



Making 50 villages secure for drinking water and waste management facilities: Year-1 progress

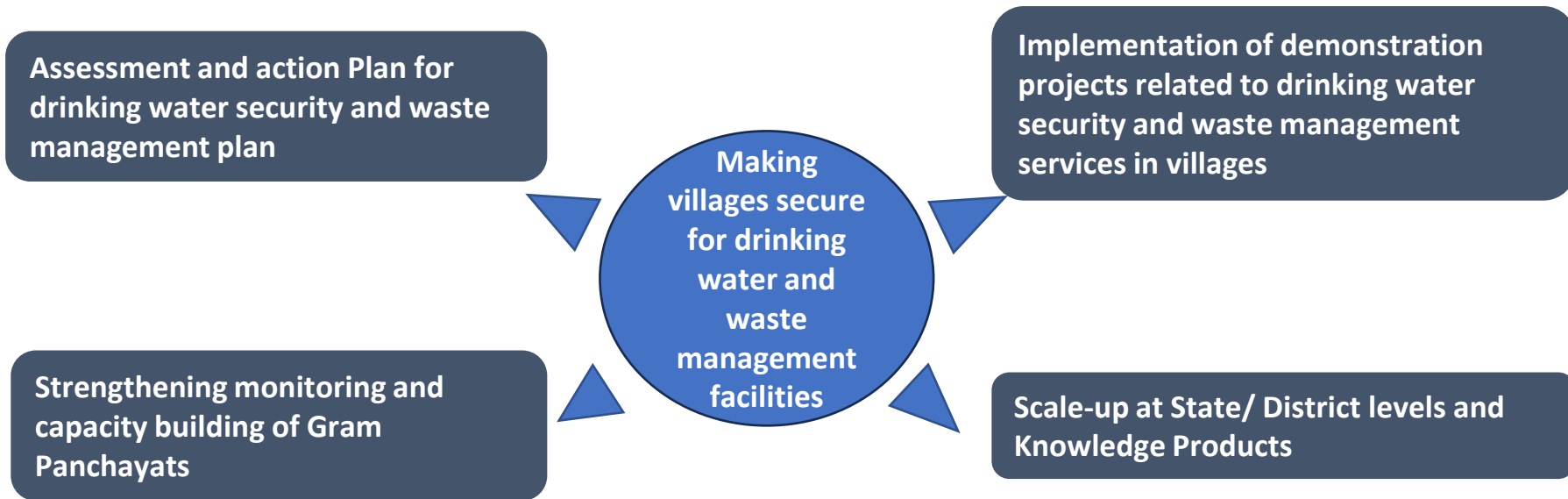
Center for Water and Sanitation (CWAS),
CRDF, CEPT University

Under HDFC Bank Parivartan's
Focused Rural Development Programme
(FRDP)

April 2025

A 3-year Project: Making 50 villages secure for drinking water and waste management facilities

Key proposed project activities for next three years (2024 – 2027)



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.

Palghar District of Maharashtra selected to improve water services making it inclusive

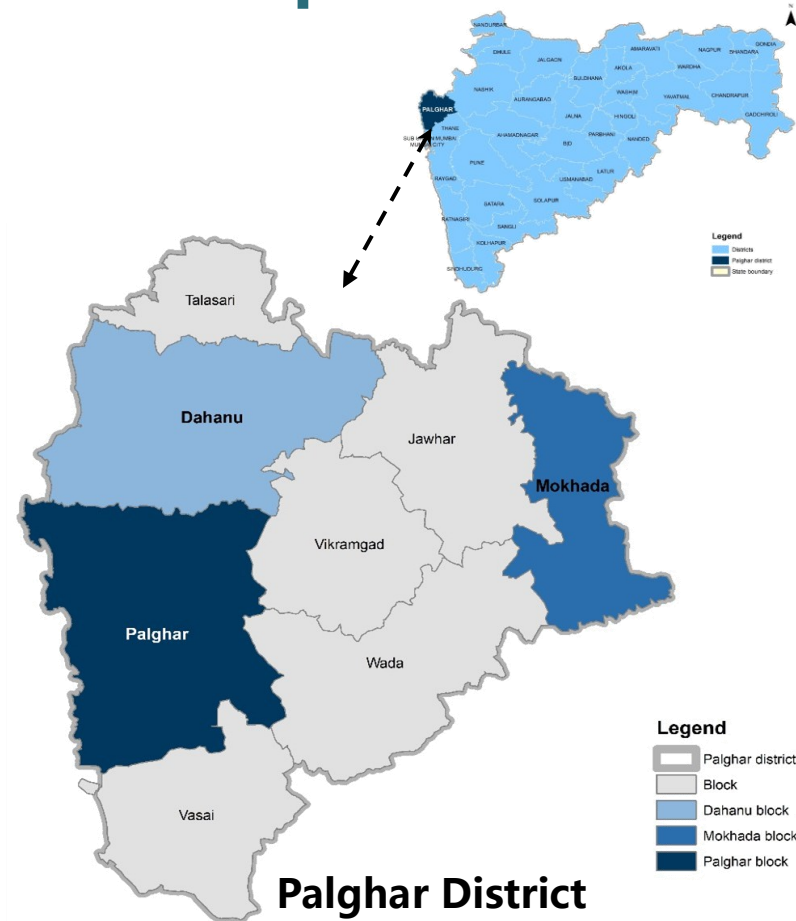
Location: Western Maharashtra, coastal district, tribal-dominated

The project will be carried out in 50 selected villages for the selected three blocks of Palghar district.

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

Water Challenges:

- **Seasonal water scarcity** despite high monsoonal rainfall.
- **Limited piped water connections** in rural villages.
- **Dependence on tanker** water during **summer** months.



Key challenges in Palghar region

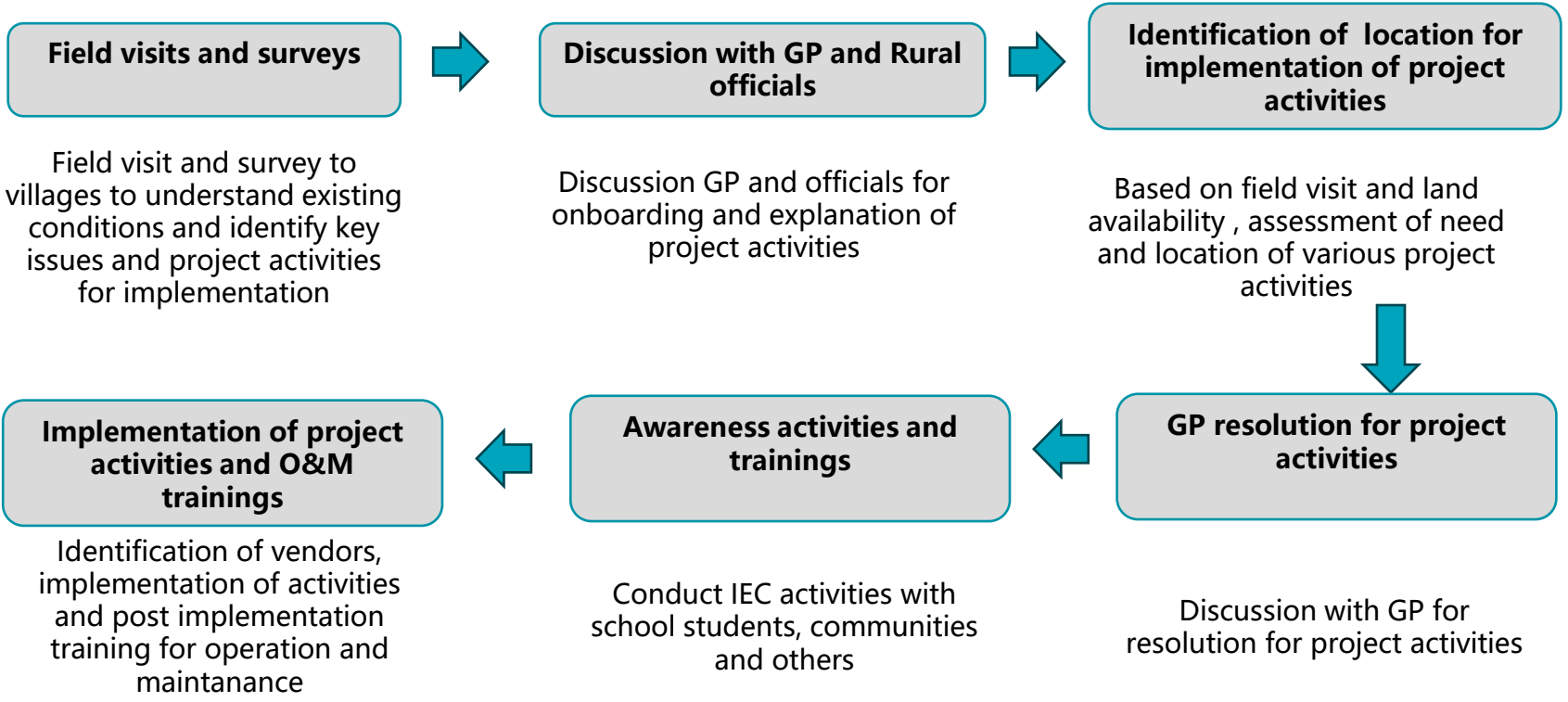
The Palghar district of Maharashtra has faced seasonal water scarcity and solid waste management issues in rural areas, due to several reasons:

- **Rainfall:** The region receives **high rainfall of 2,500 mm annually**, but the **water bodies drying up in summer** resulting **tanker water supply** in villages.
- **Jal Jeevan Mission under implementation:** Water supply infrastructure and household tap connections are provided under JJM- This is under implementation. But ensuring **functional sustainability of these infrastructure** is the need of the hour.
- Many development partners have invested in water infrastructure. But some these have become non-functional.
- **Biodegradable waste management:** Compost pits constructed under SBM but are non-operational due to the **lack of capacity** to operate them
- **Lack of plastic waste management awareness and facilities** in rural areas.



Our approach: To strengthen the capacity building at local level to sustain the ongoing investment and demonstrate innovative approach through projects to ensure long-term sustainability.

Our approach for planning and implementation at village level



Project onboarding activities: Engaging state department and divisional commissionerate office

Letter from Mission Director, Mazi Vasundhara Abhiyan to
Divisional Commissioner Office



क्रमांक : मावअ २०२४/प्र.क्र. १९१ दिनांक : १६ जुलै, २०२४

प्रति,
मा. विभागीय आयुक्त,
कोंकण विभाग,
कोंकण

विषय :- पालघर जिल्ह्यातील मोखाडा, उद्दणू व पालघर या तालुक्यांमध्ये पर्यावरण पूरक उपक्रम राबविण्याबाबत.

महोदय,

माझी वसुंधरा अभियानांतर्गत CWAS, CEPT Research and Development Foundation (CRDF) (Non-Profit Organization) यांच्यासोबत सामनस्य करार करण्यात आलेला आहे. या सामनस्य कराराअंतर्गत CWAS हे HDFC बँकेच्या मदतीने मोखाडा, उद्दणू व पालघर या तालुक्यांमधील काही निवडक गावांमध्ये वातावरणीय बदल, जलसुरक्षा व धन कसरा व्यवस्थापन इत्यादी पर्यावरण उपक्रम राबवून त्या गावांना मदत करू इच्छित आहे.

२. त्या अनुषंगाने या संस्थेचे प्रतिनिधी संबंधित तालुक्यात जाऊन गावांची निवड करण्यासाठी अभ्यास करीत आहेत. सदर गावांची निवड ही संबंधित पंचायत समितीच्या गट विकास अधिकारी यांच्या सल्ल्याने करण्यात येणार आहे. त्यानंतर निवड केलेल्या गावांमध्ये पर्यावरण पूरक उपक्रम राबविण्यात येणार आहेत. त्यासाठी संबंधित संस्थेच्या प्रतिनिधीस सहकार्य / मदत करण्याबाबत संबंधित जिल्हापरिषदेचे मुख्य कार्यकारी अधिकारी व पंचायत समितीचे गट विकास अधिकारी यांना आपल्या सरावरून सूचना देण्यात याव्यात, अशी नम्र विनंती आहे.

आपला,
(सुभाकर श. बोवडे)
अभियान संचालक

प्रति,
१. मुख्य कार्यकारी, जिल्हा परिषद, पालघर
२. गट विकास अधिकारी, पंचायत समिती, मोखाडा, उद्दणू व पालघर
३. CWAS, CEPT Research and Development Foundation

Letter from Divisional Commissioner Office to Zilla
Parishad and Block Development Office for project
implementation support



पत्र क्र. विरा/कार्या-६/यो-५/ माझी वसुंधरा/ ७८२/२०२४ दिनांक : १६/०७/२०२४

प्रति,

मा. मुख्य कार्यकारी अधिकारी,
जिल्हा परिषद पालघर.

विषय:- पालघर जिल्ह्यातील मोखाडा उद्दणू व पालघर या तालुक्यांमध्ये पर्यावरण पूरक उपक्रम राबविण्याबाबत.

संदर्भ:- अभियान संचालक, पर्यावरण व वातावरणीय बदल विभाग, माझी वसुंधरा अभियान संचालनालय, मुंबई यांचेकडील पत्र क्रमांक मावअ २०२४/ प्र.क्र. १९१/ दि. १६ जुलै, २०२४.

उपरोक्त संदर्भित पत्रान्वये माझी वसुंधरा अभियान अंतर्गत CWAS, CEPT Research & Development Foundation (CRDF) (Non-Profit Organization) ही संस्था HDFC बँकेच्या मदतीने मोखाडा, उद्दणू व पालघर या तालुक्यांमधील काही निवडक गावांमध्ये वातावरणीय बदल जलसुरक्षा व धनकसरा व्यवस्थापन इत्यादी पर्यावरण पूरक उपक्रम राबवून त्या गावांना मदत करू इच्छित असल्याबाबत कळविण्यात आले आहे.

सदर संस्थेचे प्रतिनिधी संबंधित तालुक्यात जाऊन गावांची निवड करण्यासाठी अभ्यास करीत आहेत. तसेच सदर गावांची निवड ही संबंधित पंचायत समितीच्या गट विकास अधिकारी यांच्या सल्ल्याने करण्यात येणार आहे. त्यानंतर निवड केलेल्या गावांमध्ये पर्यावरण पूरक उपक्रम राबविण्यात येणार आहेत. तरी संबंधित संस्थेच्या प्रतिनिधींना सहकार्य/ मदत करण्याबाबत सर्व संबंधितांना आपल्या स्तरावरून निर्देश देण्यात यावेत, ही विनंती.

सोबत- संदर्भित पत्र.

(गिरीश भालेराव)
उप आयुक्त (विकास)
कोंकण विभाग

प्रत - प्रत माहितीसाठी व पुढील कार्यवाहीसाठी-

१. उप मुख्य कार्यकारी अधिकारी (प्र.सं.) जिल्हा परिषद पालघर.
२. गट विकास अधिकारी, पंचायत समिती, मोखाडा, उद्दणू व पालघर.

Project Inauguration event

- Project inauguration event was held on September 13, 2024 at Zilla Parishad office, Palghar.
- The inauguration event was chaired by
 - Shri Bhanudas Palve (CEO ZP),
 - Shri Ravindra Shinde (Additional CEO, ZP),
 - Shri Dhanraj Pandey (Project Director, District Water & Sanitation Department),
 - Shri Chandrasekhar Jagtap (Deputy CEO, Gram Panchayat Division),
 - Shri Rajesh Padhyey (Executive Engineer),
 - Shri Vineet Jadhav (Project Manager, HDFC Bank),
 - Shri Dinesh Mehta (Center Head, CWAS, CEPT University).
- The inauguration event was attended by **100+ representatives** from Gram Panchayats, Block Development Offices, and Zilla Parishad Palghar.



MoU between Zilla Parishad, Palghar and CWAS-CRDF

MEMORANDUM OF UNDERSTANDING

Between

Zilla Parishad Office, Palghar District
Government of Maharashtra

And

Center for Water and Sanitation (CWAS),
CEPT Research & Development Foundation (CRDF),
CEPT University, Ahmedabad

For

**Making villages secure for drinking water and waste
management facilities**

September 2024

For and on behalf of
CEPT Research and Development Foundation


Darshan Parikh
Director, CRDF

For and on behalf of
Zilla Parishad, Palghar District


P. H. PALWE IAS
Authorized Signatory
ZP, CEO Palghar Zilla Parishad, Palghar
Date: 13/09/2024



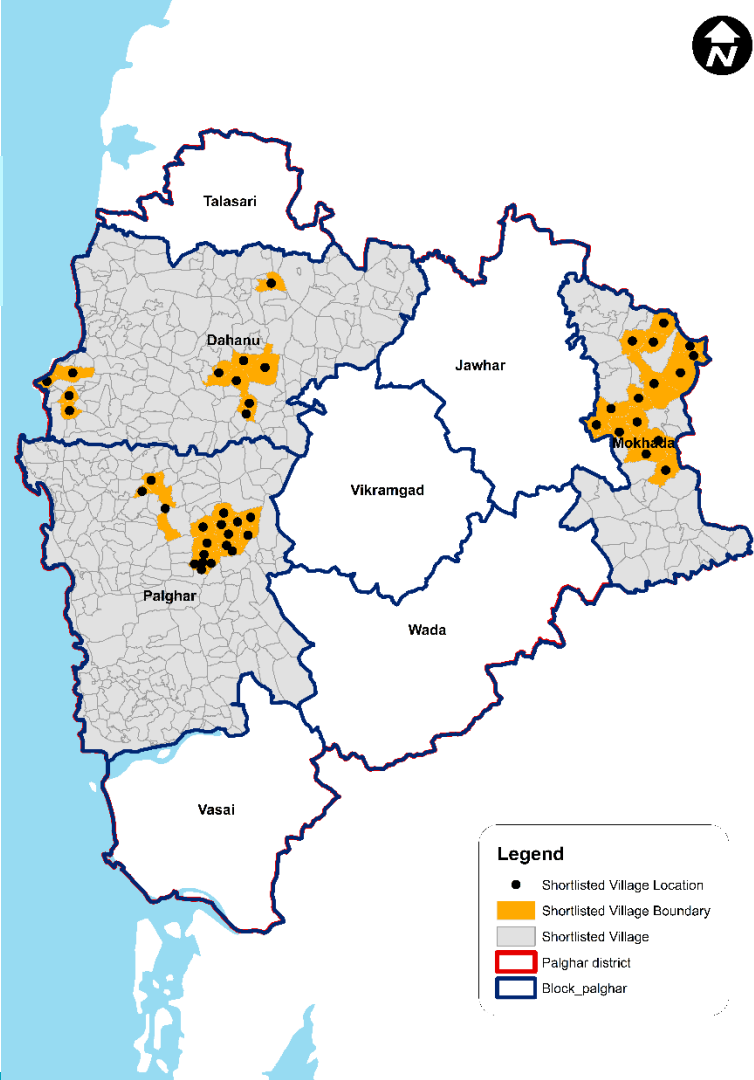


Selection of villages

About **50 villages** selected through a collaborative process involving the Zilla Parishad (ZP) of Palghar and the Block Development Officers (BDOs) of Mokhada, Palghar, and Dahanu blocks.

Selection criteria designed to address diverse water and waste-related challenges:

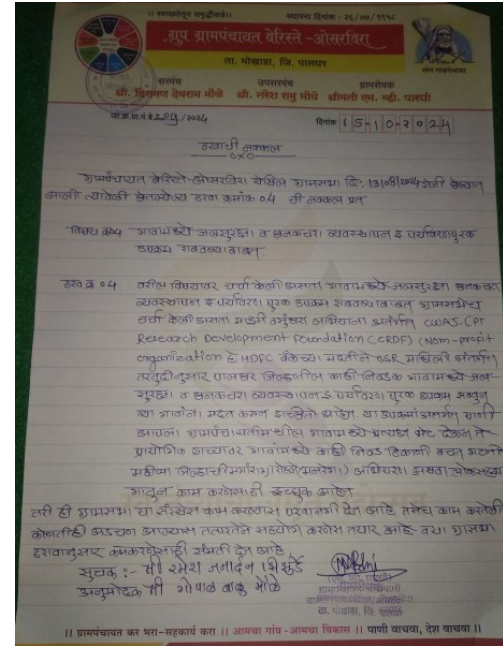
- Geographical diversity- Coastal, hilly towns, flat terrain
- Tanker dependency
- Accessibility and clustering
- Jal Jeevan Mission (JJM) integration- single village and multi village scheme
- Population size- small and medium-sized villages



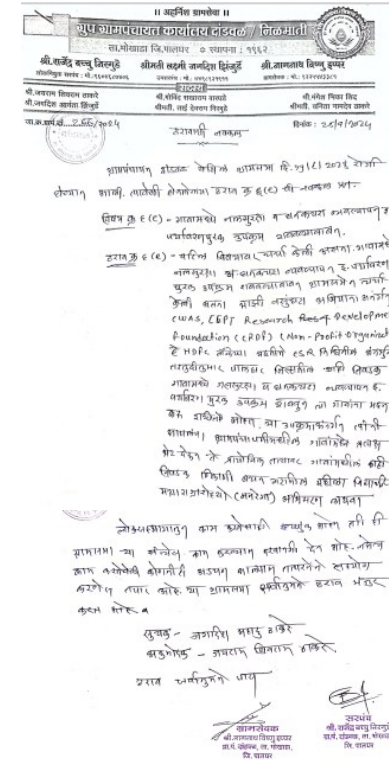
Institutionalise the project activities from beginning through Gram Sabha Resolutions

Discussion with Gram Panchayat Office

- Sharing project objectives
- Trust building activities
- Explore possible institutionalise project activities in GP operations
- Understanding need for the support
- Scaling up ideas from the initial discussions



**Beriste – Oshiwara
GP resolution**

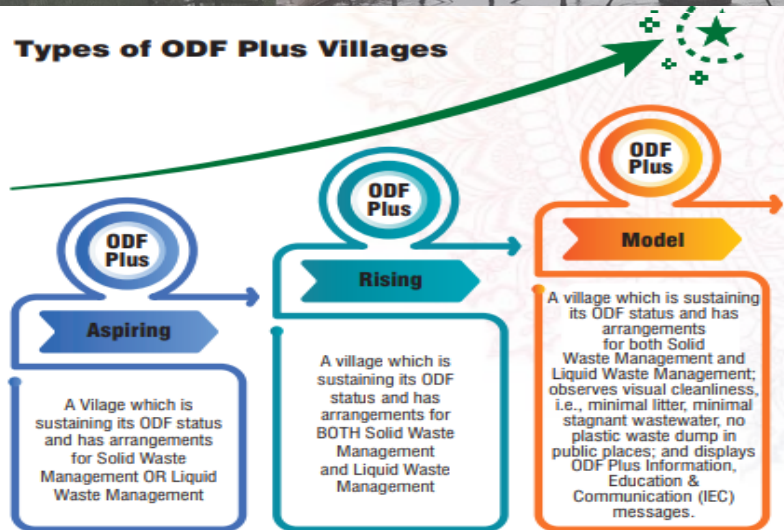


**Dandwal – Nilmati
GP resolution**



JJM is perhaps the world's largest programme to achieve SDG-6 targets ahead of time with 'speed and scale'

Types of ODF Plus Villages



Proposed Activities

- 1 Village action Plan for drinking water security and waste management**
- 2 Demonstration of projects for drinking water security in villages**
- 3 Strengthening monitoring and capacity building of Gram Panchayats**
- 4 Technical support to Zilla Parishad Palghar and Block Development Offices for scaling up project activities**

SHG engagement for baseline survey and awareness activities

Participatory Approach

- Engage SHG women for village-level assessments for water supply and waste management.
- Conducted focus group discussions with villagers, GP officials, and SHGs
- Ensured community involvement through habitation and village-level resource mapping.



SaniTab Application to conduct surveys- Palghar, Mokhada & Dahanu

Baseline data collection and awareness activities

- Deployed mobile-based digital application.
- Household surveys to establish a robust baseline.
- Awareness activities conducted at household level while going for survey
- Developed detailed village action plans based on assessments and community input.



Training for using Mobile application for survey



SHGs conducting Household surveys



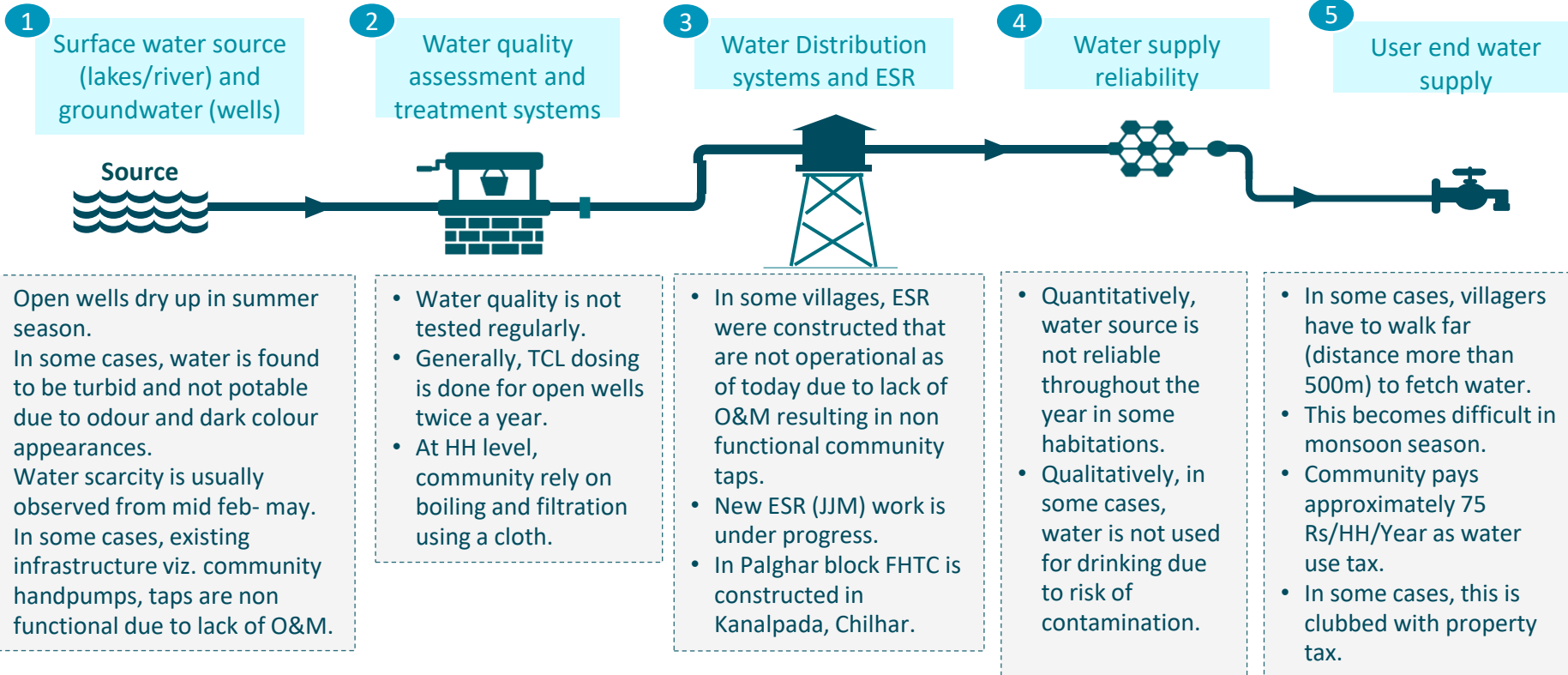
community awareness



Pamphlet distribution

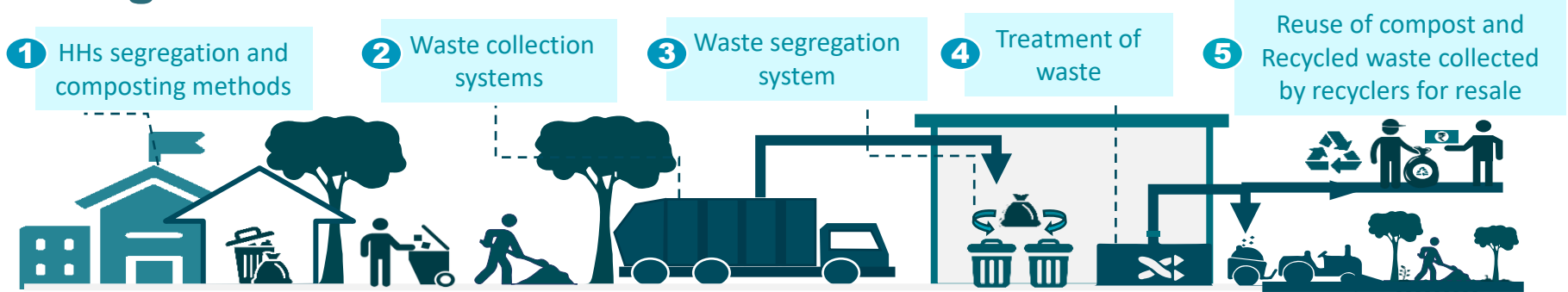
Key findings from village action plans- Water supply

Water supply



Key findings from village action plans- Solid Waste Management

SWM



- Wet waste is used as fertilizer in farming or for feeding the cattle.
- Plastic waste is burnt in the backyard.
- No segregation of dry and wet waste practiced.
- Community is not aware of proper segregation practices.

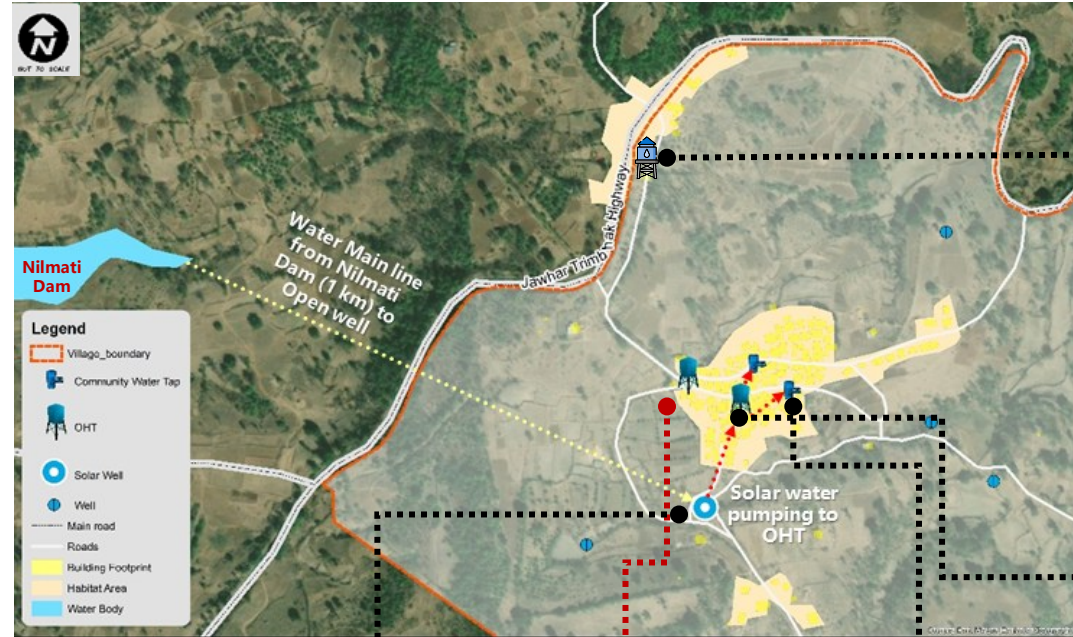
- Lack of door-to-door waste collection facility
- No segregation mechanism
- In some villages, HH level dustbins are distributed but no further measures are taken up for SWM.

- Compost pits are non functional in villages.
- No proper treatment of dry waste is observed currently.

- No recycling and reuse practiced
- No MRF facilities available at block level

Resources and infrastructure mapping

- Habitation area mapping
- Mapping of assets of Gram Panchayat
- Infrastructure mapping across the water supply and solid waste management
- Road network mapping
- Enable spatial analysis and gap assessment for unserved area
- Resource mapping will help developing Village Action Plan as well as for developing asset management plan.



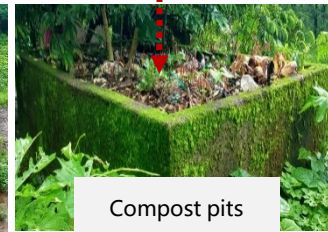
JJM ESR under construction



Community ESR



Source of water supply Open Well



Compost pits



Community Taps



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Selection of demonstration project sites



Demonstration of Projects –Year 1

Rainwater Harvesting:



- Demonstration of 24 community-level rainwater harvesting (RWH) structures.
- Demonstration of 9 institutional-level RWH structures completed at schools.

Revival of Wells and Community Dug Wells:



- Revival of shallow wells at 3 locations.
- Construction of 3 new community dug wells.

Mini Piped Water Supply Schemes:



Implementation and operationalization of 2 mini piped water supply schemes

Community Level Water Purification Systems:



Installation of 1 water purification system

Rainwater harvesting structures- Household / Community levels

Site selection process- Inputs from GP representatives; Interest of community members; Condition of roofing; Availability and willingness to provide space for demonstration; Readiness for contributions (Shramdan)



Space available in premises



Beneficiary Contribution for digging work



Brick Masonry Underground Storage Tank, Mahagaon



Rain filter distribution



Piping and handpump installation remaining- to be done before monsoon

Key Impact numbers

- 24 RWH structures constructed
- 1.2 lakh liters of water storage capacity created
- 220 beneficiaries

Rainwater harvesting structures- Institutional levels

Site selection process- Identifying schools facing water shortages; Willingness to provide space for construction, Willingness to extend support in spreading awareness with the village communities.



Checking Space availability and discussion with school teachers and committee



Awareness activities in school



Digging work completion, Z P School Wandivali



Underground Rectangular Tank with RCC slab; Piping and handover process to be done before monsoon



Rainwater filter distribution to school committee. Piping and handover process to be done before monsoon

Key Impact numbers

- **9 RWH** structures constructed
- **2.5 lakh liters** of water storage capacity created
- **560** beneficiaries

Revival or new Dug wells

Site selection process-

- **Revival of dug well-** Dilapidated conditions or dumping of solid waste; An important source of water for the habitation.
- **New dug well-** Demand from the communities/ GP officials. Participatory approach and use of community knowledge to find the potential source of water for communities; Willingness of GPs to invest in the distribution network linked to the dug well.



Non functional well



Well revival



Old well in dilapidated condition



New dug well



Completion of well structures, inauguration event and handover to communities

Key Impact numbers

- **6 wells** revived or newly constructed
- **9.3 lakh liters** of water storage capacity created
- **2150** beneficiaries

Mini Piped water schemes

Site selection process- Availability of source of water supply in nearby; Isolated habitation not covered in the major programme; Demand from the communities, GP officials. Willingness of communities to take up O&M responsibilities.



Mahagoan- Palghar- Completion of mini piped water supply scheme and handover to communities



Jambhulichapada- Mokhada- Completion of mini piped water supply scheme and handover to communities

Rs. 50 will be collected for O&M from each households

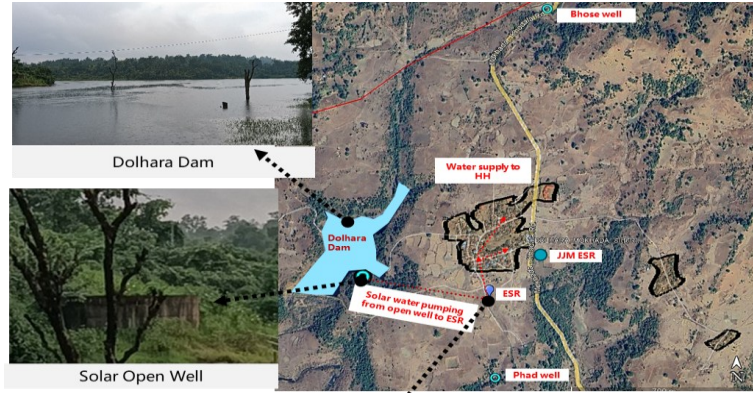
Key Impact numbers

- **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

Water purification system

Selection process-

- Dolhara is one of GP from selected villages of Mokhada block were 100% Functional Household Tap Connection (FHTC) observed.
- Existing piped water supply system. Water quality issues found.



HH Taps (FHTC)



Water purification system connected to overhead tank



Solar Panel for WTP

Installation of new water treatment system (Carbon filter +UV system) at overhead tank and connected with solar energy



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Awareness and Capacity building activities

Awareness activities in each village

- **Household level through SHGs**- distribution of pamphlets, explanation of importance of RWH and waste management.
- Awareness activities in **schools and village gram sabhas**.
- **Awareness posters** at key locations in villages
- Awareness activities at important festivals like **Republic day, Diwali, Holi, Women's day**, etc

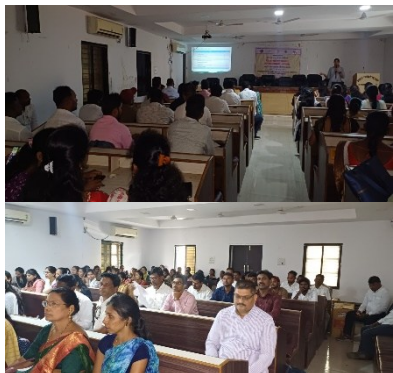
Capacity building and training workshops

- **Village level** through FGDs, gram sabha meetings, SHGs training for awareness and digital monitoring tool
- **Block level** through capacity building workshop at Mokhada, Water testing kits usage training program, Maji Vasundhara program training workshops, exposure visit to Atul foundation.

Key Impact numbers

- **5000+** people trained and made aware about RWH and SWM including **900+ government officials**
- **30** technical training and strengthening workshops conducted
- **193** awareness drives conducted

Training and Capacity Building – Reached to 5000+ targeted actors



Block level Training and Capacity Building Workshops for Gram Panchayat Adhikari on activities aligned with MVA- Palghar, Mokhada, Dahanu



Block level training for Jalsurakshak, SHG women and data operators on FTK, WQMIS, Palghar



Block level training for Gram Panchayat Adhikari on water quality testing using FTK and sanitation srveys, Palghar

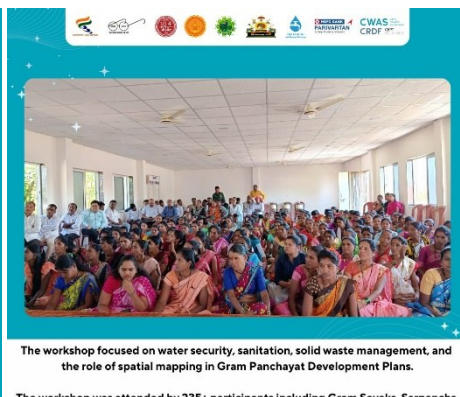


Habitation-wise training of Pada samanwayak, Jalsurakshak & women on FTK use, Mokhada



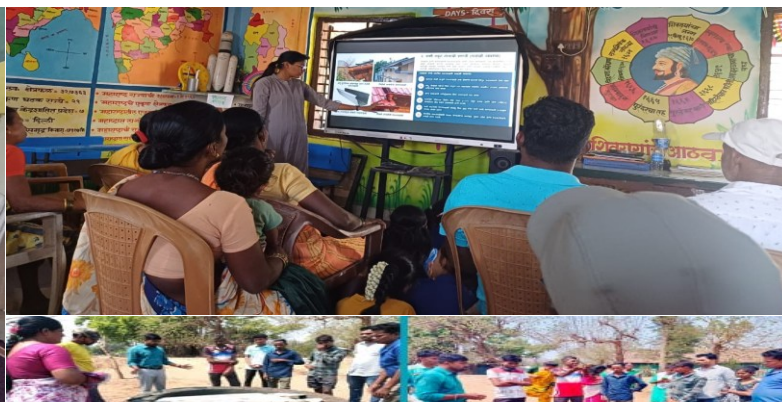
SaniTab Application to conduct surveys- Palghar, Mokhada & Dahanu

Empowerment and Strengthening of Gram Panchayat – 900+ government officials



Block level Empowerment and strengthening workshop on Water security, SWM, Sanitation and Spatial Mapping for Gram Panchayat representatives

Exposure visit to ATUL Village, Valsad on low-cost sustainable dry waste management models



Community strengthening and empowerment workshop to scale-up the rain water harvesting practices, segregation practices

Community empowerment and strengthening through visits to the demonstration sites.

Awareness Drives in alignment of flagship programme



School-wise IEC programs conducted, active participation of the students and teachers to improve water, sanitation and hygiene practices.



Women's day celebration- WaSH



IEC campaigns in schools across all three blocks



Strengthening the capacities of the students



Awareness drives on Water and sanitation in schools

Training and technical awareness drives

Hands-on training to strengthening of capacity of the field staff

Collaborations with SHGs and schools for training



Training on

Water Quality Testing using
Field Test Kits (FTK)

for Jalsurakshaks and women from Self-Help Groups.

Date: 29th August 2024

Venue: Panchayat Samiti Sabhagruh, Palghar



Over 229 participants, including students, teachers from four schools, and Gram Panchayat representatives, actively engaged in the IEC campaigns.



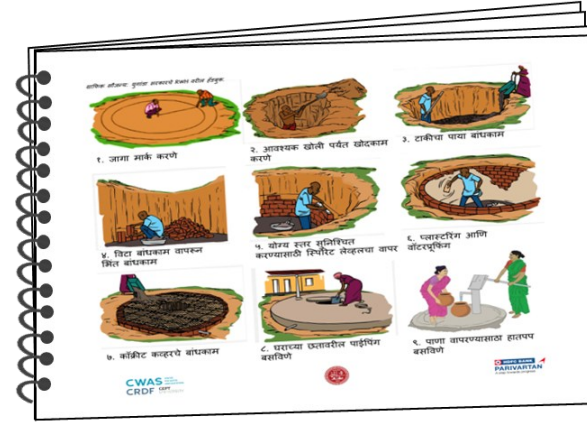


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Capacity strengthening and dissemination through documentation at district level state/ level

- **Rainwater harvesting awareness booklet** was prepared showcasing simple step-by-step approaches and different technology and material options.
- These booklets will be distributed in selected **GPs, BDO office and Zilla Parishad office** for further dissemination.
- Various awareness materials- pamphlets, posters, training booklet prepared



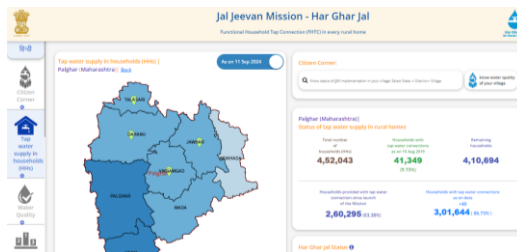
Technical support unit to Zilla Parishad Office and Block Development Office

Scaling up through programme convergence, capacity building and monitoring support

Strategic support for programme implementation at district and block level

Support strengthening monitoring system at district level

Organise district and state level workshop to disseminate learnings from Palghar District



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



Block, District and State-Level Support for Scaling Up

Block level

- ✓ Support to **Block offices** for scaling up activities through convergence of existing programmes for promoting RWH – e.g. preparing village level estimates for MNREGA, PESA Scheme
- ✓ Support developing **block level collection and transportation systems for segregated waste** and exploring urban-rural convergence + utilization of SBM facilities
- ✓ **Block level capacity building** engagements
- ✓ **Support strengthening** existing **monitoring** systems

Distict level

- ✓ Support to **Zilla Parishad** office for achieving and **improving Majhi Vasundhara activities, SBM (G), JJM** related to water and SWM.
- ✓ **District level convergence programme** – RWH with PMAY, PM-JANMAN, RWH at schools/ ananganwadi, Health Center
- ✓ **Resource materials-** developing Step by step guides, videos, SoPs, and good practice documentation
- ✓ **Strengthening existing monitoring** systems

State level

- ✓ **Inputs in policies** and guidelines
- ✓ **Resource materials-** developing guidelines, videos, SoPs, and good practice documentation
- ✓ **Capacity building** at scale- District and State level engagements
- ✓ **Strengthening** existing **monitoring** systems and moving towards **digital monitoring**.

CWAS CENTER
FOR WATER
AND SANITATION

CRDF CEPT RESEARCH
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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



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