**JALJEEVIKA 2.0** 

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# **STRATEGY 2025-2035**

WATER FOR LIVELIHOOD, WATER FOR ALL

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CENTRE FOR AQUATIC LIVELIHOOD JALJEEVIKA

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# WHAT WE ARE

## **1.1 GENESIS**

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The Centre for Aquatic Livelihood Jaljeevika was founded by Ashoka Fellow Neelkanth Mishra with the intent to establish sustainable livelihood models centered around aquatic ecosystems. The organization emerged during the flood relief program in Bihar in 2009 and the drought relief work in Madhya Pradesh in 2011. These experiences highlighted the resilience of waterbased livelihoods, as the livelihoods of fishermen remained intact despite the crises.

This realization led to the conceptualization of Jaljeevika, aiming to develop and support sustainable water-based livelihood models that could withstand environmental challenges and contribute to the economic well-being of vulnerable communities.

### **1.2 PURPOSE**

Jaljeevika is committed to supporting marginalized groups such as small-scale fish farmers, small and marginal farmers, women, adivasis, youth, and others by equipping them with the tools, knowledge, and support necessary to enhance their productivity and ensure sustainable livelihoods.

The organization focuses on addressing several critical challenges such as:

#### **Limited Extension Services**

Many marginalized groups involved in aquatic livelihoods face a lack of technical expertise in sustainable farming practices, resulting in suboptimal yields and environmental harm. Jaljeevika bridges this gap by providing comprehensive training programs, capacitybuilding initiatives, and hands-on workshops tailored to diverse needs.

These efforts focus on fostering sustainable aquaculture, integrated farming practices (e.g., fish-cum-vegetable farming), and efficient resource management. Jaljeevika's mission is to enhance livelihoods and food security for communities relying on freshwater, wetlands, and marine environments by creating comprehensive value chains for aquatic-based production systems.



# Limited Access to Convergence and Schemes

Lack of information often prevent marginalized farmers from accessing government schemes. financial aid. and institutional support. Jaljeevika actively assists farmers, women collectives, and youth groups in navigating these processes, ensuring they benefit from available resources, including financial literacy programs and simplified guidance on government subsidies and schemes.

#### **Technological Gaps in Aquaculture**

Technological advancements in aquaculture and allied sectors often bypass requirement small-scale and marginal farmers due to affordability and accessibility issues. Through partnerships with leading institutions and collaborations with local knowledge hubs, Jaljeevika brings cuttingedge innovations, such as climate-resilient aquaculture models, efficient fish feed, and low-cost farming equipment, to these communities.

#### Targeted Support for Women, Adivasis, and Youth

Jaljeevika recognizes the unique challenges faced by women, adivasis, and youth in aquatic livelihoods. Women are empowered through skill development programs, collective farming initiatives, and incomegenerating activities such as the processing of wetland products (e.g., lotus seeds, water chestnuts, and fishbased products). Special attention is given to adivasi and youth populations by promoting traditional knowledge, introducing modern techniques, and facilitating entrepreneurial opportunities that align with their cultural and economic contexts.

Small-Scale Fish Farmers

Jaljeevika empowers small-scale fish farmers by promoting sustainable aquaculture practices, offering tailored training programs, and facilitating access to government schemes and financial support. These efforts enhance productivity, ensure environmental sustainability, and improve the economic resilience of small farmers.

# Fisheries Cooperatives

By partnering with fisheries cooperatives, Jaljeevika encourages collective action and resource sharing, enabling fish farmers to access larger markets, reduce operational costs, and strengthen their bargaining power. These cooperatives also serve as platforms for knowledge sharing and collective advocacy.

# Women's Groups

Jaljeevika actively supports women engaged in fisheries and allied sectors by providing training in business management, sustainable aquaculture practices, and value-added product development. These initiatives promote gender equality and help women achieve economic independence within the fisheries sector.

# Youth & Micro Entrepreneurs

The organization fosters entrepreneurial growth by equipping youth and microentrepreneurs with cutting-edge aquaculture technologies, innovations, and business development training. These efforts aim to create sustainable and profitable enterprises that drive economic growth while addressing employment challenges.

**FPOs & Collectives** 

Jaljeevika collaborates with various collectives, such as Farmer Producer Organizations (FPOs), Fisheries Farmer Producer Organizations (FFPOs), Federations, and collectives to strengthen their capacity, improve production efficiency, and establish robust market linkages. This collective approach ensures better economic outcomes for small and marginal farmers while fostering community solidarity. Through these initiatives, we ensure that its work directly impacts and uplifts the most vulnerable and underserved members of aquatic livelihood communities, promoting economic stability, social equity, and environmental sustainability.

# .3 OUR BENEFICIARIES

# **1.4 OUR KEY INITIATIVES AND OPERATING MODEL**

Jaljeevika implements a diverse range of initiatives designed to empower marginalized groups, including small-scale fish farmers, women, adivasis, youth, and other underserved communities. These initiatives focus on enhancing livelihoods, fostering resilience, and promoting sustainability by embracing an agroecological approach that integrates ecological principles into aquaculture and farming systems.



#### **Training and Capacity Building**

Jaljeevika's **Aqua School** are the cornerstone of its capacity-building initiatives, providing comprehensive trainings that integrates sustainable aquaculture practices and farming with an agroecological approach.

These schools emphasize techniques that harmonize productivity with ecological balance, such as nutrient cycling, soil health and water quality, biodiversity conservation, and resource efficiency. By fostering knowledge sharing among farmers, researchers, and experts, Aqua Schools equip participants with practical skills and management practices that reduce environmental impacts while enhancing yields.

Through hands-on learning, farmers are introduced to integrated farming methods that blend aquaculture with agriculture, aligning with agroecological principles.

The focus on ecosystem health ensures longterm sustainability, making Aqua Schools a vital platform for transforming traditional practices into models of resilience and environmental stewardship.

#### **Facilitating Government Schemes**

The Jaljeevika Sewa Kendra ensures that marginalized communities, women and collectives can access government schemes and subsidies that promote agroecologically sustainable practices. By simplifying bureaucratic processes and providing handson support, these centers help communities unlock opportunities to enhance their livelihoods while prioritizing environmental conservation and social equity. Access to credit and convergence is one of major built in model.

Through the **Aqua Fund**, Jaljeevika links farmers and collectives with formal credit facilities and ensures convergence with government schemes and institutions for fund raising such as PMMSY, NABARD, Kisan Credit Card, and others financial support agencies. This initiative empowers farmers to expand their operations while adhering to sustainable and agroecological practices.



Access to financial support reduces dependency on informal loans and provides the capital necessary for adopting climate-resilient and environmentally friendly technologies that align with Jaljeevika's broader vision of ecological sustainability.

#### **AQUA ENTREPRENEURSHIP**

Jaljeevika strengthens market linkages by connecting fish farmers, women's groups, and other stakeholders with buyers, processors, and wholesalers who value sustainably produced products. These efforts ensure that the benefits of adopting agroecological methods, such as reduced input costs and premium pricing for ecofriendly products, translate into tangible economic gains for farmers. By optimizing marketing strategies and ensuring fair pricing, Jaljeevika fosters equity and economic resilience while promoting products that align with environmental sustainability.





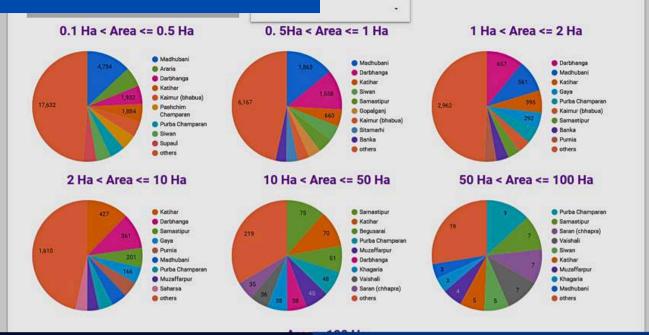
#### AFFORDABLE AND INNOVATIVE TECHNOLOGIES

Jaljeevika's emphasis on agroecology is central to its introduction of cost-effective technologies tailored to the needs of small-scale and marginal farmers. Collaborating with research institutions, the organization promotes innovations such as climate-resilient aquaculture systems, improved fish feed that reduces ecological impact, and integrated farming models that mimic natural ecosystems.

Technologies like Mini RAS (Recirculatory Aquaculture Systems), biofloc systems, mini cages, solar-powered equipment, affordable fish seed hatcheries, and compact sun dryers are designed not only to enhance productivity but also to minimize environmental degradation.

This holistic approach not only uplifts communities but also protects and restores the environments they depend upon, creating a resilient future for both people and nature.

#### **Integrated IT Solutions**



Jaljeevika leverages innovative IT solutions to empower small-scale fish farmers with modern tools for efficient management and sustainability. The **Matsya Mitra WhatsApp Chatbot** provides real-time information and technical guidance in regional languages, ensuring farmers can access support easily.

Using GIS-based cluster planning, Jaljeevika develops data-driven strategies to optimize resource use and manage aquatic ecosystems effectively. This helps communities implement sustainable practices and identify opportunities for growth. IoT-enabled technologies, such as water quality sensors and automated feeding systems, allow real-time monitoring of aguaculture systems. These tools enhance productivity, reduce costs, and promote ecofriendly practices. By integrating IT solutions, Jalieevika ensures better decision-making, impact tracking, and long-term sustainability for marginalized communities.



# Knowledge Dissemination, Policy Advocacy, and Partnerships

Jaljeevika has established valuable partnerships with think tanks, government agencies, research institutes, and various departments, influencing policies that integrate wetland conservation into broader rural development agendas. Through these collaborations, the organization has been provide able to actionable policy recommendations for state-level fisheries programs in Bihar, Andhra Pradesh, and These recommendations Maharashtra. have focused on addressing key gaps in technology adoption, gender equity, and market access, ensuring that wetland conservation and livelihood programs are more inclusive and effective.

In addition to policy advocacy, Jaljeevika has made significant strides in capacity building by training master trainers and community cadres. This approach has created a strong network of extension services that provide ongoing technical support and skill enhancement at the community level. The organization has also contributed to knowledge dissemination through publications, including studies, toolkits, and primers on topics like MGNREGA tank utilization and agroecological principles, which have directly informed policy implementation strategies, further strengthening the impact of their work on the ground.

# **1.5 JALJEEVIKA'S LEGACY (2013-2023):** *Cumulative Impact*

Over the past decade, Jaljeevika has built a robust foundation for sustainable aquatic livelihoods across India, particularly in flood-prone, water rich, and resource-scarce regions. With a focus on community empowerment, women's inclusion and innovative practices, the organization has developed models that are replicable and scalable, enabling long-term socio-economic resilience in rural areas.



Thousands of individuals trained in sustainable fisheries and better management practices in aquaculture enhancing income and resilience. 120

supported collectives

Promoting collective action and tank-based livelihoods.

#### **Policy Influence**

Shaping national and state-level fisheries programs through informed recommendations.

#### **Climate Resilience**

Implementing practices aligned with global sustainability goals.

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#### Advisory System for all

Developed a mobile-based advisory system to provide farmers with access to new technologies, market information, and best management practices.





# **1.6 Jaljeevika 2.0** A vision for the future and way forward

Jalieevika 2.0 envisions a transformative future where wetlands become vibrant ecosystems that integrate ecological conservation with sustainable livelihoods. Over the next decade. the initiative aims to restore 50.000 hectares of wetlands, empower 100,000 households, and establish 10,000 women-led enterprises, aligning its objectives with global frameworks of sustainable development. Central to this vision is the development of a thriving wetland economy that enhances biodiversity conservation, climate resilience, and water management while creating resilient, inclusive livelihoods. Βv focusing on sustainable resource utilization such as capture fisheries, aquaculture, aquatic plants, and agroecology, Jaljeevika seeks to build scalable models that empower women, smallscale fishers, and marginalized communities.

# **3R FRAMEWORK**

Built on the **3R framework—Revive Wetlands, Restore Communities, and Rebuild Economies,** Jaljeevika 2.0 will place participatory resource management at its core, enabling local communities to lead conservation efforts and ensuring equitable access to ecosystem benefits. Strategic partnerships, innovative technologies, and policy advocacy will drive long-term sustainability, while skill development, enterprise promotion, and market linkages through cooperatives and producer organizations will provide a strong foundation for communitydriven growth. By integrating aquaculture with agroforestry on wetland bunds, leveraging digital tools, and utilizing government schemes, Jaljeevika will scale these models across diverse geographies. Ultimately, the initiative aims to position wetlands as hub of sustainable economic activity, fostering environmental stewardship, enhancing food and water security, and contributing to livelihood equity and climate adaptation.

# WETLANDS

#### NATURE'S LIFELINE

The growing impacts of climate change highlight the crucial role of wetland ecosystems in maintaining ecological balance and supporting human livelihoods. Wetlands are vibrant ecosystems rich in biodiversity, providing essential services such as water filtration, carbon sequestration, and flood control. They act as natural buffers against climate change, offering protection from rising sea levels and extreme weather events. As the threats to their survival grow, it is increasingly important to understand, assess, and strengthen the resilience of wetlands to ensure their continued contribution to both the environment and the communities that depend on them. This calls for urgent action from the global community and to safeguard these invaluable policymakers ecosystems and associated communities.



## 2.1 WHAT ARE WETLANDS?

Wetlands are ecosystems where water plays a central role in shaping the environment and supporting the plant and animal life found there. They exist in areas where the water table is close to the land's surface or where the land is submerged in water. Amongst the Earth's most valuable ecosystems located at the intersection of land and water, these dynamic systems perform a variety of critical functions that sustain biodiversity, recharge ground water, mitigate floods, regulate water cycles, and act as natural carbon sinks. The Ramsar Convention adopts an inclusive approach in identifying the wetlands it covers.



areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.



## FIVE PRIMARY TYPES OF WETLANDS COMMONLY RECOGNIZED

#### Marine

Estuarine

(coastal wetlands, including lagoons, rocky shores, and coral reefs)

(including deltas, tidal marshes, and mangrove swamps)

Lacustrine

(wetlands linked to lakes)

Riverine

(wetlands along rivers and streams)

#### Palustrine

(marshy wetlands, such as marshes, swamps, and bogs)

In addition, there are human-made wetlands such as fish and shrimp ponds, farm ponds, irrigated agricultural land, salt pans, reservoirs, gravel pits, sewage farms and canals. The Ramsar Convention has adopted a Ramsar Classification of Wetland Type which includes 42 types, grouped into three categories: and Coastal Wetlands, Inland Marine Wetlands, and Human-made Wetlands. From mangroves and river floodplains to oxbow lakes and coastal lagoons, wetlands serve as lifelines for millions of people. From mangroves and river floodplains to oxbow lakes and coastal lagoons, wetlands serve as lifelines for millions of people.

Since then, the country has designated 85 wetlands, spanning a total area of 1,367,749 hectares (as of August 2024). as Wetlands of International Importance. Currently, India ranks first in South Asia and third in Asia for the number of designated Ramsar sites.[2] Moreover, according to the National Wetland Inventory and Assessment (NWIA) the total area under wetland in the country is estimated as 15.26 million Hectare.

## 2.2 SOCIO-ECONOMIC & ECOLOGICAL VALUE

Wetlands play a crucial role in supporting the livelihoods of rural communities, particularly smallscale fishers, farmers, and marginalized groups across India. These ecosystems are home to a variety of natural resources that sustain these communities, providing income, food security, and cultural benefits.



Wetlands such as Chilika Lake in Odisha, Vembanadu Lake in Kerala[3], and Sambhar Lake in Rajasthan are central to fishing communities. These lakes provide abundant aquatic species, which support income generation through traditional fishing practices, aquaculture, and harvesting aquatic plants. For example, Chilika Lake is not only a critical fishing hub but also a vital source of income for over 200,000 fisherfolk who rely on its resources for their livelihood (Chilika Development Authority.[4]

Agricultural communities. particularly around wetlands like Kolleru Lake in Andhra Pradesh, Khangchendzonga Wetland in Sikkim, and the Nalbana Bird Sanctuary in Odisha, utilize wetlands for irrigation, benefiting from the fertile soils that support the cultivation of crops such as rice and vegetables.

Kolleru Lake, for instance, is vital for agricultural practices, providing irrigation to nearby fields, while also offering a habitat for diverse bird species.[5] In addition to agriculture, livestock farming is an integral part of wetland-based livelihoods. Wetlands like Loktak Lake in Manipur, Sunderbans in West Bengal, and Harike Wetland in Punjab support dairy farming and cattle raising, thanks to the abundant water and vegetation available for grazing. Sunderbans are particularly notable for supporting the livelihoods of local communities through fishing, honey collection, and livestock rearing, while also offering critical ecosystem services.[6]

Indigenous and tribal communities around wetlands such as Wular Lake in Jammu and Kashmir[7], Keoladeo National Park in Rajasthan, and the Sunderbans have a deep cultural and spiritual connection to these ecosystems. These communities gather resources such as fish, crabs, medicinal plants, and honey, often using traditional knowledge passed down through generations to sustainably harvest the wetland's resources. Keoladeo National Park, a UNESCO World Heritage Site, provides crucial habitat for migratory birds, and local communities engage in activities like birdwatching, fishing, and plant harvesting.[8]

Urban and migrant populations are also increasingly settling in wetland areas like East Kolkata Wetlands, Aghanashini Estuary in Karnataka[9], and Chilika Lake due to opportunities in small-scale farming, waste processing, and fishing. The East Kolkata Wetlands, for instance, is an urban wetland that serves as a resource for local residents, providing a unique blend of agriculture, aquaculture, and waste recycling practices. However, this growing urbanization often puts pressure significant on the wetland environment, leading to degradation and resource depletion.[10] The wetland in India contributes to various socio-economic and ecological domains:

<sup>[1]</sup> K.N. Saji, T. Mathew, et al. (2012). Wetland Ecosystems and Livelihoods in Kerala: A Case Study of Vembanadu Lake. Indian Journal of Ecology, 39(3), 346-352.

 <sup>[1]</sup> K.N. Saji, T. Mathew, et al. (2012). Wetland Ecosystems and Livelihoods in Kerala: A Case Study of Vembanadu Lake. Indian Journal of Ecology, 39(3), 346-352.
[2] Chilika Development Authority. (2021). Chilika Lake: An Important Ecosystem for Livelihoods. Retrieved from https://www.chilika.com.
[3] National Wetlands Atlas of India, Indian Institute of Remote Sensing. (2011). National Wetlands Atlas of India, Partieved from https://www.iirs.gov.in.
[4] Sunderban Biosphere Reserve, Government of West Bengal. (n.d.). Sunderban Biosphere Reserve: A Resource for Livelihoods. Retrieved from https://www.iirs.gov.in.
[5] National Wetlands Atlas of India, Indian Institute of Remote Sensing. (2011). National Wetlands Atlas of India. Partieved from https://www.iirs.gov.in.
[6] Sunderban Biosphere Reserve, Government of West Bengal. (n.d.). Sunderban Biosphere Reserve: A Resource for Livelihoods. Retrieved from https://www.iirs.gov.in.
[6] Sunderban Biosphere Reserve, Government of West Bengal. (n.d.). Sunderban Biosphere Reserve: A Resource for Livelihoods. Retrieved from https://www.sunderbansbiosphere.org.
[7] S. Akbar, M. A. Shamsher, et al. (2017). Sustainable Livelihoods of Indigenous Communities Around Wular Lake, Kashmir. A Study of Traditional Resource Management Practices. Journal of Environmental Management, 203, 323-334.
[8] Rajasthan State Department of Environment, Government of Rajasthan. (2020). Keoladeo National Park: A Sanctuary for Biodiversity. Retrieved from https://www.environment.gov.in.

https://www.environment.raiasthan.gov.in [9] G. Shyamala, R. Kumar, et al. (2015). Livelihoods and Conservation in the Aghanashini Estuary, Karnataka: Challenges and Opportunities. Environmental Conservation Journal, 40(4),

<sup>101</sup> Fast Kolkata Wetlands Management Authority. (2021). Fast Kolkata Wetlands: A Model of Ecological Sustainability and Livelihoods. Retrieved from https://www.ekwmc.in.

#### **Aquatic Livelihood:**

Wetlands provide a range of food and other products to the dependent usable communities such as lotus, paddy, bhent, khubahi, fodder as well as fish and other exotic products. It is interesting to note that India's inland fisheries sector where wetlands a crucial resource. act as produces approximately 2.14 million tonnes of fish annually, accounting for about 21% of the country's total fish production.[11] For instance, Chilika Lake in Odisha supports over 200,000 fisherfolk, providing them with a vital source of income.

#### **Flood Regulation:**

Wetlands play a vital role in regulating floods by acting as natural buffers that absorb and store excess water during heavy rainfall or flooding events. Their unique soil and vegetation types allow them to temporarily hold large amounts of water, reducing the risk of flash floods and releasing the stored water gradually over time, preventing downstream flooding. Wetlands slow the flow of water, filter it, and stabilize the soil, which helps prevent erosion and land degradation.[12] Additionally. wetlands recharge groundwater supplies and control stormwater runoff, reducing the risk of urban flooding. For example, wetlands like Bhoj Wetland in Madhya Pradesh offer vital flood regulation services, mitigating the effects of urban flooding and



### **Biodiversity Hotspots:**

Wetlands are crucial biodiversity hotspots, providing essential habitats for a wide variety of plant and animal species, many of which are endangered or migratory. For instance, the Sunderbans mangrove forest in West Bengal is home to the Bengal tiger and other unique species, including the saltwater crocodile and various migratory birds.[14] The Great Rann of Kutch in Gujarat serves as a vital breeding ground for flamingos and other migratory birds, while also hosting rare species like the Indian wild ass.[15] Similarly, Kaziranga National Park in Assam, which includes wetlands and floodplains, provides crucial breeding grounds for wetland birds and is home to the Indian one-horned rhinoceros.[16] The critical role of wetlands in maintaining biodiversity requires urgent need for their conservation.

[13] Wetlands are nature's shock absorbers, but India is losing them at an alarming rate

[16] Deka, R., Sarma, P., & Barman, B. (2017). Kaziranga National Park and its role in biodiversity conservation. Journal of Ecological Research, 13(4), 445-452.

<sup>[11]</sup> FAO. 2024. A review of the inland fisheries of India. FAO Fisheries and Aquaculture Circular, No. 1265. Rome.

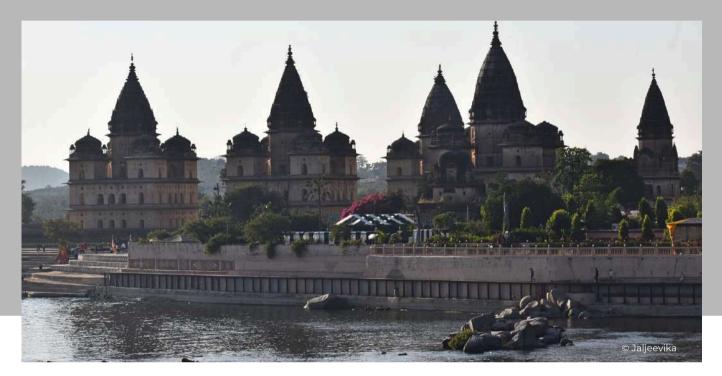
<sup>[12]</sup> Wahab, M. A., & et al. (2014). "The Role of Wetland Ecosystems in Water Management and Flood Control." Environmental Science and Pollution Research, 21(8), 5027-5038.

<sup>[14]</sup> Bera, S. & Mahapatra, R. (2018). Ecology and conservation of the Sundarbans mangrove ecosystem. Environmental Science and Pollution Research, 25(16), 15845-15856.

<sup>[15]</sup> Bhattacharya, S., Das, S., & Mahapatra, R. (2017). Conservation of the Great Rann of Kutch: A biodiversity perspective. Wetlands International.

## **Cultural and Spiritual Heritage:**

Wetlands, rivers, ponds, and other waterbodies hold profound cultural and spiritual significance in India, being revered and worshipped across various communities. Sacred waterbodies such as Pushkar Lake in Rajasthan and Loktak Lake in Manipur are central to the cultural and religious practices of local populations. Pushkar Lake, a major pilgrimage site, is an essential part of Hindu spirituality, with rituals and the famous Pushkar Fair attracting thousands of devotees each year.[17] Similarly, Loktak Lake, known as the "floating garden lake," is not only crucial for the livelihoods of the indigenous Meitei people in Manipur but also plays a pivotal role in their spiritual practices, particularly through festivals like Lai Haraoba.[18]



Beyond these, rivers and ponds throughout India are worshipped and considered sacred. The Ganges, Yamuna, and Saraswati rivers are some of the most revered in Hinduism, symbolizing purity and spiritual salvation. Many ponds and smaller waterbodies are also associated with specific deities and are integral to local rituals and ceremonies. These waterbodies sustain traditional practices, provide resources for local livelihoods through fishing and agriculture, and are integral to community celebrations and cultural expressions.

## **2.3 CHALLENGES AND THREATS TO WETLAND SUSTAINABILITY**

Despite their importance, these wetlands are facing escalating threats from unsustainable practices, urbanization, and climate change. Wetland loss, pollution, and alterations in hydrological regimes are posing significant risks to the ecosystem services they provide. There is a growing need for effective conservation strategies and policies that prioritize both ecological preservation and the well-being of the communities that depend on wetlands for their livelihoods. These initiatives are critical to ensuring the continued sustainability of wetlands and the communities that rely on them for economic stability and cultural heritage.

 <sup>[17]</sup> Bhatia, R. (2017). Sacred Geography of Pushkar Lake: A Pilgrimage and Cultural Site. Journal of Cultural Studies, 19(3), 257-269.
[18] Singh, L. (2018). Cultural Importance of Loktak Lake in Manipur. Indian Journal of Environmental Research, 22(1), 101-112.



The most important threats for wetland habitats are[19] pollution, e.g. by use of pesticides, waste of nutrients, metal, and pharmaceuticals, natural system modification, i.e. modification of flow and geomorphology by settlements, establishment of industries, drainings, building of dams, barrages and hydroelectric power stations, biological resource use, e.g. fishery and hunting, invasive and other problematic species, genes and diseases, and the influence of aquaculture and agriculture, partially over long distance.

In the Indian context, wetlands face significant threats, leading to the loss of valuable ecosystems. Between 1940 and 2014, the country lost approximately one-third of its wetlands due to urbanization, resulting in habitat degradation and a decline in biodiversity.[20] This highlights the pressing need for effective conservation and sustainable management strategies to safeguard these vital ecosystems.

However, wetlands continue to confront unprecedented pressures from both human activities and climate change. Key challenges include:

- Encroachment, Drainage and Hydrological Alteration: Rapid urban growth and agricultural expansion have led to encroachment on wetlands, significantly reducing their size and disrupting their ecological functions. Additionally, changes in water flow due to dam construction, irrigation systems, and urban development further degrade wetland ecosystems. These alterations result in habitat loss, reduced biodiversity, and a diminished capacity for wetlands to provide essential ecosystem services such as flood regulation, water purification, and carbon sequestration.
- **Pollution:** Wetlands are increasingly contaminated by agricultural runoff, untreated sewage, and industrial effluents, which degrade water quality and harm biodiversity. This pollution affects both aquatic life and the communities that depend on these resources.
- **Climate Change:** Rising sea levels, altered rainfall patterns, and increased salinity are putting additional stress on wetlands, threatening their ability to function effectively. These changes not only impact biodiversity but also exacerbate the vulnerabilities of communities relying on wetlands for livelihoods. To ensure the long-term health of these vital ecosystems, there is an urgent need for comprehensive conservation efforts that address these challenges and promote sustainable management practices for wetlands.

[19] Lindner, M., Hobohm, C. (2021). Wetlands: Challenges and Possibilities. In: Hobohm, C. (eds) Perspectives for Biodiversity and Ecosystems.

Environmental Challenges and Solutions. Springer, Cham. https://doi.org/10.1007/978-3-030-57710-0\_13 [20] <u>https://india.mongabay.com/2024/10/indias-disappearing-wetlands-are-an-early-warning-sign-of-drastic-biodiversity-loss/</u>



Jaljeevika, in its 2.0 phase, recognizes the transformative potential of wetland ecosystems in promoting sustainable livelihoods while contributing to conservation. Wetland ecological dependent communities, such as smallscale fishers, farmers, and indigenous groups, rely on these ecosystems for their Bv focusina on wetland survival. and livelihood management enhancement, Jaljeevika aims to strike a balance between empowering these communities and safeguarding wetland resources for the greater social good.

In the 2.0 phase, Jaljeevika envisions establishing sustainable livelihood models that are in harmony with wetland conservation. These models will include integrated aquaculture, communitybased eco-tourism, sustainable agriculture, and water management practices that enhance both income generation and environmental protection. Collaborating with local communities, government agencies, and international bodies, Jaljeevika seeks to replicable framework for create a wetland management that can help restore ecosystems, increase climate resilience, and improve the quality of life for marginalized communities.

Furthermore, the organization is dedicated to influencing national development plans and policies related to wetlands, ensuring that these ecosystems are integrated into the broader environmental and economic strategies. By facilitating knowledge sharing, capacity building, and advocacy, Jaljeevika aspires to make wetland management a cornerstone of India's sustainable development efforts. In doing so, it will foster long-term environmental benefits, empower local communities, and contribute to the achievement of qlobal conservation and development goals, such as the SDGs and the Ramsar Convention.

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**Economic Value:** Wetland-based enterprises such as fisheries, aquatic farming, and eco-tourism can drive rural income generation. By promoting community-based management and wetland-based enterprises, we can help communities capitalize on these opportunities while conserving natural resources.

**Climate Resilience:** Restored wetlands act as natural buffers, protecting communities from floods, droughts, and extreme weather. By restoring and conserving wetlands, we can build climate-resilient communities and safeguard both natural and human systems from the effects of climate change.

Water Security: Healthy wetlands ensure water availability for agriculture, domestic use, and ecosystem functions. As India faces growing water stress, preserving and restoring wetlands is essential for securing water for agriculture, drinking, and industrial use.

**Biodiversity Conservation:** Protecting wetlands safeguards critical habitats and promotes ecosystem services. Protecting and restoring these wetlands ensures the survival of threatened species and supports the resilience of ecosystems that humans depend on.

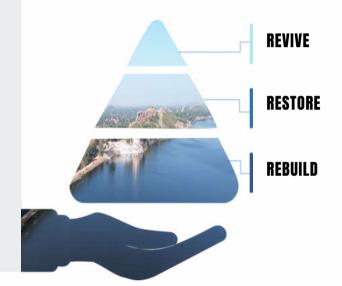
# STRATEGIC VISION For 2025-2035



Building on a decade of impactful work. Jalieevika 2.0 envisions а transformative future where wetlands are not only conserved but leveraged as engines of sustainable economic growth, climate resilience. and community empowerment. This strategic vision is underpinned by innovative approaches, multistakeholder partnerships, and commitment to gender equity and inclusivity.

## 3.1 Mission Pillars: Revive, Restore, Rebuild (The 3R Framework)

From 2025 to 2035, Jaljeevika's 3R Framework will focus on transforming wetlands into thriving ecosystems that support ecological conservation, sustainable livelihoods, and climate resilience. The mission aims to integrate the restoration of wetlands with community-led development, especially by empowering women's Self-Help Groups (SHGs), producer vendors' collectives, and local groups, governance institutions. Each pillar of the framework will play a critical role in achieving this vision:





#### Revive

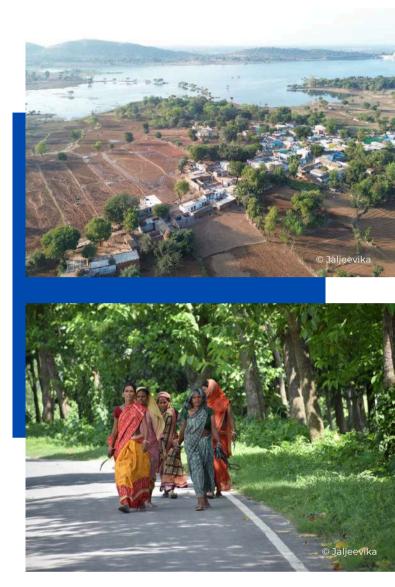
Reviving local economies is central to wetland restoration efforts. By enhancing agriculture and fisheries productivity through eco-friendly practices, we aim to create sustainable livelihoods and support marginalized communities, including women and smallscale fishers. Revived wetlands will promote income generation through sustainable enterprises such as fisheries, organic farming, aquatic plant cultivation, and eco-tourism, unlocking their potential as engines of rural economic growth. These activities will simultaneously encourage biodiversity conservation and environmental stewardship.

#### Restore

Building climate resilience is a key priority for restoring wetlands in flood-prone regions such as the Ganga, Kosi, and Brahmaputra River basins, as well as Maharashtra and Karnataka's coastal areas. Restored wetlands serve as natural buffers, mitigating the impacts of floods, droughts, and storm surges, thus protecting vulnerable communities from extreme weather events. The restoration process will also focus on improving water quality, reducing soil erosion, and maintaining ecosystem services that support agricultural and domestic water needs.

#### Rebuild

Rebuilding governance systems and social equity through participatory management is essential for sustainable wetland utilization. Jaljeevika will work with local governance bodies, NGOs, and community-based organizations to ensure wetland equitable access to resources. Strengthening women's networks, fostering gender equality, and improving social cohesion will be integral to rebuilding the governance structure. Additionally, skill development, market linkages, and institutional strengthening will empower local communities to sustainably manage these resources.



#### **Cross-Cutting Contributions**

- **IT for social goods:** Technology for monitoring, restoration, sustainable livelihoods, education, and governance, enhancing conservation and community benefits.
- **Promoting Sustainable Enterprises:** Integrated wetland management will drive the establishment of community-owned businesses, balancing economic growth with ecological preservation.
- Inclusive Development: A strong emphasis on inclusive governance will ensure that marginalized communities, especially women, benefit equitably from wetland conservation and development initiatives.

## **3.2 Theory of Change: Engage, Empower, Expand** (The **3E Framework**)

Jaljeevika's strategy for revitalizing and safeguarding wetlands in India is structured around three interconnected phases: **Engage**, **Empower**, and **Expand**. Focused on the Ganga, Kosi, Brahmaputra River basins, and Maharashtra's coastal wetlands, this approach seeks to integrate ecological conservation with sustainable communityled development.

# 3.2.1 ENGAGE: Building Collective Awareness and Commitment:

The first phase emphasizes fostering collective responsibility toward wetland conservation. Efforts will focus on raising awareness about wetlands' critical role in water security, agriculture, biodiversity, and flood mitigation. Key activities include ecological assessments, participatory mapping, and community dialogues to develop a shared vision for wetland restoration. Educational campaigns, cultural programs, and community-driven awareness initiatives will highlight the value of sustainable wetland management, cultivating a deeper commitment among stakeholders to protect and restore these ecosystems.

#### 3.2.2 EMPOWER: Strengthening Local Communities for Sustainable Economies:

Rebuilding governance systems and social equity through participatory management is essential for sustainable wetland utilization. Jaljeevika will work with local governance bodies, NGOs, and community-based organizations to ensure equitable access to wetland resources. Strengthening women's networks, fostering gender equality, and improving social cohesion will be integral to rebuilding the governance structure. Additionally, skill development, market linkages, and institutional strengthening will empower local communities to sustainably manage these resources.



# 3.2.3 EXPAND : Amplifying Impact and Driving Systemic Change:

The final phase aims to scale restoration efforts and institutionalize wetland conservation through systemic changes. Strategic partnerships with government agencies, NGOs, financial institutions, and private sector players will amplify impact and advocate for policy integration at regional and national levels.

Market linkages for wetland-based products like fish, makhana, water chestnut, and seaweed will secure sustainable income streams for marginalized communities. Jaljeevika will also reintroduce lost food production systems, such as aquatic plants and wild fish, integrating traditional practices with modern innovations to boost food security and ecological sustainability.

The 3E Framework aims to position wetlands as the foundation of a sustainable regional economy, ensuring equitable benefits for people while fostering long-term resilience for these vital ecosystems.

# 3.3 Strategic Objectives for 2025-2035 and its alignment with India's Climate and Development Agenda

Jaljeevika's strategic objectives for 2025–2035 are designed to contribute meaningfully to India's climate and development priorities while addressing global sustainability frameworks. By integrating ecological restoration with socio-economic development, these objectives underscore the critical role of wetlands in fostering resilience, biodiversity, and inclusive growth.



#### 3.3.1 Revive 50,000 Hectares of Wetlands

Restoration of degraded wetlands is fundamental to achieving biodiversity conservation and enhancing ecosystem services. This aligns with India's commitment to the Ramsar Convention and the UN Decade on Ecosystem Restoration. Reviving wetlands will:

- Support endangered and endemic species, contributing to the protection of critical habitats and biodiversity.
- Enhance ecosystem services such as carbon sequestration, water filtration, and nutrient cycling, addressing India's Nationally Determined Contributions (NDCs) under the Paris Agreement.
- Improve the ecological health of river basins such as the Ganga, Kosi, and Brahmaputra, which are vital to national water security and climate resilience.

Through participatory approaches involving local communities and stakeholders, Jaljeevika aims to ensure that wetland restoration creates ecological and economic benefits, fostering a balance between conservation and sustainable use.

#### 3.3.2 Resilient livelihood for 100,000 Households

Creating sustainable livelihoods for wetlanddependent communities is a cornerstone of Jaljeevika's mission. By focusing on marginalized groups, particularly women, fishers, and small-scale farmers, this objective addresses India's socio-economic disparities while aligning with Sustainable Development Goals (SDGs) 1 (No Poverty), 8 (Decent Work and Economic Growth), and 10 (Reduced Inequalities). Key actions include:

- Promoting income diversification through aquaculture, agroecology, and wetlandbased products such as makhana, water chestnuts, and lotus.
- Leveraging government programs such as MGNREGA and the Pradhan Mantri Matsya Sampada Yojana (PMMSY) to provide financial support and infrastructure development.
- Building capacity within households to adopt climate-resilient practices, ensuring their long-term economic security and adaptive capacity.



#### 3.3.3 Establish 10,000 Women-Led Enterprises

Women's economic empowerment is central to achieving gender equity and inclusive development. Jaljeevika's focus on establishing 10,000 women-led enterprises aligns with India's commitment to SDG 5 (Gender Equality) and national efforts to empower women in rural economies. Key initiatives include:

- Supporting women's self-help groups (SHGs) to develop enterprises across fisheries, aquatic farming, and eco-tourism.
- Providing targeted training on financial literacy, entrepreneurship, and market access through Jaljeevika's programs and partnerships.
- Promoting women's leadership in wetland governance and resource management, ensuring their voices are integral to decision-making processes.

#### 3.3.4 Expand Knowledge Ecosystems

The establishment of the Jaljeevika Academy will serve as a hub for knowledge dissemination and capacity building, directly addressing gaps in technical expertise and education in the wetland economy. This objective supports India's rural development agenda and aligns with SDG 4 (Quality Education) and SDG 17 (Partnerships for the Goals). The Academy will:

- Offer training programs on sustainable aquaculture, ecological restoration, and value chain development for fish and wetland products.
- Collaborate with educational and research institutions, think tanks, government agencies to integrate scientific research with grassroots implementation.
- Create digital platforms and resources to disseminate best practices, ensuring accessibility for diverse stakeholders, including farmers, fishers, and policymakers.

#### 3.3.5 Strengthen Climate Resilience

Wetlands are vital natural buffers that mitigate the impacts of climate change, including floods, droughts, and extreme weather events. Jaljeevika's focus on strengthening climate resilience aligns with India's NDCs under the Paris Agreement and SDG 13 (Climate Action). This will involve:

- Restoring wetlands to enhance their capacity for flood regulation, water storage, and storm surge mitigation, particularly in vulnerable regions such as the Ganga, Kosi, and Brahmaputra basins and Maharashtra's coastal wetlands.
- Promoting nature-based solutions such as mangrove restoration, which simultaneously support biodiversity and protect coastal communities.
- Developing climate-resilient aquaculture systems that withstand environmental shocks while maintaining productivity and food security.



Through community-based approaches, Jaljeevika will ensure that climate resilience efforts benefit the most vulnerable, particularly women and small-scale producers, while contributing to regional and national adaptation strategies.

#### **Integrated Impact**

By aligning its strategic objectives with India's climate and development agenda, Jaljeevika will transform wetlands into dynamic ecosystems that balance ecological conservation with economic growth. This integrated approach will position wetlands as hubs of sustainability, contributing to biodiversity protection, water and food security, gender equity, and climate resilience. Through partnerships, innovation, and community empowerment, Jaljeevika's initiatives will drive systemic change, creating a sustainable future for both people and ecosystems.

## 3.4 Innovations for the Next Decade

Jaljeevika 2.0 envisions transforming wetland management through groundbreaking innovations that integrate conservation, community empowerment, and economic development. By positioning wetlands as critical assets for sustainable development, Jaljeevika 2.0 aims to address climate challenges, foster inclusive growth, and promote ecological and socio-economic balance over the next decade.

#### 3.4.1 Integrated Wetland Management

Integrated wetland management will adopt a holistic approach combining agroecological practices, aquaculture, and participatory governance to maximize both ecological and economic benefits. Key elements include:

- Pond-Based Integrated Farming Systems: Promoting systems that combine fish farming, aquatic plant cultivation, and vegetable production to enhance productivity and ecological balance.
- Community Governance Models: Encouraging local stakeholders to take leadership roles in restoration and sustainable resource management.
- Ecological Health Improvement: Balancing biodiversity conservation with sustainable livelihoods to restore vital ecosystem services.



#### 3.4.2 Technology-Driven Interventions

Technology will play a pivotal role in wetland conservation and livelihood enhancement. The following interventions will drive innovation:

- GIS Mapping: Enabling real-time tracking of wetland health, biodiversity, and resource distribution.
- Digital Advisory Platforms: Providing tailored guidance to farmers and fishers on best practices for wetland-based livelihoods and climate adaptation.
- IoT-Driven Monitoring Tools: Facilitating water quality assessments, flood predictions, and ecological monitoring to enable timely decisionmaking.
- Product Traceability Systems: Implementing digital tools like QR codes and blockchain to ensure transparency and quality assurance in wetland products such as fish, makhana, and lotus stems. Traceability will connect producers with premium markets, particularly for organic and sustainable goods.
- Scaling up the production, processing, and branding of high-value wetland products.
- Facilitating producer cooperatives to enhance collective bargaining power and streamline supply chains.
- Partnering with e-commerce platforms, private enterprises, and government programs to connect producers with sustainable markets.
- Integrating traceability tools to improve marketability and secure premium prices for certified products.

#### **3.4.3 Inclusion and Market Linkages**

Strengthening the value chains of wetland-based products will ensure equitable access to markets for marginalized communities. Key initiatives include:

# **3.5 Transformative Approaches**

Jaljeevika 2.0's transformative approaches serve as the foundation for achieving its vision of sustainable wetland management and community empowerment. These approaches emphasize inclusivity, innovation, and ecological balance.



#### 3.5.1 Community-Led Wetland Conservation and Governance

Empowering local communities to take ownership of conservation efforts is central to Jaljeevika's strategy. **Participatory Conservation Initiatives:** Engaging governance bodies like Panchayats and SHGs to lead restoration activities.

**Resource Mapping and Assessments:** Conducting ecological evaluations to prioritize community-driven restoration projects.

**Capacity Building:** Training community members in sustainable management and conflict resolution.

**Integration of Traditional Knowledge:** Combining indigenous practices with modern conservation methods for long-term success.

3.5.2 Ecosystem-Based Wetland Restoration Models Adopting ecosystem-based approaches ensures that wetland restoration delivers ecological and socio-economic benefits.

- **Integrated Wetland Practices:** Incorporating aquaculture, agroforestry, and biodiversity conservation into management plans.
- **Climate-Resilient Strategies:** Promoting natural vegetation restoration and floodplain management.
- Landscape Approach: Managing interconnected ecosystems such as rivers, wetlands, and farmlands for holistic outcomes.

Recognizing wetlands as vital to India's climate and development goals, Jaljeevika advocates for their inclusion in policy frameworks.

#### 3.5.3 Embedding Wetlands in Development Agendas

- **Policy Integration:** Aligning wetland initiatives with government programs like MGNREGA and PMMSY, Amrit Dharohar
- Advocacy for Nature-Based Solutions: Promoting wetlands as solutions in urban planning, disaster risk reduction, and water management policies.

#### 3.5.4 Inclusive Enterprise Development and Market Linkages

Creating sustainable wetlandbased enterprises will drive economic empowerment and ecological sustainability.

- Value Chain Development: Establishing robust markets for products like fish, makhana, and eco-tourism.
- Collective Enterprise Models: Supporting women-led SHGs and producer cooperatives.
- Branding and Certification: Enhancing the competitiveness of wetland products through marketable branding.

#### 3.5.5 Leveraging Digital Technology for Wetland Conservation

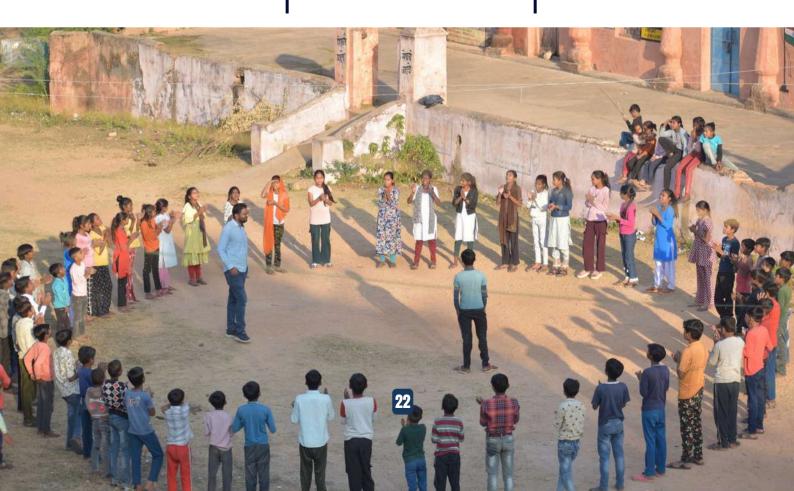
Digital tools will optimize wetland management and empower stakeholders.

- GIS and Satellite Imagery: Mapping and monitoring ecosystems.
- **Digital Advisory Systems**: Offering real-time guidance for sustainable practices.
- Traceability and MIS Platforms: Ensuring transparency and tracking restoration progress.

#### 3.5.6 Reviving Traditional Food Systems

Promoting wetland-based food systems will enhance nutrition and sustainability.

- Indigenous Food Sources: Reintroducing aquatic plants, wild fish, and native crops.
- Traditional Practices: Combining age-old methods with modern techniques for sustainable production.



# **3.6 CORE PROGRAMS AND STRATEGIC INITIATIVES**

The core programs of Jaljeevika 2.0 translate its innovative and transformative approaches into actionable frameworks, ensuring both ecological and economic sustainability.

#### INTERCONNECTED FRAMEWORK FOR IMPACT

The five programs- UDHAYAM, DHARA, KAUSHAL, TATWA, and JEEVIKA LAB are interdependent, forming a cohesive strategy for sustainable wetland management. Together, they integrate community empowerment, technological innovation, and ecological restoration to drive long-term impacts, positioning Jaljeevika 2.0 as a global benchmark in wetland management.

#### UDHAYAM Uplifting Development of Aquatic Micro-enterprises (उद्यम)

UDHAYAM focuses on activities fostering micro-enterprises within wetland-based livelihoods.

- Developing collectives of local entrepreneurs and service providers.
- Establishing community-led convergence facilitation centers.

Promoting value chains for wetland products like fish and makhana.

#### DHARA (धारा):

DHARA prioritizes sustainable freshwater wetland management activities through integrated ecological and economic strategies.

- Demonstrating models featuring food diversity and circular economies.
- Promoting integrated farming systems combining aquaculture, agroforestry, and vegetable farming.

#### KAUSHAL (कौशल):

#### Knowledge Advancement for Uplifting Sustainable Holistic Aquatic Livelihoods

KAUSHAL emphasizes capacity building and knowledge sharing activities to empower communities and stakeholders.

- Delivering certified courses on wetland management and value chains.
- Organizing conferences and creating knowledge repositories.

#### TATWA (तत्व):

#### Technology and Analytics for Transformative Welfare and Advancement

TATWA leverages IT, AI, and ML for data-driven decisions in wetland management.

- Developing digital advisory platforms and GIS-based planning tools.
- Creating integrated MIS for restoration tracking and community engagement.

#### JEEVIKA LAB (जीविका लैब):

#### Knowledge Advancement for Uplifting Sustainable Holistic Aquatic Livelihoods

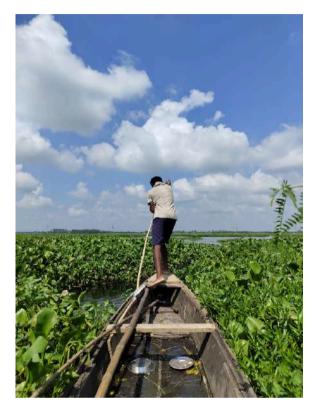
JEEVIKA LAB empowers women to lead in wetland economies through skillbuilding and action research. It includes:

- Conducting gender-specific action research.
- Facilitating financial literacy and leadership programs.
- Promoting inclusive governance in wetland restoration initiatives.



# **3.7 REGIONAL PRIORITIES AND GEOGRAPHIC FOCUS**

Jaljeevika 2.0 is committed to ensuring maximum impact by strategically focusing on regions where wetlands are abundant but face critical ecological and socio-economic threats. Recognizing the diversity of wetland ecosystems across India, the initiative adopts a region-specific approach to address localized challenges while aligning with broader national and international priorities for conservation, sustainable development, and climate resilience.



#### 3.7.1 Northern and Eastern Wetlands

The Northern and Eastern parts of India, encompassing states such as Bihar, Uttar Pradesh, West Bengal, Assam, and Madhya Pradesh, represent some of the most wetland-rich areas in the country. These regions harbor expansive floodplains, lakes, and marshlands that serve as lifelines for millions of rural households.

Wetlands in these areas are integral not only to livelihoods but also to local culture and traditions. However, they face numerous threats, including pollution, encroachment, overexploitation, and climate-induced vulnerabilities such as erratic rainfall and flooding.

Key Interventions in Northern and Eastern Wetlands:

# Restoration of Degraded Wetlands:

- Implement targeted ecological restoration projects to revive wetland health.
- Enhance biodiversity by reintroducing native plant and animal species and addressing invasive aquatic weeds.
- Promote ecosystem services such as water filtration, carbon sequestration, and flood mitigation to strengthen community resilience.

#### Sustainable Livelihood Promotion:

- Develop innovative livelihood models such as pond-based integrated farming, combining fish farming with vegetable and lotus cultivation.
- Introduce sustainable agroecological practices and eco-tourism as alternative income sources.
- Empower communities to adopt climate-resilient aquaculture techniques, thereby boosting income and food security.

#### Empowerment of Local Governance Institutions:

- Strengthen the capacity of Panchayats, Self-Help Groups (SHGs), and cooperatives to take leadership roles in wetland management.
- Foster participatory governance frameworks to ensure equitable access to wetland resources.
- Provide training on financial literacy, market access, and resource management to marginalized groups, particularly women and fishermen.

#### 3.7.2 Coastal Blue Economy Initiatives

India's extensive coastline, spanning the east and west coasts, is central to the nation's blue economy aspirations. Coastal wetlands, including mangroves, estuaries, and brackish water systems, provide critical resources and ecosystem services. However, these areas are increasingly under pressure from urbanization, industrial activities, and climate-induced risks like rising sea levels and cyclones. Jaljeevika 2.0 prioritizes coastal regions for their unique potential in developing sustainable marine and brackish water-based livelihoods.



#### Key Interventions in Coastal Regions:

#### Mangrove Restoration

- Launch large-scale mangrove restoration projects to protect shorelines from erosion, enhance biodiversity, and support fisheries.
- Encourage communitybased mangrove conservation efforts that integrate traditional knowledge with scientific approaches. The restored mangroves work as natural barriers to reduce the impact of cyclones and storm surges.

#### Sustainable Marine Fisheries and Aquaculture

- Promote eco-friendly fishing practices and ensure compliance with marine conservation laws.
- Develop sustainable brackish water aquaculture systems, such as shrimp and mud crab farming, to boost incomes without harming the environment.
- Train fisherfolk in advanced post-harvest techniques to minimize waste and improve product quality.

#### Enhancing Market Access for Coastal Products

- Establish value chains for high-demand coastal products like fish, seaweed, mangrove-based products and artisanal crafts.
- Partner with private enterprises and government schemes to improve market linkages and ensure fair pricing for local producers.
- Integrate digital tools for product traceability, enabling premium pricing for sustainably harvested goods.

#### Why Focus on These Regions?

The regions identified for Jaljeevika 2.0's interventions are characterized by their:

- **High Dependency on Wetlands**: Wetlands in these regions serve as primary sources of food, water, and income for millions of households, making their conservation essential for community well-being.
- Ecological Importance: These wetlands are biodiversity hotspots, supporting rare and endemic species while playing a vital role in carbon sequestration and water regulation.
- Vulnerability to Climate Change: These regions experience recurrent floods, droughts, and extreme weather events, underscoring the need for wetland restoration to enhance climate resilience.
- Policy and Governance Opportunities: The focus areas present opportunities to align wetland conservation initiatives with government programs like MGNREGA, the Pradhan Mantri Matsya Sampada Yojana (PMMSY), and the National Adaptation Fund on Climate Change (NAFCC).

# **3.8 Cluster Development Model**

To maximize impact, Jaljeevika 2.0 employs a Cluster Development Model, a strategic framework designed to concentrate efforts and resources within defined geographic clusters. This approach ensures that interventions are scalable, sustainable, and replicable.

#### **Key Features**

#### **1. Aspirational Districts:**

Priority districts are selected based on metrics such as the Multidimensional Poverty Index (MPI) and Climate Vulnerability Index to target regions most in need of development and resilience building.

#### 2.Focused Intervention Areas:

Within each cluster, Jaljeevika establishes interconnected ecosystems of livelihoods, conservation practices, and community enterprises. Resources and expertise are concentrated to build sustainable models that address ecological, economic, and social challenges.





#### 3. Scalable Solutions:

Successful interventions in priority clusters are documented, refined, and replicated in other regions with similar challenges. Collaboration with government agencies, academic institutions, and private partners ensures the scalability and sustainability of these solutions.

By adopting this targeted, inclusive, and scalable approach, Jaljeevika 2.0 aims to transform wetland management into a driver of ecological conservation, economic prosperity, and social equity.

# WAY FORWARD A COLLABORATIVE APPROACH

The success of Jaljeevika 2.0 relies on forging dynamic partnerships across sectors, recognizing that wetland restoration and community empowerment require a collective and inclusive approach. By uniting stakeholders from government, civil society, academia, and the private sector, Jaljeevika aims to transform wetlands into sustainable hubs of ecological and economic activity.

#### MODES OF COLLABORATION

**Resource Sharing and Convergence:** Jaljeevika focuses on resource alignment by integrating its initiatives with existing government schemes and private sector investments, maximizing impact with minimal duplication.

**Knowledge Co-Creation:** Through workshops, knowledge-sharing platforms, and collaborative research, Jaljeevika fosters a culture of learning that spans local communities, government agencies, and academic institutions.

**Multi-Stakeholder Platforms:** Establishing forums for dialogue and collaboration ensures that diverse voices—community leaders, policymakers, researchers, and corporates—shape the direction of wetland management efforts.

**Market Integration:** Partnerships with the private sector facilitate the branding, certification, and marketing of wetland-derived products, connecting local producers to sustainable and profitable markets.

#### WHY COLLABORATION MATTERS

Wetland ecosystems are complex and intersect with multiple dimensions—water security, livelihoods, biodiversity, and climate resilience. No single entity can address all these facets alone. Effective collaboration creates synergies, leverages resources, and ensures comprehensive solutions that benefit both ecosystems and communities.

#### Key Stakeholder Groups

- 1. Local Communities & Governance Institutions
- 2. Government Agencies
- 3. Civil Society Organizations (CSOs)
- 4. Private Sector and Industry
- 5. Academic and Research Institutions
- 6. Global Networks and Organizations



#### THE ROAD AHEAD

- **Deepening Partnerships:** Jaljeevika will expand its network of partners to include emerging players in the blue economy, fintech solutions for farmer credit, and climate technology innovators.
- **Engaging Local Leadership:** A focus on training and empowering local leaders ensures sustainability and ownership, with Panchayats and SHG federations taking the lead in wetland governance.
- Strengthening Global Alignment: Jaljeevika aims to contribute to global frameworks like the Ramsar Convention, Paris Agreement, and SDGs, showcasing India's leadership in wetland conservation on the global stage.



#### **KEY ACTIONS:**

- Conduct detailed wetland assessments to identify priority areas based on ecological degradation, community needs, and climate vulnerability.
- Build capacity in local governance institutions, such as Panchayats and SHGs, through training programs on sustainable wetland management.
- Pilot scalable interventions in high-priority regions, focusing on activities such as sustainable aquaculture, agroecological practices, and ecotourism.
- Establish strategic partnerships with government bodies, NGOs, academic institutions, and the private sector to mobilize resources and expertise.

#### **OUTCOMES:**

- Baseline data and priority action plans for targeted wetlands.
- Community engagement and mobilization in pilot regions.
- Demonstration models showcasing the viability of sustainable wetland-based livelihoods.

#### • ROADMAP FOR 2025-2035

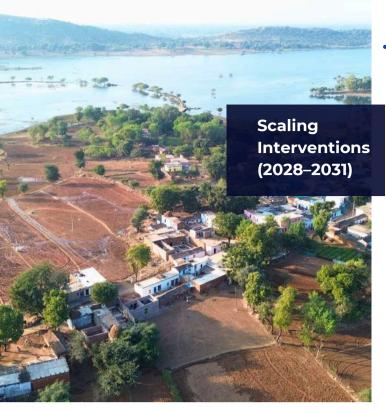
Jaljeevika 2.0 presents a detailed roadmap for achieving its vision of restoring wetlands and empowering communities over the next decade. This strategic plan outlines a phased, scalable approach to ensure sustainable wetland conservation while driving socio-economic transformation.

By integrating innovation, partnerships, and localized solutions, Jaljeevika aims to build a replicable and impactful model for wetland restoration.

#### • LAYING THE FOUNDATION (2025–2027)

The initial phase focuses on creating strong groundwork by identifying key geographies, mobilizing stakeholders, and launching pilot projects.





- Increased number of restored wetlands across diverse geographies.
- Enhanced market access and economic benefits for wetland-dependent communities.
- OUTCOMES Widespread adoption of data-driven decisionmaking in wetland management.

#### SCALING INTERVENTIONS (2028-2031)

Building on lessons learned during the foundation phase, Jaljeevika will expand its interventions to cover larger areas and geographies. This phase scaling successful emphasizes models and integrating them into broader development frameworks.

#### **KEY ACTIONS:**

- Replicate pilot models across additional clusters in northern, eastern, and coastal regions, using the Cluster Development Model.
- Integrate digital tools (GIS mapping, advisory systems, and MIS platforms) to monitor progress, optimize resource use, and ensure transparency.
- Strengthen value chains for wetland-based products such as fish, makhana, and aquatic plants by connecting producers with sustainable markets.
- Align Jaljeevika's efforts with national policies (e.g., MGNREGA, NRLM, PMMSY) to leverage government resources and amplify impact.
- Expand the Jaljeevika Academy, offering specialized courses on wetland restoration, aquaculture, and climate resilience to train a broader audience.

#### INSTITUTIONALIZATION AND POLICY INTEGRATION (2032–2035)

The final phase focuses on embedding Jaljeevika's approaches into institutional frameworks and scaling them nationally and globally.

#### **KEY ACTIONS:**

- set up institute on developing para professional.
- Advocate for wetlands to be recognized as natural infrastructure in climate adaptation strategies and disaster risk reduction plans.
- Develop and institutionalize multi-stakeholder platforms that bring together government, private sector, academia, and communities to ensure continued collaboration.
- Strengthen participation in global forums, such as the Ramsar Convention and UN Decade on Ecosystem Restoration, to showcase India's leadership in wetland conservation.
- Set up rural enterprise incubation center.

# OUTCOMES

- Institutional frameworks that prioritize wetlands in national policies and programs.
- Long-term sustainability of wetland ecosystems through policy and financial support.
- International recognition of India's wetland conservation successes.
- Network of microentrepreneurs and service providers

Institutionalization & Policy Integration (2032 - 2035)



across sectors to join this mission of restoring wetlands and communities. empowering Together, we can create a sustainable future that aligns environmental stewardship with economic prosperity.

We are deeply grateful to our existing stakeholder- community members, government agencies, NGOs, academic institutions, private sector partners, and donors, who have stood by us in this journey. Your support has been instrumental in shaping innovative programs, bridging knowledge gaps, and catalyzing change on the ground. Together, we have demonstrated that people empowering and conserving wetlands go hand in hand. Your contributions have helped restore ecosystems, uplift livelihoods, and inspire a new generation of leaders in wetland conservation.

Jaljeevika invites stakeholders As we look ahead, we recognize that the challenges of restoring wetlands and safeguarding livelihoods are immense but surmountable. То potential stakeholders- whether you government, private represent а organization, research institute, or civil society group- we extend an open invitation to join us in this mission. Your expertise, collaboration, and resources can amplify our efforts and help us scale impactful solutions. Together, we can transform India's wetland landscapes into models of ecological and economic sustainability, showcasing the power of partnerships in tackling some of the most pressing challenges of our time.

> Wetlands are not just ecosystems; they are lifelines that protect lives and livelihoods. In protecting them, we secure the future of millions who depend on their resources. Let us stand united in this mission to restore wetlands, empower communities, and ensure a sustainable and resilient future. With your continued support and new collaborations, we can make this vision a reality for generations to come.

#### Vision for 2035

By 2035, Jaljeevika envisions a future where:

- Wetlands are fully integrated into India's ecological, social, and economic fabric.
- Communities thrive with resilient livelihoods supported by restored ecosystems.
- India is recognized globally as a leader in innovative and inclusive wetland conservation.





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