

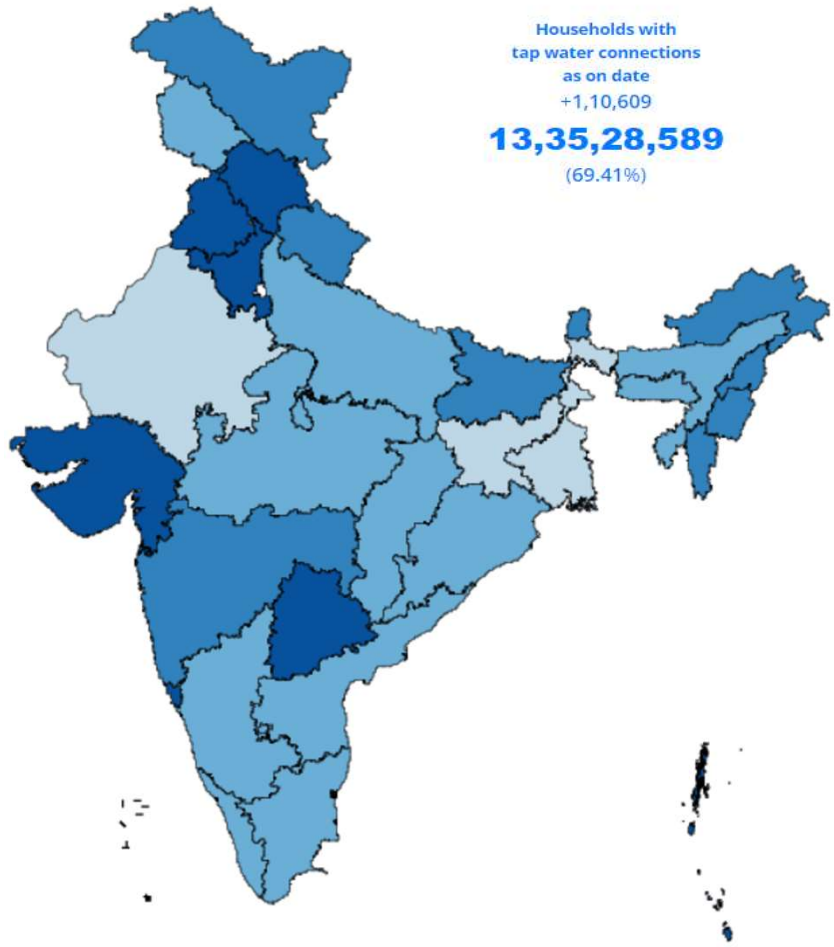
Geo-spatial data communication on Water Quality


Enabling citizens to know, share and get insights on water quality anywhere using digital platforms

GeoSmart
India 2023

18.10.2023










Jal Jeevan Mission - Har Ghar Jal


Water quality



priority areas

 Sensor based IoT pilots

 Water Quality

 JJM Report

Status of testing of drinking water samples in 2023-24 (as on 15 Oct 2023)

Lab Testing Status

Active laboratories	Samples tested in laboratories + 292	Total Villages where test has been done	Contaminated samples found in laboratories + 0
2,109	40,11,114	4,49,654	3,65,374

FTK Testing Status

Women trained for testing water samples using Field Testing Kit (FTK)	Villages where women trained for testing water samples using Field Testing Kit (FTK)	Samples tested using FTK + 20,543	Total Villages where FTK test done
23,11,144	4,89,922	63,32,060	3,20,186

Where can you and I see drinking water quality data?

The **Water Quality Monitoring Information System (WQMIS)** is the database of Jal Jeevan Mission which gives the drinking water quality scenario of the country.

Water Quality Monitoring & Surveillance (WQM&S) is an important pillar within JJM.

Community members as part of VWSC and 5 women groups are playing an important role in collection of data and surveillance of WQ.



Jal Jeevan Mission Dashboard on Water Quality

Experiences with the existing system

Working model: Registered users who are part of the VWSC & community members can upload the data through the WQMIS application. The usage of public user is not as widespread.

Challenges highlighted during the Learning Group on WQM&S by States and ISA/KRCs working on ground :

- No communication of data to citizens or Insights of the data
- In case of contamination of water source, there is no strategy for remediation with citizens involvement. Actions are generally abrupt.
- There is no information on simple remedies for solvable community/individual level water quality issues

INREM Foundation - an introduction

Our vision is to create a future where every rural community in India has **access to clean and safe water, ensuring the health, well-being, and sustainable livelihoods of millions.**

INREM Foundation is also recognised as

- Water Quality Management Thematic Lead within Rural Wash Partner's Forum.

Presence: 10 districts. Across 7 states

In partnership with

- State Departments in Assam,
- Madhya Pradesh and Rajasthan.



Meet Water Quality Bot – ourWater

The chatbot is powered by the **Glific**, that allows building of conversational chat flows

Verified and focused response on water quality is enable by **Jugalbandi**, powered by Open AI's GPT 4

For responses in Indic Languages, the chatbot is integrated with **Bhashini** which is part of MeITY's National Language Translation Mission.

Current knowledge base

1. IMIS Water Quality data, Gol
2. Water Quality Network's **safe water learning cards**



BHASHINI

JUGALBANDI

Safe Water Learnings - as engagement tool to learn

The flash cards developed are currently used to help engage with the frontline members & community members.

The tool is used to learn and **stimulate discussion** on the subject of water quality.

The limitation of this - it is still restricted to training program where it is used.



Safe water learning cards in Gujarati language

Read about the Safe water learning cards here https://drive.google.com/drive/u/0/folders/1Ze9MoDd_Z_zQH5viviEtA3BALtc5CUImf

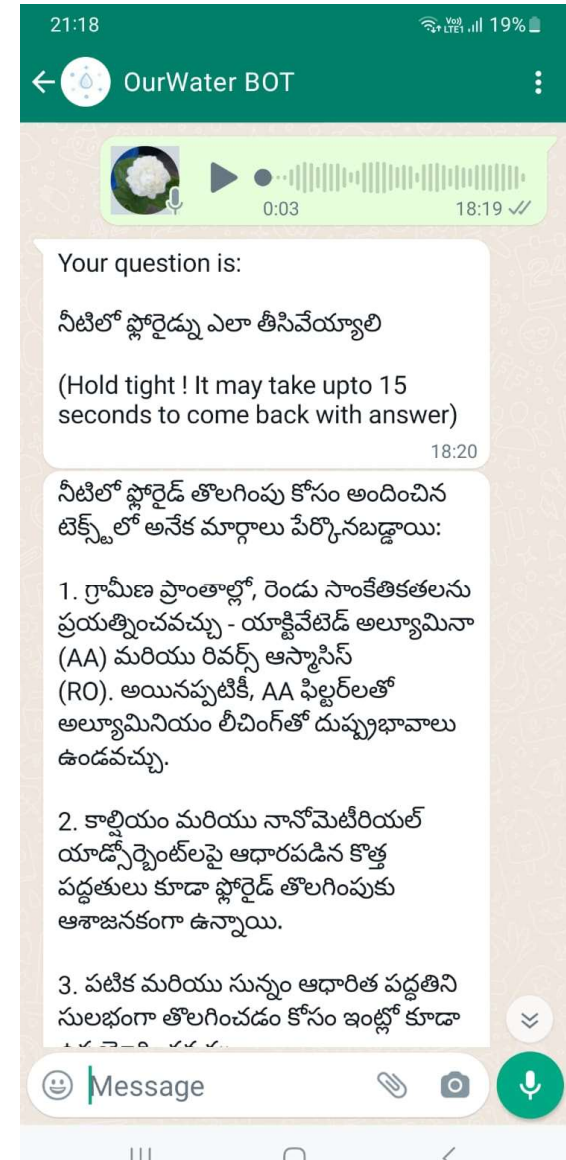
Use case 1 : Ask Questions

Allows users to **ask and get answers on water quality solutions and strategies**

Current capabilities: WQ issues such as salinity, fluoride, nitrate, pathogens and iron

The user can **ask** the questions in **text and voice**.

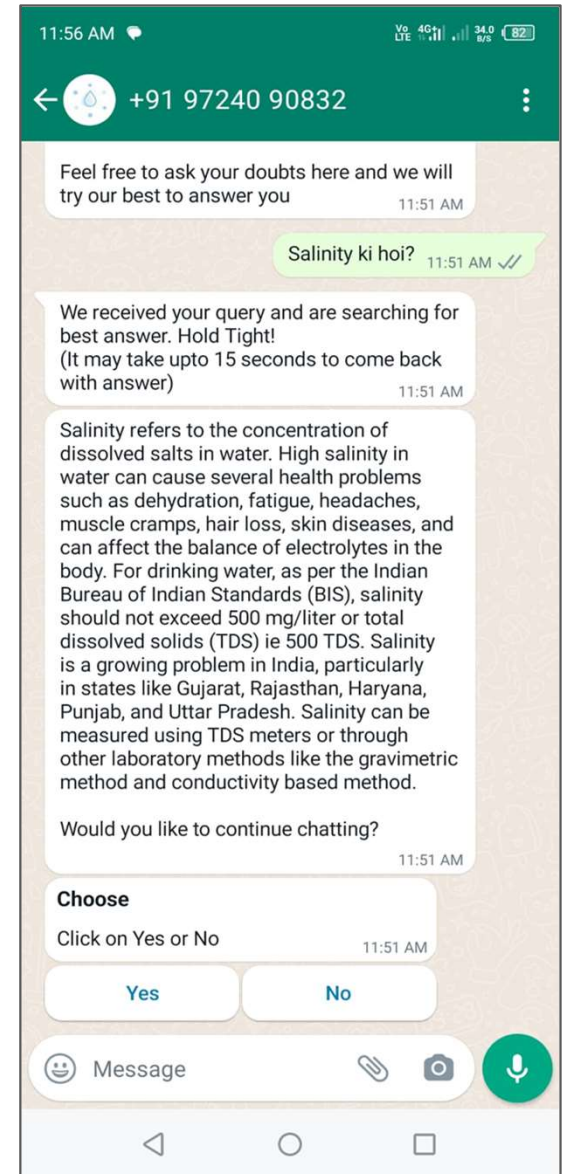
Gets an answer in **text and voice in selected regional language**



Use case 1 : Ask Questions

The user benefits from insights from knowledge base on water quality. For e.g.

1. Simple actionable household water treatment methods.
2. Create simple targeted communication strategy

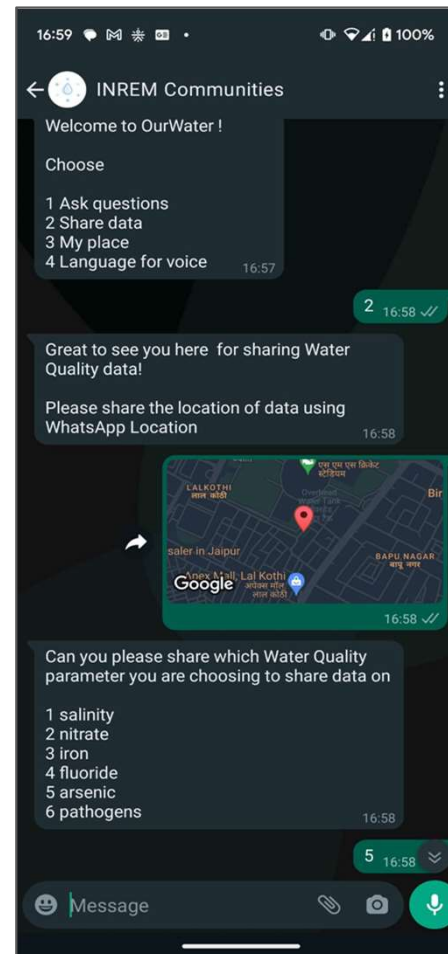


Use case 2 : Share data

AI enabled conversational bot allows users to **test and share data** from a chosen location.

The user can **access** the data contributed by them as well as the other users.

The user benefits from insights from crowdsourced data

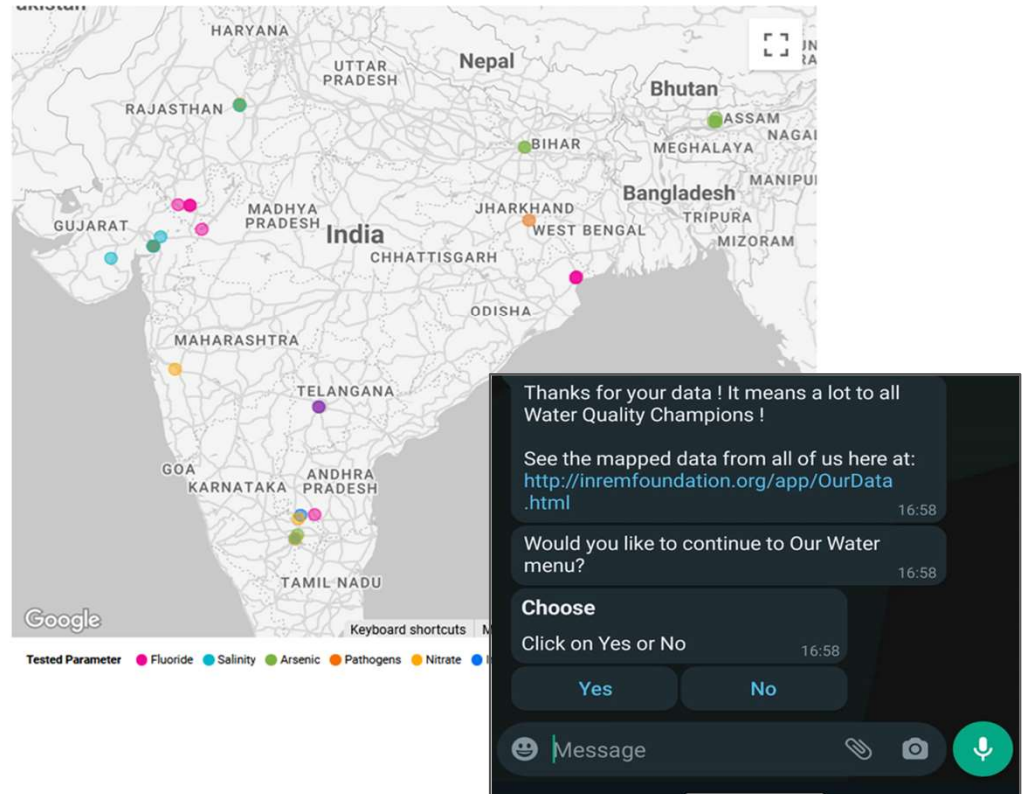


User can share data and see the crowdsourced data on a map

Use case 2 : Share data

Our Data

The **data gets mapped** and the user can see all the contributions made by other users

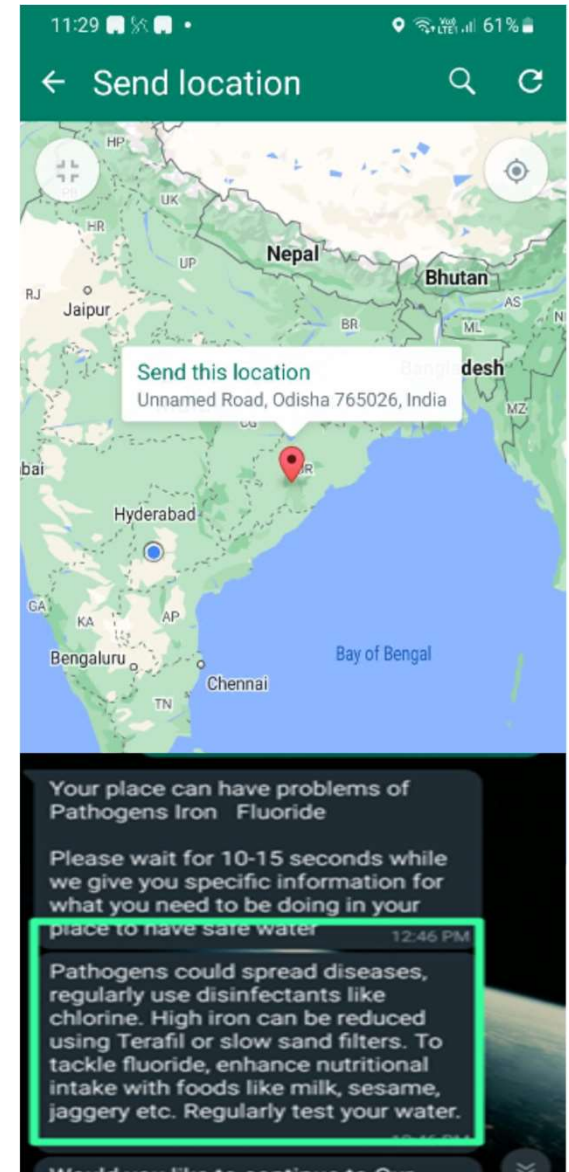


Use Case 3 : My place

The user can share the location using Whatsapp.

Allows users to **ask** and get insights on **water quality data based of their location.**

The user benefits from **insights from knowledge base of water quality IMIS** and can know water situation of their location.



Upcoming features

1. Testing at scale
2. Hyperlocal data responses, for example “what is the water quality of my hand-pump?”
3. Image based responses
4. It has the potential of integration with public data sources.
5. Connecting with experts for one on one problem solving

Test the WaterQuality Bot!

Scan QR code to register

Type **“ourWater”** to begin your journey on enabling insights on water quality

Share your feedback!



Thank you!



For thoughts and/or queries, write to us
at hello@inremfoundation.org