

Reviving Seth Chuhimal Ki Talab: Traditional Water Systems and Environmental Sustainability in Nuh, Haryana

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Abstract

Traditional water bodies for centuries have served as lifelines for communities in India. These water bodies not only offer vital water security but also provide ecological and cultural benefits. Seth Chuhimal ki Talab in Nuh, Haryana, is a testament to Indian heritage systems, which faces threats from urban encroachment, neglect, and environmental degradation. This study investigates the environmental and social significance of Seth Chuhimal ki Talab, utilizing qualitative, comparative case analysis, this study explores the environmental and social significance of the talab, synthesizes lessons from successful water body restorations in Bengaluru, Baghpat, and Uleta (Nuh), and identifies both structural and governance-related challenges contributing to its decline. Findings underline the critical role of community involvement, desilting, afforestation, pollution control, and participatory governance as cornerstones of effective and sustainable restoration. The paper presents a phased, tiered approach towards restoration that integrates traditional water wisdom and modern ecological techniques, asserting that restoration efforts of Seth Chuhimal ki Talab must transcend heritage value and embrace its potential as a pivotal resource for water security, resilient ecosystems, and integrated socio-economic development for Nuh and surrounding regions. Such participatory frameworks for restoration are urged.

Keywords: Ecological restoration, Environmental sustainability, Heritage conservation, Urbanization impacts, Talab, Community

1. INTRODUCTION

Seth Chuhimal, the nagarseth (city head) of Nuh in the Mewat region of Haryana, established an impressive architectural complex of approximately 10 acres for the private use of his family. The ensemble includes a temple, a talab (reservoir) flanked by eight octagonal chhatris, and a traditional haveli. Later, in the same precinct, a magnificent memorial chhatri was added in his honour. The complex is more than two centuries old, most likely having been built in the late 18th or early 19th century. While the chhatri is locked to stop couples and card players from abusing it, the talab still exists today as a unique haven amid overgrown vegetation. The site, like many others of its kind, is still underutilized and neglected despite its architectural value.



Fig 1: Site area, Seth Chuhimal ka Talab

Source: Author



Fig 2: Seth Chuhi Mal ka Talab
Source-Author

Water has long been incorporated into Indian architecture, both practically and symbolically. Stepwells, kunds, ponds, and chhatris are examples of structures that have historically been important hubs for community interaction, spirituality, and water management. These water features were essential to civic identity and cultural expression in semi-urban and rural areas. However, many of these assets have been driven toward obsolescence by decades of poor preservation, underfunding, and modernization pressures.

Ponds, tanks, and lakes are examples of traditional water bodies in India that have long been important for ecosystem services and water management (Chowdhury & Behera, 2020; Bhattacharya, 2015). Recently, there has been a push for sustainable restoration using ecosystem-based methods (The Nature Conservancy, 2023). Numerous advantages were offered by these systems, including biodiversity support, groundwater recharge, and water storage (Rustogi & Singh, 2017). However, many water bodies have been degraded and gone due to unplanned development, pollution, and fast urbanization (Sugam et al., 2018; Reddy & Char, 2006). Comprehensive policies for their management and conservation are lacking, despite their significance (Kumar & Jha, 2025). While still in operation, some traditional systems, such as the Ahar-Pyne in Bihar, are in decline (Koul et al., 2012).

While community-led initiatives have proven more sustainable than top-down approaches, efforts to revitalize these water bodies have yielded mixed results (Kumar & Jha, 2025; Chowdhury & Behera, 2021). Potential remedies for reviving urban water bodies and tackling water scarcity include rainwater harvesting and community involvement (Rustogi & Singh, 2017).

Seth Chuhimal ki Talab in Nuh, Haryana, is a prime example of this water-centric heritage, but it is currently in danger due to neglect and encroachment. It is an underappreciated ecological and cultural resource in addition to being an architectural relic. In order to provide theoretical insights and practical recommendations for the revival of such traditional systems, this research paper will use established literature to analyze the environmental and social significance of Seth Chuhimal ki Talab.

2. RESEARCH OBJECTIVES AND METHODOLOGY

The purpose of this study is to evaluate the sociocultural and environmental significance of Seth Chuhimal ki Talab in Nuh, Haryana, and to suggest a framework for sustainable restoration in order to bring it back to life. The main goals are to comprehend the site's ecological and historical background, pinpoint the main causes of its deterioration, compare and contrast successful pond restoration initiatives in other regions of India, and suggest workable solutions that combine conventional water knowledge with contemporary ecological ideas.

Based on secondary data sources, the study uses a qualitative, comparative case analysis methodology. Along with reports and documentation created by NGOs and environmental organizations, it synthesizes a broad range of published literature on traditional water systems and their restoration. There are

indicative national guidelines for water body restoration (Central Pollution Control Board, 2019). Additionally, to support context-specific analysis, photographic evidence and observational data were gathered from the Seth Chuhimal ki Talab site. To represent geographic and contextual diversity, three case studies were chosen: CSR-supported ecological restoration in Uleta (Nuh, Haryana); community-led pond revival in Baghpat (Uttar Pradesh); and urban lake restoration in Bengaluru (Karnataka). Common restoration patterns, site-specific difficulties, and applicable best practices can all be found using this comparative framework relevant to the revival of Seth Chuhimal ki Talab.

3. Site Context: Seth Chuhimal ki Talab

Seth Chuhimal, the town's nagarseth (city head) in the late 18th and early 19th centuries, is credited with creating the historic water and architectural complex known as Seth Chuhimal ki Talab in Nuh, Haryana. Scattered across almost 10 acres, the site includes a memorial chhatri, a temple, a haveli, eight octagonal chhatris, and a sizable talab (pond). The complex, which was first built for the family's private use, exhibits a close integration of civic architecture, cultural expression, and water infrastructure.

The talab is currently neglected despite its historical significance. Its problems include siltation and overgrowth, construction pressure and encroachment on catchment areas, locking important structures to prevent misuse, and a lack of conservation and active maintenance. The dearth of custodianship and weak policy focus has further diminished its relevance in today's urbanizing context and urban sprawl that has come up around the talab.

4. Literature Review

Ponds and tanks are examples of traditional water bodies in India that have long been important for ecosystem services and water management (Chowdhury & Behera, 2020). However, unplanned development, pollution, and population pressure are putting these systems in jeopardy (Sugam et al., 2018). Reviving these structures is becoming more and more important (Kumar & Jha, 2025), but the poor are frequently left out of current management strategies, which favor powerful community members (Chowdhury & Behera, 2020). Over centuries, traditional water harvesting techniques have proven to be sustainable and vary depending on the region (Bhattacharya, 2015). India's water crisis may be resolved by reviving these customs (Singh et al., 2021), but it is important to assess their sociocultural background and ingrained hierarchies critically (Krishan, 2011).

Research has evaluated the water quality of several talaabs, such as Ahmedabad's Bibi Talav (S. S & A. V. Rani, 2024) and Chhatarpur's Bada Talav (Priyanshi Garg et al., 2023), and determined that some are polluted and not fit for direct consumption. Studies have shown that talaabs also sustain a variety of aquatic ecosystems, including migratory birds close to Vadodara (R. Soni & S. Bhatt, 2008) and fish species in Kawardha town (S. Sahu & S. Datta, 2020). However, excessive groundwater extraction and sewage disposal pose problems for many talaabs (B. D. Patil, 2022). Talaabs continue to be the focus of ecological and water quality research (J. Kumar & A. Pal, 2010) and are still useful for conserving water in arid areas (K. Das, 2008).

Recent government initiatives to revitalize waterways have come under fire for their haphazard execution and preference for privileged groups (Mahajan & Rajankar, 2024). Several states have been undergoing government-led renovations (Press Information Bureau, 2024). India's ponds' restoration and policy status are examined by a new framework (Yadav et al., 2023). The goal of flagship projects like Mission Amrit Sarovar is to mainstream the restoration of water bodies (Ministry of Jal Shakti, 2022). Local norms and preferences must be taken into account when designing policies for effective conservation (Chowdhury & Behera, 2020). Inadequate policy frameworks, unsustainable corporate interventions, and an emphasis on aesthetics rather than ecological restoration have all been obstacles to restoration efforts (Kumar & Jha, 2025; Bedarkar et al., 2018). People organizing local communities have frequently been at the forefront of successful revitalization (Kumar & Jha, 2025). According to studies, conventional approaches to water management can help increase crop productivity and deal with climate variability (Gujja et al., 2009). Variable conditions in traditional talab systems are revealed by water quality monitoring studies (Shrivastava & Pandey, 2009). Yet, powerful community members frequently gain from the current institutional arrangements at the expense of low-income households (Chowdhury & Behera, 2021). Systematic planning, community involvement, and local dynamics consideration are necessary to guarantee inclusive and sustainable management of water bodies (Mahajan & Rajankar, 2024; Koduru & Dutta, 2013).

5. Findings and Discussion: Insights from Pond Restoration projects of Bengaluru, Nuh, and Baghpat

The restoration of traditional water bodies in various Indian contexts, such as the urban lakes of Bengaluru, the ponds in the Baghpat district of Uttar Pradesh, and the Uleta Pond in Nuh, Haryana, show a multifaceted strategy addressed to site-specific difficulties. Common restoration techniques include afforestation and wetland creation to improve biodiversity and stabilize embankments, physical desilting and deepening to restore water-holding capacity, and pollution control measures that involve waste diversion or sewage treatment (SMS Foundation, n.d.; India Water Portal, n.d.; Reasons to be Cheerful, 2020). Throughout these examples, community involvement stands out as a crucial tenet. Sustainable lake management in Bengaluru has been aided by educational initiatives and citizen-led cleanups (Reasons to be Cheerful, 2020). In Baghpat, natural filtration and soil removal were made easier by grassroots involvement, which enhanced water quality and groundwater recharge (India Water Portal, n.d.). Observations from these projects and related literature highlight key causes of talab degradation. Reduced rainfall and climate variability impact replenishment cycles (India Water Portal, n.d.). Land use changes, particularly urban encroachment and construction near catchments, reduce inflow and damage water quality—issues noted in all contexts (SMS Foundation, n.d.; India Water Portal, n.d.). Pollution through solid waste dumping and untreated sewage inflows causes eutrophication and ecological imbalance (Reasons to be Cheerful, 2020). Finally, neglect and erosion of traditional community management systems further aggravate decline, underscoring the need for inclusive, participatory governance for sustainable restoration outcomes (SMS Foundation, n.d.; India Water Portal, n.d.).

These combined insights suggest a comprehensive restoration framework for Seth Chuhimal ki Talab in Nuh, Haryana, primarily comprising targeted desilting, ecological restoration through afforestation and wetland creation, stringent pollution control, and energizing community ownership and governance to ensure long-term resilience and sustainability. Below are the insights from successful pond restoration projects in Bengaluru, Uleta Pond (Nuh, Haryana), and Baghpat district (Uttar Pradesh), highlighting approaches and causes of decline. In Baghpat, community-driven restoration has yielded tangible groundwater and water quality benefits (India Water Portal, n.d.).

Table 1: Summary of Key Data and Approaches

S.No.	Aspect	Bengaluru Lakes	Uleta Pond, Nuh, Haryana	Baghpat District, Uttar Pradesh
1	Restoration Techniques	- Large-scale desilting and deepening	- Targeted desilting to increase pond depth	- Removal of top clay soil to enhance infiltration
		- Native tree planting, wetland creation	- Reinforcement and afforestation of embankments	- Natural filtration with reed beds
		- Sewage treatment plants & bio-remediation	- Community stewardship via CSR initiatives	- Soil and silt excavation by villagers
2	Community Involvement	- Citizen participation for clean-ups and education	- CSR-led with strong local community involvement	- Volunteer labor (shramdan) led by villagers
		- Lake adoption programs		
3	Pollution Control	- STPs and remediation zones	- Waste dumping control	- Waste dumping controlled
		- Prevention of untreated sewage inflow	- Sustainable catchment management	- Sewage redirected through reed bed filtration
4	Causes of Degradation	- Urban expansion and encroachment	- Reduced rainfall	- Reduced rainfall
		- Untreated sewage inflows	- Urban development near catchment	- Land use changes and encroachment

		- Sedimentation	- Dumping and neglect	- Groundwater over-extraction
5	Environmental Benefits Post-Restoration	- Improved groundwater recharge	- Increased water storage capacity	- Improved infiltration
		- Enhanced biodiversity	- Revived aquatic habitats	- Restored water availability
		- Better water quality and climate moderation	- Strengthened ecological resilience	- Reduced pollution and eutrophication
6	Key Challenges	- Balancing urban demands with lake health	- Sustaining community interest	- Ensuring continuous community action
		- Maintaining long-term community engagement	- Addressing pollution sources consistently	- Managing groundwater use sustainably

6. Proposed Restoration Framework for Seth Chuhimal ki Talab

Based on the case studies reviewed and the contextual challenges of Seth Chuhimal ki Talab, a comprehensive, phased framework is proposed to guide its ecological restoration and socio-cultural reintegration. Recent impact evaluations show increased resilience due to pond redevelopment (Brookfield India REIT, 2023). This framework balances traditional water wisdom with contemporary environmental strategies and emphasizes long-term community stewardship.

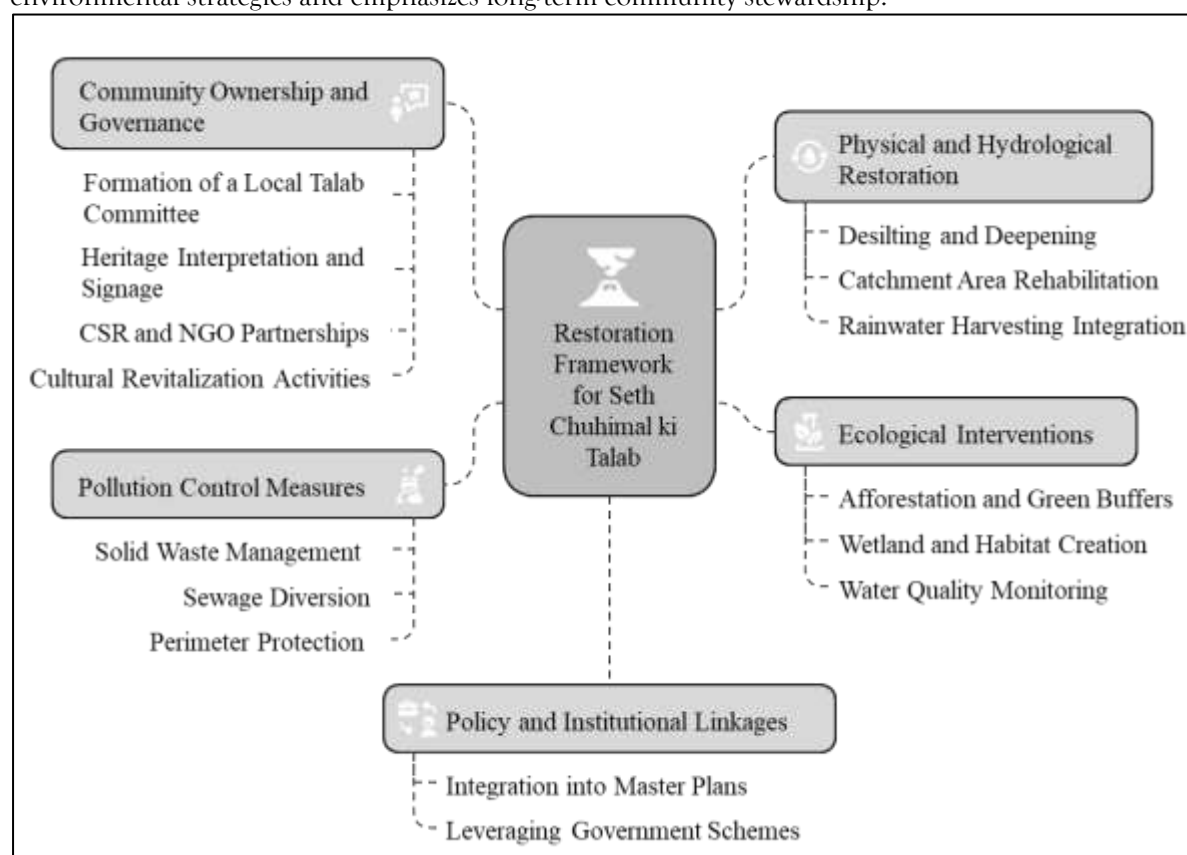


Fig 3: Restoration Framework for Seth Chuhimal ki Talab

Source-Author

According to this framework, the restoration of Seth Chuhimal ki Talab serves as a scalable model for rehabilitating traditional water bodies throughout North India in addition to being a site-specific intervention. As fundamental restoration values, it highlights ecological resilience, cultural continuity, and participatory governance.

7. CONCLUSION

In Nuh, Haryana, Seth Chuhimal ki Talab is a striking example of India's traditional water heritage, fusing social memory, architectural significance, and ecological usefulness. However, it now faces the combined threats of ecological degradation, encroachment, and neglect, just like many other traditional water systems in India. By learning from various but contextually relevant restoration projects in Bengaluru, Baghpat, and Uleta (Nuh), this study emphasizes the urgent need to revitalize such heritage water bodies. Successful restoration is based on common principles, including desilting, afforestation, pollution control, and active community involvement.

8. Given the sociocultural and environmental roles that these systems play, the restoration of Seth Chuhimal ki Talab should be seen as a strategic intervention for water resilience, ecological stability, and inclusive development in Nuh rather than just the preservation of a historic site. This location can be turned from a remnant of the past into a driving force for sustainable futures through multi-stakeholder cooperation, context-sensitive ecological planning, and participatory governance.

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