The Wells We Left Behind

In the fast-changing landscape of Gurugram, defined by its glass towers, bustling expressways, and mushrooming gated communities, there lies an overlooked and fading inheritance- **the dug wells**. Once central to rural life, these traditional water sources have silently borne witness to a dramatic transformation. As borewells proliferated and piped water systems expanded, dug wells slowly slipped into disuse, many reduced to dumping pits or sealed forever. And yet, they may hold the key to Gurugram's most pressing challenge, its growing water insecurity.

Figure 1: Sealed Dugwell in Village Babra in Farrukhnagar Block in Gurugram

GuruJal, with support from the Wipro Foundation, recently completed a comprehensive inventorization of dug wells across the four major blocks of Gurugram district: Gurugram, Sohna, Pataudi, and Farrukhnagar. A total of 424 wells were documented, and what we uncovered was both sobering and eye-opening. An overwhelming 331 wells, nearly 80%, are currently inactive. Another 19 have been permanently cemented or sealed, while three more staggers on the edge of abandonment. Only 71 remain in use today, a testament to the resilience of a few communities who still depend on these age-old sources for water despite many of them now yielding saline or polluted water.

Decay and Disuse

As our team visited site after site, we encountered a haunting pattern, wells once dug with care and community effort, now filled with garbage, overrun with weeds, or crumbling at the edges. Of the 424 wells surveyed, a staggering 282 were found to be filled with waste, while another 58 were structurally

dilapidated and similarly choked. Only 13 wells still held freshwater. In contrast, 33 contained either saline water or wastewater, a telling indicator of groundwater degradation and surface contamination.

Figure 2: State of Dug Wells in Gurugram

Notably, only eight wells had any nearby rainwater harvesting (RWH) systems indicating a significant untapped potential for integrating these traditional structures into modern water management strategies.

Figure 3: Well as RWH Structure in Pataudi Block

Gurugram's Water Paradox

These findings are especially alarming in the context of Gurugram's broader water crisis. All four administrative blocks of the district are officially categorized as **'dark zones'**, a tech nical classification by the Central Ground Water Board denoting critical or overexploited groundwater levels. While the city's vertical growth continues unabated, its water table is plunging year after year. Borewells now have to be drilled deeper and deeper, often yielding brackish water. Yet ironically, the same city that suffers from water scarcity during peak summers also reels under urban flooding during extreme rainfall events, another climate stressor becoming increasingly frequent. Streets flood, basements fill up, and stormwater drains fail, largely because natural recharge zones have been built over and traditional water infrastructure like dug wells and ponds lie forgotten.

Willingness for Revival

The survey also mapped the geographic footprint of these dug wells. The Gurugram block had the highest number (142), followed by Sohna (97), Farukhnagar (88), and Pataudi (66). In each of these areas, a clear pattern emerged: inactive wells clustered in waste-filled or dilapidated conditions, with few examples of integration into modern water systems. Yet amid this decline, a powerful message emerged from the communities themselves. When asked about the possibility of reviving these wells, **233 respondents enthusiastically said 'Yes'**, another **64 said 'Maybe'**, and only **37 said 'No'.** The desire to restore these lost water bodies is real and widespread.

Who Owns the Wells?

The dug well ownership analysis reveals that the vast majority, nearly 300 wells, are under the ownership of Panchayats, highlighting their prominence in rural and peri-urban governance. In comparison, municipal corporations and private entities each own around 55–60 wells. This ownership

pattern suggests that any revival strategy must be closely coordinated with Panchayats and local governments, who manage the lion's share of this critical traditional infrastructure.

Traditional Wisdom in Well Construction

Figure 4: Stone well in Kadarpur Village in Sohna Block

The diversity of materials used in lining Gurugram's dug wells reveals much about their historical construction and evolving maintenance practices. Most wells were traditionally built using locally available materials like limestone, stone, and brick, either singly or in combination. Limestone-lined wells are the most common, followed by combinations such as stone-limestone and brick-stone, reflecting a practical approach to durability and accessibility. In some cases, multi-material linings, like brick-stone-limestone or stone-limestone-cement suggest later efforts to repair or reinforce aging structures. These linings not only indicate regional construction knowledge but also underscore the wells' long-standing importance before they fell into disuse.

Dug Wells as Cultural Anchors

Figure 5: Kuan Poojan after child birth (PC: Gemini)

Rejuvenating them offers more than just symbolic value, it can transform how Gurugram manages its groundwater, mitigates flooding, and builds climate resilience. Restoring and linking them to nearby ponds or rainwater harvesting systems could create natural recharge networks, help store excess rainwater during monsoons, and provide decentralized water access in times of scarcity. But beyond their ecological importance, these wells also carry deep cultural and emotional significance. In many villages across Haryana, dug wells are not merely water sources, they are sacred sites. Traditions like '*Kuan Poojan'*, the ceremonial worship of a well after the birth of a boy, reflect the reverence communities have long held for these lifelines. Reviving them, therefore, is not just a technical intervention, it is also a step toward cultural revival, reconnecting communities with their roots and rituals in an increasingly disconnected urban landscape.

At GuruJal, we believe that buried beneath layers of waste and neglect lie the foundations of a water-secure future. Dug wells may no longer dominate our daily lives, but their potential to act as anchors of groundwater sustainability has never been more relevant. With community support, institutional will, and strategic investments, these humble wells can once again breathe life into Gurugram's parched aquifers and flooded streets alike.

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