We would like to extend our appreciation for WISA with whom we have been collaborating on numerous wetland conservation initiatives.

Their technical acumen has been instrumental in enhancing the understanding of wetland ecosystems in India, providing a robust foundation for their effective management. WISA's meticulous approach to preparing comprehensive management plans has significantly contributed to implementation of robust conservation strategies, ensuring the preservation and sustainable use of these vital ecosystems. Their insights have been critical in shaping policies that are both practical and aligning with best practices and addressing emerging challenges in wetland conservation. Their contributions have advanced our shared goals and strengthened our collective ability to protect wetland ecosystems."

U.P. State Wetland Authority

The Chief Conservator of Forests, Eco-development/
Member-Secretary, Uttar Pradesh State Wetland Authority,
Forests and Wildlife Department,
Govt. of Uttar Pradesh,
17, Rana Pratap Marg,
Lucknow – 226001,
Uttar Pradesh.

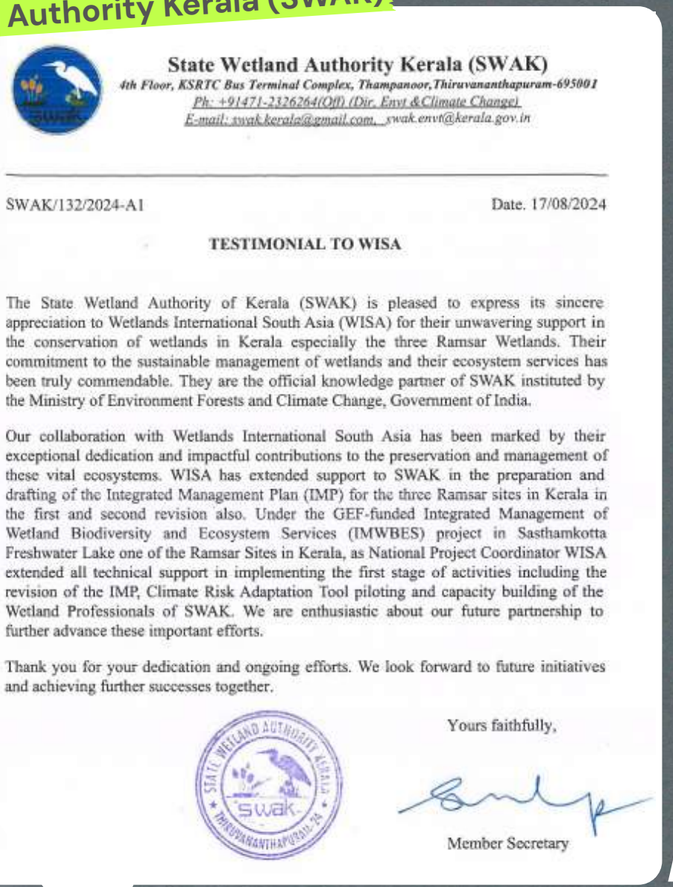
Testimonial

It is with great enthusiasm that the **Uttar Pradesh State Wetland Authority** expresses its deep appreciation for **Wetlands International South Asia**. Over the years, Wetlands International South Asia has demonstrated an unwavering commitment to fostering sustainable development of wetlands in India.

Our collaboration with Wetlands International South Asia has been marked by their exceptional dedication to creating impactful, long-lasting change in conserving and managing wetlands. We would be delighted to extend our collaboration with Wetlands International South Asia in the coming days to continue our joint efforts towards conserving the environment.

(Neeraj Kumar) IFS
Chief Conservator of Forests,
Eco-development/ Member-Secretary,
Uttar Pradesh State Wetland Authority,
Lucknow

State Wetland Authority Kerala (SWAK)



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SWAK/132/2024-A1 Date. 17/08/2024

TESTIMONIAL TO WISA

The State Wetland Authority of Kerala (SWAK) is pleased to express its sincere appreciation to Wetlands International South Asia (WISA) for their unwavering support in the conservation of wetlands in Kerala especially the three Ramsar Wetlands. Their commitment to the sustainable management of wetlands and their ecosystem services has been truly commendable. They are the official knowledge partner of SWAK instituted by the Ministry of Environment Forests and Climate Change, Government of India.

Our collaboration with Wetlands International South Asia has been marked by their exceptional dedication and impactful contributions to the preservation and management of these vital ecosystems. WISA has extended support to SWAK in the preparation and drafting of the Integrated Management Plan (IMP) for the three Ramsar sites in Kerala in the first and second revision also. Under the GEF-funded Integrated Management of Wetland Biodiversity and Ecosystem Services (IMWBES) project in Sasthamkotta Freshwater Lake one of the Ramsar Sites in Kerala, as National Project Coordinator WISA extended all technical support in implementing the first stage of activities including the revision of the IMP, Climate Risk Adaptation Tool piloting and capacity building of the Wetland Professionals of SWAK. We are enthusiastic about our future partnership to further advance these important efforts.

Thank you for your dedication and ongoing efforts. We look forward to future initiatives and achieving further successes together.

Yours faithfully,

Member Secretary

ANNEX

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