

Moving Towards Water Security through Community Led Climate Resilient Initiatives

Paper ID: 287

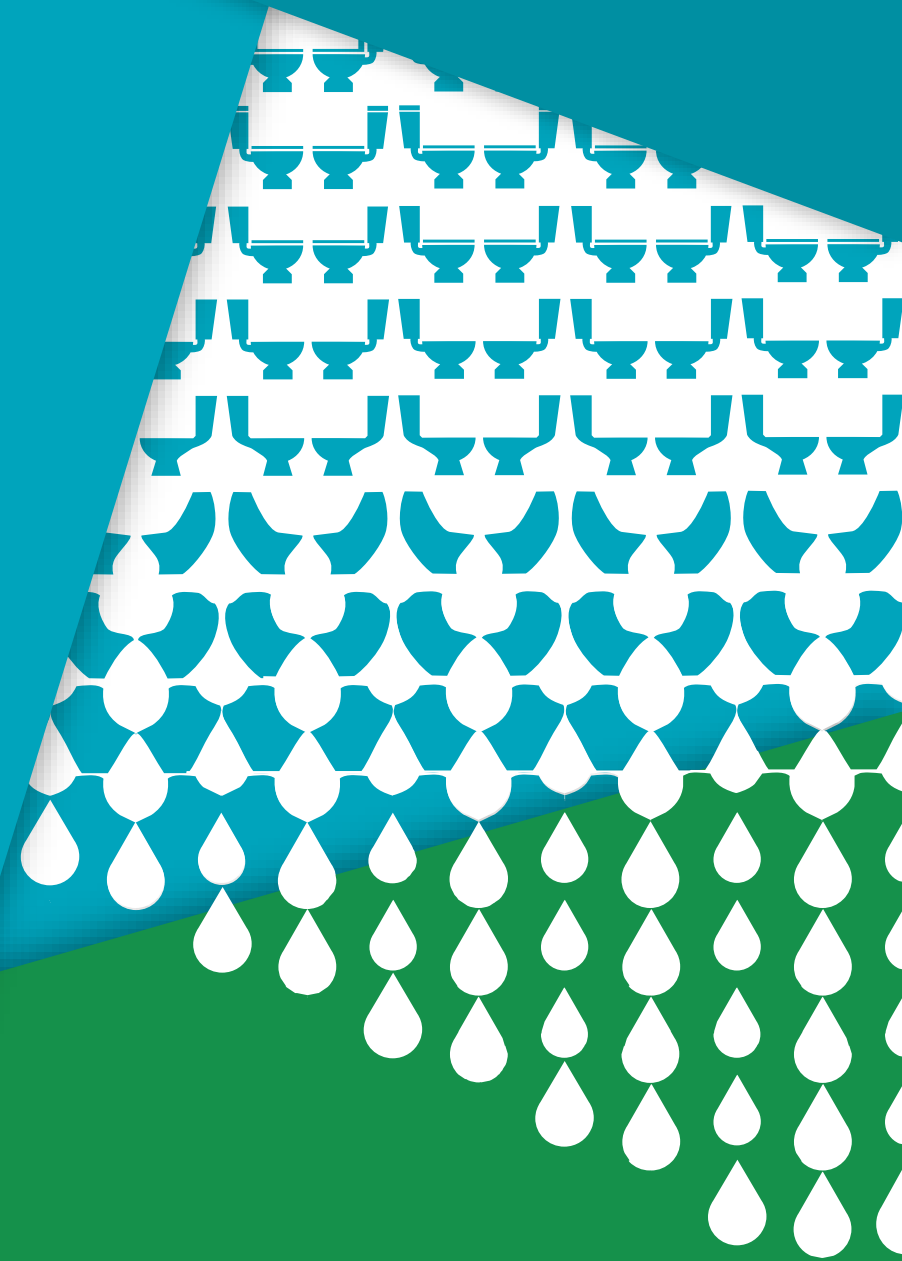
Center for Water and Sanitation (CWAS)

CRDF, CEPT University

C-WAS | CENTER
FOR WATER AND
SANITATION

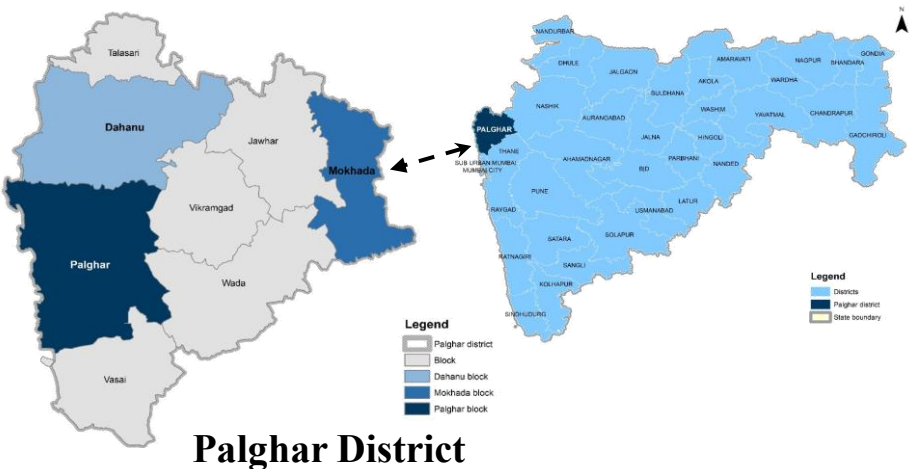
CRDF | CEPT RESEARCH
AND DEVELOPMENT
FOUNDATION

CEPT
UNIVERSITY



High Rainfall, Yet Seasonal Water Insecurity

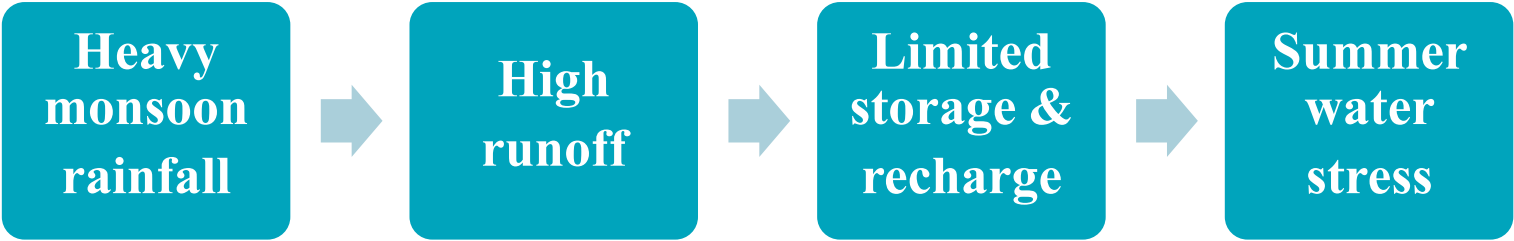
Palghar receives ~2,500 mm of rainfall annually, yet many rural communities experience water scarcity during summer.



 50 villages
Palghar, Dahanu &
Mokhada blocks

 2,000–3,000 mm
Annual rainfall

 Tribal & rural communities
with dispersed settlements



What did 7,385 household surveys reveal?



~80%

>30 min for
water
collection

24%

Irregular
availability

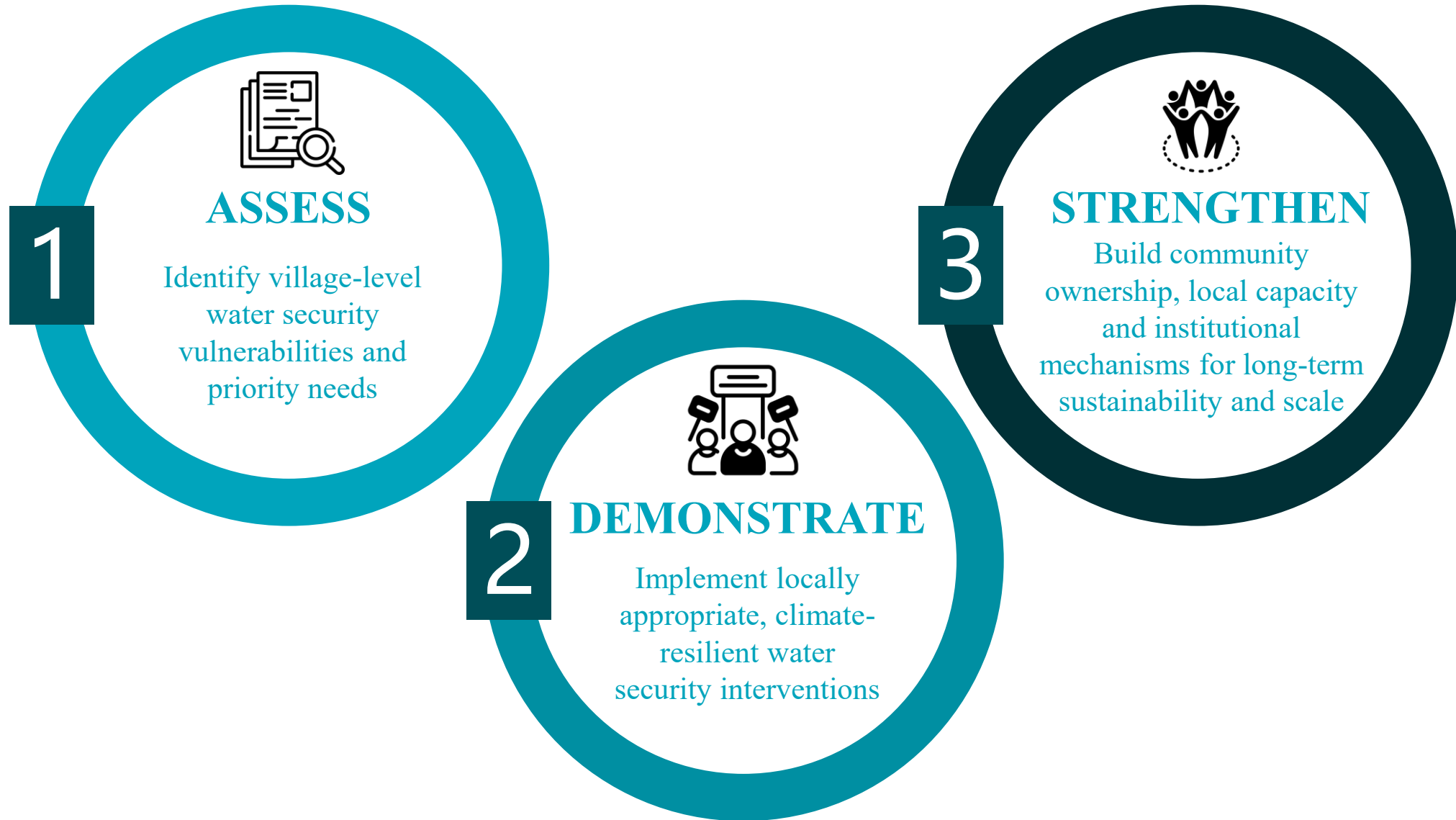
~80%

No RWH
storage

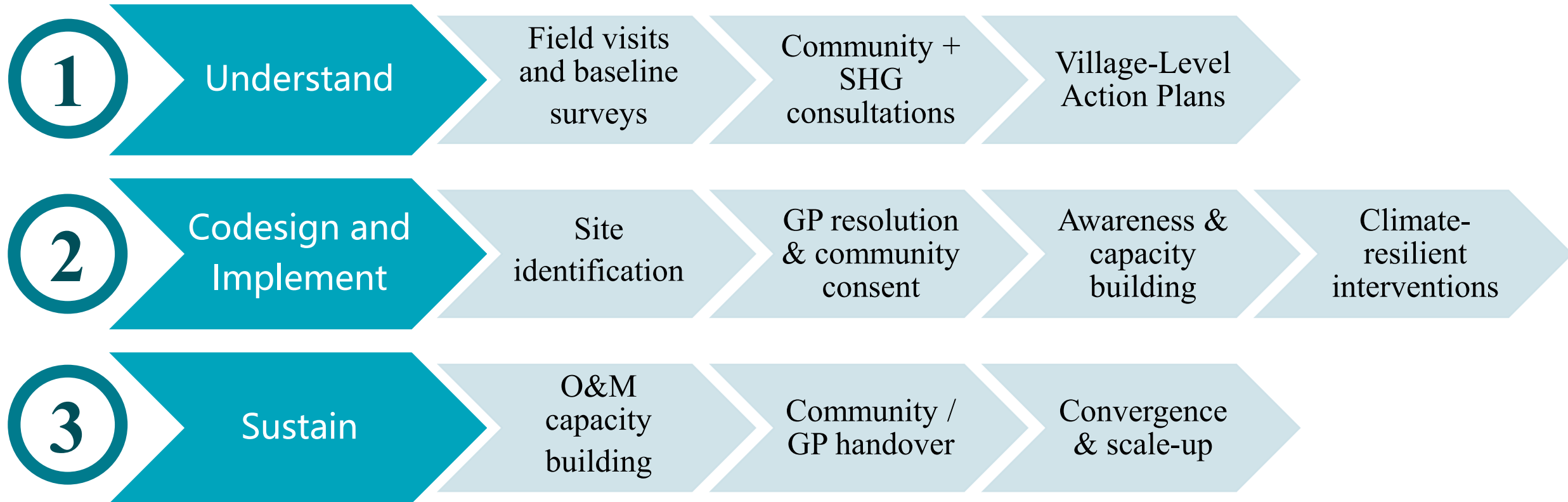
>75%

Willing to
adopt RWH

Study Objectives



From Assessment to Community Ownership



WOMEN SHGs • COMMUNITIES • GRAM PANCHAYATS

Engaged throughout the process

Climate-Resilient Interventions Improved Water Availability and Reliability

28+ lakh litres of water storage capacity created

Rainwater Harvesting at Institution and Household Level

- 81 RWH structures constructed
- 8.35 lakh liters of water storage capacity created
- 2080 beneficiaries impacted



Mini Piped Water Supply Scheme

- 6 schemes | 6 habitations
- 1,300 beneficiaries
- Doorstep water access - reducing dependence on distant sources



Household tap connections

Rejuvenation of Open wells/new wells

- 11 wells revived or newly constructed
- 20+ Lakh Liters of water storage capacity created
- 11/11 functional during peak summer
- 2500+ beneficiaries impacted



Water Quality Testing and Purification System

- 3 systems
- 4,095 beneficiaries
- Improved access to safe drinking water



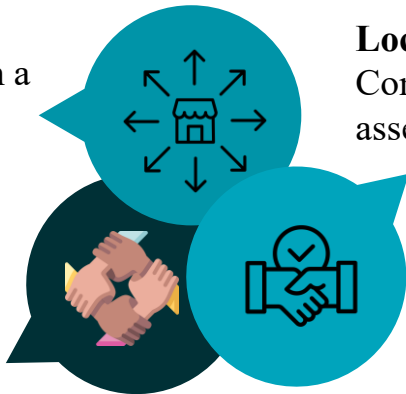
From Infrastructure to Water Security



WATER SECURITY & CLIMATE RESILIENCE

Source diversification

Reduced dependence on a single water source



Institutional convergence

GP participation created opportunities for continued investment and replication

Local ownership

Communities participated from assessment through O&M

₹50 / HOUSEHOLD / MONTH
O&M contribution agreed across all 6 mini-PWS schemes

11/11 WELLS
functional in peak summer

COMMUNITY SHRAMDAAN
Local labour contributed for RWH implementation

What Made the Community-Led Model Work?



GP CO-INVESTMENT

Ranshet GP contributed ~50% towards a new well; Ghatalpada/Kondhan GP supported the access road to the revived well.

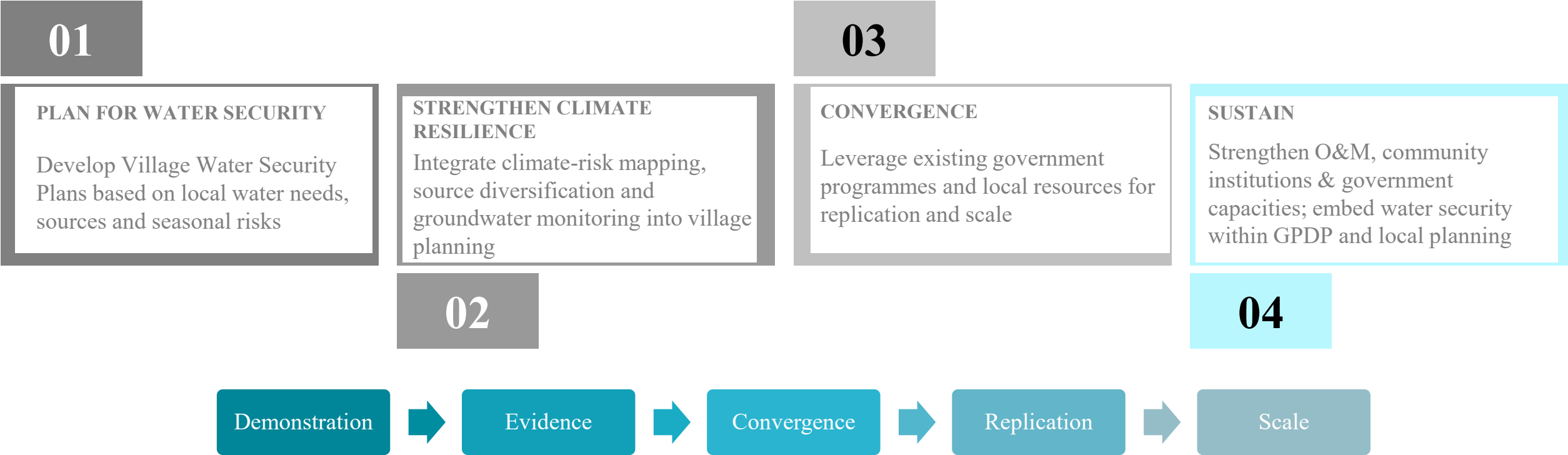
BLOCK-LEVEL ENABLEMENT

BDO directives encouraged RWH integration into planned institutional infrastructure.

REPLICATION

10–15 villages expressed interest in replicating interventions using local-government resources.

Way Forward: From Demonstration to Scale



Long-term monitoring of water availability, groundwater conditions, service reliability and socio-economic outcomes

Put communities at the centre of water-security planning, complementing local knowledge with scientific and technical expertise.

CWAS CENTER
FOR WATER
AND SANITATION

CRDF CEPT RESEARCH
AND DEVELOPMENT
FOUNDATION

CEPT
UNIVERSITY

About us

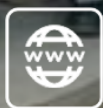
The Center for Water and Sanitation (CWAS) is a part of CEPT Research and Development Foundation (CRDF) at CEPT University. CWAS undertakes action-research, implementation support, capacity building and advocacy in the field of urban water and sanitation. Acting as a thought catalyst and facilitator, 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.

Thank you

Acknowledgements

CWAS | CRDF | CEPT University
HDFC Bank Parivartan
ZP Palghar | BDOs | Gram Panchayats | Women SHGs | Communities

The project was supported by HDFC Bank under its Parivartan programme.



cwas.org.in
pas.org.in



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



[CEPT_CWAS](https://twitter.com/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)