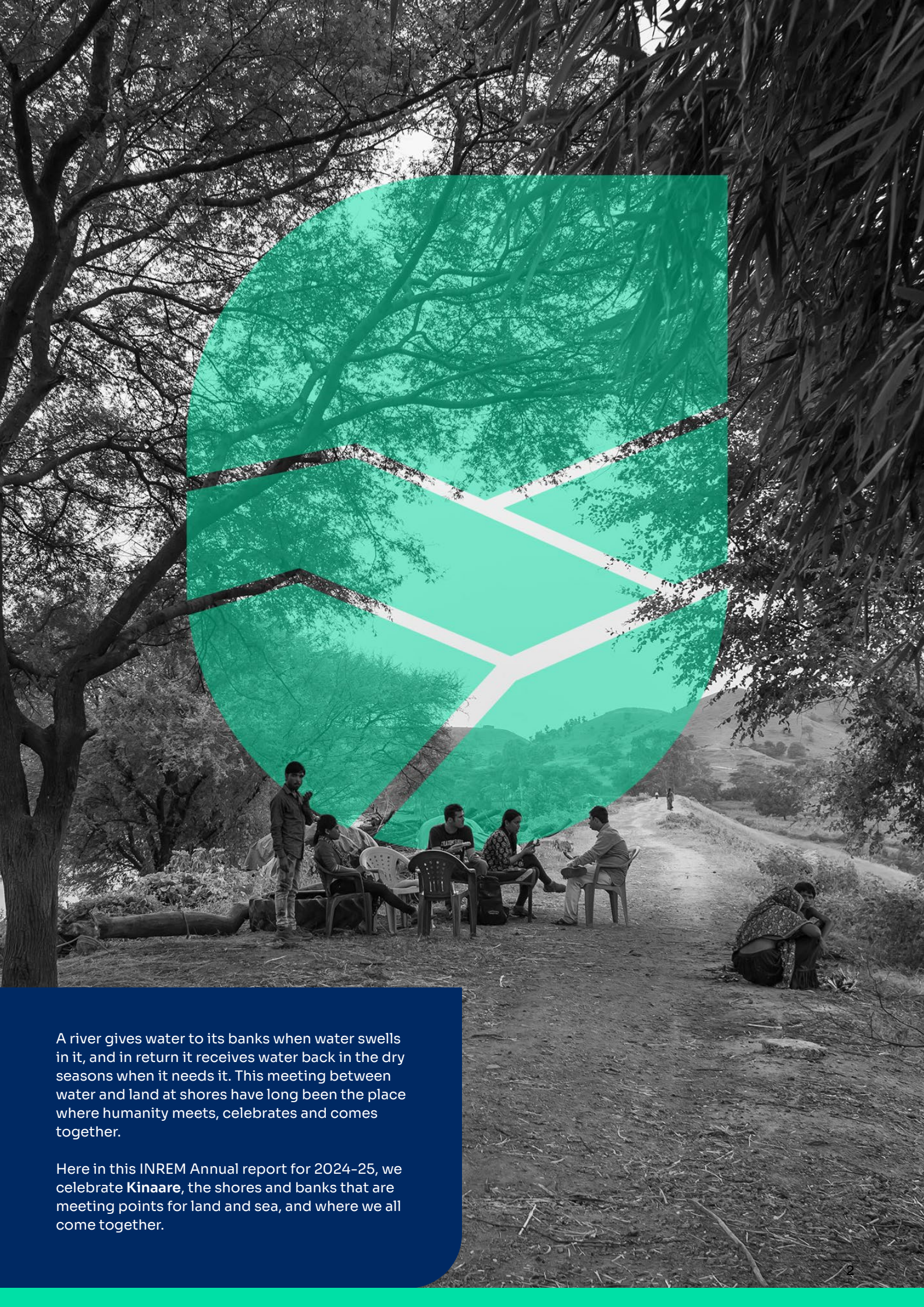
INREM Foundation
India Natural Resource Economics and Management

Annual Report 2024-25

Together, For A Water-Safe India



A river gives water to its banks when water swells in it, and in return it receives water back in the dry seasons when it needs it. This meeting between water and land at shores have long been the place where humanity meets, celebrates and comes together.

Here in this INREM Annual report for 2024-25, we celebrate **Kinaare**, the shores and banks that are meeting points for land and sea, and where we all come together.

A very interesting space is where Technology meets Humanity. Here, the 'edge cases' are what keep motivating us in terms of designing exchanges to meet user needs. Our proud association with Google.org through AVPN support was a highlight for this year in which we were able to create fundamental building blocks of data flows and user journeys.

As an organization, we get requested for the support we provide on Water Quality issues. But our meeting point with the NGO, Samerth shows that there is so much for us to gain, as we give. When our strength in community-based Water Quality programmes meets a partner such as Samerth, who work with remote coastal communities of Gujarat, the benefit multiplies for the rural communities.. The article from Suneetha Sapur also highlights what we gain from more such partnerships such as with Biome.

When a community officer from INREM spends a month at a cutting edge innovation centre of IISc, Bangalore, we get this rare opportunity of technology being designed with feedback and design needs. We present an interview with Kumar Gautam where he talks about his month-long experience at the S3 labs in IISc.

Climate Change looms large as we are ending up crossing 6 out of the 9 Planetary Boundaries. Our Board member Raghav Khemka places INREM's work at the centre of Climate issues and we realize the importance of working with multiple and diverse partnerships.

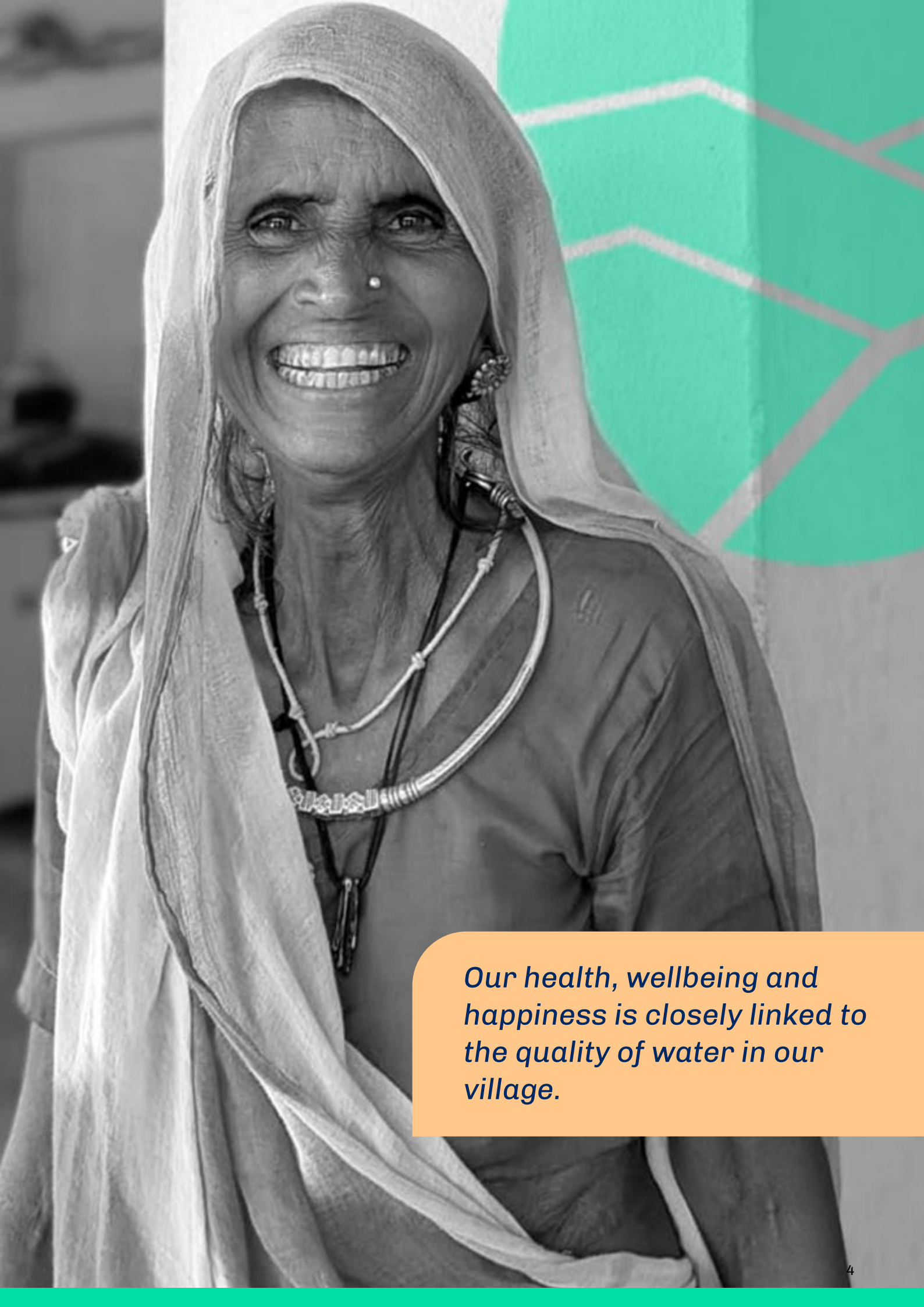
Another year when we are grateful to Arghyam, UNICEF, BP Exploration Alpha Ltd, AVPN, Google.org and Azim Premji Foundation for their generous support to INREM and its mission. We invite more philanthropies, industries and individuals to join with us and co-create new and audacious initiatives.

As we grow our mission, there will be many shores where we meet. The JalXChange Water Quality Conference in New Delhi during February 2025 was one such space that was a culmination of earlier meets in Anand, Guwahati and Bangalore during this year.

We will meet more and as challenges grow, find more edges, banks and shores where our common needs will merge.

Leaving you with lines from 'On the seashore' by Tagore:
On the seashore of endless worlds the children meet with shouts and dances ...
They seek not for hidden treasures, they know not how to cast nets ...
The sea plays with children, and pale gleams the smile of the sea-beach ...
On the seashore of endless worlds is the great meeting of children.

With gratitude and hope,
Sunderrajan Krishnan
Executive Director



Our health, wellbeing and happiness is closely linked to the quality of water in our village.

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INREM Board

Dr Tushaar Shah

Dr. Tushaar Shah is a renowned water economist and former Director of IRMA and Senior Scientist at IWMI. His pioneering research on groundwater governance and water institutions has shaped policy and practice across India and beyond.

At INREM, he provides thought leadership on integrating scientific research with grassroots water security solutions, guiding the organization in developing evidence-based approaches for water quality challenges.

Dr Parthasarathy Ganguly

Dr. Parthasarathy Ganguly is a distinguished public health professional with long experience in research, teaching, and policy engagement. Earlier with the Indian Institute of Public Health, Gandhinagar, and now serving at Parul University, he brings deep insights into community health systems and environmental health linkages.

At INREM, he supports the integration of water quality and health perspectives, strengthening the organization's work on water quality mitigation and safe water access with a strong public health orientation.

Dr Rambir Pundir

Dr. Rambir Pundir leads the International Agribusiness programme at Anand Agricultural University and has extensive expertise in agricultural development and farmer-centric innovations. His work focuses on linking sustainable agriculture with market opportunities, helping farming communities improve livelihoods.

At INREM, he guides efforts to connect safe water initiatives with agriculture and rural development, ensuring that water quality solutions also strengthen farmer welfare and local economies.

Dr Alka Palrecha

Dr Alka Palrecha is a Humphrey Fellow with wide experience in governance, institutions, and social development. She currently leads People of Centre Consulting, where she works on participatory approaches to policy and practice.

At INREM, she supports organizational development and governance processes, helping the institution strengthen its people-centric approaches and partnerships for safe water and health.

Dr Shivani Mishra

Dr. Shivani Mishra is Head of the Department of Social Work at Sardar Patel University, with extensive experience in community development and social work education. Her focus has been on empowering communities through participatory processes and capacity building.

At INREM, she brings a strong social science perspective, and guides the safety processes of the organization along with gender issues.

Mr Raghav Khemka

Mr. Raghav Khemka is a philanthropist and entrepreneur deeply committed to social development and sustainability. With wide experience in supporting innovative institutions across sectors, he brings a strong focus on governance, strategy, and long-term impact.

At INREM, he strengthens the board's vision and outreach, helping the organization scale its safe water and health initiatives to reach more communities across India.

Dr Pawan Kumar Labhasetwar

Dr. Pawan Labhasetwar is a water quality expert, formerly with the National Environmental Engineering Research Institute (NEERI), and now a visiting faculty member at IIT Madras. With decades of experience in water and sanitation technologies, he has contributed significantly to policy, research, and practical solutions for safe water.

At INREM, he provides technical guidance on water quality management and supports the organization in advancing evidence- based, scalable approaches for rural water safety.

Vision

A world with clean water for everyone, everywhere.

We aim to achieve a high quality natural environment that will help support a healthy ecosystem, society and economy.

Mission

To unite and empower diverse communities, organisations, enterprises and citizens across India onto a shared platform, and together, foster a clean and water-safe nation.

Goal

Our goal is to build a network of 1 million Water Quality Champions by 2030, strengthening water-safe villages across rural India.

By equipping ASHA workers, Anganwadi workers, and other local practitioners with practical tools, local data, and guided training, we enable them to identify contamination early and drive solutions within their own communities.

Milestones

Apr '24 | **Annual Team Meet**

July '24 | **Partnership with AVPN & Google**

Aug '24 | **NGO Meet – Western Region**

Aug '24 | **NGO Meet – Eastern Region**

Sep '24 | **First Hydroponic Nutrition Garden**

Oct '24 | **MoU with ICCW, IIT Madras**

Oct '24 | **NGO Meet – Southern Region**

Dec '24 | **MoU with IISc Bangalore**

Dec '24 | **Began work on Uranium in Water**

Jan '25 | **Launch of JalxChange.io**

Jan '25 | **25th Batch of WQM Course**

Jan '25 | **1000 Jal Shalas Milestone**

Feb '25 | **Water Quality Network Conference**

Mar '25 | **Annual Team Meet**

May '25 | **Towards Safe Water for Livestock**

Initiatives

1

Community Based Research and Action

We work towards creating water-safe communities by combining insights from real-life experiences, community wisdom, and scientific research.

2

Partnerships for Systemic Change

We collaborate with initiatives & institutions to collectively address challenges and craft systemic approaches for meaningful change.

3

Digital Platforms for Changemaking Networks

We innovate digital tools to engage and mobilise networks of Water Quality Champions of India.

1 Community Based Research and Action

Developments of the Year

160
Number of Water-Safe Communities

43,506
Number of Families benefited

2,17,530
Individuals Benefitted

INREM Foundation works to unite and empower communities, organisations, enterprises, and citizens across India on a shared platform to foster a clean and safe nation. Operating across eight districts, INREM identifies and addresses emerging water contaminants, embedding local solutions within NGOs and community networks.

Key Shifts In Focus

This year marked a shift from addressing only basic water needs to **integrating safe water into productive and ecosystem uses**, including safe water for food production and livestock, piloting wastewater reuse and protecting freshwater sources.

Innovative community-level solutions such as bio-sand filters, modular nutrition gardens, and small-scale natural wastewater treatment systems were tested and shared with local partners.

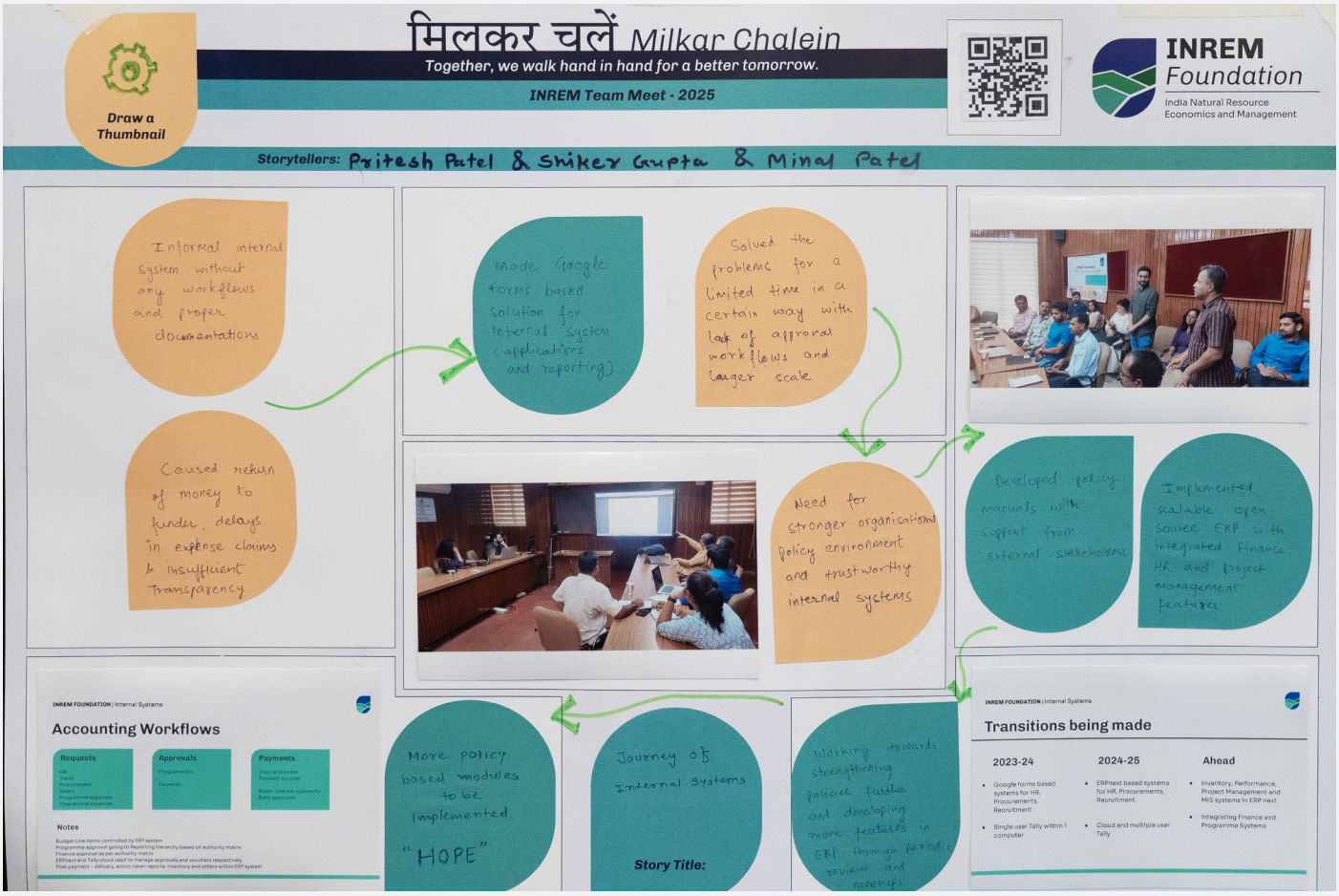
Health And Water Quality

We continue to observe a strong link between water contamination and public health, with issues extending beyond bacterial contamination to nitrates, uranium, and industrial chemicals. ***This highlights the urgency for active involvement of health departments in addressing water-related health risks.***

Emerging Issues

We started working on uranium in groundwater and identified two districts, Chikkaballapur and Nalgonda, where the problem is prevalent. After mapping contaminated zones, we have begun programmes to ensure safe water access in affected villages.

Evidence-based research and outcome measurement have become a stronger focus this year. Research on livelihood linkages with water contamination continued, alongside outcome measurement and the development of a digital Community Registry platform.



Transition towards a digitally enabled Internal Systems. Story board presented in INREM Annual Team meet 2025

Map of Water Quality Champions. Story board presented in INREM Annual Team meet 2025 about the Water Quality Champions programme and their reach.

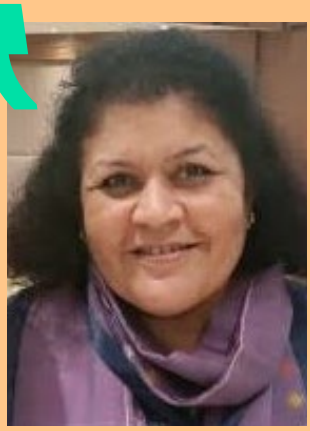
Case Study | *Kuwarikuchi – Towards a Water Safe Community*

Kuwarikuchi, a habitation under Kundargaon village in Nalbari District, Assam, remains partly outside the coverage of the Jal Jeevan Mission (JJM). Nearly half the households still depend on arsenic-contaminated tube well water for daily use, not by choice but due to lack of alternatives.

Since 2019, INREM has conducted three health camps in the habitation. These revealed a stark reality: 21 villagers were diagnosed with arsenicosis, confirmed by Dr. K.K. Mazumdar. What had long been invisible suddenly became real. Water was directly linked to declining health. An awareness camp followed, held under a large tree near the school. For the first time, residents learned how arsenic affects the body and why long-term exposure can lead to severe illness, including cancer. The shift was palpable. Information turned into concern, and concern into responsibility.

"We didn't know our water was making us sick," shared a retired headmaster. "Now we know we must act for our children and our future."

Some families began experimenting on their own, adding iron nails to traditional sand-gravel filters to reduce contamination. It was a simple and nature friendly local solution, along with being a powerful sign of community initiative. Building on this momentum, INREM supported the upgradation of these filters into Arsenic Removal Bio-Sand Filters, ensuring safer water for drinking and cooking. Efforts are now extending to safe water for food production, strengthening health and nutrition together. Kuwarikuchi's journey is not just about technology. It is about awareness becoming action, and a community taking charge of its health as it moves steadily toward becoming a Water-Safe Community.



As a trustee, I am inspired by INREM Foundation's unwavering commitment to empowering rural communities with safe water solutions, grounded in scientific research and community leadership. Witnessing our impact firsthand, I am proud of how INREM's collaborative and innovative approaches are creating lasting change for health, dignity, and resilience across India.

Dr. Alka Palrecha
Board Member of INREM Foundation

Safe water is as essential for Animals as it is for us.

Interventions Undertaken

- ***Community Awareness:*** Camps at the village Nam-ghar introduced residents to the dangers of arsenic and safe water practices. Families began **modifying existing sand-gravel filters** with iron nails as a temporary measure.

- ***Safe Water in Institutions:*** **Water purifiers were installed** at the Lower Primary School and Anganwadi Centre, ensuring arsenic-free drinking water for children.

- ***Upgrading Household Filters:*** Traditional sand-gravel filters are being replaced with **Arsenic Removal Bio-Sand Filters (ARBSF)** to provide safe water for daily use.

- ***Safe Water for Livestock:*** Two **large bio-sand filters** are being built for cattle and goats, improving livestock health and supporting household nutrition.

- ***Safe Water for Food Production:*** A **bio-sand filter system** is being set up to treat arsenic-contaminated water for kitchen gardens, promoting food security.

- ***Innovation:*** A **bamboo modular nutrition garden** has been established, and a floating garden will soon follow to demonstrate sustainable farming in waterlogged areas.

"If this is what we can do, we will start today. We cannot wait any longer."

Small Wins, Big Gains

The community has achieved meaningful milestones:

- Safe drinking water access in schools and Anganwadi centres.
- Household filters modified to remove arsenic.
- Nutrition gardens irrigated with treated water.

Challenges remain in ensuring sustainability and long-term behavioural change to maintain these efforts.

Way Forward

Kuwarikuchi's story reflects both struggle and resilience. With combined efforts in health awareness, water purification, and community-led action, the village is progressing toward becoming a Water-Safe Community.

Next steps include:

- Expanding safe water coverage to all households.
- Scaling solutions for livestock and food production.
- Strengthening community ownership for sustained impact.

Partnerships for Systemic Change

2

Developments of the Year

3
Number of Govt Partnerships

27
Number of CSO Partners

2
Number of Academic Partners
(IISc, ICCW)

10
Nodal NGO Partnerships

42
Total Partners

919
Partner team trained on Water Quality Management

This year, INREM focused on deepening partnerships to strengthen systemic action on water safety and livelihoods across community, state, and national levels.

NGO Networks

INREM strengthened NGO networks by aligning partners around shared geographies, themes, and sectoral priorities, working with regional network nodes and District Platforms in focus locations. Key developments included:

- Formal partnerships with the IWMI–Tata Programme and Tata Trusts (June 2024), focused on livelihoods and water-safe communities, leading to a multi-location study across nine locations and a learning exchange at the IWMI–Tata Meet (September 2024).

Conversation with Nafisa Barot from Pravah Network, Eklavya Prasad from Megh Pyne Abhiyan and Vishwanath Srikantiah from Biome Environmental Trust on livelihoods and water safe communities at the IWMI Tata Partners Meet.

- Regional NGO Network Meetings held in Anand, Gujarat (Western India), Nalbari (Eastern India), and Southern India (October 2024) to strengthen coordination, learning, and collaboration among partners.

Meeting from Western India NGO Networks.

Government

▪ Engagement with state governments, including formal partnerships with Assam and Rajasthan.

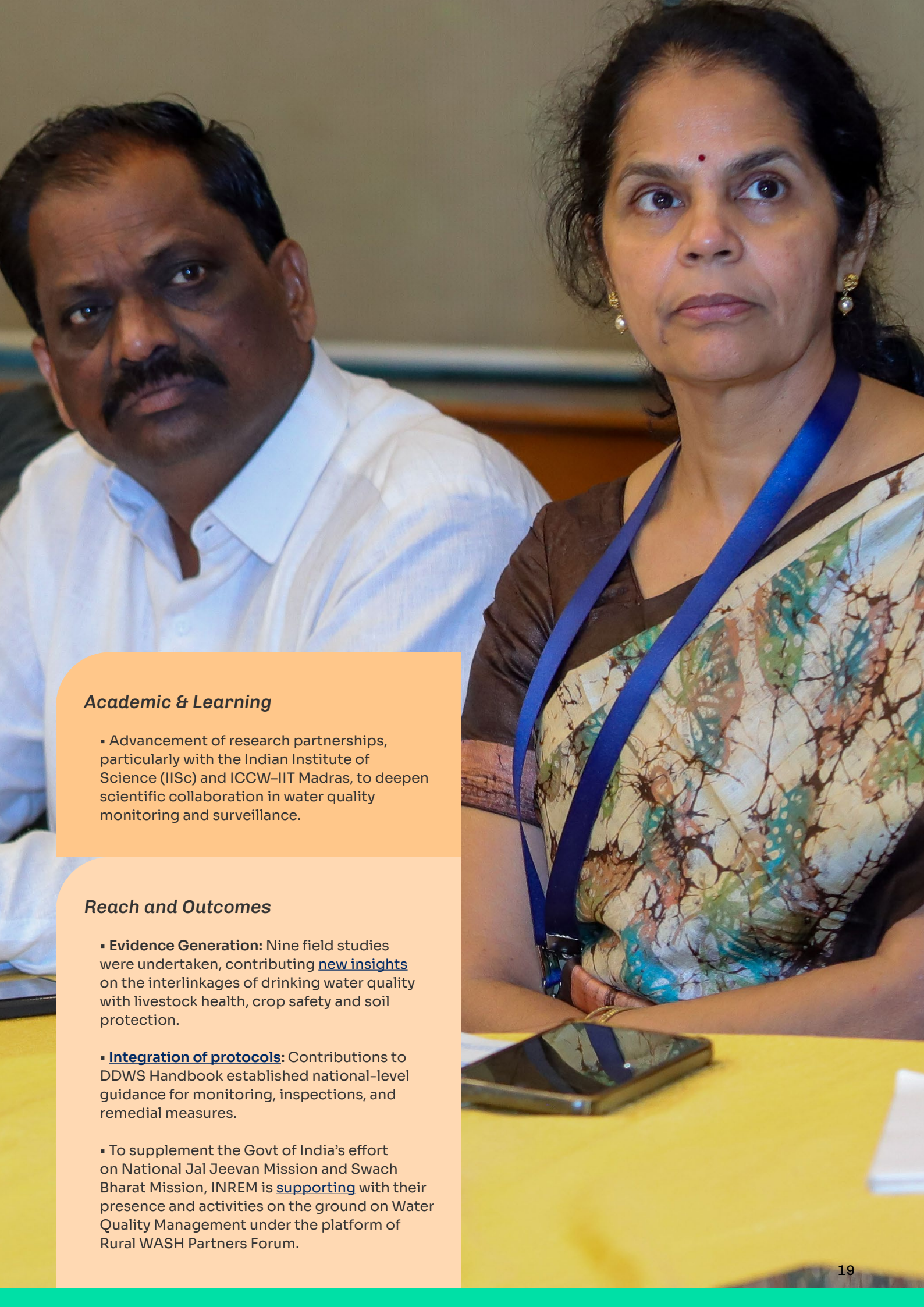
▪ Active participation in national and international forums, including India Water Week, the International WASH Conference 2024.

▪ Membership of the Working Committee on Water Quality with Drinking Water & Sanitation, Ministry of Jal Shakti, Government of India.

▪ Convened the Water Quality Network Conference in New Delhi in February 2025, drawing participation from community champions, researchers, innovators, policy makers and NGO leaders.

Sumanjita Burman from INREM, India Water Week, 2024.

JalXChange Meet at New Delhi, February 2025



Academic & Learning

- Advancement of research partnerships, particularly with the Indian Institute of Science (IISc) and ICCW–IIT Madras, to deepen scientific collaboration in water quality monitoring and surveillance.

Reach and Outcomes

- **Evidence Generation:** Nine field studies were undertaken, contributing new insights on the interlinkages of drinking water quality with livestock health, crop safety and soil protection.

- **Integration of protocols:** Contributions to DDWS Handbook established national-level guidance for monitoring, inspections, and remedial measures.

- To supplement the Govt of India's effort on National Jal Jeevan Mission and Swach Bharat Mission, INREM is supporting with their presence and activities on the ground on Water Quality Management under the platform of Rural WASH Partners Forum.

Case Study | *Janvikas Samajik Sanstha [JVSS]*

Background

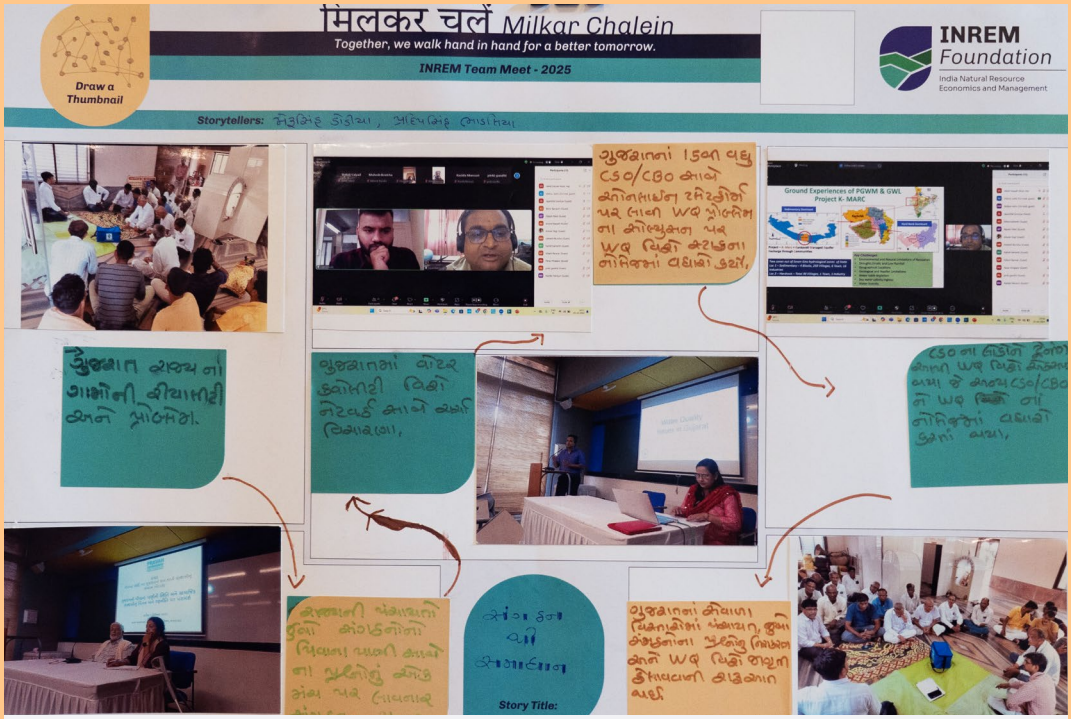
Janvikas Samajik Sanstha (JVSS), based in Beed District, Maharashtra, works toward the social, economic, and educational empowerment of women, children, marginal farmers, and landless laborers. Its focus spans agriculture, health, livelihood, and environment.

To address Beed's chronic water scarcity, JVSS established borewells, tanks, and pipelines across villages in the Vida Gram Panchayat — Bengalwadi, Kalyanwadi, and Ghodekhur.

With INREM Foundation's support, villagers were trained in Water Quality Management, using Field Testing Kits (FTKs) to monitor turbidity, pH, hardness, fluoride, nitrate, and iron levels. This has led to newer programmes for ensuring Safe water access in these villages of Beed.

" INREM Foundation की और से महाराष्ट्र मे हमारी ऑर्गनायझेशन जनवकिास सामाजकि संस्था की पुरी टीम और 5 व्हलिजेस की वॉटर समतिी के लोगो को और महाराष्ट्र में वॉटर के सात काम करने वाली 25 एनजीओ के प्रतनिधिी को वॉटर क्वालटिी के उपर. प्रॅक्टकिल और सोशल मीडयिा थ्रू ट्रेनगि मलिा हमारे लिए और हमारे गाव के लिए गाव के लोगों के लिए बहुत महत्वपूर्ण रहा धन्यवाद "

Ramesh Bhise, JVSS, Maharashtra



Pravah Gujarat being supported by INREM for action on Water Quality issues - Storyboard presented in INREM Team meet, 2025.

3 Digital Platforms for Change-making Networks

Developments of the Year

500	18,941	386	6
Number of JalShalas organised	*Number of JalDoots*	*Number of Water Quality Professionals*	*Number of Communities of Practice*

We build Water Quality Champions across society by using digital platforms and innovation to connect, mobilise, and enable action at scale.

Empowering Communities

- The Jaldoot Programme in Assam, spearheaded by INREM with JJM Assam, scaled rapidly with 1,167 Jalshalas and 44,789 students trained as Jaldoots in Phase 2.

The programme has now been adopted as a national policy under the Ministry of Education and is progressing towards a target of 1.5 lakh Jaldoots.

- Jaldoots are not only testing water and raising awareness but are also shaping household-level behavior change around water use, sanitation, and hygiene in their villages.

Digital Innovations & Partnerships

- Glific AI partnership initiated pilots for visual detection of contamination and health impacts like fluorosis and arsenicosis.

- The Bot is piloted in Madhya Pradesh and Assam, making water quality data accessible and actionable for citizens.

- The AVPN–Google support fund was secured to scale Water Quality Champions across India.

Certified Learning & Community Collaboration

- Through the Water Quality Management Course on JJM Digital Academy, with support from RWPF, **trained 761 participants across 20+ states through 85 sessions**, extending WQM learning to practitioners across the country.

- Five partner organizations — **Gram Vikas, Samaj Pragati Sahyog, Samerth, CML, and others** — were supported to embed water quality management in their programmes.

"The Jaldoot collaboration with INREM has brought valuable community engagement into Assam's Jal Jeevan Mission efforts. It reflects how partnerships can turn awareness into lasting behavioral change for safe water."

Kailash Karthik, IAS (MD, JJM-Assam)

Catalyzing Exponential Change

▪ JalXChange Architecture developed with AVPN & Ashoka. Jal XChange is a unifying idea that is designed to enable Water Quality Champions connect together and solve for Water-Safe Communities as a Water Quality Network.

▪ At its core, the **Community Registry (built on Frappe and visualized on Dalgo)** tracks schools, households, and community centers using the FuBOut framework — Functionality, Behaviour, Outcomes. Piloted in 8 states, it is now being scaled across the network.

▪ The Water Quality Network (WQN) Conference 2025 in Delhi brought together 34 partners to deliberate on policy, innovations, and community action under the theme Together for Safe Water.

▪ Key recommendations included embedding behavior change into policies, scaling AI-powered water monitoring, and strengthening panchayat ownership.

Outcomes

▪ **44789 Jaldoots** have become trusted ambassadors in villages, linking households directly with JJM and transforming behaviors around safe water.

▪ **Institutional Strengthening of NGO networks:** Partner NGOs embedded WQM into core strategies, supporting communities across Odisha, Jharkhand, Gujarat, and Madhya Pradesh.

▪ **Building Water Quality Professionals** - 761 trained participants (WQCs + Digital Academy), a Community of Practice is emerging for lifelong, case-based learning.

▪ **Collaboration at Scale:** The WQN Conference reinforced convergence across government, civil society, academia, and technology innovators, aligning national action under Together for Safe Water.

▪ **Technology for Trust:** AI-enabled bots, open-source registries, and visualization platforms ensured that community data became transparent, trustable, and actionable.

Case Study | *How Pooja Chopra, a Water Champion from Khadkui Village, Used JalXChange to Bring Safe Water Awareness to Her Community*

Name / Village: Pooja Chopra, Khadkui
State: Madhya Pradesh
Challenge: High fluoride in drinking water leading to dental and joint health issues.
Change Achieved: Over 200+ villagers educated on water quality risks and mitigation, increased local water testing and community awareness.

200+	12	WhatsApp Bot
Community Members Reached	*Water quality parameters understood and explained*	*actively used for water education*

Current State

Khadkui village suffers from high fluoride contamination in its drinking water. Community members reported yellowing of teeth, back and joint pain—symptoms they didn't associate with water. With limited awareness and testing, people relied on over-the-counter medication. CHO Pooja Chopra, the village health officer, often dealt with recurring complaints but lacked tools to link these to water quality.
Data Point: Fluoride levels in village sources exceed the BIS permissible limit of 1.0 mg/L in multiple tests.

INREM Foundation introduced the JalXChange platform and its WhatsApp Bot to Pooja during a field visit. Initially unfamiliar with digital tools like the bot, Pooja eagerly registered and explored the platform.

' I had never used a WhatsApp bot before. But when I started, it opened up a whole new world of knowledge about water and health. I realized the symptoms people came with were often linked to the water they drank.'
- Pooja Chopra, CHO, Khadkui

The Change (Results & Impact)

Community members now avoid high-fluoride sources. Pooja includes water education in health counselling. Increased understanding of water-borne illnesses and their symptoms. People voluntarily bring water samples for testing.
Before: Painkillers prescribed repeatedly.
After: Root causes explained, awareness raised.
Before: Lack of water-health linkage.
After: Strong understanding among CHO and community.

The Bigger Picture

Pooja is one of over 1,000 Water Quality Champions connected via JalXChange, a digital platform by INREM that empowers local health and community workers with water knowledge.

INREM's strategic partnership with the Madhya Pradesh Government and the Jal Jeevan Mission (JJM) enabled this integration of CHOs into water monitoring and education.

Broader Impact

Quantitative:
- 3,500+ users on WhatsApp Bot
- 15+ states engaged through JalXChange\
- 100+ knowledge sessions conducted

Qualitative:
- CHOs empowered to connect water and health
- Faster problem recognition and preventive action
- Systemic integration of water quality into health services

Systemic Change:
Health workers are now part of water safety governance, bridging silos between health and rural water supply departments.

"This simple bot has made a big difference. I can now explain water issues to patients and help them avoid long-term health problems." — Pooja Chopra

"These stories show the power of digital tools and local leadership. JalXChange is helping frontline workers become changemakers." — INREM Team

Invited Article: INREM Foundation and the Water Crisis:

Climate, Accountability, and Evolving Standards by Raghav Khemka, INREM Board Member

Introduction

The global water crisis is worsening. Climate change, population growth, and pollution threaten water security for billions. India is at the epicentre of this crisis. Organisations like INREM bridge policy, community action, and technology to protect the right to safe water.

The Global Water Crisis: A Climate Perspective

Water scarcity is rising worldwide. By 2025, 1.8 billion people could face absolute water scarcity and two thirds of the world may experience water stress. Glacial melt, erratic rainfall, and higher temperatures threaten supplies for agriculture, energy, and basic survival. The international response calls for emission cuts, stronger local water management, and greater cooperation.

India's Water Sector: Challenges and Transformation

Current State

- Demand is set to double by 2040 with a potential shortfall of 750 billion cubic metres.
- Pollution from industry, agriculture, and households remains high. Over 375 river stretches were identified as polluted in 2018.
- Infrastructure gaps persist. Many treatment plants and pipelines are inefficient or missing.
- Public resistance to reuse of treated water limits circularity and reuse efforts.

Market Trends

- The water and wastewater management market is growing fast, driven by automation, advanced purification, and intelligent systems.
- There is increased emphasis on recycling, circularity, and public-private partnerships.

The Role of Ngos: Monitoring, Evaluation and Accountability

INREM works across seven states with a focus on:

- Community based research and field labs.
- Technology and AI to make contamination data accessible.
- Training programmes such as Jaldoots for community monitoring.
- Policy support and partnerships with government programmes like Jal Jeevan Mission.

Broader NGO Impact

Other NGOs such as the Sehgal Foundation and Save Indian Farmers contribute by building water infrastructure, promoting low-cost filters, encouraging conservation, and spreading sustainable farming practices. Together, NGOs hold governments accountable and drive grassroots innovation.

Monitoring, Evaluation and the Evolution of Standards

The Importance Of Standards

- Robust water standards and monitoring are essential for safe drinking water.
- Multiple agencies govern water in India, creating a complex regulatory landscape.
- Recent moves push for stricter quality parameters, revised discharge norms, and more transparency.

Accountability Mechanisms

- NGOs act as watchdogs and partners, filling gaps in monitoring and pushing for remedial action.
- Community involvement in testing and data collection helps translate standards into real improvements.

Conclusion: Toward A Water-Secure Future

The water crisis reflects broader environmental and social challenges. India must respond with a mix of community action, better governance, improved standards, and technological innovation. INREM's work links research, technology, community engagement, and policy advocacy to build water-safe communities. Stronger accountability, partnerships, and open data will be critical to ensuring safe water for all.

Internship Experience at IISc Bangalore

An interview with Kumar Gautam, Community Officer, Buxar (Bihar), INREM

Interviewer:
What did you actually do there? Can you describe some specifics of your work?

Kumar Gautam:
The main purpose of my visit to IISc Bangalore was to work at the S3 Lab, Centre for Sustainable Technologies, under the guidance of Dr. Yagnaseni Roy. The internship focused on understanding practical approaches to arsenic remediation in groundwater.

I learned about scientific methods such as bioremediation, adsorption, and prefiltration, along with gaining hands-on experience in laboratory procedures, safety practices, and experimental setups related to sustainable water treatment technologies.

Kumar Gautam:
During the one-month internship, I worked on several experiments related to arsenic removal. One key task was conducting a bioremediation experiment using cow dung in a pilot-scale biodigester to detoxify arsenic.

I also helped synthesize adsorbent beads from a chitosan-metal mixture for the adsorption phase of treatment and designed a prefiltration unit using gravel, sand, and cloth layers to remove suspended particles before adsorption.

Additionally, I assisted in setting up a modeled landfill experiment to study how arsenic might leach from waste materials into groundwater. These activities strengthened my lab skills, including precise weight and volume measurements and using equipment like weighing balances, magnetic stirrers, and syringe pumps.

Interviewer:
Was there anything really interesting that you learned during your time there?

Kumar Gautam:
Yes, definitely. What fascinated me most was how the bioremediation process uses natural materials like cow dung to effectively detoxify arsenic, showing that sustainable and low-cost methods can solve serious environmental problems. I also found it interesting how adsorption and prefiltration work together as part of a complete treatment system. The experience gave me a deeper appreciation of how well-designed lab experiments can translate into practical, community-level solutions.

Interviewer:
Any other thoughts or feelings you'd like to share, perhaps something that might encourage others to join such an exchange programme?

Kumar Gautam:
This internship was a deeply enriching experience that helped me bridge the gap between theory and practice. I learned not only about arsenic remediation but also about lab discipline, teamwork, and the role of sustainable technology in addressing water quality challenges.

I would strongly encourage others to join such exchange programs, as they offer valuable hands-on exposure to real-world environmental issues and a chance to learn directly from experts.

Dr Yagnasini Sen-Team Lead at S3 Labs IISC Bengaluru with Kumar Gautam, INREM and INREM Chikaballapur team.

Summary Of The Interview

Kumar Gautam completed a one-month internship at the S3 Lab, Centre for Sustainable Technologies, IISc Bangalore, under **Dr. Yagnaseni Roy**. The internship focused on hands-on learning of sustainable methods for arsenic remediation from groundwater and practical lab operations.

He worked on bioremediation using cow dung in a pilot-scale biodigester, prepared chitosan-metal adsorbent beads for arsenic removal, and helped design a gravel-sand prefiltration unit. He also assisted in setting up a landfill model to study arsenic leaching. These activities improved his technical and practical understanding of low-cost, field-ready water treatment solutions.

Kumar found bioremediation particularly insightful for its effective use of natural materials in detoxifying water. He described the experience as deeply enriching, bridging theory and practice, and recommended such exchange programmes for their hands-on learning and exposure to real-world challenges.

Learning from Partners

by Suneetha Sapur, COO, INREM

Caption Required

Understanding the Fluoride Challenge

In both **Nalgonda (Telangana)** and **Chikkaballapur (Karnataka)**, high fluoride levels in groundwater are linked to the region's **Dharwar Craton rock formations**, which naturally release fluoride. Over time, this has caused widespread dental, skeletal, and non-skeletal fluorosis among residents.

Government initiatives such as Mission Bhagiratha in Telangana and RO installations in Karnataka have improved access to safe water. Yet, dependence on groundwater and recurring water scarcity continue to pose major challenges.

Turning Wastewater into a Resource

During INREM's field visit to Chikkaballapur, a key observation stood out — lakes and farmlands thriving despite limited rainfall. This revival is driven by an innovative approach: treated wastewater from Bengaluru is being redirected to fill 134 lakes across three districts, through a project led by the Karnataka State Irrigation Department.

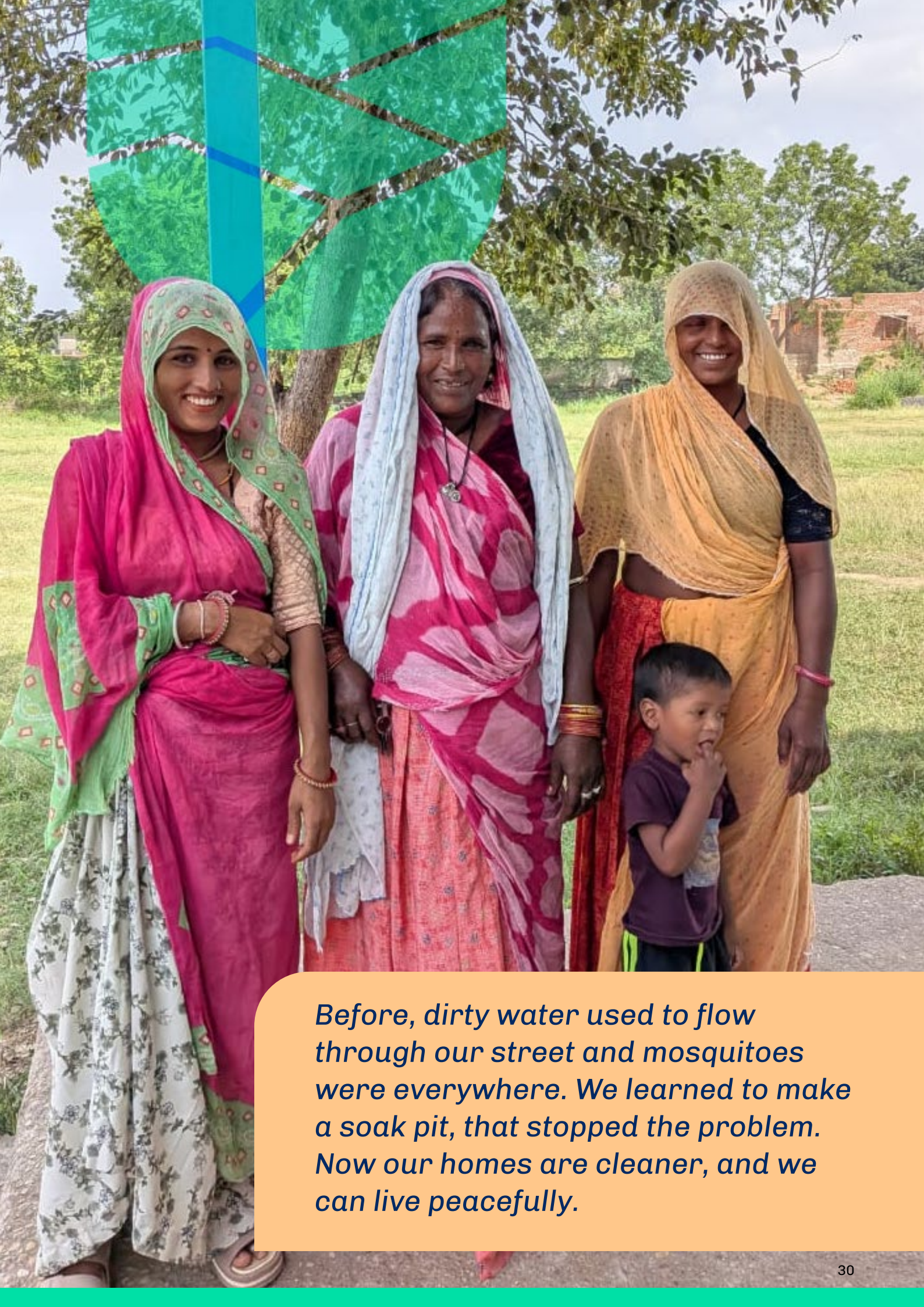
This intervention has transformed local agriculture. Farmers who once drew groundwater from 1,000 feet deep now find water at just 200 feet, improving crop productivity and reducing energy costs for irrigation.

What We're Learning

As Mr Avinash Krishnamurthy, Director and Co-founder of Biome Environmental Trust, highlights, addressing water challenges requires understanding the hydrology, ecology, social behavior, and health context together.

For INREM, the lesson is clear — building water-safe communities means combining scientific understanding with local knowledge and participation. Collaboration among government, researchers, NGOs, and communities is key to creating sustainable, equitable water solutions.

Every water challenge is layered — scientific, social, and emotional. To truly make water safe, we must bring together science, systems, and stories that connect people and the planet.



Before, dirty water used to flow through our street and mosquitoes were everywhere. We learned to make a soak pit, that stopped the problem. Now our homes are cleaner, and we can live peacefully.

Philanthrophy Partners

INREM Foundation's work has been strengthened through the trust of our philanthropic partners, who enable us to expand direct action, foster innovation, and strengthen systems for long-term change.

Azim Premji Foundation
supports direct action across seven states, alongside partnerships with local CSOs and nodal NGOs.

The programme enables us to combine household interventions such as water purifiers, nutrition gardens, and soak pits with community initiatives including tank cleaning, lake protection, and safe water for cattle. With progress tracked through a Community Registry, these interventions are improving both household wellbeing and wider community resilience.

UNICEF
strengthens our work in Rajasthan by building the capacity of government stakeholders to address the links between water quality, health, and nutrition.

This long term partnership enabled the establishment of District Fluorosis Mitigation and Coordination Committees in every district of the state under NPPCF, creating an institutional mechanism to tackle fluoride contamination.

It is now helping shift the focus toward comprehensive water safety planning.

BP Exploration Alpha Pvt Ltd
enables us to work with 60 villages in Gujarat to become water-safe communities. The programme ensures safe water not only for drinking but also for irrigation, food production, and ecological needs. In addition, BP supports a network of certified water quality professionals who expand this impact to other locations across India.

Arghyam
has enabled us to grow our work in Assam, both through the Jal Jeevan Mission and by supporting changemaking networks. Their support has helped us implement a localized model for WQM&S, scale the Jaldoot programme and engage more than 50,000 students as water safety ambassadors in schools and communities.

AVPN Sustainability Seed Fund
enables us to build for the future. Their support powers JalXChange, our open platform that combines water quality data, citizen feedback, and AI insights to guide action.

Through support from the fund, we have also strengthened INREM's organisational systems for fundraising, communication, and technology, propelling us towards our growth journeys.

Team Members

Senior Leadership Team

Sunderrajan Krishnan
Executive Director

Kiran Kumar Sen
Chief Operating Officer

Pritesh Patel
Chief Operating Officer

Suneetha Sapur
Chief Operating Officer

Administration Team

Minal Patel
Administrative Officer

Bhupendra Solanki
Office Support

Vahid Saiyed
Tech Support Officer

Programme Lead Team

Rashika Pullam Chetti
Programme Lead

Sarmila Kakoti
Programme Lead

Sumanjita Barman
Programme Lead

Neha Pawar
Programme Lead

Arvind Singh
Programme Lead

Kalpana Bilwal
Programme Lead

Merusinh Dodiya
Programme Lead

Gautam Anand
Programme Lead

Programme Officer Team

Atikur Jaman
Programme Officer

Karan Singh
Programme Officer

Praveen Kumar
Programme Officer

Manjula N
Programme Officer

Suman Chatterjee
Programme Officer

Kalyan Lengampalli
Programme Officer

Anurag Shri Rathore
Programme Officer

Community Officer Team

Jitendra Singh
Community Officer

Sohan Singh
Community Officer

Surajit Deka
Community Officer

Krushna Chandra Jena
Community Officer

Kumar Gautam
Community Officer

Vishnu Joshi
Community Officer

Krishna Murthy KV
Community Officer

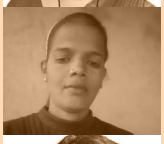
Laxmi Kumari Meena
Community Officer

Manjula N
Community Officer

Arjun Kharadi
Community Officer

Sarita Kharadi
Community Officer

Pushpanjali Kumari
Community Officer



Tina Meena
Community Officer

Pradip Bhadaliya
Community Officer

Shiva Yelijala
Community Officer

Lakhi Talukdar
Community Officer

Chevigoni Parashuram
Community Officer

System Consultants

Fully Buffered Studios
Fully Buffered Studios is a boutique design and communication studio that supports INREM in shaping its communications. Together, we are building clearer, more cohesive ways for INREM to speak to and engage with its audiences.

Sukriti Mehta
Sukriti Mehta supports INREM on Fundraising strategy and related partnerships. Together with Sukriti, INREM has been able to expand its partnerships and resources, and now scaling towards further growth of its

GxCo
GxCo support INREM in developing technology systems and Data analytics. Together with GxCo, an open source Community registry has been developed integrated with Internal Systems on Frappe.

This year, 40 of us gathered in Bangalore for 5 days and discovered we speak 19 languages together!

INREM Offices

Buxar Office
Near Sonamati Indane Gas,
Adarsh Nagar, Ward No.11
Station Road, Buxer – 802101, Bihar.

Balasore Office
Krushna Chandra Jena
C/o - Gitanjali Jena,
At Jogeswarpur
Po- Januganj, Balasore 756019.

Sabla Office
Hari Nivas Colony,
Ashapura Road,
Near Hanuman Temple.
Sabla - Dungarpur,
Rajasthan - 314022.

Guwahati Office
Hengrabari,
Shankar Deb Nagar Path,
Near Housing Colony,
Trishul Nagar bylane,
House no 8, Dispur,
Guwahati, 781006.

Anand Office (HQ)
GF 1&2, Paramkrishna complex,
Tower-B, Near IRMA Campus,
Anand – 388001, Gujarat.

Jhabua Office
Fluorosis Mitigation
Centre (FMC),
199 Gopal Colony,
Near Labour Office,
Jhabua – 457 661 (M.P.).

Nalbari Office
Radhika Ani Building,
Near MNC College (Infront
of MNC back door), Santipur,
Nalbari - 781335

Nalgonda Office
H.no: 6-2-1126/1
New Thirumala Nagar, V.T Colony,
Near Anjaneya Swamy Temple,
Nalgonda, Telangana, 508001.

Chikballapur Office
Behind Young India School,
7th Word, Kothapalli Road,
Bagepalli (Taluka), Chikballapur
561207.

Finance Audit 2024-25

During the financial year 2024–25, INREM Foundation continued to strengthen its programmes in water quality, community systems, and capacity building across multiple geographies. The organization's financial performance reflects both the expansion of project activities and the responsible use of donor funds.

Total income for the year primarily driven by grants from key partners including BP, APF, Arghyam, AVPN, and UNICEF. The BP Project contributed the largest share, underscoring INREM's growing role in scaling safe water initiatives nationally. Additional income was generated through consultancy services, reimbursements, donations, and interest on bank deposits.

Total expenditure for the year reflecting focused investment in programme delivery, field operations, community outreach, research, and organizational infrastructure. Major spending areas included the BP Project, APF initiatives, Arghyam-supported work, and AVPN interventions. Administrative and establishment expenses were maintained at prudent levels, ensuring funds were directed primarily toward project outcomes.

SCHEDULE - VIII [Vide Rule 17 (1)]
India Natural Resource Economics & Management Foundation
Registration No. Amedabad/F4226

Balance Sheet as at 31.03.2025

(Amount in INR)

FUNDS & LIABILITES				PROPERTY & ASSETS			
Particulars	Sch. No.	As at 31-03-2025 Amount	As at 31-03-2024 Amount	Particulars	Sch. No.	As at 31-03-2025 Amount	As at 31-03-2024 Amount
Trust Fund				**Immovable Assets**	3		
Balance as per last Balance Sheet		10,35,275	10,35,275	Balance as per last Balance Sheet		6,43,930	6,43,930
Add : Additions During the year		-	-	Less : Depreciation		-	-
		10,35,275	**10,35,275**			**6,43,930**	**6,43,930**
Corpus Fund				**Movable Assets**	3		
Balance as per last Balance Sheet		13,62,296	13,62,296	Balance as per last Balance Sheet		6,95,215	7,49,227
Add : Additions During the year		-	-	Addition during the year		5,61,400	3,15,200
		13,62,296	**13,62,296**	Less : Depreciation		(4,40,208)	(3,69,213)
						8,16,406	**6,95,215**
Other Earmarked Funds & Grants	1	3,04,34,785	1,33,01,398				
				Advances, Deposits and Other Assets			
Liabilities For:				Office Deposit		50,960	22,200
Duties & Taxes		3,18,951	3,70,855	Sundry Debtors		3,91,345	14,10,387
Salary Payable		-	11,20,492	Advances to Contractors / Vendors		10,875	-
Other Staff Payable		14,323	1,54,668	TDS & TCS Receivable		2,28,366	4,83,438
Expenses		29,083	1,18,238	Advances to Employees/ Others		12,774	-
		3,62,357	**17,64,253**	Interest Accrue but not due		6,77,874	59,735
						13,72,194	**19,75,760**
Income and Expenditure Account :-							
Bal. as per last Balance Sheet		5,17,300	5,76,867				
Add : Deficit (As per I & E A/c)		(3,33,994)	(59,567)	**Cash and Bank Balances**	2	3,12,80,074	1,46,65,618
Add : Surplus from Income and Expenditure Appropriation A/c		7,34,585	-				
		9,17,892	**5,17,300**				
Total		3,41,12,605	1,79,80,522	Total		3,41,12,605	1,79,80,522

As per our report for even date

For K P Shah Associates
Chartered Accountants
FRN:- 109641W

Jigar K Shah
(Partner)
Membership No:- 126747

Date:- 09-09-2025
Place:- Ahmedabad
UDIN: 25126747BMKURS6261

Trustee/Secretary
Date:- September 9, 2025
Place:- Anand

SCHEDULE - VIII [Vide Rule 17 (1)]
India Natural Resource Economics & Management Foundation
Registration No. Amedabad/F4226

Income and Expenditure account for the period ended 31.03.2025

(Amount in INR)

EXPENDITURE	Sch. No.	For The Year 2024-25 Amount	For The Year 2023-24 Amount	INCOME	Sch. No.	For The Year 2024-25 Amount	For The Year 2023-24 Amount
To Establishment Expense		10,88,106	5,56,529	By Donations Received		40,000	58,259
To Depreciation	3	12,257	3,69,213	By Income from assistance in providing technical research support (Consultancy Fees)		4,77,519	30,09,903
To Legal & Professional Expense		53,100	1,37,500				
To Audit Fees		26,761	82,702	By Other Reimbursement Income		1,69,492	1,35,348
To Interest & penalty		900	-	By Misc. Income		1,368	3,813
To Sundry Balance Written off		7,073	-				
				By Deficit Carried Forward to Balance Sheet		**3,33,994**	**59,567**
TOTAL		6,53,98,798	2,39,90,432	TOTAL		6,53,98,798	2,39,90,432

As per our report for even date

For K P Shah Associates
Chartered Accountants
FRN:- 109641W

M/S. K. P. SHAH ASSOCIATES * CHARTERED ACCOUNTANTS * F.R. No. 109641W AHMEDABAD

Jigar K Shah
(Partner)
Membership No:- 126747

Date:- 09-09-2025

Place:- Ahmedabad

UDIN: 25126747BMKURS6261

Trustee/Secretary

Date:- September 9, 2025

Place:- Anand

INREM Foundation

SCHEDULE - VIII [Vide Rule 17 (1)]
India Natural Resource Economics & Management Foundation
Registration No. Amedabad/F4226

Income and Expenditure account for the period ended 31.03.2025

(Amount in INR)

EXPENDITURE	Sch. No.	For The Year 2024-25 Amount	For The Year 2023-24 Amount	INCOME	Sch. No.	For The Year 2024-25 Amount	For The Year 2023-24 Amount
To Expenditure in respect of properties				**By Interest (Accrued & Realised)**			
Rates, Taxes, Cesses		-	-	On Bank Accounts		18,42,202	6,49,180
Repairs and maintenance		-	-	On Income Tax Refund		31,089	-
Insurance		-	-	Less: Transfer to Donor Fund		(15,80,710)	(2,52,079)
				Less: Transfer to Grant Fund -UNICEF		(3,935)	(5,462)
				Less: Transfer to Grant Fund		(2,15,936)	(2,22,676)
						72,710	**1,68,963**
To Expenditure on object of the Trust							
a) APF Project Expenses		99,67,007	21,92,312	**Grant Income to the extent Utilized**	4		
b) Arghyam Project Expense		39,75,744	58,95,777	Grants - APF		99,67,007	21,92,312
c) Solar - IWMI Project Expense		-	5,84,924	Grants - Arghyam		39,75,744	58,95,777
d) Jalshala Project		1,03,472	-	Grants - EU Project		7,72,984	1,06,31,836
e) General Expenses		6,30,025	17,04,986	Grants - UNICEF		19,34,844	18,03,927
f) Unicef Project Expense		18,81,218	18,03,927	Grants - BP		4,21,13,146	-
g) European Union Project Expense		-	1,06,31,836	Grants - AVPN		55,39,990	-
h) Water Harvest Project Expense		-	30,727	Grants - Water Harvest		-	30,727
i) BP Project Expense		4,21,13,146	-			**6,43,03,715**	**2,05,54,579**
j) AVPN Project Expense		55,39,990	-				

M/S. K. P. SHAH ASSOCIATES * CHARTERED ACCOUNTANTS * F.R. No. 109641W AHMEDABAD

INREM Foundation

inremfoundation.org

Write to us at

hello@inremfoundation.org

INREM Foundation
India Natural Resource Economics and Management