Chanakya Journal of Advanced Studies
International Journal of Advanced Research and Studies
2025, Volume 1 Issue 1
Crestwood Publishers
DOI: http://doi.org/10.5281/zenodo.17672396
Page No.- 54-66

Sustainable Urban Water Management: Assessing Policy, Infrastructure and Community Participation in Medium-Sized Indian Cities

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Abstract

Rapid urbanisation, climate change, and ageing infrastructure have made water security a pressing challenge for India's medium-sized cities. National programmes such as AMRUT 2.0, Jal Jeevan Mission (Urban), and Swachh Bharat Mission (Urban) aim to universalise services and promote circular water use, yet major gaps persist. Although about 70% of urban households have piped water, most cities supply it for only a few hours daily; non-revenue water often exceeds 40%; and barely 30% of sewage is treated. With groundwater meeting nearly half of urban demand, concerns over unsustainable extraction continue to grow.

This paper offers a conceptual and empirical analysis of sustainable urban water management (SUWM) in India's secondary cities and large towns. It synthesises policy frameworks, service-level benchmarks, and case studies grounded in integrated urban water management and water-sensitive city approaches. Evidence from cities such as Aurangabad, Delwara, and Cuttack highlights recurring constraints: fragmented institutions, fiscal and technical capacity deficits, and limited, project-based community engagement. Infrastructure investments still prioritise supply expansion and centralised sewers over demand management, decentralised treatment, and groundwater governance.

The paper argues for integrated water-balance planning, reducing non-revenue water, scaling decentralised systems, and institutionalising co-production with communities to achieve resilient urban water systems.

Keywords: urban water governance; integrated urban water management; water-sensitive cities; community participation; AMRUT 2.0; Jal Jeevan Mission; India; medium-sized cities

1. Introduction

India's urbanisation is increasingly concentrated in secondary and medium-sized cities class I and II towns with populations between roughly 100,000 and one million, and emerging metropolitan regions below the mega-city scale. These cities are often the front line of water stress: they expand faster than infrastructure can keep up, yet lack the fiscal and technical capacities of megacities. The Ministry of Housing and Urban Affairs (MoHUA) notes that urbanisation has not been matched by commensurate improvements in water, sewerage and sanitation services, especially in smaller and medium urban centres.

Despite considerable investment in urban water and sanitation over the last two decades, service deficits remain substantial. Recent parliamentary data indicate that around 70% of urban households have access to piped water supply. Yet service is generally intermittent: benchmark surveys of 28 cities found an average supply duration of only 3.3-4.3 hours per day, with almost no city providing 24/7 water; four to five hours of supply appears to be the norm. Non-revenue water (NRW) the share of water produced that is not billed because of leaks, illegal connections, or metering errors typically falls in the 40-50% range.

On the wastewater side, India's urban local bodies collectively generate over 70,000 million litres per day (MLD) of sewage, but installed treatment capacity covers only about 40% of this volume, and actual utilisation is around 30%; the remainder is discharged untreated or partially treated into rivers, lakes and groundwater. These deficits are especially acute in medium-sized cities and smaller class I/II towns, which account for a large share of urban population but often lack sewerage networks and rely heavily on on-site sanitation and poorly regulated faecal sludge disposal.

At the same time, groundwater underpins urban water security. A widely cited synthesis shows that, averaged across 71 cities and towns, groundwater accounts for about 48% of urban water supply, and more than half of metropolitan, class I and class II cities depend on groundwater either fully or partially. Groundwater is also crucial as a coping mechanism where piped supply is unreliable. However, unregulated abstraction leads to depletion and quality deterioration, particularly in hard-rock regions and coastal aquifers.

Sustainable urban water management (SUWM) in this context implies not only closing the gap between supply and demand, but also managing the entire urban water cycle from source to tap to drain and back to the environment within ecological limits and with strong community participation. Frameworks of Integrated Urban Water Management (IUWM) and "water-sensitive cities" propose exactly such a paradigm shift, integrating water supply, wastewater, stormwater, land use, and energy, while foregrounding equity and participation.

This paper focuses on medium-sized Indian cities because they concentrate much of the country's new urban growth, yet are relatively under-researched compared to metropolitan centres like Delhi or Mumbai. It addresses three questions:

1. How do national policies and programmes shape sustainable urban water management in medium-sized cities?
2. How adequate and sustainable are current water and wastewater infrastructures in these cities, particularly in terms of service levels, NRW, and environmental impacts?
3. What forms of community participation have emerged in urban water management, and

how effectively are they integrated into policy and infrastructure planning?

The paper synthesises policy documents, service-level data, and case studies to offer an integrated assessment and a set of recommendations tailored to the realities of India's medium-sized cities.

2. Conceptual Framework: From Infrastructure to Water-Sensitive Cities

2.1 Sustainable Urban Water Management and IUWM

Traditional urban water management has tended to treat drinking water supply, sewerage, drainage and solid waste as separate sectors, managed by different agencies with limited coordination. IUWM literature criticises this "siloed" approach and proposes a holistic framework in which water supply, sanitation, stormwater and wastewater are integrated with land-use planning and ecosystem management.

IUWM emphasises several key principles:

- **Source diversification and security**, combining surface and groundwater, rainwater harvesting, and reuse of treated wastewater.
- **Demand management**, including metering, tariff design, leakage control and water-efficient fixtures.
- **Decentralised infrastructure**, such as local treatment systems and nature-based solutions, complementing centralised networks.
- **Integration with land use and urban design**, for instance through water-sensitive urban planning, permeable surfaces, and protection of water bodies.

Global guidelines and toolkits (e.g., Bahri, 2012; GWP; ICLEI's IUWM toolkit for Indian cities) provide stepwise approaches for cities to diagnose water issues, develop City Water Balance Plans, and identify portfolios of supply and demand interventions.

2.2 Urban Water Transitions and Water-Sensitive Cities

Brown, Wong and colleagues conceptualise urban water transitions as a multi-phase evolution from **water supply cities** (focused on securing potable water) to sewered cities, drained cities, and ultimately water-sensitive cities that integrate urban design, ecosystem services, and community values. Water-sensitive cities manage water as a key element of urban liveability and resilience, leveraging green-blue infrastructure, multifunctional spaces, and citizen engagement.

This transition framework is particularly relevant for Indian medium-sized cities, many of which are still struggling at the "sewered" or partially "drained" stages. Flooding in monsoon seasons, water scarcity in dry months, and deteriorating water bodies indicate the need to move towards integrated, adaptive systems with stronger community involvement, as stressed in Indian discussions on climate adaptation and sustainable water management.

2.3 Participation, Co-Production and Urban Water Governance

Participatory development theory, drawing on Freire and subsequent action research traditions, conceives community participation as organised efforts by marginalised groups to increase control over resources and governance institutions. In urban water sectors, participation has evolved from token beneficiary consultation to more substantive forms

of co-production, where communities and utilities jointly plan, deliver and maintain services.

Poricha's study of community-based water management in Delwara (Rajasthan) and Cuttack (Odisha) shows how local groups, NGOs and municipal actors jointly rehabilitated ponds, improved supply and established community water and sanitation committees, with notable impacts on equity, health and environmental outcomes. More recent work, such as the CPR compendium on community participation in urban water and sanitation, documents a variety of models: slum sanitation committees in Mumbai, resident welfare association (RWA) initiatives, SHG-based operations, and partnership-based community toilets.

The effectiveness of such participation depends on the institutional arrangements that link communities to utilities: clarity around roles and responsibilities; supportive legal frameworks; and mechanisms for accountability and knowledge sharing. These governance dimensions are central to SUWM and will be revisited when analysing Indian policies and case studies.

3. Policy and Institutional Landscape in Urban India

3.1 National Policies and Missions

Urban water management in India is shaped by a constellation of national policies and centrally sponsored schemes:

- **National Water Policy (NWP)**: The 2012 NWP, and ongoing efforts to draft a new policy, emphasise integrated water resource management, demand management, and the need to recognise water as an economic good while ensuring equity and sustainability. Recent parliamentary statements highlight the intention to promote circular water economies and integrated planning for urban water and wastewater.
- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and AMRUT 2.0**: Launched in 2015 and renewed in 2021, AMRUT seeks to universalise coverage of water supply, sewerage and septage management in designated cities, moving towards "water-secure" cities through City Water Balance Plans and 24x7 supply targets. AMRUT 2.0 aims to extend water supply to all 4,800 statutory towns and sewerage/septage to 500 AMRUT cities, with explicit emphasis on recycling and reuse of treated wastewater.
- **Smart Cities Mission (SCM)**: While primarily an urban renewal and ICT-driven programme, SCM includes substantial investments in water supply, metering, NRW reduction, and rejuvenation of water bodies in 100 cities, many of which are medium-sized.
- **Swachh Bharat Mission - Urban (SBM-U) and National Urban Sanitation Policy (NUSP)**: These initiatives have significantly expanded toilet coverage, promoted faecal sludge and septage management (FSSM), and used performance incentives (such as Swachh Survekshan rankings) to drive improvements.
- **Jal Jeevan Mission (Urban)**: Announced in 2021, JJM(U) aims to provide universal functional household tap connections in all 4,378 statutory towns, integrate water supply with sewerage and FSSM, and ensure that all small towns achieve "Water+" certification under SBM-U.

Other sectoral policies include service level benchmarking guidelines (SLBs) by CPHEEO and

MoHUA, which standardise indicators like continuity of supply, NRW, and coverage, and various state-level water policies and groundwater acts.

3.2 Institutional Responsibilities and Fragmentation

Urban water is institutionally complex. In many states, water supply and sewerage are split among multiple actors: state-level water boards, municipal corporations, parastatals and public health engineering departments. Slum upgrading and housing agencies run parallel programmes affecting water and sanitation. This fragmentation is especially visible in medium-sized cities where urban local bodies (ULBs) may have limited technical staff and depend heavily on state agencies and contractors.

Such fragmentation complicates the implementation of integrated approaches like IUWM and City Water Balance Plans: responsibilities for surface water, groundwater, stormwater, wastewater and urban planning are dispersed across departments with weak coordination. Shah's analysis of urban water systems argues that without institutional redesign e.g., empowered city-level water utilities or coordinated water and sanitation cells technical reforms remain partial.

3.3 Service-Level Benchmarks and Performance Gaps

The SLB framework defines key indicators for water utilities: coverage, per capita supply, continuity, quality, metering, NRW, and tariff adequacy. Benchmark surveys and follow-up studies reveal:

- **Coverage**: Piped water coverage in urban areas generally ranges from 55% to 89%, with substantial variation between cities and within them (formal vs informal settlements).
- **Continuity**: Most cities supply water intermittently, averaging 3-4 hours/day, often every second day in poorer zones.
- **Non-Revenue Water**: SLB and research studies estimate NRW at 40-50% in many Indian cities; Bandari (2023) finds that in 55 metropolitan cities NRW averages around 38-40% and is a key determinant of utility efficiency.
- **Wastewater Treatment**: CPCB reporting shows that of the 72,368 MLD of sewage generated in urban areas, only about 30% is effectively treated, with capacity and utilisation particularly low in smaller Class I/II cities.

These performance gaps underscore the challenge facing medium-sized cities: they must expand coverage and improve service quality while simultaneously reducing losses, enhancing financial sustainability, and protecting water resources.

4. Methods and Scope

This paper uses a **narrative, mixed-methods review** approach rather than original fieldwork. It synthesises:

- **Policy and institutional documents** (NWP, AMRUT 2.0 guidelines, JJM(U) press releases, MoHUA and Jal Shakti reports, SLB manuals).
- **Quantitative service-level data** on coverage, continuity, NRW, and sewage treatment from SLB studies, CPCB and WaterAid's *State of Urban Water Supply in India*, and recent global overviews of water and sanitation in urban India.
- **Case studies** of medium-sized or secondary cities, including groundwater management in

Aurangabad, community-managed water and sanitation in Delwara and Cuttack, and PPP-based utilities and NRW reduction efforts (e.g., Nagpur).

- **Conceptual and comparative literature** on IUWM, water-sensitive cities, and participatory urban water governance.

Medium-sized cities are treated broadly as non-metro urban centres outside India's largest metropolitan areas, typically with populations between 0.1 and 2 million, though some examples (such as Nagpur or Thane) now verge on the metropolitan threshold. The emphasis is on cities where institutional capacity is modest, but where experimentation with IUWM, PPPs and community participation is visible.

5. Infrastructure and Resource Challenges in Medium-Sized Cities

5.1 Source Sustainability: Surface and Groundwater Dependence

Urban water supply in India historically relied on nearby surface sources rivers, reservoirs and lakes. As cities expanded, many turned to long-distance bulk water transfers from dams and inter-basin schemes, increasing financial and energy costs. Aurangabad in Maharashtra exemplifies this pattern: located in a drought-prone region, the city imports surface water through high-cost schemes while simultaneously experiencing intense growth in private groundwater abstraction through tube wells.

Shah's synthesis on urban water systems notes that many medium-sized cities now rely on a dual system in which formal utilities supply intermittent piped water while private tankers and household borewells fill the gaps. Groundwater is a critical buffer: averaged across 71 cities and towns, it supplies about 48% of urban water; 56% of metropolitan, class I and II cities depend at least partially on groundwater. This dependence is risky, given declining water tables and contamination from sewage and industrial effluents.

In many medium-sized cities, planning for groundwater is weak. Institutional responsibilities for groundwater typically lie with state groundwater departments, while urban utilities focus on surface water schemes. As a result, groundwater is a "blind spot" in civic water planning, with little regulation of private borewells, tanker operators or recharge structures.

5.2 Service Reliability, Equity and Non-Revenue Water

Infrastructure indicators highlight three major challenges:

1. **Intermittent supply**: Few Indian cities, including medium-sized ones, offer continuous 24/7 piped water. SLB data show average continuity around 3-4 hours/day; Scroll's analysis of MoUD surveys reports similar findings, with many cities supplying water every second or third day. Intermittency forces households to invest in storage, pumps and alternative sources, exacerbating inequalities between richer and poorer neighbourhoods.
2. **Non-revenue water and financial sustainability**: High NRW reduces effective supply and undermines utility finances. Bandari (2023) estimates around 40% NRW in Indian metropolitan utilities. Medium-sized cities often fare worse due to older networks, inadequate metering and limited enforcement against illegal connections. Initiatives in cities like Nagpur and Nashik show that systematic leak detection, meter replacement and crackdowns on illegal

connections can reduce NRW from about 40-45% to around 30% or less, significantly improving water accountability.

3. **Intra-urban inequities**: Slums and informal settlements frequently lack household connections and rely on shared standposts, tankers or informal vendors at higher per-unit costs. World Bank and WaterAid studies highlight lower coverage, poorer quality and higher coping costs for low-income neighbourhoods, even within cities officially reported as well-served.

5.3 Wastewater, Stormwater and Environmental Externalities

Wastewater and stormwater pose perhaps the **most acute sustainability challenge**. CPCB data show that urban India generates over 72,000 MLD of sewage but treats only around 30%, with even lower treatment ratios in smaller cities. Untreated sewage is discharged into rivers, lakes and groundwater, contributing to eutrophication, pathogen loads and chemical contamination.

Most medium-sized cities lack comprehensive sewerage networks; households depend on septic tanks or pits, which are often desludged irregularly and dumped into drains or water bodies. Emerging FSSM policies and state-level regulations attempt to address this gap, but implementation is at an early stage.

From an energy and climate perspective, centralised water and wastewater systems can be major contributors to urban energy use and greenhouse gas emissions. Studies of water and wastewater infrastructures in Indian cities show significant energy intensity and opportunities for improvement through demand management, loss reduction, and resource recovery (e.g., biogas, nutrient recovery). Medium-sized cities risk locking themselves into inefficient, carbon-intensive systems if they pursue large, centralised schemes without integrating IUWM principles.

6. Community Participation and Co-Production in Urban Water Management

6.1 Forms and Drivers of Participation

Community participation in urban water management in India has taken multiple forms:

- **Neighbourhood- and slum-level committees** that manage community toilets, standposts or decentralised treatment systems.
- **Civil society-municipal partnerships** for pond or lake rejuvenation, rainwater harvesting, or slum sanitation.
- **RWA-led demand management** and metering initiatives in middle-class neighbourhoods.
- **City-level multi-stakeholder platforms** under IUWM or climate resilience projects.

Drivers include dissatisfaction with poor services; NGO facilitation; performance-based schemes like Swachh Survekshan; and donor-supported pilots.

The CPR compendium on community participation documents how, over decades, initiatives such as Mumbai's community toilet schemes, Ahmedabad's slum networking project, and various CSO-led WASH projects in small and medium towns have centred communities in planning and operation.

Poricha's (2011) study provides fine-grained insight into **Delwara (Rajasthan) and peripheral wards in Cuttack (Odisha)** settlements comparable in scale and governance challenges to many medium-sized towns. In Delwara, citizens, facilitated by Seva Mandir, collectively planned and executed desilting and repair of the Palera pond, rejuvenating a key

community water source, recharging local aquifers and creating valued public space. Community participation extended beyond physical works to institutionalisation: pond maintenance committees, regular community clean-ups, and sustained engagement with the panchayat.

In Cuttack's peri-urban wards, community groups especially women were organised around water, sanitation and hygiene issues, co-designing interventions, managing community toilets, and advocating for service improvements. These cases highlight the potential of **co-management arrangements** where communities are not merely consulted but actively shape technology choices, operations and monitoring.

6.2 Community Participation in Medium-Sized City Reforms

While most large-scale literature focuses on metros, evidence from medium and secondary cities shows similar patterns:

- **IUWM pilots**: The EU-funded "Adopting Integrated Urban Water Management in Indian Cities" (AdoptIUWM) project established multi-stakeholder platforms in several secondary cities, using participatory diagnostics and planning to develop IUWM strategies and tools.
- **PPP and NRW reduction**: PPP initiatives in cities such as Nagpur and selected Karnataka towns have involved public engagement around metering, tariff changes and illegal connection regularisation. Citizen resistance has sometimes delayed reforms, but where communication and grievance redressal were proactive, NRW reduction and service improvements have been significant.
- **Slum sanitation and informal settlements**: World Bank's *Community Slum Sanitation in India* and related projects in cities like Pune, Visakhapatnam and Tiruchirappalli demonstrate that community-driven toilet and water schemes can dramatically improve health outcomes and cost recovery when local committees oversee O&M and tariff collection.

A narrative review of community participation in urban water supply concludes that community-managed or co-managed systems tend to perform better in terms of responsiveness and equity when participation is continuous, rights-based, and supported by enabling policy frameworks, rather than being confined to one-time consultation.

However, mainstreaming participation remains a challenge. Many initiatives are pilot projects supported by external funding; institutionalisation in municipal by-laws, budget lines and organisational structures is limited. Participation is also uneven: low-income communities and women are often over-burdened with volunteer responsibilities, while higher-income groups hold greater sway in decision-making forums such as RWAs and ward committees.

7. Integrating Policy, Infrastructure and Participation: An Assessment

Bringing together the preceding sections, three broad observations emerge about sustainable urban water management in medium-sized Indian cities.

7.1 Policy Ambition vs. Implementation Capacity

National missions such as AMRUT 2.0 and JJM(U) articulate **ambitious goals**: universal piped water, city water balance planning, circular economies of water, near-universal sewage/septage treatment, and climate-resilient infrastructure. These missions have

led to considerable investment, performance benchmarking, and some innovation (e.g., City Water Balance Plans, Water+ and ODF++ ratings).

Yet implementation, especially in medium-sized cities, is constrained by **limited technical and managerial capacity** within ULBs, fragmented institutional mandates, and reliance on consultants and contractors. The result can be infrastructure-heavy projects that prioritise visible assets (pipelines, treatment plants) over operational efficiency (NRW reduction, metering), groundwater governance, or long-term O&M funding.

7.2 Infrastructure Choices and Path Dependencies

Medium-sized cities often face a planning choice: replicate the centralised network model of larger metros, or adopt more decentralised, flexible systems. Large, centralised sewerage and water supply schemes can achieve economies of scale but also impose high upfront costs, depend on complex O&M, and can be mismatched with low-density peri-urban expansion and informal settlements.

Aurangabad's experience highlights the risks of over-reliance on expensive surface water schemes without parallel demand management and groundwater regulation, leading to financial stress and unsustainable aquifer exploitation. Conversely, community-managed systems in Delwara and Cuttack demonstrate the potential of decentralised storage, local treatment, and community-led maintenance to enhance resilience and equity at lower cost, if appropriately supported.

Infrastructure decisions taken now will lock medium-sized cities into particular trajectories either towards flexible, water-sensitive systems or towards resource- and energy-intensive networks that are difficult to adapt to climate and demographic change.

7.3 Participation: From Projects to Institutions

Despite decades of rhetoric, community participation in urban water remains projectised rather than institutionalised. Many success stories Delwara's pond, community toilets in Mumbai, IUWM pilots depend on a particular NGO, donor or charismatic leader.

For SUWM, participation needs to be embedded in routine governance processes:

- Statutory ward committees and area sabhas with clear mandates on water and sanitation oversight.
- Formal roles for CBOs, SHGs and RWAs in O&M of decentralised systems, codified in MoUs, contracts or by-laws.
- Participatory budget processes that allocate resources for slum water and sanitation schemes.
- Data transparency and citizen monitoring of SLB indicators, including NRW, continuity and water quality.

Without such institutionalisation, community initiatives risk remaining islands of success in a sea of business-as-usual engineering.

8. Conclusions and Policy Recommendations

8.1 Conclusions

Sustainable urban water management in medium-sized Indian cities sits at the intersection of policy ambition, infrastructural realities, and community agency. This paper's synthesis suggests:

- National missions have significantly raised the profile of urban water and sanitation, expanded coverage, and introduced concepts of circular water economies, but implementation remains uneven, especially in

medium-sized cities with limited administrative capacity.

- Infrastructure systems typically exhibit intermittent supply, high NRW, and low wastewater treatment, leading to service inequities and environmental degradation.
- Groundwater is a critical but poorly governed resource: it supplies nearly half of urban water, especially in medium and small cities, yet is rarely integrated into formal planning or regulated effectively.
- Community participation has demonstrated transformative potential in specific cases rejuvenated ponds, community sanitation, IUWM pilots but remains episodic and externally driven, rather than structurally embedded in urban governance.

In short, medium-sized Indian cities are at a crossroads. They can either replicate unsustainable models of water infrastructure or leverage their scale and dynamism to become laboratories for water-sensitive, participatory urbanism.

8.2 Policy Recommendations

Building on IUWM and water-sensitive city frameworks, and grounded in the Indian policy context, the following recommendations are proposed for medium-sized cities:

1. Institutionalise Integrated Urban Water Management

- **Mandate and support City Water Balance Plans (CWBPs)** in all medium-sized cities, integrating surface water, groundwater, rainwater, wastewater and stormwater, as envisaged by AMRUT 2.0, but with explicit attention to peri-urban growth and informal settlements.
- Establish or strengthen city-level water and sanitation cells that bring together water supply, sewerage, stormwater, solid waste and planning departments under a single coordination mechanism.

2. Prioritise Demand Management and NRW Reduction

- Treat NRW reduction as a central demand management and financial strategy, not a peripheral technical issue: invest in network rehabilitation, pressure management, leak detection, universal metering, and regularisation of illegal connections.
- Structure tariffs to incentivise conservation while protecting basic needs of low-income households through lifeline tariffs and targeted subsidies.

3. Integrate Groundwater into Urban Water Planning

- Develop urban groundwater management plans linked to CWBPs, mapping aquifers, monitoring levels and quality, and identifying recharge zones and critical areas.
- Regulate new borewells in line with groundwater status, encourage managed aquifer recharge through rainwater harvesting and wastewater reuse, and create incentives for collective aquifer management at ward or zone level.

4. Expand Decentralised Wastewater and FSSM Systems

- In medium-sized cities lacking comprehensive sewers, prioritise faecal sludge and septage management (FSSM) with dedicated treatment plants and regulated desludging services, complementing gradual sewer expansion.

- Promote decentralised wastewater treatment and reuse at neighbourhood, institutional and industrial scales, supported by appropriate standards and incentives.

5. Embed Community Participation and Co-Production

- Make community participation mandatory and resourced in water and sanitation projects: allocate budgets for community facilitation, capacity building, and participatory monitoring rather than treating these as soft add-ons.
- Institutionalise roles for community groups and CBOs in O&M of decentralised facilities via formal agreements, performance-based contracts, or cooperative models.
- Use ward committees and area sabhas as platforms for ongoing dialogue on water issues, including tariff changes, project prioritisation and grievance redressal.

6. Data Transparency and Citizen Science

- Publish disaggregated SLB data (coverage, continuity, NRW, water quality, sewage treated) at ward level in open formats, enabling citizen oversight and research.
- Support citizen science initiatives (e.g., community water quality monitoring, mapping of informal sources) to supplement official data and build awareness.

7. Align Urban Water with Climate and Equity Agendas

- Integrate water-sensitive design (green roofs, permeable pavements, urban wetlands) into building by-laws and city master plans, and prioritise flood-prone and heat-stressed wards for such interventions.
- Ensure that interventions prioritise **vulnerable groups** residents of informal settlements, women, and marginalised communities by involving them in planning and guaranteeing affordable access to services.

Medium-sized Indian cities are uniquely positioned to innovate. They are large enough to justify sophisticated water management systems but small enough to experiment with decentralised, participatory approaches before rigid infrastructural and institutional path dependencies set in. A deliberate shift towards integrated, water-sensitive and community-embedded governance can turn these cities from sites of looming water crisis into leaders of sustainable urban water management in the Global South.

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