

**Exploration of Domestic Water Management Practices and
Paradigm Shift Using IoT Enabled AI System for Devising
Water Conservation in Ingenious Homes**

**Thesis submitted in partial fulfilment of the
Degree of Doctor of Philosophy in Resource Management**

By

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May 2023

Recommendations for Policy Makers

1. The potential of rainwater harvesting to increase water supply could be firmly acknowledged by each citizen, made obligatory by the governing body, and evaluated by the local authorities for its utility at all household level for its usefulness.
2. Apply appropriate water pricing by implementing a citywide metered system of revenue collection for water ingress and egress, ensuring that people pay for what they consume.
3. Water delivery at brief intervals can be made possible to prevent the degradation of conserved water quality.
4. Introduce a continuous 24*7 supply of water where water storage was unnecessary. It would also be a way to improve the purity of potable water with respect to all parameters.
5. School-going children could be inculcated with water conservation practices at an early age.
6. Enthuse start-ups projects related to water resource management for the budding researchers for the up liftment of technological ideologies.
7. Corporation, water supply board, government officials, and policymakers must have an understanding of the requirement for new water policies in order to put into action the appropriate strategies for addressing the town's water-related concerns.
8. Manufacturers of water purifiers should never recommend RO water purification systems for water containing less than 500 mg/l of total dissolved solids.
9. As the techniques and processes that Indian traditional water management relied on both accountable and sustainable, they need to be invigorated and revitalized.
10. The majority of homes do not have water meters, and those who use it pay a relatively affordable flat fee. Penalties may be levied on those who waste water unnecessarily.

11. Periodically, the stakeholders (community representatives, officials, policymakers, NGOs, regulating and authorised supply agencies, and researchers) of a city's water management ought to gather to discuss the viability and challenges of the intended ongoing water policies and to find solutions and
12. In addition, technological innovations, updated policy frameworks, new strategic master plans and market-based solutions that increase water supply and decrease demand would be necessary to meet the current challenges associated with ensuring a sustainable domestic water supply.
13. This research would inform the City's Corporation, government officials, and policymakers of the need to establish new water policies in order to execute the appropriate methods for managing the town's water-related concerns and ensure efficient water management.