

Inclusive Rural Water Supply Services In Maharashtra: Bridging Water Abundance And Accessibility

Upasana Yadav, Dhruv Bhavsar, Chirag Patel, Meera Mehta and
Dinesh Mehta

ABOUT CWAS

CEPT University's core focus is human habitat. Through its education, research and advisory activities, it strives to improve the impact of habitat professions in enriching the lives of people in India's villages, towns and cities.

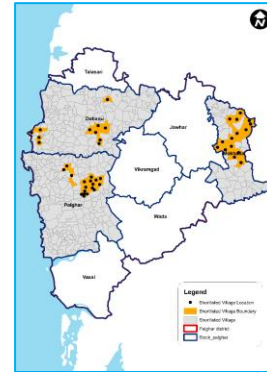
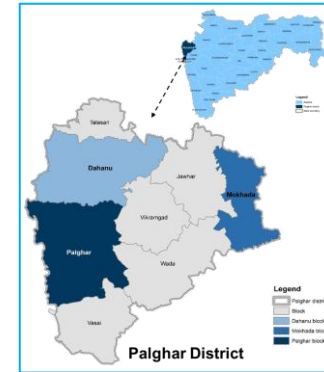
CEPT Research and Development Foundation (CRDF) has been established by the University to manage their research and capacity building activities. There are nine domain-focused centers in the CRDF. The Center for Water and Sanitation (CWAS) is among the first center to be established.

CWAS began its work in 2009 with focus on improving water and sanitation services in India. It carries out activities related to action research and capacity building – working closely with city and state governments, enabling them to improve delivery of services. CWAS is closely engaged with Faculty of Planning at CEPT University. CWAS team teach and guide students of Faculty of Planning.



CHALLENGES IN RURAL WATER SUPPLY

- Over 70% of Maharashtra's rural population depends on groundwater for drinking.
- Palghar, a predominantly tribal district, faces water accessibility and quality issues.
- Seasonal water scarcity despite high monsoonal rainfall.
- Limited piped water connections in rural villages.
- Dependence on water tanker water during summer months.



The 3-year project working in **50 selected villages** of Palghar district, Maharashtra

1. **Palghar**- block with high share of rural population
2. **Dahaneu**- tribal dominated block in coastal area
3. **Mokhada**- tribal dominated block in hilly region

PROJECT OBJECTIVES

Implemented by CWAS - CRDF University under HDFC Bank's CSR initiative

Making villages secure for drinking water and waste management facilities



Outcome: To provide safe and equitable water and waste management services by providing technical support, building capacities of local stakeholders including gram panchayats and communities, and strengthening planning, implementation, and monitoring systems.

ASSESSMENT AND VILLAGE ACTION PLAN FOR DRINKING WATER SECURITY



1

Surface water source (lakes/river) and groundwater (wells)

- **Dependency on dug wells** for water supply
- Water scarcity issues after February due to **lack of groundwater availability**-dependency on tanker supply-**Source sustainability** major issue



2

Water quality assessment and treatment systems

TCL dosing in open well- **No filtration unit** available

Water **quality** surveillance through **Field testing kits**



3

Water Distribution systems and ESR

Small overhead tanks with **solar pumping** available

Solar systems not working during **monsoon**- **Villagers to walk** till source



4

Water supply reliability

- **Community tap connections** are present.
- People **walk long distance** to fetch water.
- **No household tap connections** observed in the village- planned under JJM
- Some **storage infrastructures** built by development partners but are **not functional** due to **lack of O&M**
- Few RWH measures seen in villages- mainly for water needs during monsoon



5

User end water supply



Infrastructure Mapping



Open well- Main water source

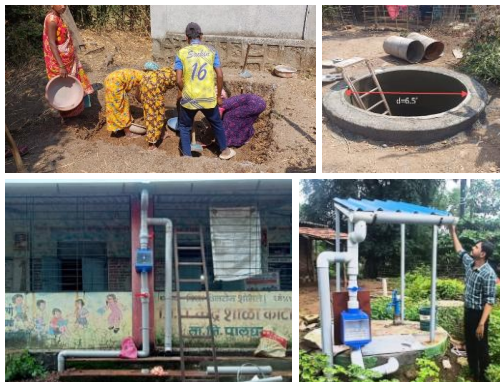


Community Taps

DEMONSTRATION OF PILOT PROJECTS

Rainwater Harvesting at Institution and Household Level

- **50 RWH** structures constructed
- **3.7 lakh liters** of water storage capacity created
- **780** beneficiaries impacted



Mini Piped Water Supply Scheme

- **2 habitation** provided with daily water supply at household level- using solar pump and overhead tank with water purification system
- **72 household** level water connections provided
- **360** beneficiaries impacted



Rejuvenation of Open wells/new wells

- **9 wells** revived or newly constructed
- **11 Lakh Liters** of water storage capacity created
- **2000** beneficiaries impacted



Old well in dilapidated condition

New dug well

Water Quality Testing and Purification System

- Training of SHGs for conducting water quality tests
- Monitoring of water quality of sources
- Installation of purification system



AWARENESS AND TRAINING ACTIVITIES

Awareness and Capacity Building programs

- **1500+** people trained and made aware about RWH including **330+ government officials**
- **19** technical training and strengthening workshops conducted
- **60** awareness drives conducted targeting 5000+ households



Collaborations with Women SHGs and communities



Capacity strengthening and dissemination through documentation at district level state/ level



- Rainwater harvesting awareness booklet was prepared showcasing simple step-by-step approaches to distribute in selected GPs, BDO office and Zilla Parishad office.
- Various awareness materials- pamphlets, posters, training booklet prepared



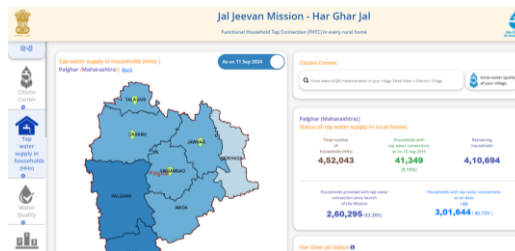
SCALE UP AT DISTRICT AND STATE LEVEL

Scaling up through programme convergence, capacity building and monitoring support

Strategic and technical support for
programme implementation

Strengthening monitoring system at
district level

District and state level training workshop to
disseminate learnings from Palghar District



Convergence support of SBM-G and JJM with national/ state programmes



KEY OUTCOMES AND IMPACT

- **Sustainable access to safe drinking water** in 50 tribal villages of Palghar district, Maharashtra.
 - **Resolving issue of seasonal water scarcity, poor infrastructure and low awareness** through integrated initiatives.
 - Implemented **pilot demonstration projects** like rainwater harvesting, well revival, mini piped water schemes and monitoring systems.
- Achieved **14 million liters of water storage capacity** in the first year, benefiting over **10,000 people**.
- **Unique approach** integrating **technical demonstrations with capacity building, Self-Help Group engagement and community awareness** for lasting impact.



Before



After

PARTNERSHIP TO ACHIEVE SCALE...



CWAS CENTER
FOR WATER
AND SANITATION

CRDF CEPT RESEARCH
AND DEVELOPMENT
FOUNDATION

CEPT
UNIVERSITY

THANKS

cwas@cept.ac.in

cwas.org.in



About us

The Center for Water and Sanitation (CWAS) is a part of CEPT Research and Development Foundation (CRDF) at CEPT University. CWAS undertakes action-research, implementation support, capacity building and advocacy in the field of urban water and sanitation. Acting as a thought catalyst and facilitator, CWAS works closely with all levels of governments - national, state and local to support them in delivering water and sanitation services in an efficient, effective and equitable manner.



cwas.org.in



cwas@cept.ac.in
tiny.cc/pasenews



CEPT_CWAS



[cwas.cept](https://www.instagram.com/cwas.cept)



[cwas.cept](https://www.facebook.com/cwas.cept)



[cwas.cept](https://www.linkedin.com/company/cwas.cept)

CWAS CENTER
FOR WATER
AND SANITATION

CRDF CEPT RESEARCH
AND DEVELOPMENT
FOUNDATION

CEPT
UNIVERSITY