Fostering community action for ecological restoration India Water Portal

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Nestled in the northern expanse of Bengaluru, Jakkur Lake occupies a pivotal point where streams from Yelahanka, Agrahara, and Shivanahalli converge. Once a realm of fruit orchards and scattered settlements, Jakkur has undergone a profound transformation in the past two decades. The swift tide of urbanization, coupled with haphazard planning, has engendered challenges encompassing sewage control and land encroachment.

In the midst of Bengaluru's embrace of its unique identity as '*Brand Bengaluru*,' marked by a resolute commitment to social and economic inclusion, it is opportune to examine the significance of Jakkur Lake's rejuvenation in the face of the city's voracious expansion. Within this context, the article endeavors to unearth the synergistic elements driving this endeavor.

A recent visit to the Jakkur Sewage Treatment Plant (STP) unveiled an augmented processing capacity of approximately 15 million liters of wastewater daily. Conceived and realized by the Bangalore Water Supply and Sewerage Board (BWSSB), with financial support from the Karnataka Power Corporation (KPCL), the STP orchestrates a multi-step transformation of sewage, encompassing both black and grey water, resulting in chlorinated water directed to the wetland adjoining Jakkur Lake. A portion of this treated water contributes to electricity generation by KPCL.



Jakkur Sewage Treatment Plant (Image: Anshul Rai Sharma)

The tapestry of the lake's ecosystem is woven with diverse stakeholders: local residents, fishermen, greenkeepers, municipal authorities, and real estate developers. To portray the lake as a social-ecological system demands an inclusive view, encompassing migratory birds gracing the waters, indigenous fish species thriving beneath the surface, and more.

Water conservation expert Vishwanath Srikantaiah identifies a tripartite holy grail of conservation: the harmonization of ecological, social, and economic considerations. Ecologically, the STP treats sewage, generating nearly potable water funneled through the neighboring wetland, fortifying the lake's volume, sustaining its biodiversity, and recharging groundwater. The latter becomes potable, serving the neighboring residential complexes, thus completing the ecological circle.

Notably, the citizen-driven collective known as Jala Poshan has been instrumental in fostering collaboration among stakeholders, orchestrating the activities of fishermen, greenkeepers, and laborers, entwining ecological ramifications with economic sustenance. The lake also emerges as a social nexus, drawing together diverse individuals to envision enhancements, with many actively affiliated with the Jala Poshan group.

Economically, the lake's positive externalities have reshaped its utility. The ecological vitality has greatly benefited real estate, refocusing attention on the lake as a prime attraction for potential investors in the vicinity. Interactions with those tracing the lake's conservation trajectory revealed architectural shifts, with new structures orienting themselves towards the lake—a far cry from previous years when they averted their gaze from the former mire that occupied its space.



Sludge management at Jakkur Lake (Anshul Rai Sharma)

While the ecosystem now relishes its holy grail of conservation, it's imperative to acknowledge that more endeavors await. The system's efficacy relies on collective action, uniting different parties toward shared objectives. Deviations have surfaced, such as the proliferation of non-native fish species disrupting the lake's balance and interdepartmental conflicts on management, among others.

Jakkur STP, managed by Ms. Manjula, stands as a remarkable exception as one of the rare plants overseen by a woman. She recounted the challenges she has faced in the last two years as a woman who must negotiate resources and support for the STP's functioning. Her insight underscores the necessity for comprehensive capacity building, involving workers, residents, government officials, and political leaders all aligned with the ideals of '*Brand Bengaluru*.'



Layered treatment of wastewater at the STP (Image: Anshul Rai Sharma)

Effective wastewater management remains an ongoing concern for Bengaluru, a city with a staggering decadal growth rate of over 49% and a planning landscape marred by irregularities. To ensure sustained alignment with the city's ecological facets, cultivating local environmental victories assumes paramount importance, as these successes serve as precedents for broader collaborations and sustainable progress.

Jakkur Lake exemplifies emerging urbanism, shaped by civic consciousness and the desire to transform the built environment. The pivotal question persists: How can we ensure that such urban transformations are both nurtured and equitable, especially in their support for the urban underprivileged?

Author

Anshul Rai Sharma works as an Academic Associate at the School of Development of Azim Premji University in Bengaluru, Karnataka. His research focuses on the intersection of labor, informality, and urbanization in the city of Bengaluru.