

Building Small Town Water Resilience in Six Towns of Chikkaballapur District in Karnataka, India



Location

Chikkaballapura, Bagepalli, Gowribidanur, Shidlaghatta, Gudibande, and Chintamani



Period

2025 - 2027



Funding

\$281,279



Beneficiaries

300,000

Implementing Partner



Nodal Government Agency



- District Urban Development Cell, Chikkaballapura, Karnataka

About Urban Infrastructure Resilience Programme (UIRP)

With cities generating 80 percent of global Gross Domestic Product and rapid urbanization expected to bring 70 percent of the world's population into urban areas by 2050, the need for resilient infrastructure has never been more critical. Extreme climatic events increasingly threaten urban systems, making proactive adaptation essential. CDRI's UIRP helps member countries integrate disaster and climate resilience into infrastructure planning, operation and maintenance, augmenting investments, ensuring sustainable and resilient urban growth.

Context and Background

- The Chikkaballapura district in Karnataka, India faces recurring droughts, erratic rainfall, and inadequate risk-informed water infrastructure planning, threatening drinking water security and the resilience of both existing and planned systems.
- Six Council and Panchayats in the district– Bagepalli Town, Chikkaballapura , Chintamani , Gauribidanur City, Gudibande , Sidlaghatta City, under the Urban Development Cell of the District of Chikkaballapura, located in the southwestern Indian state of Karnataka, are among the most water-vulnerable areas, with nearly two-thirds of their workforce dependent on agriculture and facing severe groundwater depletion.
- The project will explore the potential to reuse treated wastewater from a neighbouring district for irrigation and groundwater recharge, while strengthening institutional capacity and infrastructure to ensure long-term climate and disaster resilience.

Objective and Outputs

- Six towns will assess and integrate climate and disaster risk information into new and existing water infrastructure plans, ensuring long-term sustainability.
- There towns will develop diversified and augmented water supply strategies—including conservation, used water reuse, and conjunctive surface-groundwater management—to strengthen system resilience.
- Innovative approaches to used water treatment and reuse will be introduced, helping towns manage and recycle wastewater effectively, with potential linkages to metropolitan wastewater sources.
- Stakeholders will be trained to embed climate and disaster risk considerations in water infrastructure planning and operations, enabling inclusive and adaptive infrastructure management.

Impact

- 300,000 urban residents across the district's six towns will gain reliable water access for domestic use, agriculture, and small enterprises, addressing persistent shortages and enhancing local resilience.
- Staff from 10 local and state-level agencies will gain expertise in risk-informed water planning, including consumption trends, conservation, resource assessment, and treatment solutions.
- An additional \$46 million will be mobilized—\$28 million for enhancing water supply infrastructure and \$18 million for advancing sustainable water reuse and management practices.



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Contact Details

urban@cdri.world