

What do open wells mean for Bengaluru, a city that's looking for ways to achieve water security as it deals with rapid growth

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WELLSPRINGS OF HOPE



Thanisandra



Near K R Market

TOWARDS WATER SECURITY

The history of open wells in Bengaluru is as old as the history of the city itself, says Vishwanath. The city once depended on *kere* (lake) and *bavi* (well) for water, and wells were the dominant source for

both domestic and other uses for more than 1,200 years.

"Many tanks dried up during summer and since they were not perennial, people dug open wells to access groundwater," he says. "Sinking of borewells began in the 1940s and 50s, but it was only after three years of drought in 1984, 1985 and 1986 that the borewell culture really took off."

Open wells were found across old Bengaluru—in Kalasipalyam, Palace Orchards (now Sadashivanagar), Shivajinagar, Yelahanka and many city-centre areas. "These areas had abundant groundwater because the *kere* or lakes supported paddy cultivation; when paddy was irrigated, groundwater got fully recharged, and after harvest, water was available even one or two feet below ground," Vishwanath says.

A decade ago, Biome Trust launched the 'Million Wells for Bengaluru' initiative, to revive

the city's water security and to restore livelihoods of the Mannu Vaddar community, who traditionally dug wells, and the Kallu Vaddars, who lined them with stone. "Since the advent of borewells, their livelihoods had collapsed. So the idea was to clean up old wells, dig recharge wells, and use rainwater harvesting to push water into shallow aquifers. If done properly, these aquifers can be filled and well water reused. Even today, open wells have immense potential," explains Vishwanath.

Though space is a constraint in some rocky areas, nearly 80% of Bengaluru can support dug wells and recharge wells, he estimates.

In new gated communities, old irrigation wells are often closed as a 'waste of land', but forward-thinking builders now integrate them into landscape design and parks, protecting and reusing

them. "On a small 30x40 or 30x50 site, all that is needed is a 3ft diameter space to dig a well, recharge it and use it. If your neighbours have wells or your locality once had them, chances are you can have one too—just make sure rock is not hit till 20ft. The govt has already mandated recharge wells under the rainwater harvesting bylaw, which means anyone can integrate them," he adds.

Unlike borewells, open wells need only a half-HP or 1-HP pump, making them cheap and energy-efficient. They also help prevent flooding by diverting rainwater into the aquifer instead of drains.

At a community level, the benefits multiply—as seen in a gated community on Sarjapur Road, which built over 300 recharge wells, stabilised its groundwater table and secured enough water for all its needs. "Open wells are not just part of our history—they remain vital to Bengaluru's future water resilience. It is cheap water, good water, and if we recharge our wells, we ensure water security for ourselves and for the city," he adds.

GROUND THAT KEEPS GIVING

When Somaiah demolished his house about 15 years ago to build a new one, he was in for a great surprise. "When the earth was dug for the new foundation, water used to seep into the pits every day. We had to pump out water continuously to lay the foundation. During the construction, we revamped the well by replacing the cement rings in it. We have also diverted all the



D J Halli

rainwater to the well to recharge groundwater," he says.

Similarly, when Jayanagar 5th Block resident M Nagamohan demolished his old house to build a new one, he too ran into a water problem. The discovery not only messed up the construction timeline, but also led to a major cost escalation of the project. "When we excavated soil, there was heavy seepage," he says.

"As per our original design, we had to lay 16 pillars in the foundation. Not only did we have to pump out a huge quantity of water, but we also had to double the number of pillars in the foundation," he says.

A 200-year-old well, once the lifeline for British soldiers and their horses, has been rediscovered beneath the Bowring Institute in central Bengaluru recently. Its revival process began in June, and a little later, the historic "Mother Well" dating back to the early 1800s, came alive with clear water gushing through its ancient stone walls.

"We first noticed the water level about four months ago. Since then, it has gradually risen and is now around 25 feet," says Srikanth HS, secretary of Bowring Institute, when contacted for an update. "We haven't drawn any water yet, as we want to observe it for a few more weeks and allow the dust particles to settle so the water clears. If sustained, it could even be used for cooking and drinking. With the recent rains, the well has been steadily recharging, and we plan to consult water experts before deciding on its use."

In the periphery of Bengaluru, especially around Devanahalli, groundwater levels have risen due to lake recharge from treated wastewater, good rainfall, and rainwater harvesting, says Shubha Ramachandran, water team lead at Biome. "Its direct impact can be seen in open wells as people have noticed the rise and included it in their daily usage. Communities that have adopted recharge wells have seen similar results along Bannerghatta Road, Koramangala, Ulsoor and parts of Indiranagar (with reference to shallow aquifers 30-50 feet below ground, not deep borewells)," she says.

Bengaluru Water Supply and Sewerage Board chairman Ram Prasath Manohar confirms that residents with open wells and borewells are seeing improved water supply, with some long-dry



Sahakarnagar

WHAT IS AN OPEN WELL

A well is a man-made hole in the ground that either stores water for recharge or yields water for use. **There are two types of open wells:** one is a recharge well built to allow rainwater or runoff to percolate into the soil; the second is dug to draw water, can be converted into a recharge well if it runs dry

What makes a good well

- Minimum three feet in diameter
- At least 20-ft deep
- Lined with concrete rings to prevent collapse
- Fitted with a safety cover
- Can take in water from rooftops, stormwater drains, or open areas

Open wells are important:

- They provide potable, soft water without scaling
- Allow rooftop rainwater harvesting at low cost, helping recharge groundwater
- Visible sources of water, unlike borewells that tap invisible reserves
- Can carry large volumes of harvested rainwater into aquifers
- Offer a sustainable and reliable source of supply for households and communities

wells springing back to life. "The revival is credited to a mix of good rainfall, recharge initiatives, and BWSSB's efforts," he adds.

Even today, tier-2 cities rely on open wells in peak summers when borewells run dry. "Bengaluru must revive this practice but one of the challenges is urbanisation—open wells need space, cost more, take longer to dig, and skilled well-diggers are vanishing. Yet their benefits are immense. The city should promote them in planning regulations, much like Chennai's policy of using open wells during rains to secure its water future," says Devaraja.