

# WATER-WISE

**To combat Bangalore's water challenges, dedicated citizens & tech-savvy startups are unveiling smart, sustainable solutions. Here are a few options to explore...**

Bindu Gopal Rao

**T**his year, water—the very essence of life—dominated Bangalore's headlines for all the wrong reasons - its alarming scarcity. The city, once hailed as the "land of a thousand lakes," found itself in the grip of severe water woes during what many called one of the harshest summers on record. The parched landscape left its mark

on Bangaloreans, serving as a grim reminder of what's to come in future summers.

Yet, amidst the dry spell, a few determined Bangaloreans rose to the challenge, crafting innovative solutions to tackle the crisis head-on. Add to that the vibrant start-up culture, where several organisations are leading the charge with tech-savvy solutions. Here are some initiatives that promise to keep Bangalore's water troubles at bay—take a look!

## WaterOn



Founded in 2014, Smarterhomes developed "WaterOn," an Internet-of-Things (IoT)-based water meter that provides real-time monitoring of water consumption. This smart solution offers two key benefits - it empowers households to track and reduce their water usage, cutting waste, and allows users to pay only for the water they consume, instead of a flat rate.

"Most users can reduce their consumption by up to 35% after tracking every drop," says COO **Jitender Thirwani**. Through the Smarterhomes app, users can monitor their water consumption statistics in real time, driving behavioural changes that lead to significant savings. "Additionally, WaterOn's leak detection feature lets users shut off water supply remotely via the app, further preventing wastage," he says.

WaterOn also identifies the most water-efficient households, highlighting them in the monthly bill—a subtle nudge toward sustainable habits. Chaitanya Bherde, treasurer of Aban Humming Bees Apartments, shares, "We used to rely heavily on water tankers, which drove our costs up. After installing WaterOn meters, our consumption dropped by 25-30%. Now, with the app tracking hourly and daily usage, everyone is more mindful of saving water."



## Waterlab Solutions

Waterlab Solutions, founded in 2019 by international water specialist Vijay Gawade, 58, was established to address India's growing groundwater challenges. Operating under the principle, "what needs to be managed, needs to be measured", Waterlab aims to empower borewell users with the tools to monitor and manage their water sources effectively.

Their flagship product, the Bhujal Borewell Monitoring App, is a cost-effective and scalable solution for individuals, communities, commercial entities, and government institutions. "We offer digital solutions that integrate IoT innovations with our domain expertise," says **Gawade**. "Our app supports geotagging and monitoring of groundwater wells, water budgeting, and community-driven resource management, making it useful for agencies and research organisations," he adds.

Currently available for free on Google Play, the Bhujal App has over 90,000 users, helping streamline water management across India.



## Uravu Labs

Uravu Labs, a startup building renewable water infrastructure for the 21st century, was founded in 2019 by Swapnil Shrivastav, 31, CEO, Venkatesh RY, 30, Co-Founder, Sales & Marketing, and Govinda Balaji, 32, Co-Founder, Engineering & Technology. The trio first explored the concept of "water-from-air" as students at NIT Calicut in 2016, drawing inspiration from the Star Wars universe. Initially using condensation technology, they later shifted to a more efficient, innovative approach.

Uravu's breakthrough involves using liquid desiccants to absorb

moisture from the air. "This moisture is then heated via solar or renewable electricity to produce freshwater. Scalable and sustainable, Uravu's system can be powered by solar PV, biomass, waste heat, or grid electricity, completely eliminating reliance on groundwater," they say.

By installing a 10,000 LPD system, Uravu saves up to 8.8 million litres of groundwater and reduces carbon emissions by 18.1 tonnes, while eliminating the need for reverse osmosis systems. Uravu's eco-friendly water solution supports companies aiming for Net-Zero and ESG goals, offering both environmental and economic benefits.



## Indra Water



The biggest challenge for water conservation lies in treating wastewater and making it reusable. Traditional water treatment methods require large infrastructure and heavy chemical usage, making them outdated and inefficient.

This is where **Krunal Patel** and **Amrit Om Nayak**, both 33, step in. In 2017, the duo founded Indra Water in Bangalore to revolutionise wastewater treatment for industries, commercial establishments, and homes. Their compact, electrically-driven systems simplify treatment at the source—handling even the dirtiest water with ease.

Indra's proprietary technology processes water in three steps. "First, dirty water flows through electrical reactors that generate metal hydroxides to trap suspended pollutants. These contaminants form flocs that rise to the surface. Second, the flocs are filtered out. Finally, the water is disinfected, completing the cycle. Our reactors also oxidise difficult dissolved pollutants, ensuring up to 99% water recovery for non-potable reuse," the founders explain.

Indra's approach eliminates harmful chemicals and reduces reliance on bulky biological systems. The result? A 90% smaller footprint, 30% cost savings, 70% sludge reduction, and nearly total water recovery, driving a smarter, cleaner future for wastewater treatment.

## The Ground Water Company



The idea for The Ground Water Company was sparked in 2003 when water tankers became the norm in Bangalore's rapidly expanding suburbs. "It was clear this wasn't sustainable—it was a crisis waiting to happen. After years of studying the situation, we realised the real issue wasn't scarcity, but water mismanagement," says founder **Jagdish Balaram**, 37. This understanding led to the company's formation, with a focus on optimising wells for better groundwater use.

While groundwater recharge was a buzzword, no one knew where the recharge water was actually going. Urban flooding, exacerbated by climate change, added to the challenge. "We developed a subsurface mathematical modelling tool to identify the best aquifers and recharge zones," explains Balaram.

Along with colleague Latish, they created an optimised well system, a storage technology that boosts aquifer sustainability and recharge rates by up to 800%. "Even during the 2024 drought, when others were drilling as deep as 1,600 feet, our customers were finding water at 600 feet," he adds.

The Ground Water Company has completed over 100 projects across 800 million square feet of real estate in India, replenishing 1.8 billion litres of water while cutting drilling costs by 60% for clients.

