



# ANNUAL REPORT

2024-25



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# CONTENTS

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<b>MESSAGE FROM CHAIRPERSON</b>	<b>3</b>
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<b>MESSAGE FROM CEO</b>	<b>5</b>
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<b>PARTNERSHIPS &amp; ENGAGEMENTS</b>	
MoUs Signed	7
Assam	10
Bihar – Operations and Maintenance	29
Greywater Reuse Potential Study	48
India Water Portal	56
<b>EVENTS</b>	<b>61</b>

---

<b>FINANCIALS</b>	<b>65</b>
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MESSAGE FROM  
CHAIRPERSON



***“We are committed to making sure that improvements serve everyone, lasting beyond any particular tool or platform.***

*Sunita Nadhamuni*

As Chairperson of Arghyam, I am proud of how our mission – ensuring safe, sustainable domestic water for rural communities, continues to evolve alongside the country's major development efforts and technological changes. Our work adapts to the challenges and opportunities that come with each new step in India's progress. Few initiatives are designed for larger and more meaningful impact than the Jal Jeevan Mission (JJM), the Government of India's flagship programme to provide piped water to every rural household. With a target of 19.4 crore households, JJM covers some of the most varied terrains and communities in the country. Meaningful progress has been made, with millions gaining access to water connections helping ease daily burdens, especially for women and children who are most affected by water scarcity.

At the same time, the realities on the ground remain complicated. Sustaining reliable water sources, keeping infrastructure functioning, ensuring water quality, and strengthening local institutions are ongoing tasks. For many families, consistent access to safe drinking water is not yet assured, and securing long-term improvements in financial, environmental, and institutional dimensions continue to require fresh thinking.

Within this context, technology and artificial intelligence offer new possibilities when combined with years of grassroots experience. Advances such as voice recognition in local

languages and digital support tools are starting to assist communities in practical ways. However, it is important that these solutions are developed carefully, with an understanding of local needs and conditions.

We are already taking steps in this direction alongside our partners in government, civil society, and technology. In Assam, we have carried out pilot deployments of AI-based tools to get scheme functionality data and collect citizen satisfaction surveys, keeping a finger closely on the pulse of citizen experience.

Our collaborations test new AI tools, promote ethical data practices, and aim to include every language and voice. We recognise the challenges like connectivity gaps, limited digital skills, and risks of deepening inequality if technology is not used thoughtfully. So we focus on rapid, community-led pilots, building local capacity and trust to ensure that improvements last well beyond any single solution.

Our AI pilots are co-created with water-domain experts, technology developers and government program partners. We test and iterate them on the field to collect feedback and establish confidence and agreement amongst the stakeholders in the efficacy of the tool before scaling.

Our commitment is to experiment openly, gather feedback, and build trust while strengthening local capacity so that communities can manage and benefit from these changes over time.

As we integrate new approaches like AI and digital innovation, we stay rooted in our principles: transparency, fairness, and amplifying community voices. We are committed to making sure that improvements serve everyone, lasting beyond any particular tool or platform.

Let us continue to work together to ensure that each household receives not just water, but also the information and capacity to support their own wellbeing.

With hope and determination,

**SUNITA**

MESSAGE FROM  
CEO

**“ Arghyam is driven by a spirit of optimism, partnership and possibilities.**

*Anuj Sharma*

2024-25 was a milestone year for Arghyam in many ways. Last year when we decided to pursue the Digital Public Infrastructure (DPI) approach for domestic water security around the Jal Jeevan mission, it was an intent, an ambitious possibility.

In the beginning of the year, we were designated as the DPI and AI lead partners as part of the Rural Wash Partners' Forum. During the India Water Week in September 2024, the first panel discussion explored the possibilities of the DPI approach to build a citizen-centric drinking water supply system.

Our partnership with SPM NIWAS, an autonomous body, affiliated with MOJS, helped to articulate Arghyam's role as an architect in the journey of DPI for water. We are mindful that many well meaning digital initiatives do not produce the promised results due to lack of adoption. Hence Arghyam has committed itself to working on the adoption of DPI compatibility and innovations, in at least 3-4 states over the next few years to establish clear evidence of improved service delivery.

Our partnership with the PHED department in Assam has offered a real innovation lab for us to understand the multiple challenges faced by the system and try different approaches to see what works and what can work at scale.

As Jal Jeevan Mission brought tap connections to millions of rural households, its transition from the infrastructure phase to service delivery phase brings the challenge of keeping them functional. As states approached monitoring functionality with rounds by field officers to automation with IoT sensors, we were able to try some behaviour change communication in combination with image reading technologies leveraging machine learning and artificial intelligence.

This shift from infra to service phase underlines the need to listen to citizens for customer feedback at scale to enable proactive responses to maintenance and supply chain challenges. Moreover, the use of LLMs of Indic languages open completely new possibilities.

The Jaldoot programme is helping shape the next generation of water-conscious citizens by engaging students in 9th to 12th standard. The GIS tool CLART shows promise for the Amrit Sarovar programme, opening up the possibility of convergence for source sustainability in the year ahead.

A third party evaluation study of our partner FES' work with MNREGS in Karnataka state showed indisputable evidence of improvement in planning of the water structures while also finding inconclusive data on participation from control groups highlighting the need for trusted data. Similarly a comparative study on the Grey Water Management practices in 5 states has surfaced insights with significant implications for both water quality and public health that we look forward to sharing with the sector stakeholders.

Arghyam is driven by a spirit of optimism, partnership and possibilities. As we are putting together a collaborative of water CSOs to bring in expertise in different aspects of ensuring functional tap connection and partners to bring in resources, we invite you to join this effort towards fulfilling the promise of household water security.

## MoUs SIGNED



MoU signed between Arghyam and the Public Health Engineering Department, Assam in June 2024 to strengthen the JJM Brain platform and advance sustainable, decentralized tap water access through better design and technology.



Partnership with SPM-NIWAS to conceptualize and design the Digital Public Infrastructure (DPI) for India's drinking water sector, enabling interoperability, innovation, and capacity building across the ecosystem (February 2025).



Partnership in March 2025 with the National Water Informatics Centre to enhance India's national water data platforms, fostering interoperability, improving user experience, and promoting data-driven water security solutions.



## ASSAM

Assam presents a unique set of challenges in ensuring reliable and safe drinking water access, owing to its diverse topography, scattered rural habitations, and recurring seasonal floods. While the **Jal Jeevan Mission (JJM)** has made significant strides in expanding **Functional Household Tap Connections (FHTCs)** across the state, achieving approximately 81.32% coverage (over 5.5 million connections out of a targeted ~6.8 million rural households) as of early 2025, critical gaps remain in ensuring sustained service delivery, addressing water quality concerns, and establishing structured channels for consumer feedback.

Given these contextual complexities, Assam was selected as a pilot site to test innovative, technology-driven feedback mechanisms. The pilots aimed to strengthen citizen engagement, enhance transparency, and support data-driven decision-making to advance the broader objectives of JJM.

Two pilot initiatives, **Bulk Flow Meter (BFM)** and **Consumer Satisfaction (CSAT)** were undertaken to support the state in strengthening the overall water service delivery. These pilots were conceptualized to support the government in building stronger mechanisms for operations and maintenance (O&M), transparency, and citizen engagement. Together, these initiatives represent the state's proactive approach to institutionalizing data-driven and citizen-focused water service delivery systems.

## LISTENING TO CITIZENS AT SCALE: ENHANCING WATER SERVICE DELIVERY THROUGH CONSUMER SATISFACTION

At Arghyam, we believe that the sustainability of any water system is intrinsically linked to the satisfaction of the communities it serves. As the Jal Jeevan Mission (JJM) exceeds 80% infrastructure completion, the focus must shift from infrastructure creation to ensuring consistent and quality service delivery. Citizen satisfaction is the key to guaranteeing the long term success and sustainability of these vital water supply services.

### OBJECTIVE

The primary objective of the pilot was to design and test a scalable mechanism for capturing consumer satisfaction (CSAT) to generate actionable insights. We wanted to use this feedback to help improve the regularity, quantity, and quality of water supplied, thereby strengthening the entire service delivery ecosystem.

### COVERAGE

Assam was selected for the sandbox pilot as it had > 81% FHTC coverage. Most information systems like IoT brought supply side data. There was no demand side feedback data to understand consumer experience. The pilot was to bridge this information gap.

### DESIGN AND IMPLEMENTATION

Our approach was centered on leveraging technology to engage directly with citizens. We designed a survey with five questions focusing on the core pillars of service delivery under JJM:

- Is water supplied daily?
- Is the timing of the supply consistent?
- Are you satisfied with the quantity of water?
- Are you satisfied with the quality – colour, taste, and smell of the water?
- What is your overall satisfaction rating?

We conducted a Proof of Concept (POC) by deploying the survey through both Interactive Voice Response (IVR) and conversational AI-based calls, allowing us to test different methods of engaging with households at scale. Given the rural context and moderate to low smartphone penetration, we decided not to use a survey form-based questionnaire via SMS or WhatsApp. The goal was to capture feedback that could be analyzed and presented back to relevant stakeholders to drive targeted improvements.

To establish a scalable, technology-enabled feedback mechanism, it was critical to gather consistent and structured data on consumer satisfaction. Our aim was to identify the most feasible and effective channel between IVR and AI-voice agents to collect actionable insights on the

regularity, quantity, and quality of water supplied through the taps. We wanted to build a solution that could overcome the limitations of traditional surveys and grievance redressal systems, enabling proactive improvements in service delivery across the state.



*Our team gathering insights into Assam's water infrastructure performance and the dynamics shaping water service delivery.*



## KEY HIGHLIGHTS

### ◆ Regularity is the Keystone of Satisfaction

Our most significant finding was the direct correlation between the regularity of water supply and overall consumer satisfaction. Households that received water daily were 3 to 4 times more likely to be satisfied with both the quantity and quality of the water. This insight underscores that ensuring a consistent daily supply can dramatically improve the user experience.

#### Households that received water daily



**3-4<sup>x</sup>**

more likely to be satisfied

### ◆ High Potential for Citizen Engagement

The IVR campaign achieved a 61% response rate, with 10% completing the entire survey, demonstrating a strong willingness among citizens to provide feedback on their water services when provided with an accessible channel. This proves that such a system can be a powerful tool for continuous engagement. Popularising the feedback channel can improve the responses



**61%**

Response Rate

**10%**

Completed Survey

## CHALLENGES AND LEARNINGS

- The power of local language:** Engaging with communities in their own language is important. We learned that localizing calls will be crucial to get more good quality responses.
- Building trust through familiarity:** We recognized the importance of popularizing the phone number from which feedback calls are made. When citizens know and trust the source of the call, they are significantly more likely to respond.
- Closing the feedback loop:** The pilot proved that citizens are willing to engage. The challenge is to establish a process where their feedback drives action and improvement in service delivery. Building this loop is essential to build and sustain trust in the system.
- Evolving technology landscape:** The technology, particularly for AI in diverse Indian languages, is still evolving. While Large Language Models (LLMs) offer extensive support in Hindi, the development of similar capabilities in other languages will be transformative for engaging citizens at a national scale.

## WAY FORWARD

Our focus will now shift from gathering feedback to ensuring it is used effectively. Our next steps are to:

- Establish a framework for action:** We will work towards creating a clear process that enables state and local bodies to act upon the CSAT data collected.
- Develop a state-level playbook:** We aim to consolidate our learnings into a comprehensive playbook that guides states on how to effectively gather, analyze, and act on citizen feedback to improve service delivery
- Drive towards higher CSAT:** Our ultimate goal is to support states in achieving and maintaining high levels of consumer satisfaction, ensuring that every household not only has a tap but is also happy with the water service it receives.
- Promising future with AI:** While still in an experimental phase, the AI-based calls in Hindi showed great potential, with a good conversational ability. This technology promises to capture more nuanced qualitative feedback in the future, moving beyond simple yes/no answers.

By placing the citizen's voice at the heart of the system, we can help ensure that the promise of the Jal Jeevan Mission is fully realised, leading to truly sustainable water security for all.

## JAL SARATHI: THE BULK FLOW METER PILOT TO BUILD A RELIABLE WATER SUPPLY SERVICE

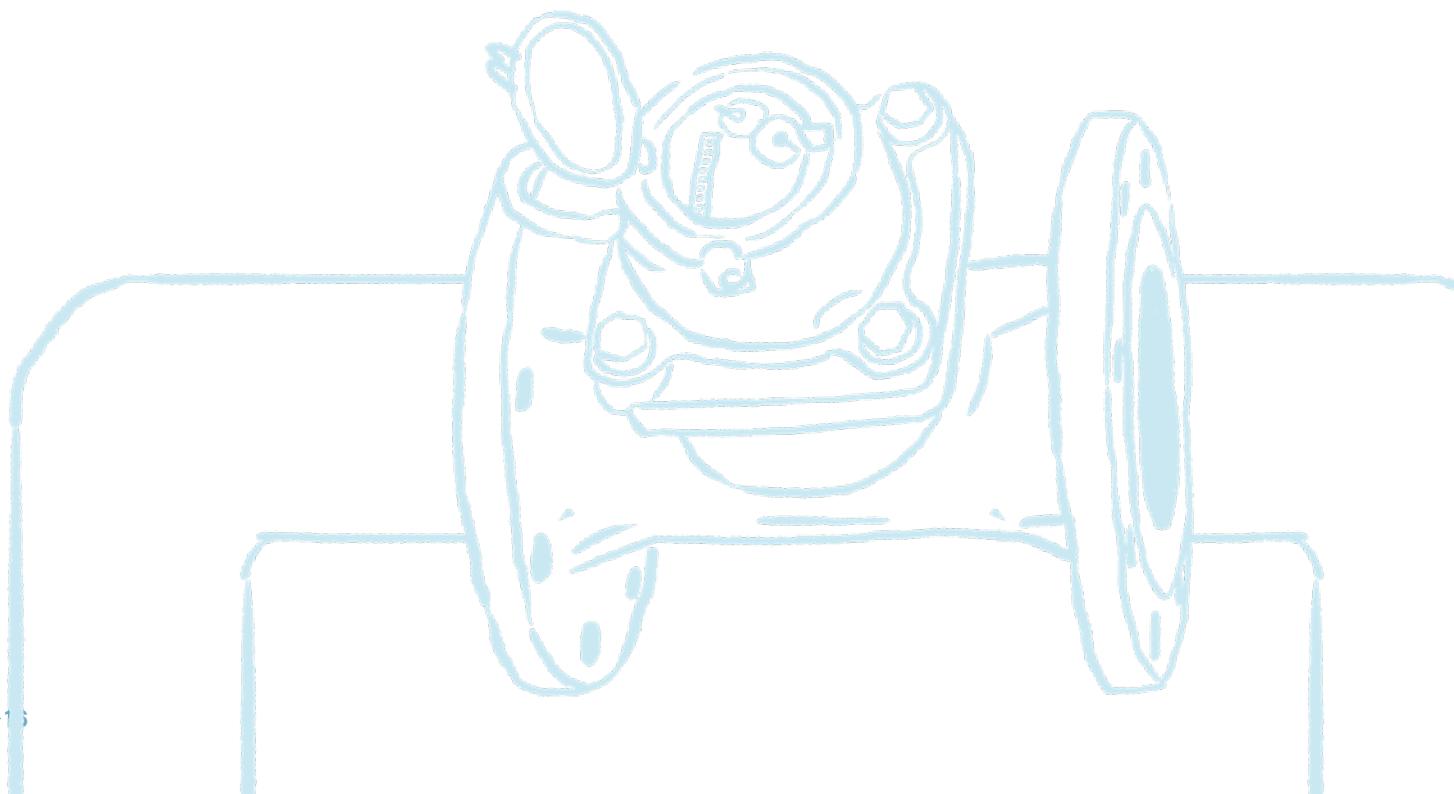
### OBJECTIVES

The Jal Sarathi pilot was conceived to address a critical challenge faced by JJM Assam, lack of visibility into the operational status of their Piped Water Supply Schemes (PWSS). The absence of real-time data severely hindered their ability to effectively govern water distribution. The existing Jal Mitra app to record daily Bulk Flow Meter (BFM) readings had both low adoption and unreliable data.

To tackle this, we built Jal Sarathi, a whatsapp chatbot for Jal Mitras to upload images of bulk flow meters(BFM). To overcome the challenge of low app adoption, we chose whatsapp which is universally

used. The goals of the pilot are as listed below:

- **To find out if WhatsApp-based nudges could enhance user engagement**, encouraging them to consistently submit BFM readings.
- **To rigorously test the real-world functionality of BFM image processing, powered by a vision model built by OpenAI**. A crucial aspect of this endeavor was also to build a robust repository of BFM images, which would, in turn, serve to further train and improve the accuracy of the AI tool.
- **To boost overall meter reading, leading to more accurate data and better monitoring**, thereby improving scheme ratings.



## COVERAGE

The Jal Sarathi pilot was strategically rolled out across three key districts in Assam: Kamrup, Nalbari and Darrang to gather diverse insights from different operational environments. The stakeholders involved in the pilot are:

- **Jal Mitras**, the dedicated frontline workers who manage and report the daily performance of PWSS were the primary users of the chatbot. 143 Jal Mitras participated.
- The **Public Health and Engineering Department (PHED)**, the state's nodal agency for JJM implementation
- **Tech4Dev**, a non-profit initiative that provides open-source technology solutions tailored for NGOs and social organizations.
- The **state JJM team** played an integral role throughout the pilot including verifying the target users, rollout planning and providing crucial feedback.

## DESIGN AND IMPLEMENTATION

### STRATEGY

Jal Sarathi was built as a multilingual WhatsApp chatbot to take advantage of the widespread familiarity and

popularity of WhatsApp among Jal Mitras. This choice was deliberate to minimize the learning curve and maximize adoption. An AI powered image processor, initially a GPT Vision model was integrated in the chatbot. Jal Mitras could simply upload images of their BFMs via WhatsApp, with the AI tool processing these images to extract readings, thereby drastically minimizing manual data entry errors and enhancing data reliability.

For consistent reporting, we implemented a system of daily reminders. The chatbot automatically sent daily reminders to upload BFM images. Recognizing the importance of direct engagement, in-person demos and training sessions were conducted at the block level, ensuring Jal Mitras were thoroughly onboarded and comfortable with the new system. A comprehensive feedback mechanism was put in place. Initial feedback was captured during training, and post-pilot, select users were contacted for more in-depth insights. Finally, all the collected data was processed to support a qualitative survey and detailed data analysis to evaluate its overall outcomes.

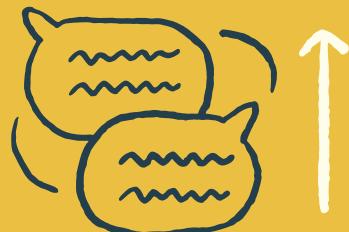
## KEY HIGHLIGHTS

The pilot yielded remarkably positive impacts and demonstrated significant achievements that underscored the potential of the solution.

### ◆ Increased engagement

Engagement was up by 85% in the pilot Jal Sarathi chatbot compared to pre-pilot levels

84% rise in activity on the existing Jal Mitra App



**85%**

Engagement up



**84%**

Rise in activity

### ◆ Strong user participation

51% of the users were active against a target of 50%. More than half the participating Jal mitras uploaded atleast 4 readings per week.

1402 BFM readings recorded against a target of 1,440

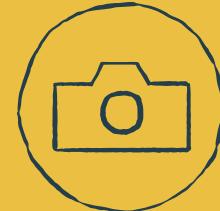
More than 11,000 images were received in total even after the pilot



**51% active users**



**97% of Reading Target**



**11,000+ Images received**

### ◆ Nudges work

86% of the users found the daily WhatsApp reminders to be most useful proving the effectiveness of WhatsApp-based nudges in boosting user engagement.

82% of the users gave the chatbot 5-star rating, a testament to its ease of use and convenience.



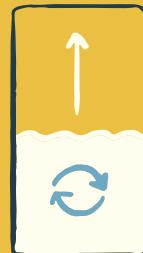
Found WhatsApp reminders useful



Gave chatbot 5-star rating

### ◆ Revival of inactive users

42% of inactive Jal Mitra App users revived and 39% posted atleast 4 readings on the chatbot



**42%**  
Jal Mitra App users revived

### ◆ Cost-effective

Jal Sarathi is estimated to be ~100x cheaper than IoT sensors for scaling across 27,000 schemes/year.



**100x**

Cost efficiency with Jal Sarathi

## CHALLENGES AND LEARNINGS

While the pilot undeniably delivered promising results, it also brought to light several challenges and invaluable learnings that will guide our future development.

- **AI Accuracy:** The initial GPT Vision AI tool achieved an accuracy of **55%** in capturing BFM readings. This highlighted a clear need for further training and refinement of the AI model.
- **Image quality:** 22% of users reported difficulties due to fogged glasses in bulk flow meters, poor network connectivity or inaccurate photo captures. These issues often resulted in unclear images that hampered accurate AI processing.
- **Meter Readings:** We also identified a gap in training which did not specify which digits constituted the relevant BFM readings that had to be reported. Improved training protocols and a push for standardization of meters helped. Some Jal Mitras had not attended the initial training or were using a different whatsapp number than the one registered.
- **Data validation:** The existing Jal Mitra app does not allow repeat entries of the same meter reading.

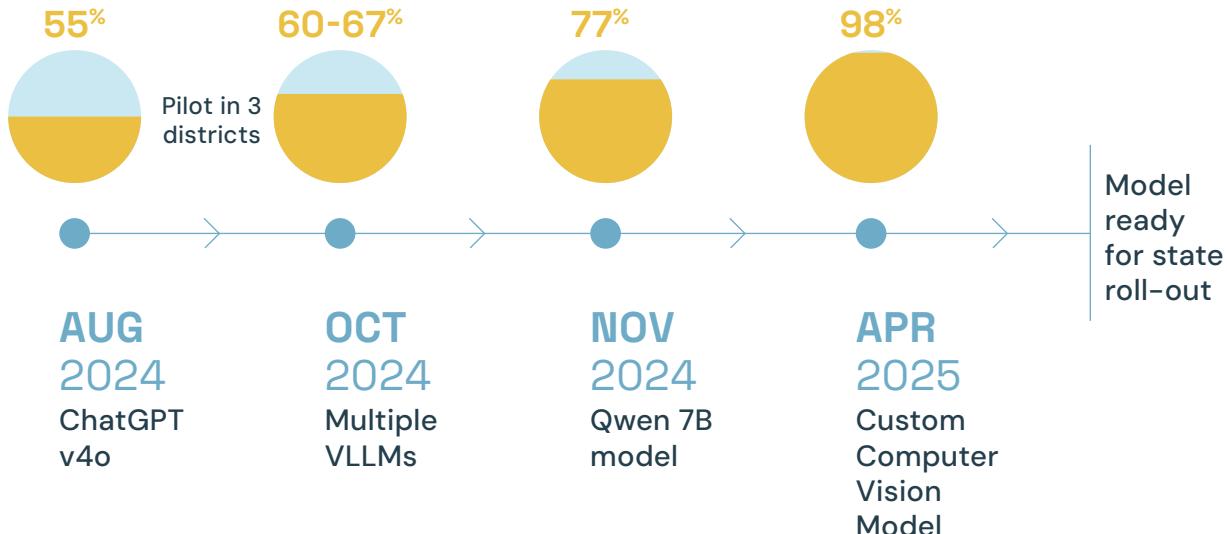
- **Rollout process:** A crucial learning from the pilot was the importance of establishing comprehensive dashboards before the pilot rollout and ensuring that the supervisors (SOs) and the JJM Assam team were actively onboarded to analyze the data and take timely action.

## WAY FORWARD

Based on the insights from the pilot, there are 3 key areas of improvement:

- **To enhance the accuracy of the AI vision model:** By partnering with Sahaj, we built a custom pipeline trained on over 10,000 images, and successfully boosted this accuracy to an impressive 97.7%.
- **Activity-based nudges:** We are transitioning towards more sophisticated nudges that go beyond traditional reminders to deliver actionable insights directly to Jal Mitras, their supervisors, and JJM Assam administrators to foster proactive decision-making.
- **Scale-up:** We plan to integrate Jal Sarathi chatbot with JJM Brain to seamlessly connect and enable data flow to improve scheme management. There will be daily reports for Section Officers with detailed

## IMAGE READING AI MODEL ACCURACY



BFM reading information for their assigned scheme. Moreover, we plan to integrate with Jal Mitra App with WhatsApp reminders and nudges, for greater utilization of the existing app.

Most importantly, the success of the pilot has paved the way for scaling the solution across all 27,000 PWSS in Assam, with the potential to benefit 72 lakh rural households.

Jal Sarathi will be built as an end-to-end product called Jal Soochak. The adaptability of Jal Soochak enhances state governments to rapidly deploy in other states with minimal customization.

## ENHANCING WATER QUALITY MANAGEMENT THROUGH SYSTEMIC CAPACITY BUILDING

### PARTNER

**INREM Foundation**

While JJM has made remarkable progress in building infrastructure, water contamination remains a significant problem. This is particularly acute in states like Assam, where high arsenic levels in groundwater and community interactions show that some populations are still reliant on unsafe sources despite having tap connections, as found in INREM's surveys in Nalbari district. This highlights an urgent need for a robust and responsive water quality monitoring and surveillance system.

The challenge is twofold: empowering communities from the ground up to demand and monitor safe water, while simultaneously building the capacity of frontline workers and government institutions like the Public Health and Engineering Department (PHED) to respond effectively.

Our partnership with INREM Foundation is a commitment to finding scalable and sustainable solutions to water quality problems by integrating digital tools for reporting and engagement, promoting youth-led community engagement and

fostering collaboration between village institutions and government bodies.

### KEY INTERVENTIONS

#### 1. Empowering Frontline Workers (FLWs) for Community Action

##### **Context:**

Frontline workers (FLWs) like the Anganwadi teachers, ASHA workers, and Jal Mitras are the community's first point of contact and a vital link to government departments. However, traditional methods of reporting water contamination issues are often slow and inefficient. This initiative piloted a WhatsApp-based reporting system in Nalbari district in Assam and Jhabua district in Madhya Pradesh to test the hypothesis that empowering FLWs with digital tools can accelerate the reporting and resolution of water quality issues, leading to increased consumption of safe drinking water.

##### **Objectives:**

- To test a WhatsApp Bot platform for FLWs to report water contamination issues for quicker resolution.
- To develop and test a framework for assessing the health of Water Quality Monitoring & Surveillance (WQM&S) systems at the village and district levels.

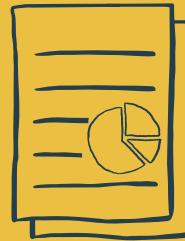
## KEY HIGHLIGHTS

◆ Successfully onboarded 183 FLWs in Nalbari and 150 in Jhabua onto the Glific WhatsApp platform.

**183**  
in Nalbari

**150**  
in Jhabua

◆ Created and prepared a “Rapid Assessment for WQMS” toolkit for village-level use by FLWs and a “District Level Assessment” toolkit for officials.



◆ Generated a comprehensive report



on the Nalbari district's water quality scenario using data collected directly from FLWs.

◆ In partnership with Tata Trusts



& CML, conducted training for FLWs in Nalbari on identifying Arsenic contamination and its health impacts.

### CHALLENGES AND LEARNINGS

- A significant challenge was adapting to the evolving priorities of the state government partners. In Jhabua, the plan to engage Community Health Officers was stalled due to delays in state-level approvals, reflecting a shift in departmental focus. Similarly, in Assam, evolving needs required a strategic pivot, leading us to refocus our engagement from one set of stakeholders to another, for example, collaborating with the '5 women' groups assigned with Field Test Kit (FTK) testing in villages.
- The hypothesis that community-generated data leads to faster

problem-solving could not be fully validated, as corrective actions on the reported issues are yet to be taken.

- A key learning is that FLWs are highly trusted voices within their communities. Their engagement is crucial for bridging the gap between villages and decision-makers.

### WAY FORWARD

The way forward for FLW engagement is to design and pilot a targeted program for the '5 women' groups who are entrusted with FTK testing in villages. This pilot will focus on three core objectives: enhancing the motivation of these crucial community volunteers,

building greater trust in village-level water quality monitoring among both communities and government stakeholders, and strengthening the FTK testing and communication abilities of the women's groups.

## 2. Strengthening Citizen Participation through the JalDoot Program

### Context

The JalDoot program, initiated by INREM Foundation in partnership with the Public Health and Engineering Department (PHED) of Assam, engages school students as volunteers to educate communities on safe drinking water practices. Since the launch of this program in 2023, the program has reached over 50,000 students across the state and has been widely regarded both nationally and internationally as a model for engaging school students to drive positive change in communities. In the current year, our focus was to support scaling the program across all 33 districts of Assam, strengthening the quality of training, aligning Jal Doot actions with the Jal Jeevan Mission objectives and ensuring the long-term sustainability of youth engagement.

### Objectives

- To scale the JalDoot program to reach all 33 districts of Assam, providing technical assistance to

the State JalDoot Cell.

- To improve the quality and effectiveness of JalShalas, as they are the primary interaction point for JalDoots.
- To increase engagement through a "nudge calendar" of micro-actions aligned with Jal Jeevan Mission objectives and improve the user experience of the JalDoot chatbot.

### CHALLENGES AND LEARNINGS

- The Young Professionals' study revealed the barriers to engagement, including students' lack of access to smartphones and parental restrictions on their use.
- The study also confirmed that while digital tools are useful, physical meetings like JalShalas and Jal Addas (post-training spaces for Jal Doots to interact with mentors and each other) are the most effective touchpoints. A key learning is that digital platforms must be complemented with consistent offline interaction to maintain momentum.
- The study helped identify that unclear instructions and tasks in the chatbot at times led to a drop in engagement, highlighting the need for simpler, more direct call to actions.
- Operational challenges in the JalDoot WhatsApp bot for over three months affected new registrations and engagement.

## KEY HIGHLIGHTS

- ◆ Engaged 17,320 new students in Phase 2, bringing the cumulative total to 53,360 JalDoots by February 2025.



# 53,360

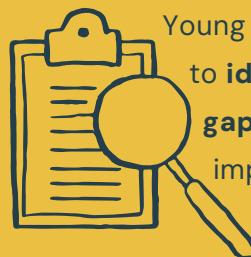
JalDoots by February 2025

- ◆ Supported 453 JalShalas and delivered WhatsApp nudges to the Jal Doots. 11,515 activities were undertaken by JalDoots, with over half of these actions focused on raising awareness of piped water supply schemes.

# 453

JalShalas delivered  
WhatsApp nudges

- ◆ Conducted a study through Young Professionals to identify program gaps and recommend improvements.



- ◆ The program was recognized as an "Outstanding State Level Water Management Initiatives - Commendable" at the prestigious Water Digest World Water Awards (2023-24) and was named the "Water Education and Water Awareness Initiative of the Year - India" at the ASIAN Water Awards 2024.



## WAY FORWARD

The focus for the next phase will be on finding and refining the most effective ways to engage with JalDoots, using both digital and offline channels.

The core objective is to ensure that students remain active and motivated, empowering them to spread the message of safe water and community responsibility within villages.

### 3. Building Institutional Capability for Water Quality Management Context

The sustainability of the Jal Jeevan Mission's massive infrastructure investment depends on the capacity of government institutions like the PHED, including the water testing laboratories to monitor, operate, and maintain water supply schemes. This

initiative focuses on building the skills of officials and creating collaborative platforms for sustained water quality management.

## Objectives

- To build the capacity of PHED system officials and district and block-level teams to better understand and respond to water contamination issues.
- To design and implement customized water quality management training programs that align with state-specific needs.
- To establish and operationalize a "State Hub"—a collaborative body of government officials and civil society members—to oversee water quality, O&M, and sustainability.

## KEY HIGHLIGHTS

◆ **Successful Training in Madhya Pradesh** Trained **168 officials across all districts of Madhya Pradesh** on the fundamentals of water quality management using a certified course on the JJM Digital Academy.

◆ **Generated significant interest** from officials in **4 states to collaborate on implementing the JalDoot** and the State Hub model following a National Water Quality Network Conference.

### **CHALLENGES AND LEARNINGS**

- A key learning has been that aligning our interventions with the evolving priorities of state governments is a time-consuming but essential process. Gaining the necessary buy-in for new initiatives requires deep and sustained engagement to ensure that our support is relevant, timely, and co-designed with our government partners.
- While the “State Hub” concept is powerful, it requires a formal structure for a digital platform to be effective. Informal collaboration and training without a mandate for action are not sufficient for systemic change.

### **WAY FORWARD**

The program will focus on operationalizing the State Hub model, potentially leveraging the iECHO platform for digital collaboration. The interest from Maharashtra, Assam, and Haryana provides an opportunity to scale the Water Quality Management Course through the state hubs in new states, adapting it to local needs. 



लोक आस्था

## BIHAR - OPERATIONS AND MAINTENANCE

Bihar has made significant strides in providing rural households with tap water connections under the **Jal Jeevan Mission (JJM)** and the **Mukhyamantri Gramin Peyjal Nischay Yojana (MGPNY)**. Yet, issues around system functionality, weak operation and maintenance (O&M) and poor cost recovery, can pose a challenge if not addressed systematically. In early 2022, Arghyam partnered with AKRSP(I), and WFP to pilot a scalable solution that could demonstrate how decentralized governance, digital innovation, and inclusive community processes can help address these bottlenecks. During February 2022 to March 2024. The initiative, focused in **Muzaffarpur district (Sakra, Muraul, and Bandra blocks)**, was designed to enhance system capacity for sustainable water supply by leveraging digital tools, building institutional capacity at the grassroots, and reinforcing community ownership.



**PARTNER****Aga Khan Rural Support Programme – India (AKRSP-I) and Water For People (WFP)****OBJECTIVES**

The overarching goal of the project was to strengthen the first-mile governance for rural water systems by:

1. Empowering Ward Implementation and Management Committees (WIMCs) and frontline workers

(Anurakshaks) through sustained capacity building.

2. Creating participatory forums like Jal Chaupals to build community ownership.
3. Leveraging digital tools for billing, monitoring, and service quality tracking.

**PROGRESS TILL MARCH 2025**

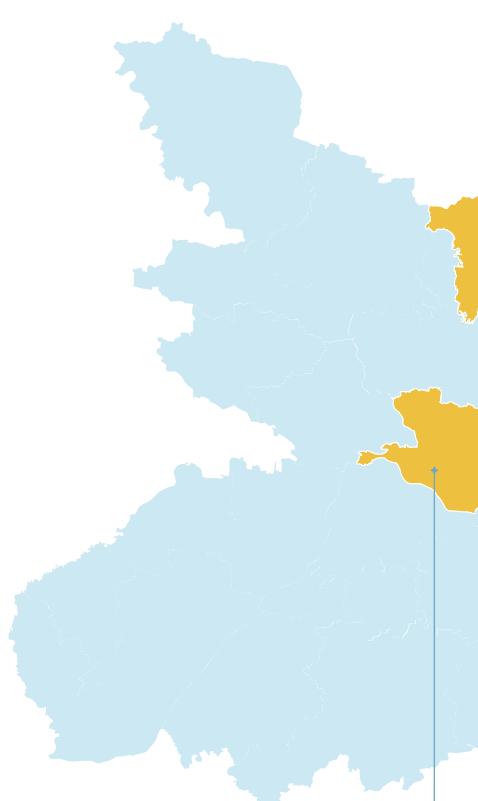
S.NO.	INDICATOR	2022-23	2023-24	2024-25	TOTAL
<b>Ward Implementation</b>					
1	Management Committee (WIMC) meetings	621	309	166	1096
2	Jal Chaupal	468	227	216	911
3	No. of tank cleaning	233	229	64	526
4	No. of water quality tests (pre and post)	Nil	643	235	878
5	<b>Total Tariff collected in Rupees</b>	<b>69 lakh</b>	<b>87 lakh</b>	<b>38.4 lakh</b>	<b>1.94 crore</b>

After a two year period, the project was continued for another year from February 2024 to March 2025 with an aim to expand to 620 more wards in new geographies of the implementation

partners and to advocate system-level change and buy-in from government stakeholders, particularly the Public Health Engineering Department (PHED).

## EXPANSION TO NEW AREAS IN BIHAR

DISTRICT NO. OF WARDS  
**Sitamarhi** 180  
 BLOCK **Bajpatti**



DISTRICT NO. OF WARDS  
**Vaishali** 105  
 BLOCK **Bidupur**

DISTRICT NO. OF WARDS  
**Araria** 50  
 BLOCK **Plassy**

DISTRICT NO. OF WARDS  
**Purnia** 50  
 BLOCK **Baisi**

DISTRICT NO. OF WARDS  
**Samastipur** 236  
 BLOCK **Sarairanjan**

TOTAL WARDS  
**621**



*Integrating community engagement processes and digital tools for sustaining piped water supply*



## **IMPLEMENTATION STRATEGY**

### **Capacity building of the frontline**

All the Anurakshaks in the new wards covered under the project were trained on their roles and responsibilities and provisions in the Government of Bihar policy for O&M such as monthly and annual cost provisions for each Piped Water Scheme (PWS), management of tariff at the ward level, registration of grievances through an online portal or toll-free number and an established network to connect with the local repair and maintenance team. The trainings were conducted in a hybrid manner, i.e. it was in person while also using the iEcho platform, which allows people to learn from experts and share one's own expertise and experience with others in a virtual setting.

The Anurakshaks were also trained in the use of the digital tools like Avni (developed by Samanvay Foundation) for tracking of tasks related to O&M and mGramSeva (developed by eGovernments Foundation) for income and expenditure at the scheme level.

### **Deployment of digital tools**

The Avni platform for record keeping on tasks performed by the Anurakshak and the mGramSeva tool for waterbill generation and collection were deployed in the new areas after setting up the required systems by digitising household connection registers, and mapping the Anurakshaks to their respective schemes.

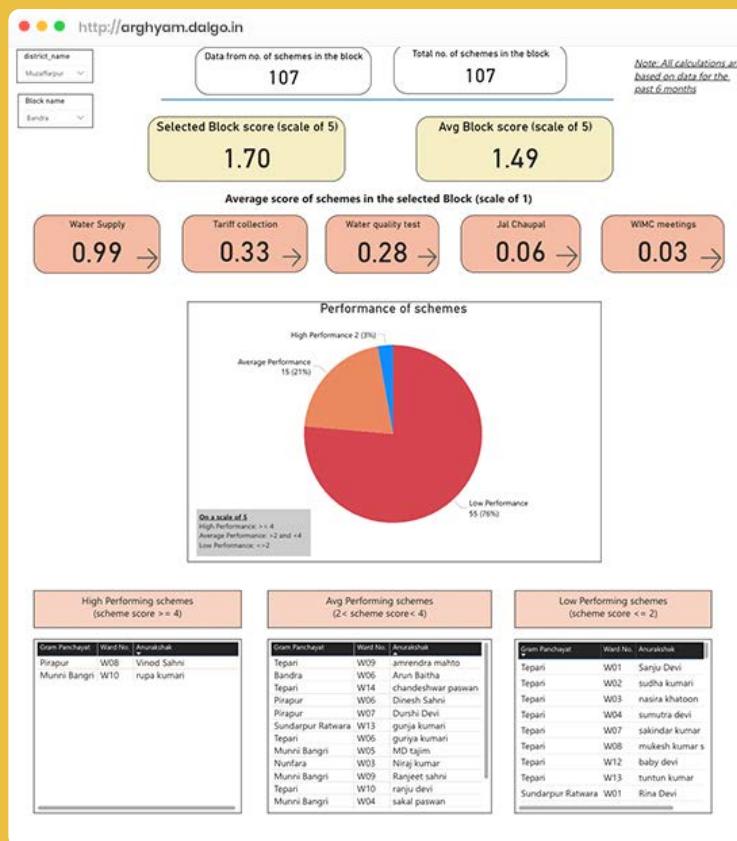
# KEY HIGHLIGHTS

## ◆ Unified dashboards for the first mile

To enhance data-driven monitoring and decision-making, an integrated dashboard was developed using the **Dalgo platform** by consolidating data from the **Avni** and **mGramSeva** applications. The dashboard was designed to provide **Anurakshaks** with a unified and intuitive view of the performance of piped water supply schemes at the ward level. Over time, as Anurakshaks became more familiar with the dashboard it enabled them to track service indicators, monitor progress, and visualize key aspects of O&M activities on a single platform.

To support **block-level functionaries**, a separate dashboard was developed using **Power BI**, offering a consolidated and comprehensive view of PWS performance across all wards in each block with clear visualizations and infographics, allowing the monitoring of trends, scheme functionality, and areas requiring interventions.

Together, these dashboards aim to strengthen accountability, improve service delivery, and support informed decision-making at both the frontline and supervisory levels.



Dashboard to assess performance of schemes on five parameters at the block level.

## ◆ Anurakshak Survey: Understanding

### Tool Adoption and Challenges

A survey of **Anurakshaks** was conducted during **March–April 2025** to assess two key aspects:

1. The major challenges encountered by Anurakshaks in their daily responsibilities

2. The value added by digital tools in facilitating mandated tasks such as reporting, tariff collection, and capacity building.
3. The extent to which Anurakshaks feel confident using these tools independently, without external support or handholding.



## SAMPLE SIZE AND METHODOLOGY

The survey targeted 25% of digital tool users and 5% of non-users, shared via WhatsApp.

- Among users, 48% responded independently, while 52% required

follow-up assistance to complete the form.

- No responses were received from non-users via WhatsApp.

## KEY FINDINGS

◆ **98% of tool users** reported a positive change in their ability to manage PWS operations. The most commonly cited benefits included:

- Improved engagement with the community
- Better user tariff collection
- More efficient reporting of PWS service interruptions

◆ **50% of users** expressed confidence that they would be able to use the tools independently in the future, without needing external support.

◆ **The primary challenges** with digital tool usage included:

- Limited access to mobile phones
- A need for ongoing guidance

◆ **Among non-users**, the most frequently reported barriers were:

- Lack of access to mobile phones
- Absence of formal government direction or review for use of tools
- Unclear understanding of how to use the digital tools

This survey highlights the significant gains in capacity and confidence among users of digital tools, while also underscoring the importance of continued support, simplified workflows, and policy-level reinforcement to ensure wider and sustained adoption.

## CHALLENGES AND LEARNINGS

### 1. Strengthening community ownership:

At the heart of the intervention was the idea that communities are not beneficiaries, but stewards. Through monthly Jal Chaupals and the activation of Ward Implementation and Management Committees (WIMCs), residents began participating actively in water system governance. Regular platforms for dialogue not only reduced grievances but also fostered a sense of collective responsibility.

### 2. Consistent and contextual capacity building is key:

A paradigm shift from one time training to contextual continuous efforts to build capacities is imperative. With the advent of technology, hybrid models combining in person sessions with online sessions for follow-ups and access to learning from experts and peers can be adopted for greater frontline engagement and greater impact.

### 3. Digital Adoption Works Best with Simplicity and Support:

While digital platforms like mGramseva and Avni offered transparency and efficiency, the experience highlighted the need for embedding the tools in daily use, consistent support to ensure adoption

of the tools, simplified intuitive user interfaces, and offline capabilities to overcome rural digital divides.

### 4. Building a Culture of Record-Keeping and Early Wins Build Willingness to Pay:

The project promoted robust data practices through simple tools (physical registers to start with and digital tools later on) and regular mentoring. By ensuring timely repairs, clear billing, and visible grievance redressal, the project built trust among users. This directly correlated with increased willingness to pay water tariffs, an important precursor to sustainability.

## WAY FORWARD

As the partnership enters its next phase, the focus is on **evidence generation and scale readiness**—documenting what works, refining the approach, and supporting PHED Bihar in systematizing the model statewide. With over 70,000 households reached, thousands of community actors trained, and visible improvements in service delivery, the initiative has laid a strong foundation for resilient, community-owned rural water systems—not just in Bihar, but as a model for other states. ≈



## MONITORING, LEARNING, AND EVALUATION (MLE) STUDIES

### ASSESSMENT OF DIGITAL TOOLS AND CAPACITY FOR NATURAL RESOURCE MANAGEMENT PLANNING UNDER MGNREGS IN KARNATAKA

#### PARTNER

Water, Environment, Land and Livelihoods (WELL) Labs

#### BACKGROUND

The state of Karnataka in southern India faces a severe groundwater crisis. The 2002 State Water Policy, revised in 2022, stresses water conservation and encourages community participation in water management.

The Mahatma Gandhi National Rural Employment Guarantee (MGNREGA) is the largest individual source of spending on natural resource management (NRM) in India. The scheme was amended in 2014 to additionally focus on water and soil conservation (Water Conservation Under MGNREGS, 2019). In 2021, the Government of Karnataka launched the Jala Sanjeevini programme for the scientific planning and implementation of NRM projects executed under MGNREGA.

To improve the implementation of Jala Sanjeevini, the Government of Karnataka collaborated with the Foundation for Ecological Security (FES), Arghyam, and Socion. Together, the collaboration aims

to strengthen the technical capacity of MGNREGS's frontline functionaries in better natural resource planning and community participation.

The impact evaluation study, conducted by Water, Environment, Land and Livelihoods (WELL) Labs, assessed the technical support provided by FES aimed at improving Natural Resources Management (NRM) and promoting the use of GIS-based digital tools for the scientific planning of NRM projects within Antarajal Chetana / Jala Sanjeevini initiative under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).

#### METHODOLOGY

The evaluation adopted a mixed-methods, comparative case study approach, with fieldwork conducted between April and June 2024. The methodology involved in-depth interviews with 83 key stakeholders, including MGNREGS functionaries at the Gram Panchayat, Taluk, and state levels. This primary data was triangulated with secondary data from various sources, including the program operations

dashboard, CLART dashboard, Participatory Digital Attestation (PDA) platform, the MGNREGS Management Information System (MIS), and Annual Action Plans (AAPs).

The sampling design used a matched-pairs approach, covering 24 Gram Panchayats across eight districts. This included four “treatment” districts where FES provided intensive capacity-building and four “control” districts with similar agro-ecological characteristics that did not receive the intervention, allowing for a robust comparison of outcomes.

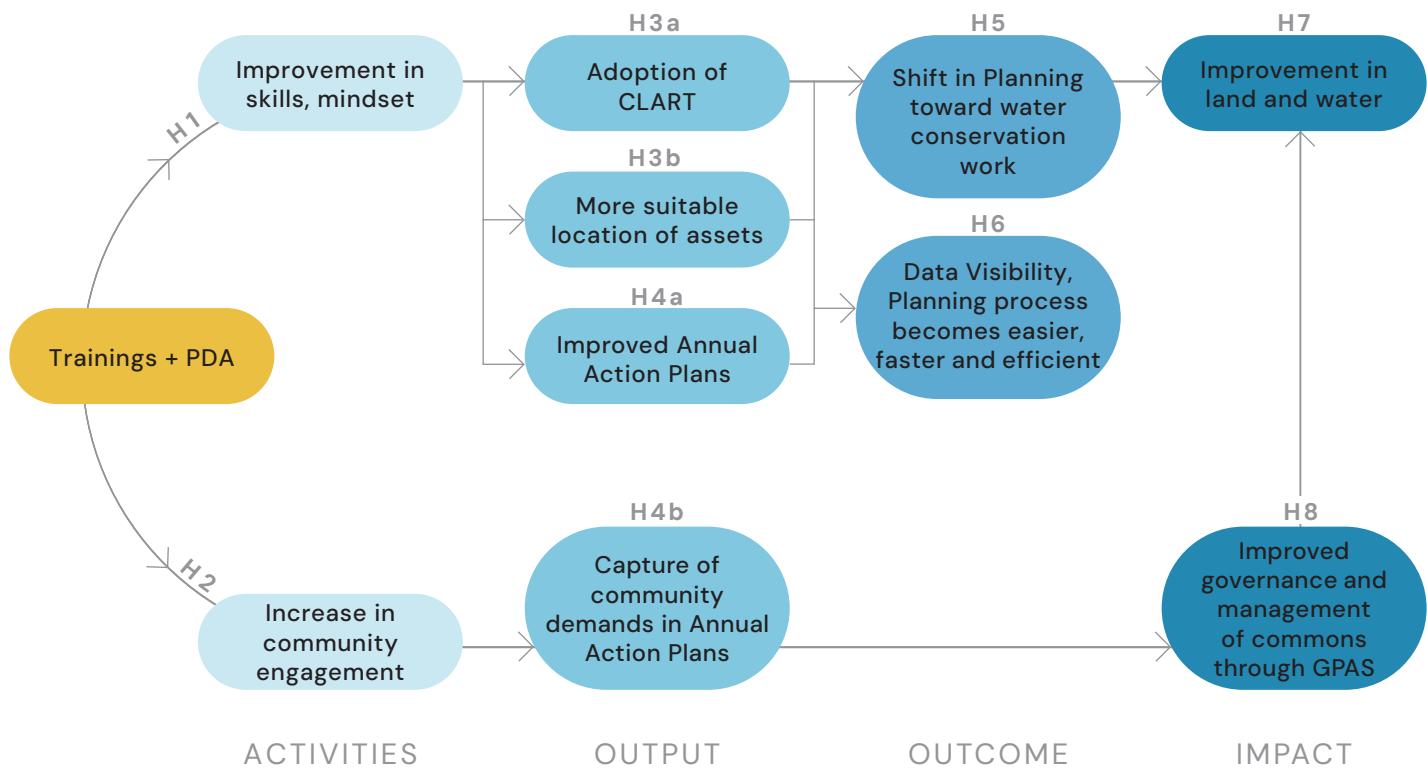
## PROBLEM STATEMENT

→ Lack of technical expertise and scientific inputs among field staff undermines the effectiveness of constructed natural resource management structures.

→ Lack of regular capacity building & hand-holding for field staff leads to ad-hoc site selection.

→ Limited involvement of the community in the planning weakens asset ownership and longevity.

## THEORY OF CHANGE





Assessing impact on Natural Resource Management interventions under Jala Sanjeevini



Water harvesting structures built under Sanjeevini

## KEY FINDINGS

The assessment indicates that the technical support programme had a positive influence on strengthening the quality of NRM planning. The key preliminary insights are:

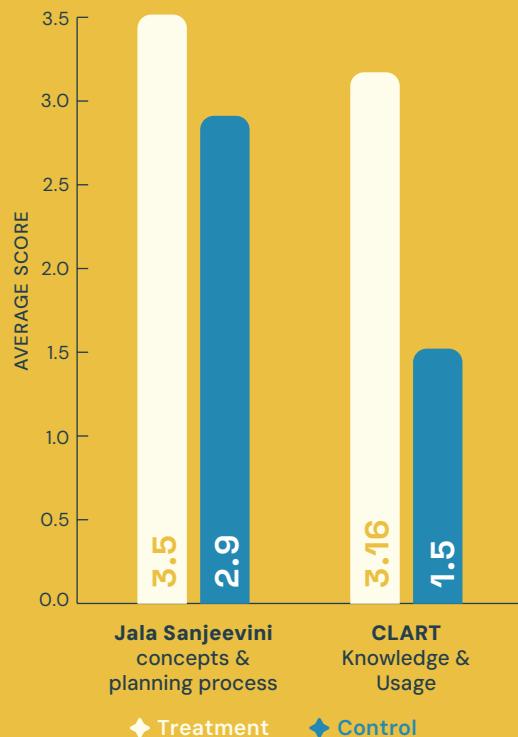
### ◆ Improved capacity and knowledge

 MGNREGA functionaries in the treatment districts demonstrated significantly better knowledge of watershed management concepts, the Jala Sanjeevini process, and the use of the CLART tool compared to their counterparts in control districts. This confirms the effectiveness of the targeted, design-for-scale capacity-building efforts.

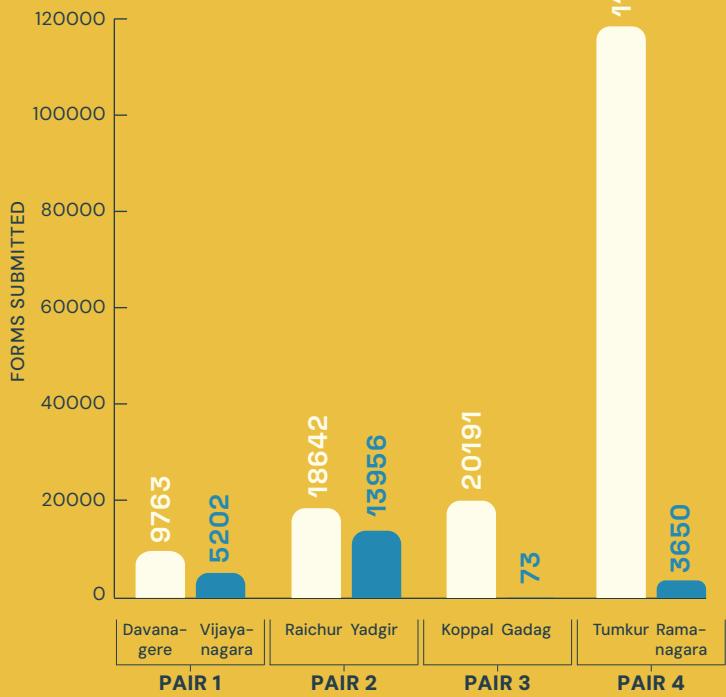
### ◆ Impactful Adoption of Digital Tools

 The treatment group showed significantly higher adoption of the CLART tool. The selection of sites for water conservation structures showed higher compliance with CLART's scientific recommendations in treatment areas. **77% of the CLART taggings matched the CLART color** and the recommended structure vis-a-vis 54% in the control group indicating an improvement in the technical quality of planning.

Functionaries knowledge score in Treatment and Control Group



CLART adoption in Treatment and Control Districts (Forms submitted)



## ◆ Strategic shift in NRM planning

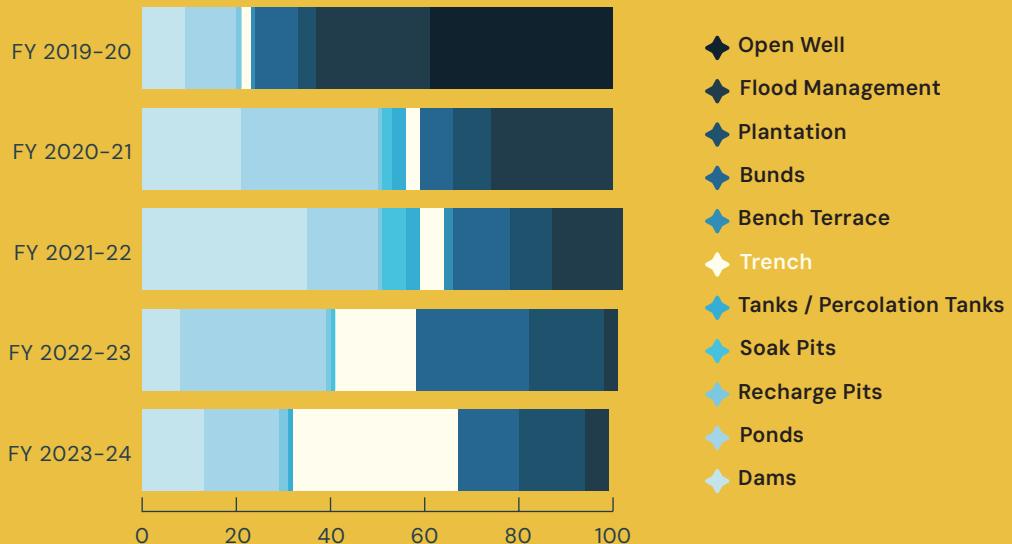
A key success was a noticeable **shift in the allocation of the MGNREGA budget in treatment areas from 52% to ~70% of the total budget.**



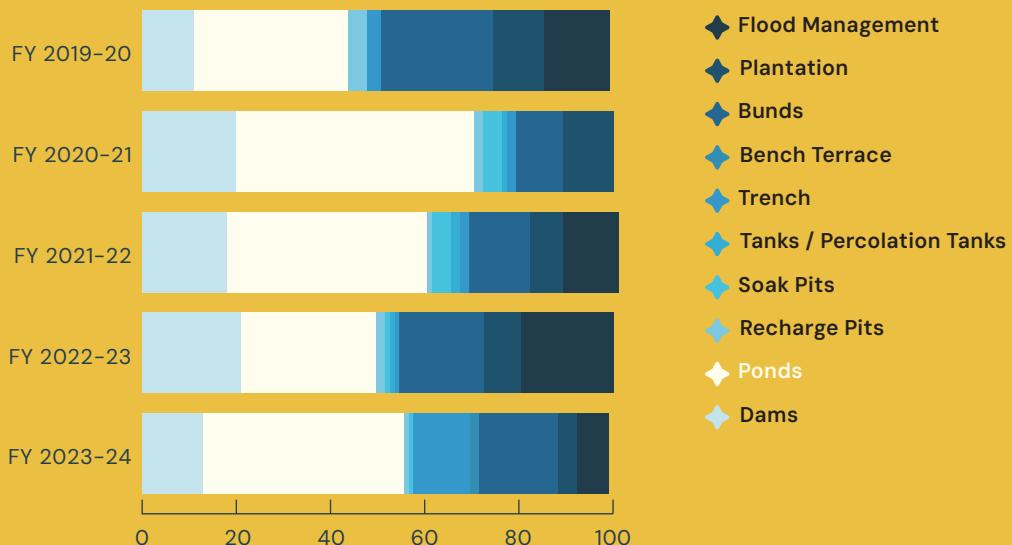
This has remained stable over the years in the control group. There was a clear move

towards funding more ridge-area interventions (like trenches and bunds), which are considered more effective for groundwater recharge in the local context, and away from a sole focus on drainage-line structures like tanks. The diversity of NRM works in the treatment group is somewhat more diverse than control group.

Average Sanctioned Budget for Public Works (Treatment Group)



Average Sanctioned Budget for Public Works (Control Group)



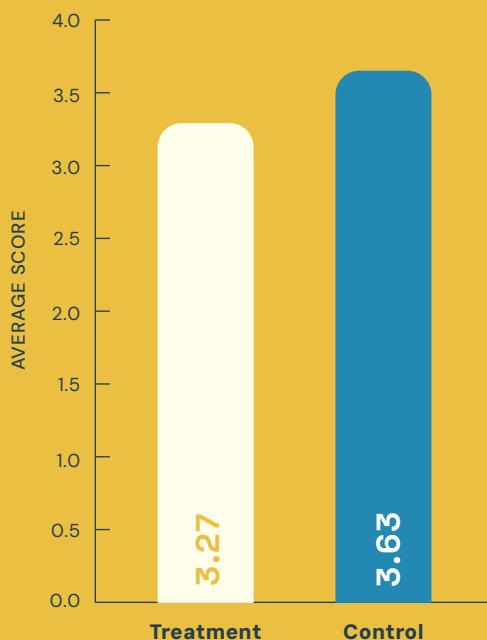
◆ **Evidence on community**

**engagement was inconclusive**



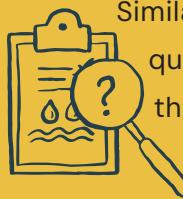
Perceptions on community engagement among functionaries were generally high but do not vary much across control and treatment. The study could not find conclusive evidence of a significant change in community engagement levels due to lack of data on community engagement in the control group.

**Functionaries Perception Score on Community Participation in Treatment and Control Group**



◆ **Attributing groundwater impact**

**was challenging**



Similarly, while the technical quality of planning improved, the evaluation could not draw a definitive conclusion on the programme's impact on groundwater levels. This was attributed to the short duration of the intervention and the difficulty of isolating the programme's effects from other confounding factors like rainfall variability and groundwater extraction. In hard rock areas it is difficult to use groundwater level data at the district level to assess the impact of the project due to heterogeneity and low storage leading to large changes. Moreover, Well data is only available for intervention districts.

S.NO	HYPOTHESIS/ SUB-HYPOTHESIS	STATUS
1	Improvement in skills, mindset and knowledge for MGNREGA Functionaries	✓
2	Increase in Community engagement	—
3	Adoption of digital tools- CLART	✓
3(a)	Compliance with CLART Recommendations for site selection	✓
3(b)	CLART Approval workflow process	—
3(c)	CLART Approval for mandatory NRM structures	✓
4	Improvement in Annual Action Plans formats	—
5	Shift in Planning towards water conservation works	✓
6	Digitisation leads to easier, faster and efficient planning process	—
7	Improved Governance of commons through GPAS	✗
8	Improvement in groundwater level	—

## CONCLUSION

The preliminary insights suggest that targeted technical support can significantly enhance the capacity of functionaries and improve the scientific rigour of NRM planning within large-scale government programmes like MGNREGS. The use of digital tools for better planning in MGNREGA has a lot of potential. There is a clear use case for apps like CLART, which help in the scientific site suitability of water conservation structures. The efforts of this technical support programme are commendable and show good outputs. The findings show that while improving the technical quality of planning is an achievable and important outcome, fostering deeper institutional change and community engagement requires a more sustained, long-term effort. ☺

[READ THE FULL STUDY HERE](#)



## GREYWATER REUSE POTENTIAL STUDY

India has made significant progress in rural water access through national flagship programmes such as the Jal Jeevan Mission (JJM) and Swachh Bharat Mission-Gramin 2 (SBM-G2). However, as surface and groundwater stress intensifies, particularly in semi-arid and water-intensive agricultural regions - a major gap remains in the form of greywater management.

Greywater refers to all household wastewater that does not contain faecal matter - typically including water from bathrooms, laundry, and kitchens. In most rural water and sanitation programmes in India, including SBM-G and JJM, kitchen wastewater is considered part of greywater for practical and holistic management.

Rural India is estimated to generate over 34,000 million litres of greywater every day, much of which remains untreated and mismanaged. While these large-scale initiatives have significantly contributed to rural development efforts, they have also led to a new challenge: a significant increase in greywater generation. Little is known about what happens to this large volume of greywater or about its potential usefulness for groundwater recharge and irrigation.

It was in this context that Arghyam undertook the study titled **“Exploring the Potential of Greywater Reuse for Irrigation and Groundwater Recharge”** across 20 villages in five states - Punjab, Haryana, Rajasthan, Gujarat, and Karnataka. These states were selected due to their high water stress, dependence on groundwater, and significant water demand for agriculture.





### **OBJECTIVES**

The study aimed to understand (1) existing practices and infrastructure for greywater treatment and reuse, (2) assess technology options, and (3) identify policy, financial, and institutional bottlenecks.

### **RESEARCH METHODOLOGY**

A mixed-method approach was adopted, combining field visits to assess systems like soak pits, wetlands, and Decentralized Wastewater Treatment

Systems (DEWATS) with structured interviews of Gram Panchayats, Village Water & Sanitation Committees (VWSCs), and government officials. Secondary research included policy and program reviews, water quality data, and funding analysis from SBM-G2, MGNREGS, and the 15th Finance Commission. The analysis focused on infrastructure adequacy, financial and operational viability, technology effectiveness, and community participation in reuse.

## KEY FINDINGS

### ◆ Greywater treatment

The study found that while around 65% of surveyed households had access to some form of greywater treatment, comprehensive coverage at village level was limited.



**65%** households had access to greywater treatment

Only 22% of the villages achieved 100% household coverage, revealing significant infrastructure gaps.



In 4 of the 20 villages, greywater was discharged directly into open land or local water bodies due to the absence of treatment facilities. A concerning finding was the mixing of greywater with untreated blackwater in 11 villages, resulting in contamination risks and undermining reuse potential.



**20%**

Villages have absence of treatment facilities

Water supply levels varied widely from as low as 35 litres per capita per day (LPCD) to as high as 200 LPCD against the JJM benchmark of 55 LPCD. This variability affects the quantity and quality of greywater generated.

### Variation in water supply levels



**35**  
LPCD



**55**  
LPCD



**200**  
LPCD

### ◆ Technology infrastructure

The surveyed villages demonstrated a diverse range of greywater treatment technologies. Six villages had waste stabilization ponds, three had DEWATS systems, and others relied on constructed wetlands, soak pits, inline treatment systems, or kitchen gardens. Three villages had no formal treatment infrastructure at all.

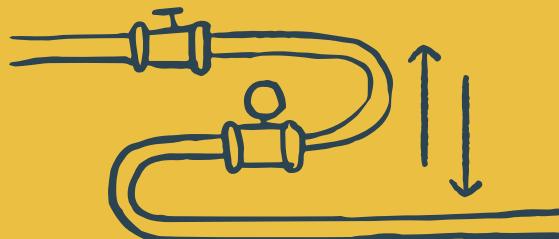


Nature-based solutions such as wetland systems, waste stabilization ponds were found to be cost-effective, adaptable, and low-maintenance.

The choice of technology was closely linked to available land and funding support.

#### ◆ Financial arrangements

**The capital expenditure required for greywater treatment systems varied significantly, ranging from ₹3 to ₹87 lakhs.**



**CAPEX: Funding was typically sourced from a mix of government schemes.** Karnataka, Punjab, and Haryana relied heavily on MGNREGS for up to 80% of costs, whereas Gujarat and Rajasthan had limited

funding from SBM-G2, its allocation of ₹280 per capita for villages under 5,000 population and ₹660 for larger villages seemed inadequate for sustainable infrastructure development.

**OPEX: Operation and maintenance costs ranged from ₹4,000 to ₹30,000 per month** depending on technology type. While most villages did not have a formal O&M mechanism in place, NGO-led interventions in Karnataka and Gujarat demonstrated models of community co-financing and CSR-supported systems that can ensure sustainability.

#### ◆ Reuse and revenue potential

An estimated **55% of greywater could be reused after basic treatment.**

Applications included irrigation, fish farming, manure production, and groundwater recharge.

**Gujarat showcased successful revenue-generation models**, where treated sludge was converted into manure for sale and fishing rights in treated ponds were leased to local entrepreneurs earning between

₹40,000 and ₹4.2 lakhs annually.

**Rajasthan's arid climate posed significant challenges due to high infiltration and evaporation rates.**

Reuse in such regions requires specially adapted systems and possibly different use cases such as dryland recharge or landscaping.

## CONCLUSION

The greywater study highlights that with the right combination of technology, policy alignment, and flexible funding, rural India can move from neglecting greywater to building resilience around it. As the country expands investments in rural water infrastructure, integrating greywater management is crucial to protect livelihoods and secure long-term water sustainability.

## KEY RECOMMENDATIONS

1. Greywater is an untapped resource that can serve as a substitute for irrigation and groundwater recharge, reducing pressure on freshwater sources.
2. While SBM-G and JJM provide a strong foundation, effective implementation across all villages is essential. Addressing funding gaps in SBM-G and investing in infrastructure will ensure long-term sustainability. Policies should strengthen ownership at various levels and regulate the quantity of water supply to prevent excessive greywater generation.
3. Village-level capacity for managing and scaling greywater reuse remains inadequate, hence capacity building of the community institutions become crucial.
4. Encouraging innovations in revenue-generating activities, with support from NGOs or implementing partners, can ensure financial sustainability.
5. A comprehensive approach that integrates greywater, blackwater, stormwater, and solid waste management is necessary to enhance efficiency and water security.
6. Despite greywater reuse contributing to groundwater recharge, there is currently no established mechanism to measure the volume of recharge accurately. Future research should focus on developing monitoring frameworks and refining policies to facilitate widespread adoption. 

## KARNATAKA



Constructed Wetlands with DEWATS in Muthur Village, Sidlaghatta taluka of Chikkaballapura district, Karnataka

## GUJARAT



DEWATS in Vedancha Village, Palnpur Block of Banaskantha District, Gujarat

## HARYANA



3-Pond System in Baindi Gp, Radaur Block in Yamunanagar District, Haryana

PUNJAB



*Greywater let into a water bodies without treatment in Bhuco Khurd GP, Nathana Block, Bathinda District, Punjab*

PUNJAB



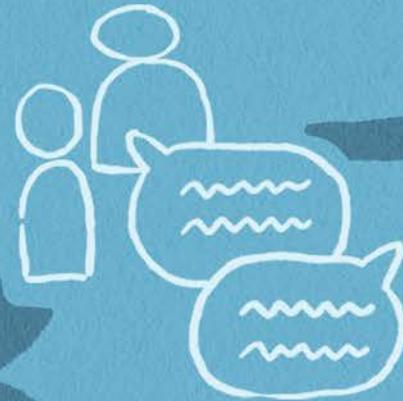
*Waste Stabilization Pond in Heron Kalan GP, Bhikhi Block, Mansa District, Punjab*

KARNATAKA



*Well maintained Inline Treatment System in Bedavatti Village, Shirur GP, Yelburga Block in Koppal District, Karnataka*

INFORM



ENGAGE



INFLUENCE



## INDIA WATER PORTAL

India Water Portal launched in 2007 is a knowledge portal on all things water in Hindi and English. It continues to serve as a sectoral asset and digital knowledge commons on water for students, researchers, practitioners and citizens. It has over 30,000 content pieces including articles, research papers, photo essays and videos created by more than 13,000 contributors from across the country.

### Back to Basics

As the digital landscape shifts rapidly, consumer preferences and habits have changed significantly with shorter attention spans, information overload along with a growing influence of AI, we recognised the need to adapt and evolve the portal for the future. This year, we focused on the portal basics such as building a strong team, investing in a content management system, editorial guidelines, and investing in the people and platforms that can carry IWP into its next phase and reclaim our relevance and responsiveness in a changing digital world.

At the heart of this work is a simple mission: to **INFORM, ENGAGE, AND INFLUENCE** the wider ecosystem and to keep water as an agenda in the public imagination and policy discourse.

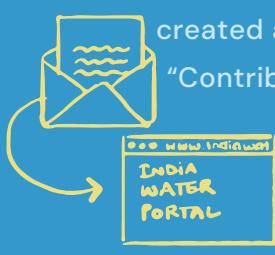
# KEY HIGHLIGHTS

## ◆ Team Building



We began rebuilding the core team with a dedicated portal manager, managing editors for English and Hindi supported by editors, social media and content creators.

## ◆ Contributions Made Easier



To democratize participation, we created a clear and user-friendly "Contribute to IWP" page encouraging writers from across India to share their stories, insights, and research.

## ◆ Improved publishing and User Experience



We successfully migrated to a new, modern Content Management System with improved discoverability of our content. Our content is now organized across 11 thematic categories: Agriculture, Climate Change, Drinking Water, Environment, Governance & Policy, Groundwater, Health & Sanitation, People & Culture, Rivers & Lakes, Technology, and Water Quality & Pollution.

## ◆ Newsletters and videos



We experimented with short videos, carousels and online newsletters to bring our content to a wider audience in an accessible and engaging way. We launched a LinkedIn newsletter to connect with professionals and sector stakeholders in a more targeted way.

- LinkedIn engagement grew 171x year-on-year

### Engagement on LinkedIn

 **171x**

- Instagram engagement increased by 111.33% year-on-year.

### Engagement on Instagram

 **112%**

- Content volume increased by 174.75% year-on-year

### Growth in Content creation

 **175%**

### ◆ Regional Reporting Fellowship

We designed a new initiative to nurture local, human-centered, regional storytelling on water. Set to launch in June 2025, the six-month fellowship will bring together five storytellers (three in English and two in Hindi) to bring original, place-based narratives from different corners of the country. These stories will blend lived experience, local insight, and efforts to expand how water is seen and understood in public discourse.



### ◆ Opportunities Section

The Opportunities and Events section has become a go-to destination in the sector for listing jobs, trainings, and events relevant to the water community.



## TOP STORIES (2024 - 25)

This year we experimented with mixing sectoral insight with cultural relevance and current affairs aiming to expand how water is seen in public discourse.

indiawaterportal.org

**TOP STORY**

**Culture**

**Can we celebrate Kumbh while ignoring the health of its rivers?**

As millions prepare to take a holy dip in the Ganga and Yamuna, the question looms—will these rivers survive the burden? A recent report by the Central Pollution Control Board (CPCB) has revealed alarming levels of bacterial contamination, further exacerbating concerns over public health and safety.



indiawaterportal.org

**TOP STORY**

**People and Culture**

**Mumbai's Kolis: Guardians of the city's shores and fishing heritage**

Mumbai's original fishing community, the Kolis, have sustained the city's coastline for centuries. But as urban expansion and corporate fishing encroach on their waters, their traditions and livelihoods are at risk. Can they reclaim the sea that has always been theirs?



indiawaterportal.org

**TOP STORY**

**Groundwater**

**Befriending aquifers over a lifetime**

Dr Himanshu Kulkarni, honoured with the 2025 International Water Prize at the University of Oklahoma's WaTER Symposium, talks to India Water Portal and shares his insights and journey with India's 'invisible' water reserves—our aquifers.



indiawaterportal.org

**TOP STORY**

**Governance**

**Decoding the Green Credit Rules 2023**

Explore the various aspects of the Green Credit Rules 2023, from its inception to the eligibility criteria and potential challenges.



### WAY FORWARD

In the coming year, we are committed to bringing out fresh, grounded voices and stories from across the country to the forefront through the fellowship program. As we move forward, we intend to expand our outreach to involve more people in shaping India Water Portal for today's times. We are actively seeking digital partnerships, as well as collaborations with academic institutions and citizen engagement forums to join our efforts to keep water in the public discourse. 

## EVENTS

### INDIA WATER WEEK, 2024



Team Arghyam curated a panel on “Imagining Digital Public Infrastructure for India” at the 8th India Water Week, during the International WASH Conference 2024, featuring panelists from government, academia, and philanthropy.

### DATA CATALYST PROGRAM



Manu Srivastava, COO  
- Arghyam joined the Project Tech4Dev and Dasra to celebrate the successful completion of their Data Catalyst Program.



Anuj Sharma, CEO of Arghyam moderated a session on "Regional Water Security: Technology and Governance" at the **Rising Rajasthan Global Investment Summit 2024**.

## INDIAN PUBLIC POLICY NETWORK CONFERENCE 2024



We co-hosted a panel with a partner on "Designing Digital Public Goods in Water: Balancing Oversight and Autonomy".

## COMMONS CONVENING 2024



We co-hosted a panel with a partner on "Designing Digital Public Goods in Water: Balancing Oversight and Autonomy".



*Priya Sankar, Director of Partner Engagements, participated in a multi-stakeholder panel discussion on the collective action required to ensure water security for all.*

# FINANCIALS

## INDEPENDENT AUDITOR'S REPORT

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### TO THE TRUSTEES OF ARGHYAM

#### OPINION

1. We have audited the financial statements of Arghyam ('the Trust'), 599, 12th Main, HAL 2nd Stage, Indiranagar, Bangalore-560008 (Permanent Account Number: AABTA0028M), which comprise the Balance Sheet as at 31 March 2025, the Income & Expenditure Account, the Receipts and Payments Account for the year then ended, and notes to the financial statements including a summary of significant accounting policies.
2. In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Trust as at 31st March 2025, and of its financial performance for the year then ended in accordance with the Accounting Standards issued by the Institute of Chartered Accountants of India (ICAI).

#### BASIS FOR OPINION

3. We conducted our audit in accordance with the Standards on Auditing (SAs) issued by ICAI. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Trust in accordance with the ethical requirements that are relevant to our audit of the financial statements and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### RESPONSIBILITIES OF THE TRUSTEES AND THOSE CHARGED WITH GOVERNANCE FOR THE FINANCIAL STATEMENTS

4. Trustees are responsible for the preparation and fair presentation of the financial statements in accordance with the aforesaid Accounting Standards, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

5. In preparing the financial statements, trustees are responsible for assessing the Trust's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the Trust or to cease operations, or has no realistic alternative but to do so.
6. Those charged with governance are responsible for overseeing the Trust's financial reporting process.

#### **AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS**

7. Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.
8. To identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; to design and perform audit procedures responsive to those risks; and to obtain audit evidence that is sufficient and appropriate to provide a basis for the auditor's opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
9. To obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the trust's internal control.
10. To evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the trustees.
11. To conclude on the appropriateness of the use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant

doubt on the Trust's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify the opinion. Our conclusions are based on the audit evidence obtained up to the date of the auditor's report. However, future events or conditions may cause the Trust to cease to continue as a going concern.

12. We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

**for Singhvi Dev & Unni LLP**

**Chartered Accountants**

Firm Reg. No: 003867S/S200358

Sd/-

Shashi Kumar HD

Partner

Membership Number: 235431

Bengaluru

Date: 22-08-2025

UDIN: 25235431BMLAAM6056

## BALANCE SHEET AS AT MARCH 31, 2025

PARTICULARS	SCH NO.	AS AT MARCH 31, 2025		AS AT MARCH 31, 2024	
		AMOUNT (RS.)	AMOUNT (RS.)	AMOUNT (RS.)	AMOUNT (RS.)
<b>I. SOURCES OF FUNDS</b>					
1. NPO FUNDS					
a. Unrestricted Funds	3	1,41,11,62,269		1,39,26,81,592	
2. NON-CURRENT LIABILITIES	4	1,04,38,758		80,41,972	
3. CURRENT LIABILITIES					
a. Other Current Liabilities	5	9,23,730		9,20,938	
b. Short-term Provisions	6	13,78,789		10,75,021	
<b>TOTAL</b>		<b>1,42,39,03,546</b>		<b>1,40,27,19,523</b>	
<b>II. APPLICATION OF FUNDS</b>					
1. NON-CURRENT ASSETS					
a. Fixed Assets	7	13,84,800		7,56,764	
b. Non-Current Investments	8	1,40,19,75,776		1,37,75,56,546	
2. CURRENT ASSETS					
a. Cash and Bank Balances	9	99,41,558		1,33,75,114	
b. Other Current Assets	10	86,47,744		66,22,964	
c. Short-term Loans and Advances	11	19,53,668		44,08,135	
<b>TOTAL</b>		<b>1,42,39,03,546</b>		<b>1,40,27,19,523</b>	
Brief about the Entity	1				
Significant Accounting Policies and Notes on Accounts	2				

The schedules referred to above form an integral part of the Balance Sheet Please visit [www.arghyam.org](http://www.arghyam.org) for detailed Schedules

As per our report of even date

for Arghyam

for Singhvi Dev & Unni LLP  
Chartered Accountants  
FRN: 003867S/S200358

Sd/-  
**SUNITA NADHAMUNI**  
Trustee

Sd/-  
**NANDITA CHANDAVARKAR**  
Trustee

Sd/-  
**KIRAN M ANANDAMPILLAI**  
Trustee

Sd/-  
**SHASHI KUMAR HD**  
Partner  
Membership No.: 235431

PLACE: Bengaluru  
DATE: 12.08.2025

PLACE: Bengaluru  
DATE: 22.08.2025  
UDIN: 25235431BMLAAM6056

**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED MARCH 31, 2025**

PARTICULARS	SCH NO.	YEAR ENDED MARCH 31,	
		2025 AMOUNT (RS)	31, 2024 AMOUNT (RS)
<b>INCOME</b>			
Interest Earned	12	10,26,91,009	9,33,10,250
Other Income	13	1,47,536	5,600
<b>TOTAL</b>		<b>10,28,38,545</b>	<b>9,33,15,850</b>
<b>EXPENDITURE</b>			
Administrative Expenses	14	89,02,528	97,78,889
Depreciation and write off	7	4,50,630	2,22,468
Functional Household Tap Connections (FHTC)	15	4,14,26,183	5,24,10,986
Digital Public Infrastructure (DPI)	16	1,13,83,665	—
India Water Portal	17	2,11,16,680	1,72,37,386
Communication and Resource Mobilization	18	10,78,181	30,32,683
<b>TOTAL</b>		<b>8,43,57,867</b>	<b>8,26,82,412</b>
<b>SURPLUS / (DEFICIT) (A-B)</b>		<b>1,84,80,678</b>	<b>1,06,33,438</b>
Significant Accounting Policies and Notes on Accounts	2		

The schedules referred to above form an integral part of the Income and Expenditure Account

As per our report of even date

for Arghyam

for Singhvi Dev & Unni LLP  
Chartered Accountants  
FRN: 003867S/S200358

Sd/-  
**SUNITA NADHAMUNI**  
Trustee

Sd/-  
**NANDITA CHANDAVARKAR**  
Trustee

Sd/-  
**KIRAN M ANANDAMPILLAI**  
Trustee

Sd/-  
**SHASHI KUMAR HD**  
Partner  
Membership No.: 235431

PLACE: Bengaluru  
DATE: 12.08.2025

PLACE: Bengaluru  
DATE: 22.08.2025  
UDIN: 25235431BMLAAM6056

## RECEIPTS ACCOUNT FOR THE YEAR ENDED MARCH 31, 2025

RECEIPTS	SCH NO.	YEAR ENDED MARCH 31, 2025 AMOUNT (RS)	YEAR ENDED MARCH 31, 2024 AMOUNT (RS)
<b>Balance brought forward</b>			
<b>CASH &amp; BANK BALANCES</b>			
Cash on Hand		4,224	1,222
ICICI Bank Ltd - 6493		45,84,082	20,32,117
IDFC Bank Ltd - 4428			
Kotak Mahindra Bank Ltd - 0503		14,24,308	135
State Bank of India - 6314		57,40,923	1,05,87,737
HDFC Bank Ltd - 1744		6,16,406	9,923
YES Bank Ltd - 0087		9,94,721	4,17,053
Standard Chartered Bank - 3512		10,451	-
Linked Deposit with Bank		2,27,621	2,12,570
Receipts from Investments (Matured during the year)	25	57,57,60,000	65,94,00,000
Assets Scrapped during the year		-	-
Interest Earned	19	10,06,02,215	9,02,62,278
Other Income	20	33,13,990	5,600
<b>TOTAL</b>		<b>69,32,78,941</b>	<b>76,29,28,635</b>

The schedules referred to above form an integral part of the Receipts and Payments Account

As per our report of even date

for Arghyam

for Singhvi Dev & Unni LLP  
Chartered Accountants  
FRN: 003867S/S200358

Sd/-  
**SUNITA NADHAMUNI**  
Trustee

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Trustee

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**KIRAN M ANANDAMPILLAI**  
Trustee

Sd/-  
**SHASHI KUMAR HD**  
Partner  
Membership No.: 235431

PLACE: Bengaluru  
DATE: 12.08.2025

PLACE: Bengaluru  
DATE: 22.08.2025

UDIN: 25235431BMLAAM6056

## PAYMENTS ACCOUNT FOR THE YEAR ENDED MARCH 31, 2025

PAYMENTS	SCH NO.	YEAR ENDED MARCH 31, 2025 AMOUNT (RS)	YEAR ENDED MARCH 31, 2024 AMOUNT (RS)
Functional Household Tap Connections (FHTC)	21	4,13,92,513	5,24,04,840
Digital Public Infrastructure (DPI)		1,13,83,665	-
India Water Portal	22	2,07,38,496	1,72,46,659
Communication and Resource Mobilization	23	10,78,181	30,32,683
Administrative Expenses	24	72,87,625	1,22,04,188
Fixed assets	7	10,78,666	7,528
Payments for Investments made	25	60,01,79,230	66,44,30,001
<b>BALANCE CARRIED FORWARD:</b>			
Cash on Hand		2,543	4,224
ICICI Bank Ltd - 6493		15,43,883	45,84,082
IDFC Bank Ltd - 4428		11,448	-
Kotak Mahindra Bank Ltd - 0503		5,45,237	14,24,308
State Bank of India - 6314		53,12,867	57,40,923
HDFC Bank Ltd - 1744		84,440	6,16,406
YES Bank Ltd - 0087		3,76,311	9,94,721
Standard Chartered Bank - 3512		20,64,830	10,451
Linked Deposit with Bank	26	1,99,006	2,27,621
<b>TOTAL</b>		<b>69,32,78,941</b>	<b>76,29,28,635</b>
Significant Accounting Policies and Notes on Accounts	2		

The schedules referred to above form an integral part of the Receipts and Payments Account

As per our report of even date

for Arghyam

for Singhvi Dev & Unni LLP  
Chartered Accountants  
FRN: 003867S/S200358

Sd/-  
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PLACE: Bengaluru  
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PLACE: Bengaluru  
DATE: 22.08.2025

UDIN: 25235431BMLAAM6056



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#599, ROHINI, 12th Main Rd, 7th Cross, HAL 2nd Stage  
Indiranagar, Bengaluru, Karnataka 560068

**[www.arghyam.org](http://www.arghyam.org)**