

THE JAL DOOTS

FIRST-MILE WATER CHAMPIONS OF ASSAM

How Assam's Youth are building Water-Resilient Communities through Local Data, Community-Driven Solutions, and Civic Engagement



INTO THE DEEP END

INDIA'S PERVASIVE STRUGGLE WITH WATER ACCESS & EQUITY

In India, access to safe drinking water remains an elusive privilege for over 50% of the population, culminating in a significant public health crisis. This situation is magnified in Assam, a state endowed with abundant water resources, but grappling with recurrent floods and groundwater contamination.



Nestled in the Brahmaputra and Barak River Valley, Assam stands out as one of India's **water-affluent states**.



Yet, the state battles with **regular floods**, resulting in the **contamination of ground water sources**



For every 10 Indians, 5 have no access to safe drinking water

2,00,000

people die every year, due to the lack of potable water

THE CASE OF ASSAM



Fewer than 50% of rural households have access to safe drinking water.

REALITY CHECK



AN AUDIT OF THE ON-GROUND SITUATION IN RURAL ASSAM

Less than 50% of rural households in Assam have access to safe drinking water. At the launch of Government of India's 'Har Ghar Jal: Jal Jeevan Mission' in August 2019, merely 1.57% of rural households had a Functional Household Tap Connection (FHTC) – a staggeringly low figure. At the onset of joining the programme in Assam, the partners in the project conducted an analysis to understand the reasons behind the same.

THE THREE KEY ISSUES



Insufficient dissemination of information regarding water supply schemes under the Jal Jeevan Mission, leading to a lack of understanding and participation.



Limited community engagement, particularly among youth, undermines the collective action necessary to build local capacity and ensure sustainable water stewardship.



Lack of community engagement to effectively engage and motivate youth to adopt water-saving attitudes behaviours and actively engage with water issues in their communities.

TURNING THE TIDE



JOINING FORCES TO NURTURE ASSAM'S OWN WATER AMBASSADORS

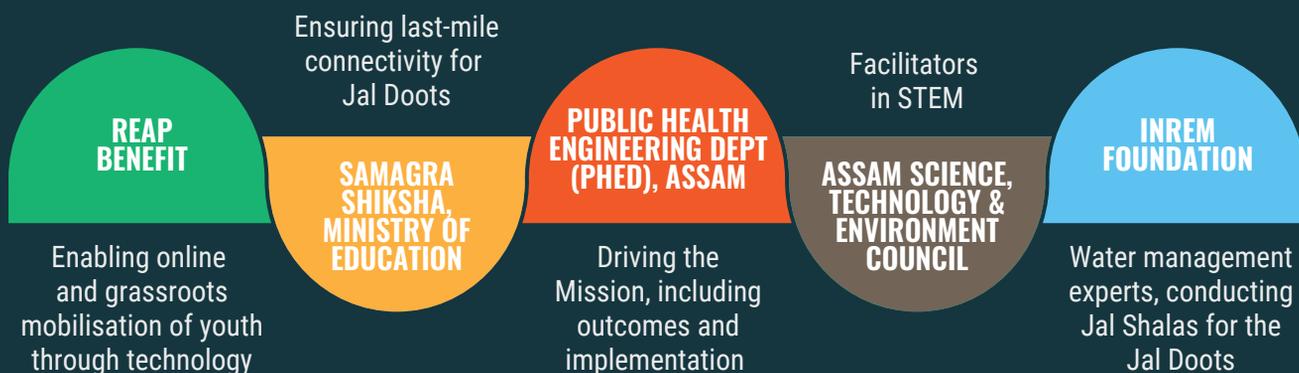
Recognizing that water stewardship is a shared responsibility, it became evident that cultivating a cadre of first-mile water ambassadors, or Jal Doots, from within communities was imperative. These ambassadors would be tasked with the pivotal role of raising awareness and fostering engagement in sustainable water management practices.

However, such an endeavour necessitated collaboration among diverse stakeholders, particularly civil society organizations (CSOs) and governmental bodies. Concerted efforts were needed to identify individuals within communities who exhibited the willingness to take up the task at hand. Additionally, it involved providing training, resources, and continuous support to empower these individuals adequately.



THE KEY PLAYERS

Through a noteworthy display of collaboration, the Jal Doot programme was established under the Jal Jeevan Mission banner, with several key stakeholders playing distinct roles in its implementation.



YOUTH: FRONT & CENTRE



SPOTLIGHT ON THE JAL DOOT: 14- TO 16-YEAR-OLDS FROM RURAL ASSAM

According to our research from Lean Data 2021 and past learnings, youth in the 14-16 year age group shows a strong desire to step out, take action, and acquire new skills. Over the course of the project, we witnessed their tremendous potential to develop personal agency through climate and civic problem-solving actions.

Our journey in Assam has so far yielded the following:



25,000
Jal Doots
Activated



5,000
Villages
Impacted



2,000+
Data Points
Crowdsourced



5,000
Schemes
Surveyed



14,200
Problem-
Solving Actions
Taken



100
Changemakers
Identified at
District Level



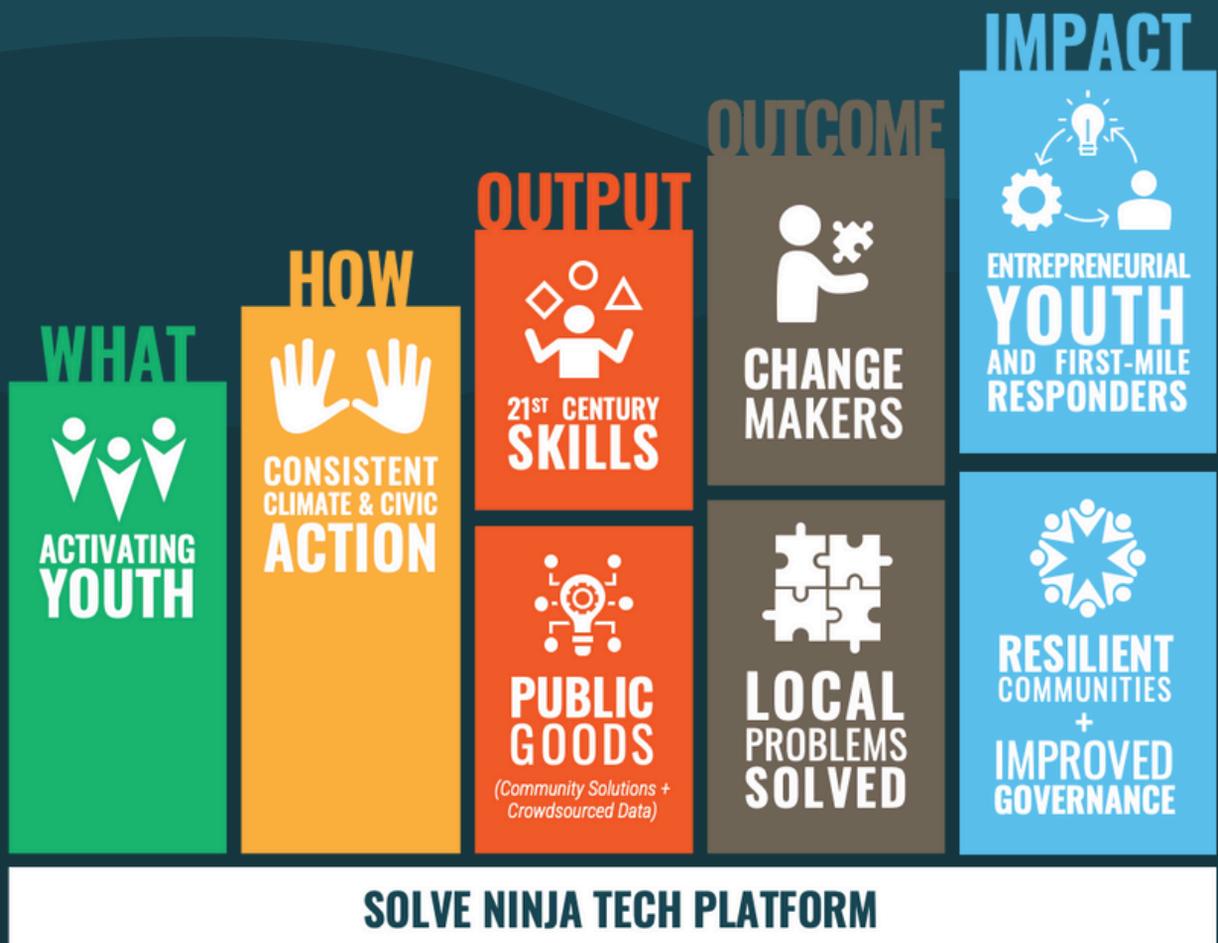
1st
Community of 40
Youth Leaders
Created



Our **Theory of Change** in this context is centred around giving young individuals, particularly those aged 14-16 in rural Assam, the space to build their personal agency and unlock essential life skills such as leadership, critical-thinking, grit, etc. by becoming active problem solvers in their communities. This process starts by engaging them in climate and civic actions that address hyper-local local challenges such as water conservation, water management, etc.

By consistently participating in these actions, they not only address pressing local issues, but also gain the confidence and the ability to initiate further changes in and around them.

Over time, these youth evolve into first-mile changemakers—Solve Ninjas—who lead by example in their communities. Their proactively contribute to building resilient communities, as they inspire others to get involved and collectively work towards sustainable solutions. This approach creates a cycle of continuous improvement and empowerment, ensuring that these communities are not only addressing current problems, but are also better prepared for future challenges.



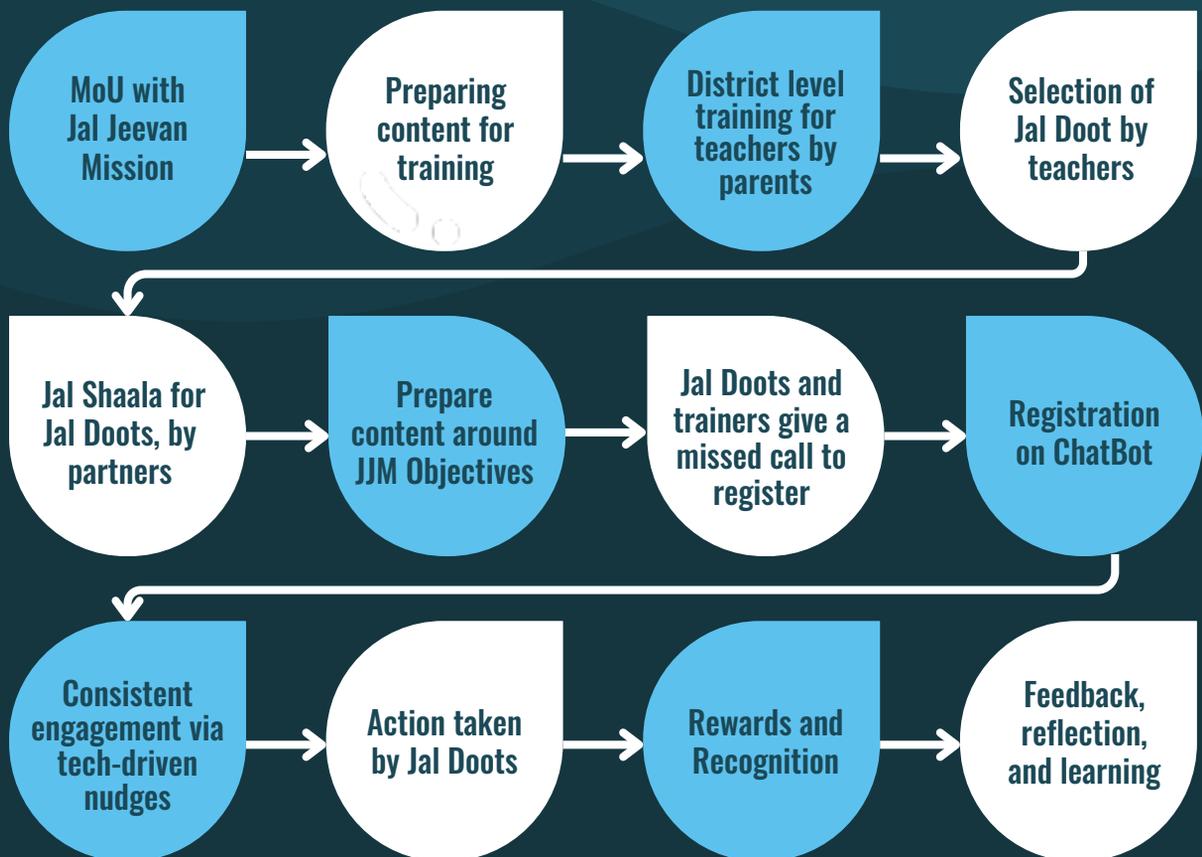
BUILDING CAPACITY



BUILDING LOCAL WATER AMBASSADORS THROUGH WATER WORKSHOPS

INREM Foundation collaborated with trainers from ASTEC and SSA to select five Jal Doots from each of the 5,000 villages involved in the initiative. In June 2023, INREM organized a two-day offline workshop, Jal Shaala, which was hands-on and activity-based, supported by engineers from WSS and local NGOs. The workshop emphasized the importance of water as a collective responsibility, preparing the Jal Doots to actively contribute to making their communities water-resilient.

THE PROGRAMME'S JOURNEY

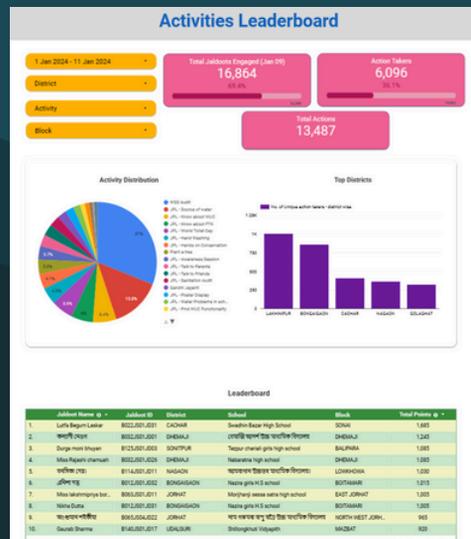
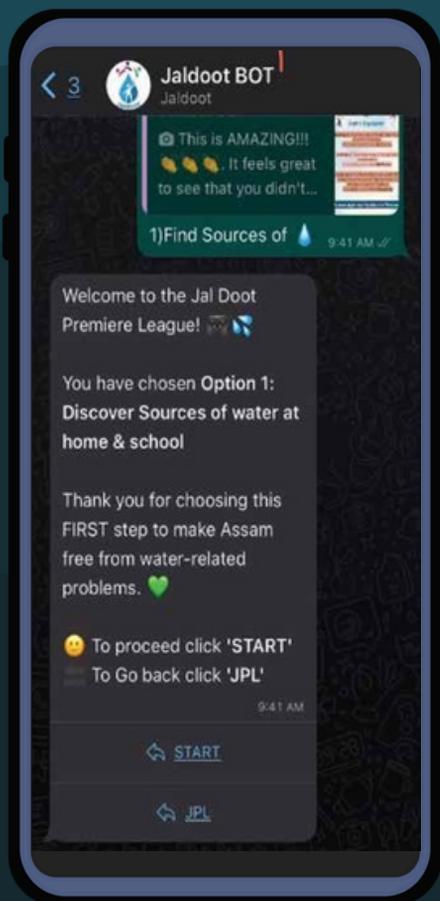


TECH-ING THE LEAD

OUR LOW-COST MODULAR OFFERINGS BUILT INTO THE SAMAAJA PLATFORM PROVED QUITE SUCCESSFUL IN ENGAGING JAL DOOTS, GIVING A PLATFORM TO THE OTHER PARTNERS FOR DECISION-MAKING.

At the orientation of the Jal Shala, all Jal Doots registered on a WhatsApp-based Chatbot managed by Reap Benefit. It was important to establish a link between the offline engagement and the subsequent online engagement. Via technology, we increased the challenge slowly from individual to family to community, as the Jal Doot started activating more skills and confidence.

We also learnt that activities that required interacting with the community brought the Jal Doots social recognition and had a higher rate of response from the Jal Doot. Interactive easy to set up customisable dashboard allow real time visibility and informs decision making at a Program level.



DRIVEN BY DATA

ENGAGEMENT VIA CHATBOT

75% of Jal Doots interact on the bot, with responses, questions and comments.

37% of Jal Doots have completed problem-solving activities sent via the bot.

TECHNOLOGY BUILT ON OPEN-SOURCE PLATFORMS LIKE SAMAAJA, WHICH IS MODULAR, FLEXIBLE, AND INTEROPERABLE, CAN BE EASILY ADOPTED AND SCALED BY ORGANIZATIONS AND GOVERNMENTS.

Through the activities sent via the Chatbot, Jal Doots undertook problem solving through the DISS framework, i.e., “discover”, “investigate”, “solve” and “share”. They conducted audits of the Water Treatment Plant set up by the Jal Jeevan Mission in their village. They investigated and identified water-related problems in their school. They helped do a flood- mapping in their village and even tested the water quality in their neighbourhood using a Field Test Kit (FTK). This crowdsourced data was shared with the state government and is available on our public data portal called Samaajdata.

The survey conducted by the Jal Doots on Water Treatment Plants in their villages revealed some notable insights. The survey assessed nine parameters, including water source, treatment processes, supply issues, leakages, and the connection between water use fees and services. Despite villagers paying fees, over 50% of the communities reported various issues with their water treatment systems.

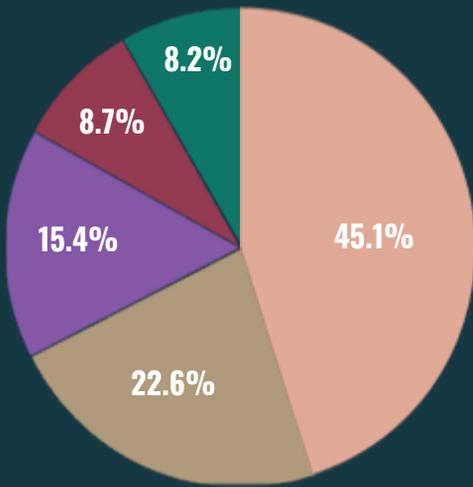
We actively use this data to develop technology-driven nudges that address each village's specific challenges. For example, we observe that in villages with hand pumps (dumkal), there is a need for greater education on the importance of safe drinking water, as many villagers remain reluctant to switch from dumkal to tap connections for their drinking water.



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Long 94.63415°
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Google





Top Actions Taken by Jal Doots

- Reported issues of water source, cleanliness
- Gave feedback on Policy functionality at village level
- Built and executed water saving solutions on ground
- Campaigned for better water saving habits and clean drinking water
- Completed solutions suggested by the chatbot on issues of water conservation or WASH

To motivate students, we gamified the process by creating a leaderboard that ties actions taken to a point-based reward system, gradually increasing the challenge level of actions. Their efforts have been recognized and rewarded at both the District and State levels, with commendations from the District Collector and the Hon'ble Chief Minister of Assam.

Jaldoot Name	Jaldoot ID	District	School	Block	Total Points
1. Lutfa Begum Laskar	B022.JS01.JD31	CACHAR	Swadhin Bazar High School	SONAI	1,685
2. কন্যাপি নেওগ	B032.JS01.JD01	DHEMAJI	বেংগলি আল্প উচ্চ মাধ্যমিক বিদ্যালয়	DHEMAJI	1,245
3. Durga moni bhuyan	B125.JS01.JD03	SONITPUR	Tezpur chariali girls high school	BALIPARA	1,085
4. Miss Rajashi chamuah	B032.JS01.JD26	DHEMAJI	Nabaratra high school	DHEMAJI	1,085
5. হুমসিকা দেৱী	B114.JS01.JD11	NAGAON	আমৰগাম উচ্চতৰ মাধ্যমিক বিদ্যালয়	LOWKHOWIA	1,030
6. ঐশিমা দত্ত	B012.JS01.JD32	BONGAIGAON	Nazira girls H.S school	BOITAMARI	1,015
7. Miss lakshmi priya bor...	B063.JS01.JD11	JORHAT	Morjhanji sessa satra high school	EAST JORHAT	1,005
8. Nikha Dutta	B012.JS01.JD31	BONGAIGAON	Nazira girls H.S school	BOITAMARI	1,005
9. অংশুমান শইকীয়া	B065.JS04.JD22	JORHAT	শ্যম পঞ্চদশ বাপু উচ্চ মাধ্যমিক বিদ্যালয়	NORTH WEST JORH...	965
10. Gaurab Sharma	B140.JS01.JD17	UDALGURI	Shillongkhuti Vidyapith	MAZBAT	920



EMERGING GRASSROOTS LEADERSHIP



EARLY SIGNS OF SUCCESS STARTED TO EMERGE SIX MONTHS INTO THE PROGRAM

Jal Doots are beginning to recognize the impact of small actions in driving larger change. They are eager to take on a variety of local issues, gaining deeper insights into their own communities and engaging purposefully with local governing bodies. The transformation is evident, as they report significant growth in both their skills and mindset.

We organized offline events called Jal Addas at both the block and district levels to recognize and celebrate high-performing Jal Doots. These events aimed not only to acknowledge their efforts but also to channel select Jal Doots into forming self-sufficient communities. These communities expanded their focus beyond water to address issues such as sanitation and waste management, becoming champions and ambassadors for better neighbourhoods.

Two pilot Jal Addas were conducted for 100 Jal Doots in Lakhimpur and Kamrup districts. Of these, 30 Jal Doots expressed interest in continuing their problem-solving journey into broader community issues. Reap Benefit engaged these dedicated individuals through WhatsApp, providing mentoring and support as they developed into community civic leaders.

While the primary goal remains driving the adoption of drinking water tap connections among citizens, all partners, including the government, recognize the significant value in building a volunteer network of Jal Doots. These volunteers are becoming vital Community Assets, enhancing local governance by being informed, active, and participative.

The program is set to expand further. The Jal Jeevan Mission in Assam aims to mobilize 1 lakh Jal Doots across the state, impacting 25,000 villages. Jal Doots are consistently honing their skills through their ongoing problem-solving actions. Their most activated skills include data orientation and active citizenship, as they focus on reporting and addressing water-related issues in their communities.



MAKING A SPLASH



THE JAL DOOTS GO NATIONAL!



After the tangible results in Assam, the Central Government, in 2024, adopted the Jal Doot programme into national policy, mandating it across government and CBSE schools in all states, to promote community-driven water conservation and sanitation awareness.

[READ MORE](#)



EVIDENCE-DRIVEN CHANGE

At the collective level, the Jal Doots conducted water audits across rural Assam to crowdsource 2,000+ data points on flooding, sanitation, and water treatment plants, providing this data to the government to inform policy and enhance water infrastructure.

FOSTERING FIRST-MILE CHANGEMAKERS



At the individual level, 25,000 youth across Assam unlocked and exercised their agency and developed essential 21st Century skills, such as problem-solving, communication, and critical thinking. These empowered young individuals are becoming first-mile changemakers driving resilient communities.

LEARNINGS FROM THE GROUND

PLATFORM

TECHNOLOGY IS THE MEDIUM, NOT A SILVER BULLET

Technology's power lies in engagement, not in adoption only. While 70% of the Jal Doots embraced tech, true behavioural change requires continuous engagement. In rural Assam, sustained tech adoption is thriving through contextual, asynchronous engagement strategies based in local communication

TECHNOLOGICAL SOLUTIONS CAN BE SIMPLE AND EASY TO ACCESS AND IMPLEMENT

In multi-stakeholder partnerships, prioritizing Free and Open Source Software (FOSS) ensures flexibility, agility, and minimal technology debt. This approach allows for redistribution and redesign without compromising social impact, fostering a sustainable collaboration.

PEOPLE

YOUTH AS CONTRIBUTORS, NOT JUST CONSUMERS

Behaviour change often transcends information; it typically shifts us from unconsciously wrong to consciously wrong. However, the gap between awareness and action remains wide. Shared lived experiences prove crucial in closing this gap, highlighting the power of commonality in driving meaningful change.

CIVIC MUSCLE IS BUILT SYNCHRONOUSLY AND ASYNCHRONOUSLY

Undoing default apathy and addressing common problems requires more than a single program; it demands structured initiatives. Yet, sustained asynchronous engagement holds immense value in developing the capacity to tackle local climate and civic issues effectively.

PROCESS

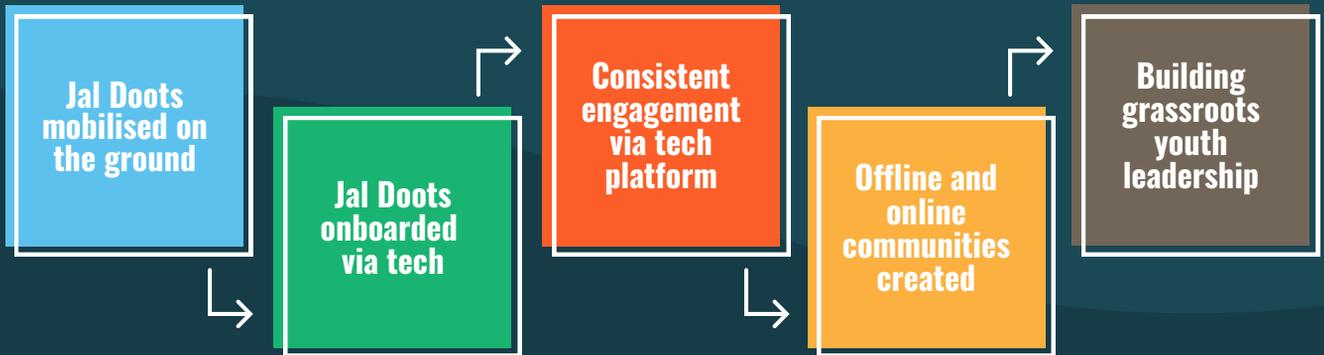
SOLVE SMALL, DENT BIG

Small neighborhood actions wield profound, enduring impacts on both places and lives. Together, these seemingly modest efforts constitute a potent movement of neighbor-led positive change. Aligning small actions with the bigger picture fosters self-efficacy, collective efficacy, and systemic effectiveness. A young Jal Doot surveying a government run Water Treatment Plant leading to collection of 2000+ surveys transforming into government action of making all Plants functional allowing 5000 villages to receive clean drinking water is a case in point.

COMMUNITY COLLABORATION

Building partnerships on trust, shared values, and involving the execution team early fosters enduring collaborations grounded in practical execution realities rather than mere conceptual realms.

LEARNINGS FROM THE GROUND



BUILDING ON-GROUND COMMUNITIES USING LOW-CODE TECH AS AN ENABLER

In our experience, grassroots-driven youth communities are most effectively sustained when consistent stakeholder engagement is supported by low-code technology. Our customised WhatsApp-based chatbot served as a running mate for youth engaged in problem-solving, helping create an environment of continuous support. Through consistent behavioural nudges, a centralised leaderboard, and action recording via our Changemaker Portfolio—all delivered through the Chatbot—we maintained high motivation, built momentum, and provided incentives to keep youth engaged and driven.

Additionally, access to crowdsourced and crowd-verified local data through our SamaajData platform empowered youth to take targeted, evidence-based actions that directly addressed community needs, turning their ownership into tangible outcomes.

i LEARN MORE ABOUT HOW WE IMPLEMENT LOW-CODE TECH TO SUSTAIN YOUTH COMMUNITIES

SCAN TO CHECK OUT OUR LEADERBOARD AND CHANGEMAKER PORTFOLIO
or visit www.solveinija.org

SCAN TO EXPLORE THE SAMAAJDATA PLATFORM FOR CROWDSOURCED LOCAL DATA
or visit www.samaajdata.org



ABOUT JAL JEEVAN MISSION

Jal Jeevan Mission, is envisioned to provide safe and adequate drinking water through individual household tap connections by 2024 to all households in rural India. The programme will also implement source sustainability measures as mandatory elements, such as recharge and reuse through grey water management, water conservation, rain water harvesting. The Jal Jeevan Mission will be based on a community approach to water and will include extensive Information, Education and communication as a key component of the mission. JJM looks to create a *jan andolan* for water, thereby making it everyone's priority.



ABOUT THE JAL DOOT PROGRAMME

The Jal Doot Programme, pioneered in Assam under the Jal Shakti Abhiyan, focuses on empowering youth to become ambassadors for water conservation. Youth volunteers, known as Jaldoots, engage in spreading awareness about rainwater harvesting, groundwater recharge, and water-efficient practices in their communities. This initiative is now set to be implemented across India in all government and CBSE schools, aiming to instil environmental responsibility in students from a young age. By actively involving youth, the program seeks to ensure sustainable water management practices and create lasting change across the country through education and action at the grassroots level.



ABOUT INREM FOUNDATION

INREM Foundation empowers rural communities across India by building Water-Safe Communities through policy support, access to knowledge, and innovative solutions aimed at addressing the challenges posed by contaminated water bodies. With a vision to create a future where every rural community has access to clean and safe water, INREM focuses on improving health, well-being, and sustainable livelihoods. The foundation achieves this through community-based learning and continuous support for changemakers addressing critical issues related to health, livelihoods, and the environment. In the Jaldoots Programme, INREM plays a key role by conducting Jal Shalas, training young volunteers to lead water conservation initiatives in their communities.



ABOUT REAP BENEFIT

Reap Benefit works to translate youth apathy into agency and action, through consistent engagement in hands-on problem-solving for civic and climate challenges. With a vision to create a grassroots movement of first-mile changemakers—or Solve Ninjas—in every neighbourhood, Reap Benefit aims to foster resilient communities and improve governance. One of the key partners in the Jal Doot mission, the organisation worked on enabling online and grassroots mobilisation of youth through technology.