



# UNEXPECTED TURN IN SOUTHWEST DELHI'S UNDERGROUND WATER STORY

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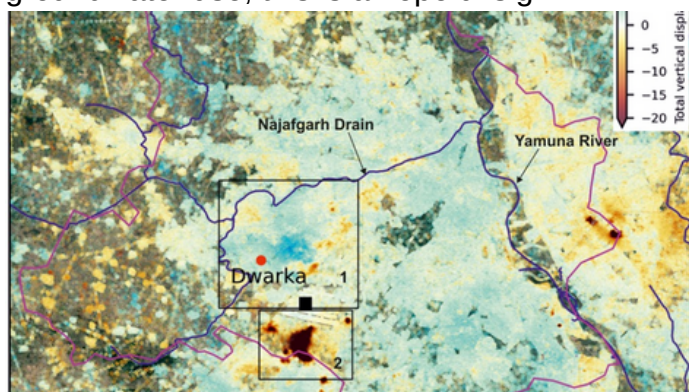
For years, residents of Dwarka in southwest Delhi have worried about the vanishing water beneath their feet. The city's rapid growth had come at a heavy price. Groundwater levels were falling, borewells were drying up, and the land itself was sinking in some areas. It seemed as if Delhi was draining its natural reserves faster than nature could replenish them. But now, a new scientific study has brought unexpected and encouraging news. According to a joint research effort by the Indian Space Research Organization and the Indian Institutes of Technology at Kanpur and Dhanbad, the land in parts of Dwarka is no longer sinking. It is slowly rising. The study, which examined satellite data between 2016 and 2023, found that the surface in parts of Dwarka has lifted by as much as ten centimeters over the past seven years. This phenomenon is linked to a steady rise in groundwater levels beneath the region. In simple terms, the water that had been lost from the underground aquifers is slowly coming back. Scientists describe this as a rare reversal in Delhi's water story. For more than three decades, groundwater levels across the city

have been steadily declining. In Dwarka, however, data from monitoring wells show that the water table has risen by over one and a half meters between 2018 and 2021. What makes this finding remarkable is that rainfall during that period was not unusually high. The improvement appears to be the result of better groundwater management rather than nature's generosity.

This recovery is not accidental. Over the past few years, a number of changes have taken place in Dwarka that have likely contributed to the improvement. Government regulations on borewells have become stricter. Many large residential complexes and commercial buildings have been required to install rainwater harvesting systems. Treated wastewater is now being reused in parks and for groundwater recharge. The Delhi Development Authority has also encouraged the creation of artificial lakes and recharge pits to allow rainwater to seep naturally into the ground.

Together, these steps have begun to change the balance between how much water the city takes out and how much it puts back. For a city

that has long been criticized for reckless groundwater use, this is a hopeful sign.



However, the picture is not uniformly positive. Experts caution that while Dwarka's aquifer appears to be recovering, other areas of Delhi are still facing a crisis. Satellite imagery shows that in parts of east and northeast Delhi, the ground continues to sink as water is extracted faster than it can be replenished. The contrast within the same city highlights how uneven the progress has been.

The reasons behind the improvement in Dwarka are complex but logical. The area has seen several years of restrictions on groundwater pumping. Large housing societies, government buildings, and even schools have adopted water conservation measures. Many local residents' associations have taken pride in maintaining their rainwater harvesting systems, often cleaning and repairing them before every monsoon season. The local government has also made it mandatory for new buildings to include recharge structures, and enforcement has been better here than in many other parts of the city.

At the same time, the introduction of treated wastewater into nearby recharge ponds has been an innovative step. Rather than letting this water flow into drains and rivers, it is being used to replenish aquifers. This has likely played a significant role in stabilizing and even raising the underground water table.

The visible effects of this change are already being noticed by residents. In some areas of Dwarka, basements that once remained dry have recently experienced minor water seepage. While this can cause inconvenience, experts see it as a sign that the aquifers are regaining strength. It is a reminder that urban

groundwater behaves like a living system, sensitive to how we treat it.

The implications of this finding go beyond Dwarka. If a highly urbanized area like southwest Delhi can reverse groundwater depletion, similar efforts can succeed elsewhere too. It proves that careful policy, technology, and community action can bring results. The recovery may be slow, but it is real.

Still, it would be premature to celebrate without caution. The increase in groundwater levels is modest and localized. Delhi's overall water balance remains precarious. Population growth, construction, and high summer demand continue to put pressure on the aquifers. Moreover, as groundwater rises in certain pockets, engineers will need to pay attention to issues such as flooding in basements and the stability of foundations. Managing a recovering aquifer requires as much planning as managing a depleting one.

Environmentalists argue that the Dwarka story should serve as motivation for broader reform. They call for a citywide groundwater management plan that includes strict monitoring, transparent data sharing, and coordinated action among agencies. Aquifers do not follow municipal boundaries, and what happens in Gurgaon or Faridabad will eventually affect Delhi. That means regional cooperation is essential.

For citizens, the message is clear: every drop of rain is a valuable resource. By maintaining harvesting pits and supporting local water initiatives, individuals can make a significant impact. The findings in Dwarka represent hope amidst bleak environmental news, showing that the earth can heal. The rising groundwater beneath Dwarka symbolizes resilience and renewal, encouraging progress and sustainability. It calls on planners and residents to nurture this recovery, suggesting that a sustainable future is attainable if we commit to it.