











IAdapt

Integrated Rural Urban Water Management for Climate Based Adaptations in Indian Cities



Integrated Rural Urban Water Management for Climate Based Adaptations in Indian Cities (IAdapt) is a three year project supported by International Development Research Centre (IDRC) Canada. It is being implemented by ICLEI - Local Governments for Sustainability, South Asia, in partnership with Athena Infonomics LLC, International Water Management Institute (IWMI) and Indian Institute of Technology Madras.

The project focuses on empowering cities to transition from traditional approaches of water management (which considers water supply, wastewater and storm water as separate entities to be planned, implemented and operated in silos) to an 'Integrated Approach' based on the principles of Integrated Water Resource Management (IWRM) and Integrated Urban Water Management (IUWM). The project is being implemented in the cities of Solapur, Maharashtra and Vijayawada, Andhra Pradesh.



Key Research Questions

- A. How can the adaptive capacities of cities be enhanced by adopting an IUWM based approach at the city level and extending it to catchment level?
- B. Which levers and incentives are most effective for enabling participation by key stakeholders (grass root organizations, NGO's, local body heads, etc.) in sustaining continuous dialogue on water resource management and adopting an IUWM-based approach?
- C. What are financial mechanisms that could promote and adequately compensate stewardship of watershed services in catchment areas of cities, to support the successful implementation of an IUWM approach?

Overall Objective

The project aims to improve water security by institutionalizing climate change adaptation measures in water management at a catchment level considering IUWM (at a city level) and IWRM (at catchment level) approaches. It will be guided by participatory catchment planning through multi-stakeholder Rural Urban (RURBAN) platforms, simple decision support tools, catchment level action plan development and multipronged financing approaches. The project will showcase implementation of the action plan through pilot projects.

Project Outputs

- Multi stakeholder RURBAN Platform formed in the two cities to act as a model for participatory and integrated governance of water resources
- Climate-based Decision Support Tool to facilitate climate informed decision making
- IAdapt Framework to enable local authorities to develop catchment management plans
- Catchment Management Plan for one micro-catchment each in the two cities demonstrating a shift towards catchment based approaches to water management using principles of IUWM
- Strategic Plan for sustainable financing to help local authorities to tap into alternative sources
 of funding

Project Activities Focus Group Discussions - to assess local socio-economy and environment micro-catchments **Quadrat Studies** Informs in and around project - to assess local floral diversity Research **Key Personnel Interviews SWOT Analysis** Leads to assess views of local administration to identify strategic pros and cons Selection of vulnerable for each Core Team Hydrological / - Executive body of urban and rural **Climate Modeling** local government representatives Engagement Informs Engagement **RURBAN Platform** Advisory body of urban and rural local regional and national government representatives **IAdapt** Framework & Decision Support Helps **Baseline Assessment** formulate - Socio-economical and environmental Implementation Vulnerability Assessment of

Catchment

project city

Climate resilient water resouce management, benefitting

rural and urban areas of selected micro-catchments

Consists of

Pilot Project in City 1

Pilot Project in City 2

Water Resources - Climate projections and water balancing

Resilience Interventions

- Identification and prioritization Implementation & Monitoring - Selection of sustainable projects and

monitoring their outcomes



Project Cities

Solapur: Key facts

- Population (2011): 9.51 lakhs
- Area: 178.57 sq.km
- Sources of water: 4 (Ujjani dam – the only perennial source, is located 100 km from the city)
- Selected as Smart City under Smart Cities Mission of Government of India
- Key economic sectors: Textile & sugar industries, agriculture and beedi making
- Key Problem Areas: Water availability, old supply network, pollution of water resources, increased demand for industry and irrigation; regional conflicts



Vijayawada: Key facts

- Population (2011): 10.48 lakhs
- Area: 61.88 sq.km
- Sources of water: 2 (Krishna River is the main source)
- Selected under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) Scheme of Government of India
- Key economic sectors: Processing of agricultural products, automobile body building, hardware, textile, consumer goods and small scale industries.
- Key Problem Areas: Natural disasters like flooding and cyclones, high rainfall variability, pollution of water resources

Project Partners

ICLEI - Local Governments for Sustainability, South Asia: ICLEI South Asia is the South Asian arm of the world's leading association of local governments, including more than 1500 metropolises, cities, urban regions and towns. Over the years, ICLEI South Asia has emerged a strong and vibrant local government association in the region with an every growing membership base, working with cities on sustainable urban development. https://southasia.iclei.org/

Athena Infonomics LLC: Athena Infonomics is a policy research and development analytics firm with a focus on strengthening the use of data and social science research to solve development and inclusive growth issues around the world. www.athenainfonomics.in

International Water Management Institute (IWMI): The International Water Management Institute (IWMI) is a non-profit, scientific research organization focusing on the sustainable use of water and land resources in developing countries. www.iwmi.cgiar.org

Indian Institute of Technology Madras: Indian Institute of Technology Madras is one among the foremost institutes in India for higher technological education, basic and applied research. www.iitm.ac.in

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