



# ANNUAL REPORT

2022-2023



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# PREFACE

Progyan Foundation for Research & Innovation (PFRI), an independent policy science research organization headquartered in Kolkata, India. Established as a non-profit organization under Section 8 of the Companies Act in West Bengal, PFRI is dedicated to addressing critical global challenges through research, innovation, and sustainable practices. The mission of PFRI is driven by a commitment to fostering environmental sustainability, social equity, and economic development. With a focus on four key dimensions – Climate Action, Biodiversity and wildlife Conservation, Sustainable Livelihood Generation, and Eco-friendly Green Energy Generation – PFRI strives to contribute to the holistic well-being of communities and ecosystems.

Today, PFRI stands as a testament to our evolution as a global hub for policy science research and innovation. With a diverse team of experts from over twelve countries in the Global South and a wide range of academic backgrounds, PFRI is equipped with the expertise and resources to excel in our endeavours.

To achieve the objectives, PFRI employs a multifaceted approach that encompasses policy research, strategic analysis, publishing, and convening stakeholders from various sectors. Through these efforts, PFRI aims to manage risks, build resilience, and promote peace, security, and sustainable development.

# From The Director's Desk

Progyan Foundation for Research & Innovation (PFRI) emerged from the Research and Innovation arm of SAFE, PFRI now stands as an autonomous institution dedicated to policy-oriented scientific research. We aim to advance knowledge and foster sustainable development across various socio-economic and ecological contexts.

At PFRI, we focus on four key areas: Climate Action, Biodiversity & Wildlife Conservation, Sustainable Livelihood Generation, and eco-friendly green Energy Generation. These pillars guide our endeavours to promote environmental, social, and economic progress while addressing poverty.

Our mission involves crafting adaptive guidelines, operational frameworks, and sustainable solutions to tackle challenges such as climate change, water security, community resilience, and sustainable lifestyle education. As a non-profit think tank, we prioritize managing risk, fostering resilience, and contributing to peace and security through strategic policy research and analysis.

With a diverse team of experts from over twelve countries in the global south, PFRI benefits from a rich pool of academia and practitioners, ensuring excellence in our pursuit of positive change.

Moving forward, PFRI remains committed to our core values of innovation, transdisciplinary collaboration, and sustainability. We aim to cultivate a supportive work environment that fosters the well-being and productivity of both employees and employers.

Together, let us uphold our pledge to preserve ecological equilibrium, address environmental challenges, and enhance community well-being. With your steadfast support, I am confident that PFRI will play a pivotal role in shaping a more sustainable future for generations to come.

Thank you for your unwavering dedication and backing.

# ABOUT PROGYAN

Progyan Foundation for Research & Innovation (PFRI) an independent policy science research Kolkata-based nonprofit organization registered in West Bengal as Section 8 Company (CIN U80301WB2022NPL251470) is a certified organization working towards four dimensions (1. Climate Action, 2. Biodiversity & Wildlife Conservation, 3. Sustainable Livelihood Generation, 4. Ecofriendly Green Energy Generation) to Sustain Environmental, Social, Economic Development and Poverty Alleviation.

Progyan (PFRI) is committed to advancing scientific knowledge across socio-economies and socio-ecologies, in developing adaptive guidelines and operational frameworks, sustainable solutions for resource optimization and climate change, water security, community resilience, and preparedness, as well as sustainable lifestyle education in both rural and urban settings through innovation and knowledge economy. As a not-for-profit think tank, PFRI is dedicated to managing risk and building resilience to promote peace, security, and sustainable development. To achieve its purpose, PFRI employs a mix of policy research, strategic analysis, publishing, and convening. With experts from more than twelve countries of the global south and a broad range of academia from a global resource pool, PFRI has ensued the expertise to excel.

## Our History

For more than two decades, while facing the climate impacts, the South Asian Forum for Environment (SAFE) a regional CSO working towards accomplishing SDGs in the Indian ecoregion, has been examining the root causes of some of the world's most pressing problems. Research and innovation have been the key to elucidating adaptive solutions and acceptable paradigms at the climate-community interface. It was us with SAFE. Through our groundbreaking research and science, we were continually exploring innovative ideas and championing solutions that make a real difference. Definitely, we owe it to our comprehensive reach, as we learned how to get things done and thereby make an impact in countries across Asia and the Pacific. The Research and Innovation wing of SAFE thus evolved as a Global Gurukul to lead the 'action for innovation' and to earn freedom from the fear of failure. The Global Gurukul is today the 'Progyan Foundation for Research and Innovation (PFRI)', an independent policy-science research organization.

# VISION, MISSION & OBJECTIVES

## Our Vision

Progyan is a dynamic environmental research-based organization that conceptualizes a sustainable and safe environment through innovative and transdisciplinary research and capacity-building activities as well as a province where employees and employers are supported to achieve a healthy safe and productive workplace.

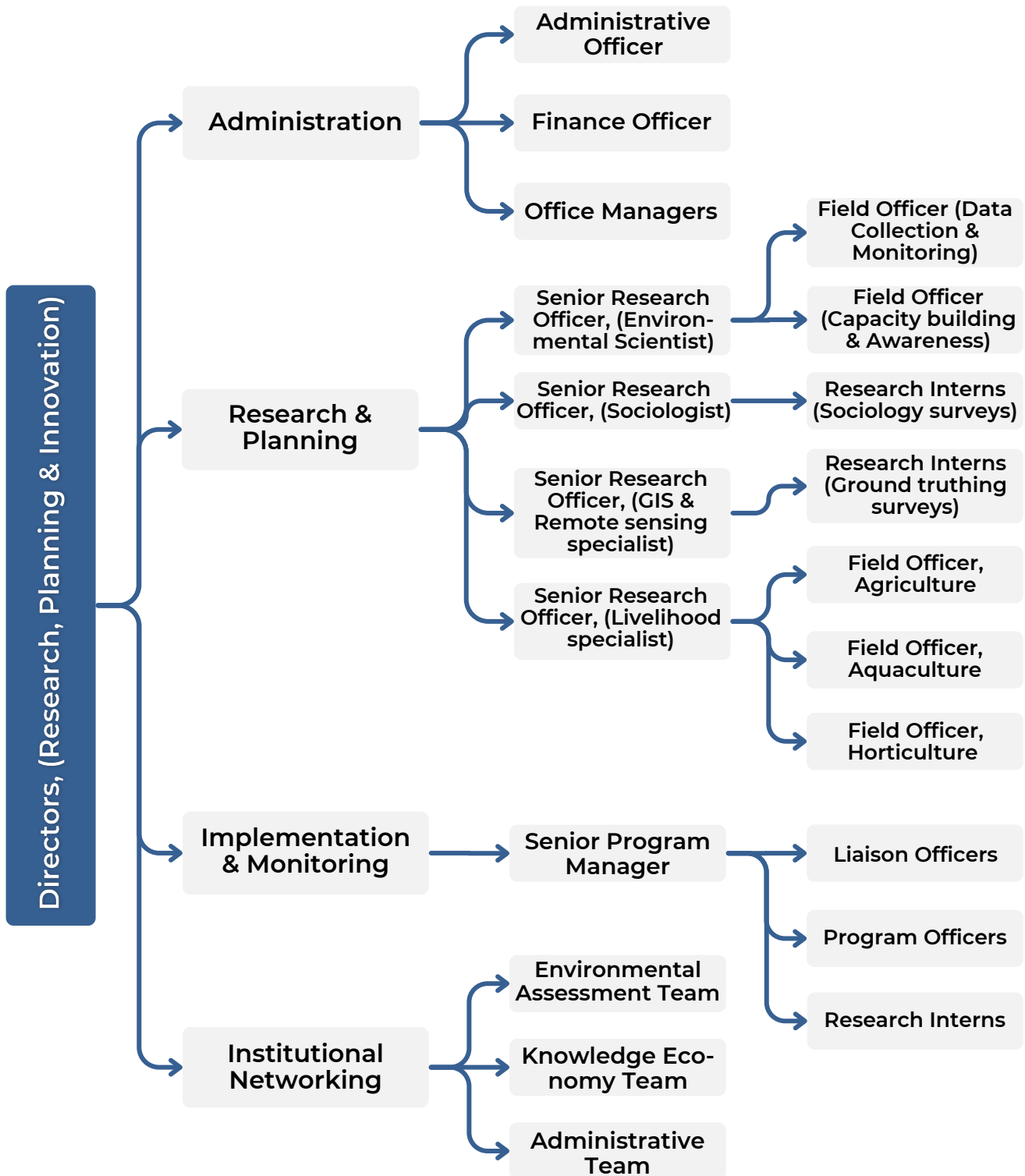
## Our Mission

The Progyan is committed to maintaining ecological balance, solving environmental problems through various environmental activities for a sustainable future and improving the social, economic and environmental well-being of the community.

## Our Objectives

PFRI is committed to advancing scientific knowledge across socio-economies and socio-ecologies, in developing adaptive guidelines and operational frameworks, sustainable solutions for resource optimization and climate change, water security, community resilience and preparedness, as well as sustainable lifestyle education in both rural and urban settings through innovation and knowledge economy as a not-for-profit think tank, PFRI is dedicated to managing risk and building resilience to promote peace, security, and sustainable development. To achieve its purpose, PFRI employs a mix of policy research, strategic analysis, publishing, and convening. With experts from more than twelve countries of the global south and a broad range of academia from a global resource pool, PFRI has ensued the expertise to excel.

# ORGANIZATIONAL STRUCTURE



# RESEARCH

## 1. Ecosystems And Environment

### • Coastal and Marine Ecosystem

PFRI has been actively involved in safeguarding coastal and marine ecosystems. Our efforts over the past year have been concentrated on comprehending, protecting, and advancing sustainable methods to guarantee these essential ecosystems' improved resilience and health. Our research aimed to identify the vulnerable species, pinpointing point and nonpoint sources of pollution sources, and assessment of the impact of human activities as well as the level of anthropogenic stresses on these ecosystems. The work was mainly conducted in different regions of the Indian Sundarbans.



### • Mangrove Ecosystem

The Progyan Foundation for Research and Innovation (PFRI) has been actively engaged in the conservation and restoration of mangrove ecosystems, recognizing their critical role in biodiversity, coastal protection, and sustainable livelihoods. Conducted extensive mangrove planting campaigns in collaboration with local communities. Implemented rigorous monitoring and evaluation processes to ensure the success of reforestation efforts. The work was mainly conducted in different regions of the Indian Sundarbans.



### • Wetland Ecosystem

In the intricate web of our planet's ecosystems, wetlands stand as sanctuaries of biodiversity, offering a myriad of ecological services. Progyan Foundation for Research and Innovation, dedicated to environmental preservation, have been at the

forefront of safeguarding these vital ecosystems. Through engaging awareness campaigns, we sought to instill a sense of responsibility toward these ecosystems. Community involvement is central to our strategy, recognizing that sustainable conservation requires collaboration and shared commitment. The work was mainly conducted in the Indian Sundarbans, East Kolkata Wetlands, Rabindra Sarovar, Santragachi Jhil in West Bengal; Deepor Beel, Majuli Island in Assam; Urban Wetlands in Bangkok and Tangaur Haor in Bangladesh.



## • Plateau

The foundation's dedicated efforts focus on the cultivation of indigenous rice varieties, aiming not only to ensure food security but also to maintain the unique mountain ecosystem of the region. This initiative was mainly operated in the Purulia district of West Bengal.

## • Forest

PFRI is engaged in conserving the dynamic forest ecosystems which are home to a staggering variety of flora and

## • Mountain Ecosystem

The Progyan Foundation for Research and Innovation is playing a pivotal role in West Kameng district, Arunachal Pradesh, particularly in the hilly areas, where the delicate balance of the mountain ecosystem and biodiversity is crucial. The organization's emphasis on preserving and cultivating indigenous rice varieties contributes to the conservation of biodiversity, helping safeguard the rich and diverse plant species that thrive in this challenging terrain. The work was mainly conducted in Arunachal Pradesh; West Kameng district – Sangti Valley and in Lower Dibang Valley district



Fauna. This venture was mainly operated in the Mehao Wildlife Sanctuary, Arunachal Pradesh, and in the Indian Sundarban Biodiversity Reserve, West Bengal.

## 2. Environmental Economics

Ecosystem services valuation is one such tool; it seeks to put an economic value on natural resources, to allow the policy to be evaluated by monetizing the benefits of the environment in a way that is broadly equivalent to the economic costs/benefits used to inform policy-making. The Progyan Foundation for Research and Innovation (PFRI) has undertaken a pioneering initiative to assess and quantify the valuation of ecosystem services through dedicated workshops held at strategic locations. This work was done in India, Bangladesh, and Thailand.

## 3. Climate change



In the face of unprecedented challenges posed by rising temperatures, erratic rainfall, and extreme weather events in agriculture, traditional farming practices fall short of ensuring long-term food security. Recognizing the profound impact of climate change on conventional farming, the Progyan Foundation for Research and Innovation (PFRI) takes a leading role in advocating for climate-resilient float farming. By integrating climate-smart practices like drought-resistant crops, efficient water

water management, and eco-friendly pest control, PFRI ensures the resilience and sustainability of float farming. This work was initiated in Indian Sundarban and Purulia in West Bengal, Majuli Island in Assam, Saharsa in Bihar.

## 4. Environmental and Social Impact Assessment

The environmental and social impact assessment (ESIA) approach for float farming, a distinctive agricultural method involving the cultivation of crops on floating platforms in water bodies, mandates a comprehensive examination of potential effects on the environment and local communities. This includes an analysis of water quality, biodiversity, and the overall health of aquatic ecosystems. This has been practised in West Bengal, Bihar, Assam and Arunachal Pradesh.



## 5. Community Livelihood

This innovative approach is seen as a transformative solution for communities vulnerable to the adverse effects of climate change. PFRI is actively involved in combating the intrusion of saltwater into arable lands, particularly in regions where saline soils threaten food security and livelihoods. The project is initiated in Kultali, Amtoli, Tiplighiri, and Kakdwip, the areas facing seawater inundation and severe storm surges during super cyclones in Sundarban.



## 6. Policy Research

Acknowledging the intricate factors influencing tobacco consumption and its repercussions on public health, PFRI is dedicated to generating insights that can guide evidence-based policy decisions. Utilizing rigorous research methodologies, data analysis, and collaboration with stakeholders, the organization aims to comprehend smoking behaviour patterns, identify significant challenges, and propose effective policy measures. The policy work is specifically concentrating on the habits of smokers in India, Bangladesh, and Nepal.



## 7. Biodiversity Conservation

Biodiversity conservation has three main objectives: To preserve the diversity of species. Sustainable utilization of species and ecosystem. PFRI is seriously engaged in the conservation of different species of flora and fauna in India. The conservation work includes the conservation of Hoolock Gibbon and Black Neck Crane from Arunachal Pradesh, conservation of Horse Shoe Crab and Soil Tolerant Paddy from Indian Sundarban and conservation of Asian Elephant from Purulia and Assam.



### ◆ Hoolock Gibbons

Progyan Foundation for Research and Innovation (PFRI) intends biodiversity conservation of this endangered primate by connecting two or more of these proximal patches through the plantation to decrease the chances of reproductive isolation of the Hoolock Gibbons.

### ◆ Horseshoe Crab

Horseshoe crab conservation efforts mainly concentrate on preserving the integrity of the coastal areas of Sundarban, safeguarding the sandy shores where horseshoe crabs lay their eggs. PFRI actively engaged in studying the behaviour, population dynamics, and migratory patterns of horseshoe crabs in the Sundarbans and understanding their ecological role and the specific environmental conditions essential for their survival is paramount.

### ◆ Salt Tolerant Paddy

Salt tolerance paddy cultivation in the Indian Sundarban has been employed by adopting salt-tolerant 50 varieties of rice that can withstand higher levels of salinity which is truly indigenous.

### ◆ Black Neck Crane and Red Rice

The Black-necked Crane, a migratory bird, relies on the wetlands and rice fields of



### ◆ Asian Elephant

Progyan Foundation for Research and Innovation (PFRI) is involved in a multi-faceted approach, including the establishment of wildlife corridors, habitat restoration initiatives, and the development of early warning systems to mitigate human-elephant conflicts in South and North Bengal and Jharkhand.

## ◆ Black Neck Crane and Red Rice

West Kamang, Arunachal Pradesh for foraging during its annual migration. If the cultivation of red rice were to diminish, it would lead to a decline in the Black-necked Crane population and significant biodiversity loss. Recognizing this intricate connection efforts have been made to conserve the Black-necked Crane must coincide with the preservation of indigenous agricultural practices.



## ◆ Agroforestry

Being a dynamic, ecologically based, natural resource management system agroforestry through the integration of trees on farms and in the agricultural landscape, diversifies and sustains production for increased social, economic and environmental benefits for land users at all levels. It is essential for smallholders and other rural people because it can improve their food supply, income and health. Agroforestry systems are multifunctional systems that can provide a wide range of economic, socio-cultural and environmental benefits. A feasibility study was initiated for organic farming and agroforestry in the state of Assam based on the RCP scenarios.

## ◆ Mangrove

Climate change, habitat degradation, human disturbance, fuel-wood collection and lack of spaces for the mangrove species to regenerate and thrive are the biggest reasons for reduced mangrove cover. Restoration and plantation of mangroves in Indian Sundarban is going on in association with the local communities. The process includes rearing, plantation, monitoring, awareness, and community restoration.



# SERVICES

PFRI is dedicated to providing a comprehensive range of services aimed at strengthening expertise and capabilities in various critical fields. Its core focus lies in training and skill development across several key areas.

These include **Climate-resilient Agriculture**, which involves techniques and practices designed to mitigate the impact of climate change on agricultural production.

Climate resilient aquaculture training is another significant aspect, focusing on sustainable methods for fish and seafood cultivation.



**Apiculture, or beekeeping**, is also emphasized, highlighting sustainable beekeeping practices for honey production and environmental conservation.

Moreover, PFRI offers expertise in **Environmental and Social Impact Assessment (ESIA)**, a vital process for evaluating the potential effects of projects or activities on the environment and surrounding communities.

**Green Audit** services are provided to assess and enhance environmental sustainability within organizations and industries.

**Proposal Writing assistance** is available to help stakeholders effectively communicate project ideas and secure funding for environmental and agricultural initiatives.

**Scientific Documentation** services ensure accurate and comprehensive recording of research findings and data, facilitating knowledge dissemination and informed decision-making.

**Geographic Information System (GIS-RS)** expertise is leveraged for spatial data analysis and mapping, aiding in environmental monitoring, resource management, and decision support.

# CAPACITY BUILDING

PFRI offers a diverse array of courses aimed at enhancing understanding and expertise in several crucial areas related to environmental sustainability and conservation. These courses cover a broad spectrum of topics, each addressing key aspects of sustainable development and environmental stewardship.

Firstly, the courses on **Ecosystem Services (ESs)**, are the benefits that ecosystems provide to humans, including clean water, pollination, and carbon sequestration. These courses delve into the importance of preserving and restoring natural ecosystems to ensure the continued provision of these vital services and their role in supporting human well-being.

Biodiversity courses are also offered, focusing on the variety of life forms present in ecosystems and the importance of conserving and restoring biodiversity for ecosystem health and resilience. Participants learn about the threats to biodiversity,



conservation strategies, and the significance of biodiversity for ecosystem functioning and human livelihoods.

**Regenerative Agriculture courses** explore sustainable farming practices that prioritize soil health, biodiversity conservation, and ecosystem resilience. These courses emphasize techniques such as cover cropping, crop rotation, and agroforestry to improve soil fertility, enhance biodiversity, and mitigate climate change.

Additionally, PFRI offers courses on **Carbon Neutrality and Net Zero, Addressing Strategies** to reduce greenhouse gas emissions and achieve a balance between emissions produced and removed from the atmosphere. Participants learn about carbon footprint assessment, renewable energy adoption, and carbon offsetting practices to contribute to global efforts to combat climate change.

**Circular Economy courses** focus on promoting sustainable resource use and minimizing waste generation by designing products, processes, and systems that prioritize resource efficiency, reuse, and recycling. Participants explore principles of circularity, such as product design for durability and recyclability, waste reduction strategies, and the importance of closing material loops to create a more sustainable economy.



# MAJOR EVENTS & ACTIVITIES



April, 2022

## National Workshop on Climate Resilient Farming ICAR-CSSRI

The National Workshop on Climate Resilient Farming at ICAR-CSSRI served as a crucial platform for stakeholders to exchange insights and strategies in adapting agriculture to climate variability. This workshop facilitated discussions on innovative techniques and resilient practices, empowering farmers to mitigate risks and enhance productivity in the face of changing climate patterns. Through collaborative efforts and knowledge sharing, participants gained valuable insights to strengthen agricultural resilience and ensure sustainable food production amidst climate challenges.



May, 2022

## Meeting for Green Audit with MAKAUT, Vivekananda College and Sarojini Naidu College

The Feasibility meetings for green audit with Maulana Abul Kalam Azad University of Technology (MAKAUT), Vivekananda College, and Sarojini Naidu College represented a significant collaborative endeavour to promote environmental sustainability within the academic sphere. These meetings served as a crucial platform for stakeholders from these esteemed institutions to come together and deliberate on the feasibility and potential impact of implementing green audit initiatives.



Green audits involve comprehensive assessments of an organization's environmental performance, encompassing areas such as energy consumption, waste management, water usage, and overall ecological footprint. By bringing together representatives from MAKAUT, Vivekananda College, and Sarojini Naidu College, the meeting facilitated knowledge exchange, sharing of best practices, and brainstorming of innovative strategies to integrate green audit frameworks into the operational fabric of these educational institutions.



## Sahbhagita: Workshop for Conservation and Wise Use of Wetlands

The Ministry of Environment, Forest and Climate Change (MoEFCC) organized a National Workshop for Developing a Roadmap for Participatory Conservation and Wise-Use of Wetlands. Titled 'Sahbhagita', the workshop was held on May 21, 2022, at the National Center for Sustainable Coastal Management (NCSCM) in Chennai, Tamil Nadu. The workshop was held under the aegis of the GEF-UNEP-MoEFCC-funded Integrated Management of Wetlands Biodiversity and Ecosystem Services

project and attended by 117 participants. These included wetlands managers from 40 wetlands of international and national importance, 18 representatives from State and UT Wetland Authorities, 14 corporates, 14 wetland champions, 5 NGOs, six knowledge



partners, three experts from the National Wetlands Committee, 10 officials from WISA and GIZ and four officials from the wetlands division of the Ministry.



June, 2022

## Community Sensitization and group discussion on apiculture as supplementary livelihood in Indian Sundarban

Community sensitization and group discussion on apiculture as a supplementary livelihood in the Indian Sundarbans was a vital initiative aimed at raising awareness and fostering dialogue among local communities regarding the potential benefits and opportunities associated with apiculture, or beekeeping, as



an additional source of livelihood in the region. The Sundarban, a UNESCO World Heritage Site located in the coastal region of India, is renowned for its unique biodiversity and ecological significance. However, the communities residing in this area often face socio-economic challenges, including limited access to alternative livelihood options and environmental vulnerabilities such as climate change and natural disasters.

Through community sensitization efforts, stakeholders seek to engage with local residents, including farmers, fishermen, and other marginalized groups, to educate them about the fundamentals of apiculture and its potential as a sustainable supplementary livelihood. This involves raising awareness about the ecological importance of bees, the benefits of beekeeping in terms of pollination support for crops, and the economic opportunities associated with honey production and other bee products. Group discussions served as a platform for community members to share their perspectives, concerns, and aspirations regarding the adoption of apiculture as a livelihood option. These discussions facilitated knowledge exchange, information sharing, and the exploration of practical considerations such as beekeeping techniques, equipment requirements, market access, and potential challenges.

## Meeting for Project Discussion with United Nation Development Program (UNDP) Authorities

The meeting was an opportunity to explore collaborative initiatives aimed at addressing pressing global challenges. By bringing together experts, policymakers, and representatives from UNDP the meeting was aimed to brainstorm innovative solutions and strategies to tackle issues such as poverty alleviation, climate change mitigation, sustainable development, and humanitarian aid.



July, 2022

## Implementation of Float-farming as a climate-resilient agricultural approach

The float-farming system as a climate-resilient agricultural approach was implemented in the Indian Sundarban. This technique involves the adoption and adaptation of innovative farming techniques to mitigate the impacts of climate change, particularly in regions susceptible to flooding or waterlogged conditions. Float-farming, also known as floating agriculture or hydroponic farming, entails cultivating crops on floating platforms or beds, often in aquatic environments such as lakes, ponds, or flooded fields. This approach offers several advantages in the face of climate variability and extreme weather events, making it an effective strategy for



promoting agricultural resilience such as adaptation to flood-prone areas, optimized water management, climate-resilient crop production, nutrient recycling and soil conservation and biodiversity conservation, community engagement and livelihood diversification. To implement this system through community meetings, capacity-building workshops has been done.



August, 2022

## Building capacities among AP-PLAT partners in the “Science of pricing ecosystem services” for enabling ecosystem-based adaptation for a sustainable future

The significance of ecosystem services (ESs) in global policy has been evident in the Paris Agreement, emerging REDD+ and initiatives like Aichi Targets, and SDGs. FAO (2019) reported that lack of ESs valuation has led to over-exploitation of resources and poorly informed decisions in countries of Asia Pacific. In the climate milieu, a fundamental plea for plural values of ESs, wherein the valuation languages are context-dependent and need special capacity building to articulate, will be imperative.

Given that both trade-offs and synergies exist between utilizing ESs and development, multisectoral objectives need to be explored too, in the Asia Pacific. This would facilitate AP-PLAT (Asia Pacific Climate Change Adaptation Information Platform) to share advanced scientific climate risk information towards adaptation planning. The proposal aimed at regional preparedness by developing capacities in

sian Institute of Technology



scientific, economic and socio-political scenario planning approaches on the pricing of ESs for AP-PLAT partners. Outcomes are used to build capacities in pricing ESs and as well monitor, model and predict spatiotemporal values of ESs adaptive learning towards ecosystem-based adaptations in resolving conflicts, assessing damage loss and reverting current linear extractive economic scenario with neo-economic circular conservation paradigms for sustainable future. The outcomes would be consolidated into a global curriculum for free online dissemination.



September, 2022

## Project Briefing and Meeting for Collaboration with Zoological Society of India



The project briefing and meeting for collaboration with the Zoological Society of India (ZSI) convened experts to strategize joint efforts in wildlife conservation. This crucial gathering aimed to align goals, share knowledge, and define concrete actions to protect endangered species and habitats. By fostering collaboration between organizations, the meeting facilitated resource mobilization and enhanced the effectiveness of conservation initiatives. Through partnership building and stakeholder engagement, the collaboration with ZSI promoted a unified approach towards preserving biodiversity and raising public awareness. Ultimately, this collaborative effort catalyzed positive change and ensured a sustainable future for India's rich and diverse wildlife.





October, 2022

## Aquaculture: Training, Workshop and Implementation in Indian Sundarban



Aquaculture is one of the major livelihood options for the communities of Indian Sundarban, a series of training and workshops have been initiated by PFRI for the implementation of climate-resilient aquaculture practices in the Indian Sundarban. It is a concerted effort to promote sustainable livelihoods and address food security challenges in the region. These initiatives aimed to equip local communities with the knowledge, skills, and resources necessary to engage in

responsible aquaculture practices, leveraging the abundant aquatic resources of the Sundarbans. Through comprehensive training programs and workshops, participants learn about best aquaculture practices, including pond management, species selection, feed management, disease prevention, and market access. Moreover, these initiatives focus on practical implementation, providing support in establishing aquaculture systems, such as fish ponds and facilitating access to necessary inputs and technologies. By empowering communities to harness the potential of aquaculture in the Sundarbans, these efforts contribute to sustainable economic development, alleviate poverty, and enhance resilience to environmental challenges in the region.

## Capacity Building on Traditional Fish-Feed Preparation in Indian Sundarban



Capacity building on traditional fish-feed preparation in the Indian Sundarbans was aimed at empowering local fish farmers with sustainable and cost-effective methods for enhancing fish production. Through hands-on training workshops and knowledge-sharing sessions, community members learned traditional techniques for preparing fish feed using locally available ingredients such as rice bran, mustard oil cake, and kitchen waste.



These capacity-building efforts were focused on improving feed quality, nutritional value, and digestibility, ultimately leading to increased fish growth rates and higher yields. By promoting the use of indigenous knowledge and resources, capacity building on traditional fish-feed preparation not only strengthens the resilience of fish farming communities but also contributes to sustainable aquaculture practices and food security in the Sundarbans.



November, 2022

## Environmental and Social Impact Assessment (ESIA) in Satragachi Jheel and Rabindra Sarovar

The environmental and social impact assessment (ESIA) conducted by PFRI in Satragachi Jheel, Howrah and Rabindra Sarovar, Kolkata was a meticulous survey and examination of the potential environmental and socio-economic effects in these ecologically sensitive areas. By employing rigorous methodologies and comprehensive data collection, PFRI aimed to identify and evaluate the potential impacts



of planned activities on the surrounding ecosystems, biodiversity, water quality, and nearby communities. Through stakeholder consultations, field surveys, and



scientific analyses, the ESIA process facilitated a thorough understanding of both the positive and negative consequences of proposed projects, enabling informed decision-making and the formulation of mitigation measures to minimize adverse effects. PFRI's ESIA endeavours in Satragachi Jheel and Rabindra Sarovar exemplify a commitment to

promoting sustainable development practices that prioritize environmental protection, social well-being, and the conservation of natural resources in these vital urban ecosystems.

## Virtual Participation in COP 7 Meeting

Virtual participation of PFRI in COP 27 facilitated meaningful dialogue and collaboration toward achieving ambitious climate action goals on a global scale.



December, 2022

## APN South Asia Proposal Development Training Workshop in Colombo, Sri Lanka

The Asia Pacific Network for Global Change Research (APN) successfully concluded its 3-day South Asia Proposal Development Training Workshop (PDTW). The event, jointly organised by the Ministry of Environment of the Government of Sri Lanka and APN, occurred at the Galle Face Hotel in Colombo. The PDTW is a recurring initiative by APN, specifically designed to enhance the capabilities of



early-career scientists and practitioners in South Asia for developing competitive research proposals. It also provides a platform for strengthening the network of South Asian researchers and practitioners, fostering opportunities for future collaboration in regional research activities. 29 participants, including APN National Focal Points, Scientific Planning Group members, and APN project leaders from Sri Lanka, gathered to share their knowledge and expertise. Their goal was to enhance the capacity of 18 early-career professionals from Sri Lanka, Bangladesh, Pakistan, India, Nepal, and Bhutan in creating collaborative regional research proposals in the field of climate-smart agriculture within the Asia-Pacific region. The workshop's central theme was "Climate Smart Agriculture: Meeting the demands of a growing population," focusing on the three pillars of climate-smart agriculture (CSA): productivity, mitigation, and adaptation. This time, four groups of early-career professionals will develop proposals related to (1) Climate-Smart Agriculture in Policies; (2) Empower Farmers, Women, and Youth; (3) Resilient, Low-Emission Practices; and (4) Landscape Approach for Sustainability.

## **Weather Station Installation in the Field Laboratory in Collaboration with IIT Madras, Indian Sundarban**

A weather station was installed in the field laboratory through collaboration with IIT Madras for the advancement of environmental monitoring and research capabilities in the Indian Sundarbans. This collaborative effort combined the expertise of IIT Madras and PFRI with local stakeholders to establish a comprehensive weather monitoring system that captures crucial data on temperature, humidity, rainfall, wind speed, and other meteorological parameters. The weather station's integration into the field laboratory facilitates real-time data collection and analysis, providing valuable insights into local weather patterns, climate variability, and their impacts on the Sundarban's eco-



systems and communities. By leveraging cutting-edge technology and interdisciplinary collaboration, this initiative enhances the region's resilience to climate change, supports evidence-based decision-making, and contributes to the sustainable management of natural resources in the Sundarban.



January, 2023

## Project Grounding Meeting on Climate Resilient Agriculture in Indian Sundarban



The project grounding meeting on climate resilient agriculture (CRA) in the Indian Sundarban was a major collaborative effort to address the challenges posed by climate change in this ecologically fragile region. The initiative brought together diverse stakeholders including researchers, policymakers, local farmers, and community representatives, as a platform to discuss strategies and action plans for implementing climate-resilient agricultural practices. Through knowledge exchange, capacity-building sessions, and participatory discussions, participants explored innovative approaches such as sustainable land management, crop diversification,

water-efficient irrigation techniques, and agroforestry models tailored to the Sundarban's unique environmental conditions. For grounding any project in the local context and leveraging collective expertise, this meeting set the stage for coordinated efforts to enhance agricultural resilience, improve food security, and promote sustainable livelihoods in the face of climate variability and extreme weather events in the Indian Sundarban.





February 2023

## Meeting on Biodiversity Assessment in Purulia, India

The meeting on biodiversity assessment in Purulia was a crucial step taken towards understanding and conserving the rich ecological diversity of this region. By convening experts, conservationists, and local stakeholders, the meeting aimed to gather valuable insights into the biodiversity hotspots, species distributions, and ecological dynamics unique to Purulia. Through collaborative discussions and field assessments, participants have identified key habitats, endemic species, and conservation priorities, laying the foundation for evidence-based conservation strategies. By engaging local communities and integrating traditional ecological knowledge, the meeting aimed to promote stewardship of natural resources and ensure the long-term sustainability of biodiversity conservation efforts in Purulia.



## Training on Sustainable Livelihood Options for the Tribal Communities in Purulia

The training program was organized for making floral powder and candles by the tribal communities of Purulia aiming at empowering local artisans and preserving traditional knowledge and skills. Through hands-on workshops and skill-building sessions, members of the tribal communities were equipped with the techniques and expertise needed to create floral



powder and candles using locally available materials. This training program not only provided valuable income-generating opportunities for tribal artisans but also contributed to the preservation of cultural heritage and traditional craftsmanship. By harnessing indigenous knowledge and promoting sustainable livelihoods, the training initiatives foster economic empowerment and social cohesion within the tribal communities of Purulia, while also showcasing their unique artistic traditions to a broader audience.



March, 2023

## Monitoring and Habitat Assessment of Horseshoe Crabs in Indian Sundarban

The monitoring and habitat assessment of horseshoe crabs in the Indian Sundarbans was aimed at safeguarding the ecological integrity of this unique marine species and its associated habitats. Through systematic field surveys, data collection, and habitat mapping a comprehensive understanding of the distribution, population dynamics, and ecological requirements of horseshoe crabs in the Sundarbans were gathered. The efforts involved assessing key habitat parameters such as substrate composition, water quality, tidal patterns, and sediment characteristics to identify critical breeding, feeding, and nursery grounds for horseshoe crabs. By integrating scientific research with community engagement and stakeholder collaboration, the monitoring and habitat assessment initiatives contributed to



evidence-based conservation strategies and management plans that aimed at protecting horseshoe crabs and their habitats in the fragile ecosystem of the Indian Sundarbans.

## Capacity building, training and cultivation of Salt Tolerant Paddy (STP) in Indian Sundarban

In the Indian Sundarbans, training and capacity building initiatives are crucial for advancing agricultural practices, particularly in salt-tolerant paddy cultivation. These efforts were aimed to equip farmers with the knowledge and skills necessary to overcome challenges posed by saline soil and water in the region. The series of training programs focused on innovative techniques such as selecting resilient paddy varieties, implementing proper soil management practices, and adopting efficient irrigation methods suited to saline environments. Through workshops, demonstrations, and hands-on learning experiences, farmers learned how to optimize their cultivation practices while minimizing negative impacts on the delicate ecosystem of the Sundarbans. By integrating training and capacity-building efforts into salt-tolerant paddy cultivation initiatives, the Indian Sundarbans can foster sustainable agricultural practices that enhance food security, improve livelihoods, and promote resilience in the face of climate change. Through extensive research and field trials, PFRI has developed and promoted resilient paddy varieties capable of thriving in saline environments. These salt-tolerant varieties not only withstand high levels of soil and water salinity but also exhibit improved yields and quality, thereby enhancing food security and livelihoods in the region. By empowering farmers with the tools and techniques needed to cultivate these resilient varieties effectively, PFRI contributes to sustainable agricultural development in the Sundarbans, ultimately promoting resilience and adaptation to the challenges posed by climate change.



## Way Forward

Over the coming years, PFRI aims to significantly impact environmental sustainability and societal well-being through the following goals: Implement large-scale reforestation and community-driven conservation programs, and advocate for pollution reduction to restore lands and protect biodiversity. Promote renewable energy adoption and develop climate adaptation strategies to mitigate climate change effects. Support sustainable farming practices, facilitate farmer training, and create networks for knowledge sharing to ensure food security. Conduct environmental education, empower communities, and establish partnerships to foster sustainable livelihoods. Engage in policy advocacy, participate in forums, and collaborate with stakeholders to influence environmental and social policies. Invest in research and innovation, develop new technologies, and publish findings to inspire global action. By achieving these goals, PFRI envisions a world where the environment and society thrive through sustainable practices, resilient communities, and a deep respect for nature's balance.

### **Accreditations:**

*Progyan Foundation for Research and Innovation (PFRI) holds ISO 1401:2015 certification. PFRI is the research organ of 'South Asian Forum for Environment (SAFE)' a civil society organization. SAFE is recognized by the M/o Environment Forest & Climate Change and M/o NRE, Govt of India and accredited by 'NGO darpan' of Niti Ayog. It also enjoys consultative status with the UN Environment, UNFCCC, UNDP, World Bank and ECOSOC.*

# FINANCIAL REPORT

## PROGYAN FOUNDATION FOR RESEARCH AND INNOVATION

Address : 176/A, Vivekananda Park, Kolkata - 700099

### Statement of Profit and Loss for the year ended 31st March, 2023

Particulars	Notes	₹	₹
		2022-2023	2021-2022
<b>INCOME</b>			
Revenue from Operations	16	13,36,900.00	4,50,000.00
Other Income	17	6,120.00	-
<b>TOTAL</b>		<b>13,43,020.00</b>	<b>4,50,000.00</b>
<b>EXPENDITURE</b>			
Purchases	18	-	-
Changes in inventories and stock in trade	19	-	-
Employee Benefit expense	20	2,50,819.00	23,250.00
Finance Cost	21	-	-
Depreciation	22	-	-
Other Expenses	23	10,68,188.00	4,14,800.00
<b>TOTAL</b>		<b>13,19,007.00</b>	<b>4,38,050.00</b>
Profit Before Exceptional Items and Tax		24,013.00	11,950.00
Exceptional Items		-	-
Profit Before tax		24,013.00	11,950.00
<b>Tax Expenses</b>			
Current Tax(provision for income tax)		7,492.06	3,728.40
Deferred Tax		-	-
Income Tax / FBT for earliar years		-	-
<b>Profit for the year</b>		<b>16,520.94</b>	<b>8,221.60</b>
Earnings per equity share			
Basic /Diluted ( ₹)	24	1.65	0.82
<b>Significant Accounting Policies</b>			
<b>Notes on Financial Statements 1 to 24</b>			

in terms of our report of even date.

For ROY CHOWDHURY & MOITRA  
Chartered Accountants)  
Firm Regn. No. :304134E

*Chiranjib Das*

A Chiranjib Das  
Partner

Membership No.309307

DIN: 23309307BGUOIO3890

Place :Kolkata

Date: 07-09-2023



For and on behalf of the Board of Directors

Director

*Subarna Das*

Director

*Malanika Dey*



# PROGYAN FOUNDATION FOR RESEARCH AND INNOVATION

Address : 176/A, Vivekananda Park, Kolkata - 700099

## Statement of Profit and Loss for the year ended 31st March, 2023

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Profit Before Exceptional Items and Tax		24,013.00	11,950.00
Exceptional Items		-	-
Profit Before tax		24,013.00	11,950.00
<b>Tax Expenses</b>			
Current Tax(provision for income tax)		7,492.06	3,728.40
Deferred Tax		-	-
Income Tax / FBT for earlier years		-	-
Profit for the year		<b>16,520.94</b>	<b>8,221.60</b>
Earnings per equity share			
Basic /Diluted (₹)	24	1.65	0.82
<b>Significant Accounting Policies</b>			
<b>Notes on Financial Statements 1 to 24</b>			

in terms of our report of even date.

For ROY CHOWDHURY & MOITRA  
(Chartered Accountants)  
Firm Regn. No. :304134E

*Chiranjib Das*

Chiranjib Das  
Partner

Membership No.309307

DIN: 23309307BGUOIO3890

Place: Kolkata

Date: 07-09-2023



For and on behalf of the Board of Directors

Director

Director

*Director*  
*Malanika Dey*



[www.progyanfoundation.org](http://www.progyanfoundation.org)

Follow Us On:



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