



SUB-THEME 1 · INCLUSIVE AND EQUITABLE WATER GOVERNANCE
TF 3 — INSTITUTIONAL REFORMS AND STRENGTHENING

A Critical Review of Urban Water Policies and Management Regulations

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9th India International Water Week 2026 | Theme: Climate Resilient Water Infrastructure

Background & Context

- Urban water systems form a complex, interlinked web of supply, wastewater and stormwater services
- Literature shows “water bankruptcy” in Indian cities often reflects governance failure, not physical scarcity
- Population growth, rapid urbanization and climate change are intensifying stress on city water resources
- Research question: Are existing water policies and management regulations enough to achieve urban water security?



3%

of world's water is freshwater



18%

of world population lives in India



4%

of world's renewable water resources held by India

Research Objectives

01



Critically evaluate global, national and state progression in water policies

02



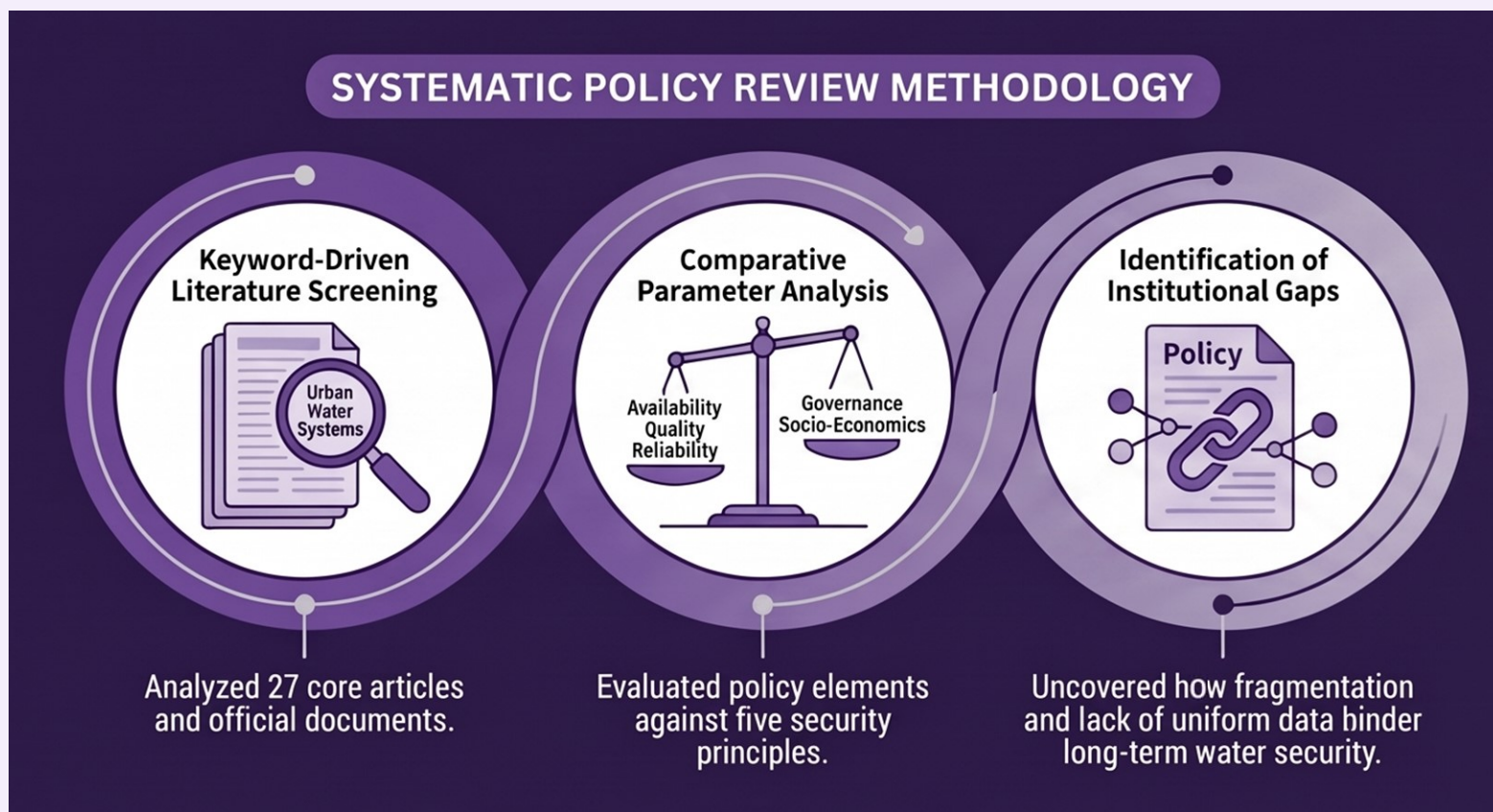
Examine institutional and administrative gaps with respect to water security

03



Identify the pattern for successful policies and frameworks

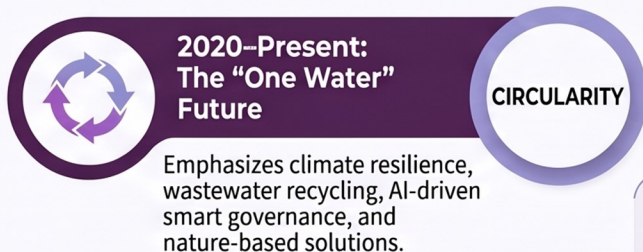
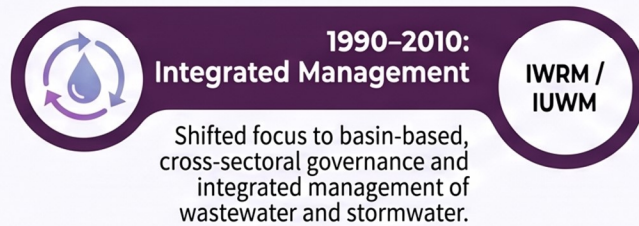
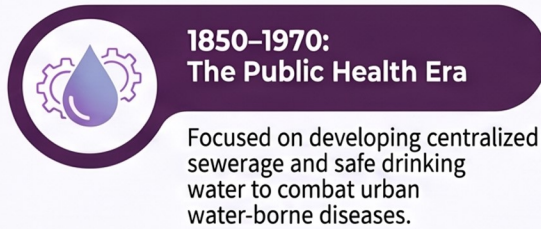
Methodology



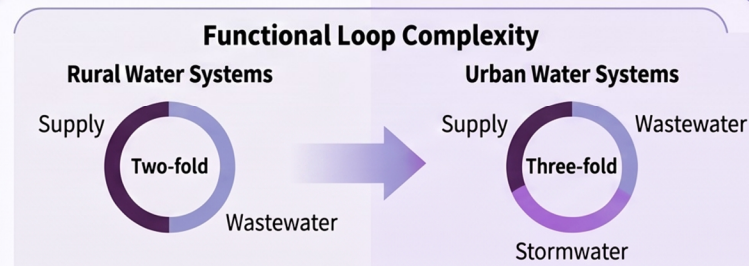
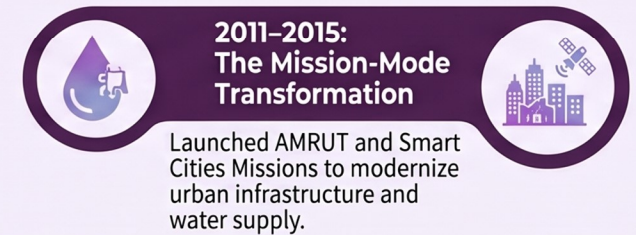
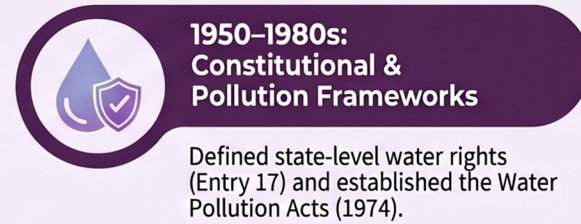
Qualitative content analysis of policy documents and management regulations, assessing how strongly water-security dimensions are addressed

The Evolution of Urban Water Governance: Global & Indian Policy Timelines

GLOBAL PARADIGM SHIFTS (International)



INDIA'S POLICY EVOLUTION (National & State)



Four Systemic Disconnects Threatening Urban Water Security

1. Groundwater Illusion

Depletion remains invisible to citizens; lack of daily volumetric metering creates false sense of infinite supply.

2. Stormwater Neglect

Stormwater viewed as flood nuisance rather than critical recharge asset; urban concrete stops natural infiltration.

3. Rural-Urban Conflict

Cities expropriate rural catchment water without formal inter-basin compensation or allocation criteria.

4. Digital & ESG Deficit

Lack of real-time IoT monitoring; BRSR/ESG water footprint disclosures poorly integrated in municipal planning.

Innovation & Global Best Practices



Water Pricing

Demand-side conservation & revenue stability



Universal Metering

Accurate consumption tracking city-wide



Non-Revenue Water Reduction

Investment in distribution networks



Renewable Energy Integration

Wind power & heat/energy recovery



Source Protection

Lowers long-term treatment costs



Targeted Subsidies

Demography-focused awareness drives

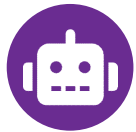
Case studies: Copenhagen · Denver · Amsterdam · Singapore · Toronto

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Recommendations & Way Forward



Transitioning to a Practical Integrated Water Resource Management Approach



Smart Tech Integration



Empower local communities for long-term, equitable water security



Consolidate fragmented rules into one integrated policy framework across scales

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Thank You

Questions & Discussion

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