

जल शक्ति मंत्रालय /
पेयजल और स्वच्छता विभाग
MINISTRY OF JAL SHAKTI /
DEPARTMENT OF DRINKING WATER & SANITATION

स्वच्छ भारत
एक कदम स्वच्छता की ओर

SWACHH BHARAT MISSION – GRAMEEN, CHHATTISGARH

Effective Greywater Management for Rural Areas

Community-Led Greywater Management & O&M

Village-level Planning & Community-led Initiatives

PRESENTED BY

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GWM Approach

A habitation-led pathway from assessment to sustainable, community-owned GWM

GOAL

afe disposal + beneficial re

01 STRATEGIC PATHWAY

01	ASSESS	Map greywater, terrain & current practice
02	PLAN	Habitation-specific options
03	IMPLEMENT	Local materials, skills & convergence
04	OWN	Gram Sabha + SHG + VWSC
05	SUSTAIN	O&M + monitoring + review

02 SOLUTION ARCHITECTURE

01 HOUSEHOLD	Kitchen garden Soak / leach pit
02 COMMUNITY	Community soak pit Drainage improvement
03 TREATMENT	DEWATS / natural treatment for higher-volume or sensitive locations

DESIGN PRINCIPLES: DECENTRALIZED • LOW-COST • NATURE-BASED • REUSE-ORIENTED • COMMUNITY-OWNED

CONVERGENCE

Swachh Bharat Mission (Gramin) • Central Finance Commission Grants • Viksit Bharat Guaranty for Rojgar and Ajeevika Mission • Jal Jeevan Mission • Corporate Social Responsibility • District Mineral Fund

Context first → Appropriate technology → Local ownership → Sustainable O&M

GWM Approach

Design the solution around the habitation — its terrain, settlement pattern, water use and traditional practices.

GOAL Safe disposal + beneficial reuse

WHY TRIBAL AREAS NEED A DIFFERENT APPROACH

SETTLEMENT | TERRAIN | INFRASTRUCTURE | WATER | CAPACITY



01 Scattered & remote habitations



02 Hilly / undulating terrain



03 Limited drainage infrastructure



04 Seasonal water flow & water scarcity



05 Limited technical & O&M capacity

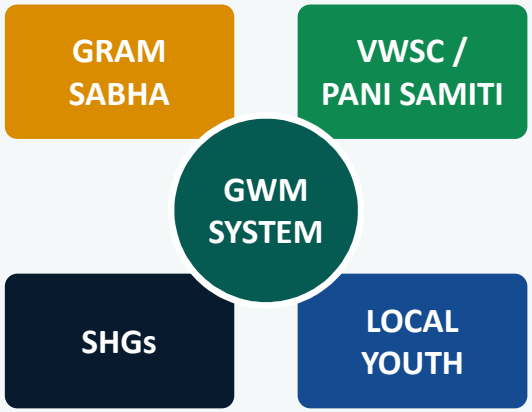
DESIGN PRINCIPLE Local conditions → decentralized, low-maintenance & community-owned so

Context first • Technology second • Sustainability always

Community Ownership & Sustainable O&M

Create a simple village service model with clear roles, predictable financing and routine functionality monitoring.

01 | COMMUNITY OWNERSHIP



- Gram Sabha approves the plan
- SHGs support awareness & O&M
- VWSC oversees service delivery
- Youth support local monitoring

02 O&M RESPONSIBILITY

01 HOUSEHOLD

Clean outlet / pit • prevent solid- ry



02 COMMUNITY

Drain cleaning • desilting • stagna rol



03 SHG / JAL VAHINI / LOCAL TEA

Monthly inspection • minor repairs



04 GP / TECHNICAL SUPPORT

Major repairs • technical support



₹ FINANCING & CONVERGENCE

Swachh Bharat Mission (Gramin) • Central Finance Commission Grant • Viksit Bharat Guaranty for Rojgar and Ajeevika Mission • Jal Jeevan Mission• Corporate Social Responsibility • District Mineral Fund

IEC Intervention

SBM-G Chhattisgarh has launched the Swachh Sankalp Abhiyan from 15th Oct. 19th Nov. 2025 at Panchayat level to mobilize sanitation activities with special focus on Greywater Management — including the sanctioning and construction of Community-Level Grey Water Management structures during the campaign. The campaign moved through two overarching pillars:

- **Behavioral Revolution**: Drive Jan Bhagidari, youth engagement, habit formation & community ownership.
- **Infrastructure Acceleration:** Close pending gaps and accelerate ODF Plus readiness.

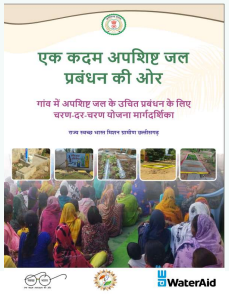
Wall Writing



Jan Chaupal



GWM Planning Booklet



Group Discussion



Exposure visit



- **Achievements - 5,000+** soak pits created | **~15,000** soak pits/leach pits cleaned | **~156** community-level GWM structures sanctioned

SUCCESS STORY 01

Institution-Level Greywater Management | DEWATS

Kanya Ashram Shala • Palewa, Kanker, Chhattisgarh



4 KLD DEWATS

MEASURED PERFORMANCE

Independent pre/post testing • 01 Oct 2024

BOD	COD	TSS
920 → 110	2000 → 260	2640 → 40
88% REDUCTION	87% REDUCTION	98.5% REDUCTION

Water quality values shown from independent inlet/outlet testing report.

THE CHALLENGE

- ≈100 residential students in the Ashram Shala.
- Greywater was discharged into the open.
- Filthy surroundings, foul odour and stagnant wastewater.
- Favourable conditions for mosquito and fly breeding.

THE SOLUTION

01 4 KLD DEWATS-based greywater treatment system

Fund convergence: DEWATS plant constructed through convergence of SBM-G funds with WaterAid and Finance Commission funds, enabling efficient utilization of funds.

02 Circular Greywater Management

Treated greywater is reused in the kitchen garden, reducing freshwater demand and demonstrating the circularity principle:

Treat → Reuse → Resource Recovery.

SUCCESS STORY 01

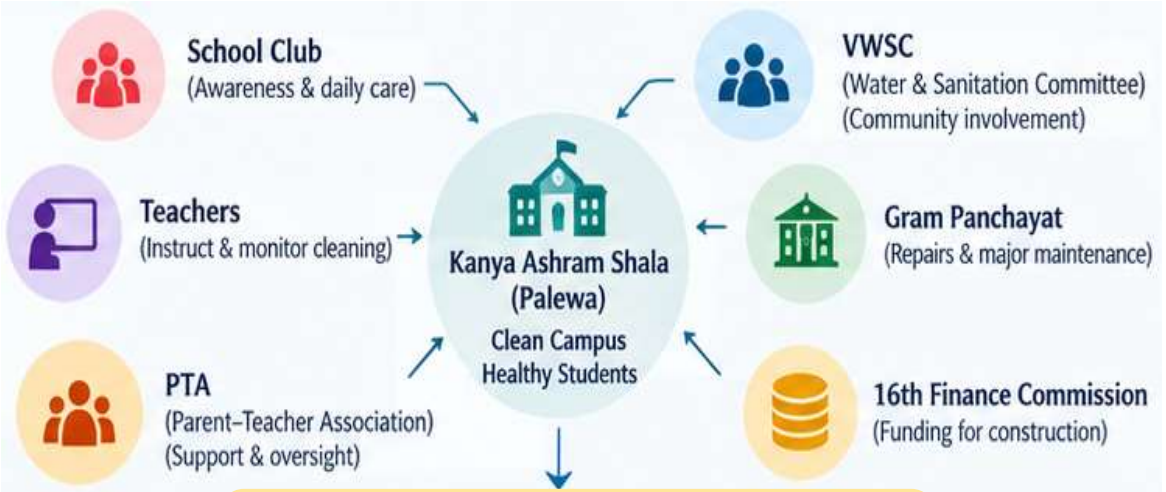
Institute level greywater management structure (DEWATs)

• Institute: Kanya Ashram shala • Village: Palewa • Kanker • Chhattisgarh





STAKEHOLDERS & INSTITUTIONAL STRUCTURE



Community participation and IEC activities ensure long-term functionality

OPERATION & MAINTENANCE

Regular Monitoring
(by students & teachers)
Scheduled maintenance
(by Gram Panchayat)
Repairs managed by
Gram Panchayat

FINANCING

Fund utilized from the **16th Finance Commission** (for O&M)

SUCCESS STORY 02

Ghugwa's Pond Water Quality Improves with GWM

Ghugwa • Patan Block • Durg, Chhattisgarh



PROBLEM

272 households | Population 1,078 | Wastewater from 159 houses was channelled through the main drain into the pond, contributing to pollution and skin-related problems.

SOLUTION

DEWATS • Functional since June 2021

O&M Roles & Responsibilities for GWM

CLEAN WATER | HEALTHY VILLAGE | SUSTAINABLE TOMORROW

VWSC	Gram Sabha	GP	Jal Vahini	Swachhagrahi	Local youth / group / mason
Plan, oversee and monitor GWM O&M	Approve the GWM plan; ensure ownership & accountability	Implementation, financing, maintenance & service delivery	Household water/ greywater management & awareness	Community mobilisation, safe practices & functionality	Routine cleaning, minor repairs & technical maintenance

FINANCE | User Charges • 16th FC

IMPACT | Pond became visibly cleaner within 4 months; algae-covered surface significantly improved.

FIELD LESSON | TREAT THE WASTEWATER BEFORE IT REACHES THE WATER BODY

SUCCESS STORY 03

Effective Greywater Management for Rural Areas

Maatwada Modi • Kanker • Chhattisgarh







Challenge → DEWATS → Productive reuse

MEASURED PERFORMANCE

Independent pre/post wastewater testing • 23 Sep

BOD	COD	TSS
150 → 15	320 → 40	1490 → 10
90% REDUCTION	87.5% REDUCTION	99.3% REDUCTION

CHALLENGE

107 households / 464 people. Unmanaged household wastewater caused stagnation, foul smell and mosquito/health risks; farmer pond water declined by December–January.

OUR SOLUTION

DUAL APPROACH

HH-level + Community-level solutions

HOUSEHOLD LEVEL

- 5 Kitchen Gardens
- 5 Leach Pits
- 5 Soak Pits

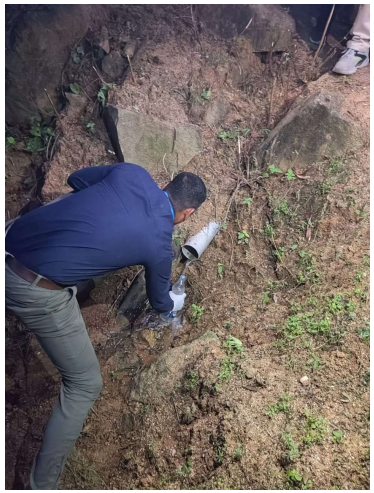
COMMUNITY LEVEL

7 KLD DEWATS → Treated water → Local pond → Agriculture

SUCCESS STORY 03

Effective Greywater Management for Rural Areas

Maatwada Modi • Kanker • Chhattisgarh





O&M STAKEHOLDERS

1	**Households**	Operate household greywater structures
2	**Farmers**	Reuse treated water for irrigation
3	**VWSC**	Plan, oversee & monitor O&M
4	**Jal Vahini**	Awareness & household water management
5	**Swachhagrahi**	Mobilisation, safe practices & functionalit
6	**Gram Panchayat**	Financing, service delivery & maintenance

Way Forward for Rural GWM

From field learning to practical, sustainable water-management choices

WHAT THE FIELD IS TELLING US

✓ WHAT WORKED

- ✓ Household-level kitchen gardens & soak pi
- ✓ Simple, low-cost and locally appropriate
- ✓ Community involvement from planning stage
- ✓ Reuse-oriented systems
- ✓ Convergence for construction & local supp

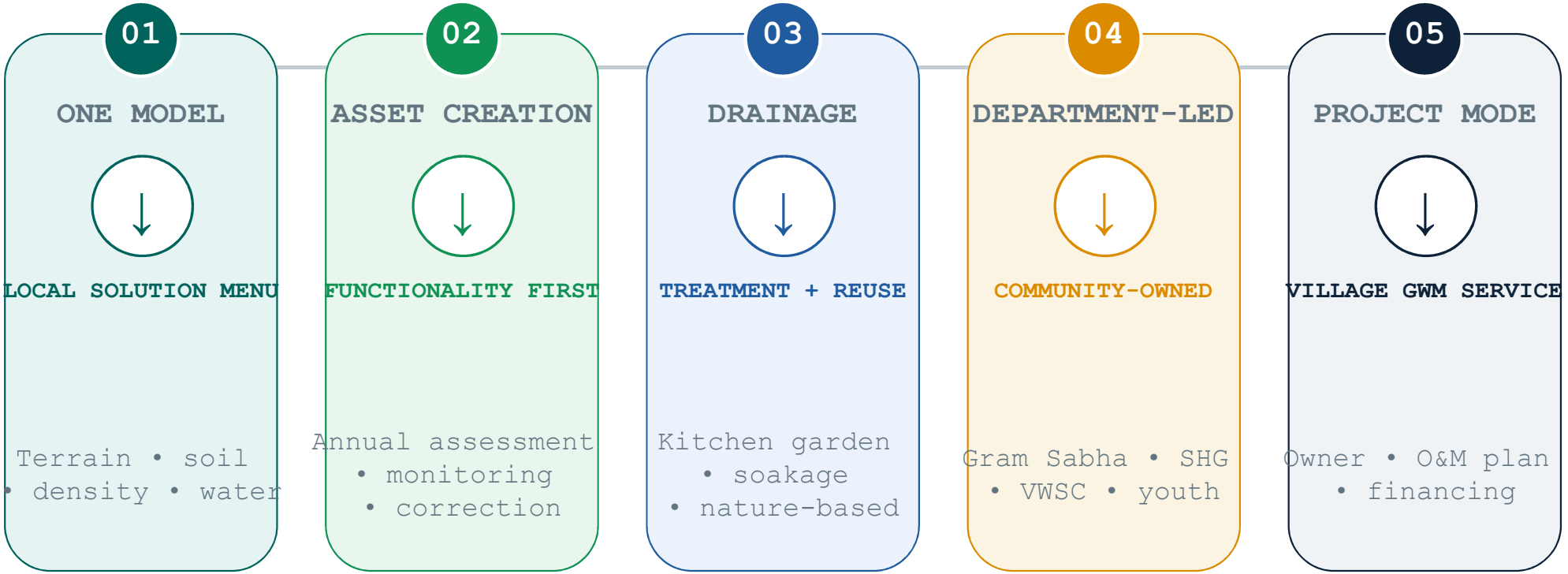
× WHAT OFTEN FAILED

- × Large infrastructure without assured O&M
- × Same technology applied across diverse cond
- × Drains without a defined end-disposal point
- × Limited community ownership
- × Dependence on a single funding source

CORE LESSON • Design for local conditions + ownership + O&M + multiple financing pathways

Five Strategic Shifts for Rural GWM

A shift from project-centric infrastructure to a village-level, service-oriented model



FIELD IMPLEMENTATIONS

DECENTRALISED GWM - PHOTO STORY

Community & institution-level greywater management | Chhattisgarh



COMMUNITY SOLUTION



SOAK PIT



SOAK PIT



NATURE-BASED TREATMENT & REUSE



DEWATS



DEWATS

THE GWM PRINCIPLE

Capture → Treat → Reuse
Decentralised • Low-cost • Nature-based

Local solutions designed around settlement conditions and community needs.

THANK YOU