



GuruJal

COLLABORATIVE · COMMITTED · CONSCIOUS

An initiative of Abhipsa Foundation

Restoring Nature, Reconnecting Lives

"The GuruJal Journey Towards Water Security."



Water Security



Ecosystem
Restoration



Community
Empowerment



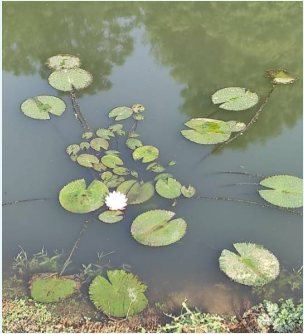
Sustainable
Future



“रहिमन पानी राखिये, बिन पानी सब सून।
पानी गये न ऊबरे, मोती, मानुष, चून ॥”
- रहीम दास

These are the places GuruJal has walked alongside, told not in numbers, but in images. This book follows water as it finds its way back- to the ponds, the land and the people who had almost lost it.

7 Years. Many Landscapes. One Mission. Make India Water Secure

30+ Restoration of water bodies		423.6 m ltrs/yr groundwater recharge potential created		2.075 MLD wastewater treatment capacity supported		200+ Ponds, DPRs were prepared
						
1.35 lakh people positively impacted		1,12,000+ native plantations to ecological restoration		35.5 acres of green area covered		3,083 tonnes of CO₂ sequestered
						

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FOREWORD



Ashish Dev Kapur
Trustee, GuruJal

Water is never just water. Where it falls, where it flows, what it carries and where it finally settles shape the fate of an entire landscape. Change the way we understand and manage water, and we change the systems around it. That is why water security cannot be addressed in fragments.

In these pages are landscapes that were understood before interventions were designed, and communities whose participation helped those interventions endure. GuruJal's work is not simply about restoring individual water assets. It is about understanding the larger system around water — the watershed, the aquifer, the ecology, the community and the institutions — and bringing these together to restore ecological balance and strengthen water security.

Effective water management begins with understanding how these systems interact. It connects science with lived experience, data with local knowledge, and physical interventions with the institutions and communities that sustain them.

The stories in this book reflect that approach: not just what was implemented, but the relationships, knowledge and collective effort that made each intervention possible and meaningful.

This is the journey GuruJal continues: towards a more water-secure India, one landscape, one community and one shared responsibility at a time.

**"A restored waterbody is not an endpoint.
It is the beginning of a renewed relationship."**



Ms. Shubhi Kesarwani
Co-Founder & CEO, GuruJal

Every waterbody in this book has a story, but none exists in isolation. Water connects landscapes, communities, institutions and the systems that govern how resources are managed. GuruJal exists to bring these connections together and make water management more integrated, inclusive and grounded in place.

Our work sits at the intersection of sound science, community participation and institutional action. We work to understand not only where water is, but how it moves, what the landscape can hold, who depends on it and what is needed to sustain it.

The pages that follow reflect this approach — where people and systems come together to restore ecological balance and strengthen water security. Because lasting change happens when solutions are understood, owned and carried forward by the people and institutions around them.

“We bridge the gap between top-down policy and bottom-up participation, so every solution is sound, inclusive and built to last.”



Dr. Fawzia Tarannum
Co-Founder &
Strategic Head

Every site begins with questions: What does the landscape tell us? How does water move through it? What does the aquifer hold, and what can the ecosystem sustain?

The answers guide our approach to water management. We use evidence, data and scientific understanding to design solutions that work with natural systems rather than against them. From groundwater recharge and wastewater treatment to ecological restoration, nature-based solutions help strengthen the relationship between water, land and life.

Science, however, is most meaningful when it can be translated into practice. Our task is to turn evidence into solutions that are measurable, adaptable and relevant to the communities and landscapes where they are implemented.

“Our task is to turn rigorous science into solutions that restore ecological balance and strengthen water security.”



Col Kuldeep Singh Dalal
Executive Director

Water challenges are too interconnected and widespread to be addressed through isolated interventions alone. As GuruJal's work expands, the need is not only to implement solutions, but to build the people, systems and partnerships that can sustain them.

This means strengthening the organisation from within creating clear processes, developing capable teams and building partnerships that allow knowledge and practices to move across landscapes while remaining rooted in local realities.

A key part of this journey is the Water Army: a growing network of trained volunteers, young people and community members equipped to understand local water challenges and contribute to long-term water stewardship. For us, scale is not about making every intervention bigger. It is about building the capacity to manage and protect water stronger, broader and more enduring.

"Scale, for us, does not mean doing everything ourselves. It means building enough capable people that water conservation continues on its own."



Ms. Sameera Satija
Senior Advisor

Water management is not only about what happens on the ground. It is also shaped by the institutions, partnerships and governance systems that determine how decisions are made and sustained.

Over the years, GuruJal has learned that lasting change requires coordination between communities, government institutions, technical teams and other stakeholders. Restoration becomes meaningful when it is supported by systems that can maintain, monitor and build upon what has been created.

This organisational journey has been one of learning how to connect these different parts — bringing together scientific knowledge, community priorities and institutional capacity to create solutions that can endure.

The stories in this book reflect not just what was implemented, but the partnerships, processes and people that made it possible.

"Engineering can restore a water body, but community stewardship is what sustains it."

ABOUT GURUJAL

The Seven Stages:

Water is a living system. GuruJal works to build a water-secure India by treating groundwater, surface water, wastewater, ecosystems, communities and institutions as parts of one whole. Every project follows the same seven-stage journey, from understanding a landscape to carrying its lessons further.

Solutions that work with nature, are owned by people and can be replicated for a more resilient, water secure future.



OUR FOUNDATIONS



SCIENCE
that guides
our decisions.



NATURE
that shapes
our solutions.



COMMUNITIES
who own
the outcome.



GOVERNANCE
that sustains it.

THE GURUJAL JOURNEY

2019

Born within governance

GuruJal was established as a Special Purpose Vehicle (SPV) for the District Administration of Gurugram, supported by Hero MotoCorp and Raman Kant Munjal Foundation.



Worked at the intersection of government, citizens and water governance



Action on 200+ borewells



Established District Water Complaint Call Centre



Recognised by the Ministry of Jal Shakti

2020

From governance to ground action

Moved from policy to practice, piloting seven wastewater-treatment technologies across ponds in Gurugram and developing 80+ pond-rejuvenation proposals with municipal bodies in Gurugram and Faridabad.



7 wastewater-treatment technologies piloted



80+ pond-rejuvenation proposals developed



Work across Gurugram and Faridabad

2022

Learning, evidence & replicable models

Field interventions began to translate into standard operating procedures (SOPs), evidence and models that could be replicated in different contexts.



Field learning and documentation



Development of SOPs



Evidence-based models for scaling

2023

Institutional evolution

GuruJal transitioned into an autonomous organisation, expanding its vision beyond a single district.

Our work reached new geographies, including the Sundarbans and Visakhapatnam, while retaining our core principles of transparent governance, community participation and integrated water solutions.



Transitioned to an autonomous organisation



Expanded to new geographies (Sundarbans, Visakhapatnam)



Continued focus on transparent governance and community participation

2024

Expanding footprint & people

As our geographic footprint expanded, we recognised the importance of investing in people. The WeForWater Fellowship was initiated to strengthen field capacity and nurture the next generation of water professionals.

Community engagement deepened through programmes connecting villages, schools, institutions and citizens with their local water systems.



WeForWater Fellowship initiated



Strengthening field capacity



Community engagement across villages, schools and institutions

2025-26

From projects to scalable models

Today, GuruJal has 18 active projects across Haryana, Rajasthan, Andhra Pradesh and Uttar Pradesh, spanning groundwater recharge, wastewater treatment and reuse, stormwater management and nature-based restoration.

Our focus is to take solutions that work, strengthen local ownership and scale impact — building a water-secure India, one landscape and one community at a time.



18+ active projects across 4 states



Integrated solutions across groundwater, wastewater, stormwater and restoration



Scaling impact with local ownership

A scenic view of a pond with a concrete railing in the foreground and buildings in the background. The railing has two red pots with small trees on it. The water is calm and reflects the sky. In the background, there are several buildings, some with colorful facades, and trees. The sky is blue with some clouds.

Stories of Transformation

TAJNAGAR POND

From Wastewater Pond to Village Commons



01 THE CRISIS

For years, Tajnagar's pond ***received wastewater directly from the village***. What was once a village water body ***had become a receiving basin for untreated discharge*** putting pressure on the pond, groundwater and the life around it.

TAJNAGAR: From Wastewater Pond to Village Commons

02 THE TRANSITION



Dewater → Desilt → Strengthen → Stabilise

Restoration began with dewatering, dredging and desilting. The embankments were reshaped and stabilised, while geo-textile work supported the new landscape.

TAJNAGAR: From Wastewater Pond to Village Commons

03 THE LIVING FILTER



A Constructed Wetland: A planted treatment area became part of the wastewater treatment system, bringing a living layer into the restored water infrastructure.

04 POND AS COMMONS



Play, movement, walking and moments of pause became part of everyday life around the pond.



TAJNAGAR: From Wastewater Pond to Village Commons

05 THE TRANSFORMATION



400 KLD

Wastewater Treatment Capacity

120 ML/Year

Groundwater Recharge
Potential

~75 tonnes eCO₂

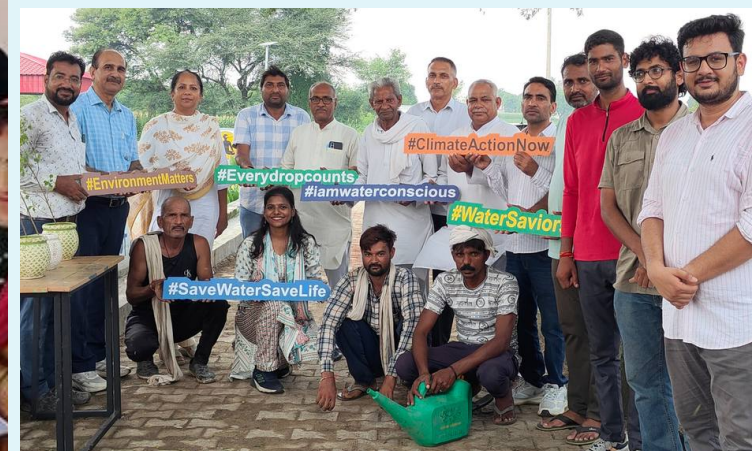
Carbon Sequestration Potential
over 10+ Years

~2,700

Community Beneficiaries

TAJNAGAR: From Wastewater Pond to Village Commons

06 OWNERSHIP



Restoration extended beyond physical infrastructure. SHG workshops and student activities brought conversations around composting, water, waste and environmental stewardship into community life.

"We are very happy to see our village pond rejuvenated with the support of GuruJal. The pond has always been an important part of Tajnagar, connected to our community and our water needs. Its rejuvenation has brought new life to this important village asset, and we hope it continues to benefit our community for generations to come."

— Shivtaji (Sarpanch, Tajnagar Gram Panchayat)

SHIV MANDIR POND, MANKROLA

The Revival of a Village Sacred Waterbody



01 UNDERSTAND BEFORE YOU INTERVENE

Beside the Shiv Mandir, the pond was deeply woven into everyday life in Mankrola. But years of waste, silt and erosion had changed the landscape, leaving the waterbody neglected and difficult to use. When restoration began, the ***challenge was not only to revive the pond, but to understand the community's*** concerns and memories around it.

SHIV MANDIR POND : The Revival of a Village Sacred Waterbody

02 JAL PE CHARCHA



“We came to listen to how Mankrola remembered its water.”

The first step was conversation. Sitting with elders, women and residents, the project team listened to stories of the pond and the ways people depended on it. Concerns about cattle, temple access and everyday use slowly became ideas for what the restored space could be.

SHIV MANDIR POND : The Revival of a Village Sacred Waterbody

03 FROM CONVERSATION TO CO-CREATION



**DAMAGED
EMBANKMENTS**



PATHWAYS + ACCESS



STABLE POND EDGE

What the **community asked for began to take shape on the ground**. Damaged embankments were restored, safe access for cattle was created, pathways connected people to the temple, and spaces for children brought new life to the pond edge. The **landscape was shaped around how people already used and remembered the place**.

SHIV MANDIR POND : The Revival of a Village Sacred Waterbody

04 THE LIVING FILTER



Restoration brought nature back into the pond's story. ***Floating wetlands and living filters help treat the water naturally, while aquatic plants and fish support the pond's ecological balance.*** Alongside these nature-based interventions, an ***Automatic Water Level Recorder*** (AWLR) was installed ***to continuously monitor water levels and track the pond's recovery over time.***

SHIV MANDIR POND : The Revival of a Village Sacred Waterbody

05 THE POND BECOMES A PLACE AGAIN



As the waterbody recovered, life began returning to its edges with new vegetation, birds and aquatic life becoming part of the landscape. Today, ***the pond is more than a waterbody; it is a shared space*** where children play, elders gather, devotees walk, and the community comes together. What began as a restoration of water has grown into a place to connect, pause and belong.

SHIV MANDIR POND : The Revival of a Village Sacred Waterbody

06 THE TRANSFORMATION



2.47 acres

pond area

3.075 ML/year

estimated GW recharge

7,500 sq ft

grass cover

3,500

village beneficiaries

Because it was built around how people already used the pond, it is used and cared for today, by children, elders and devotees alike.

SHIV MANDIR POND : The Revival of a Village Sacred Waterbody

07 OWNERSHIP



The story of Mankrola is ultimately ***a story of shared ownership***. The pond was restored not only through engineering, but through conversations, participation and a renewed connection between people and place. With continued monitoring, maintenance and community engagement, the space can remain a place that the village not only uses, but helps care for.

TRIVENI POND, BHOKARKA

From Wastewater Pond to Living Landscape



01 THE CRISIS

For years, **~180 KLD of village wastewater**, along with agricultural runoff, entered Bhokarka Pond, carrying **untreated inflows, solid waste and sediment** that fuelled algal blooms and ecological stress.

TRIVENI POND: From Wastewater Pond to Living Landscape

02 RE-ROUTING THE WATER



THE OLD INFLOW



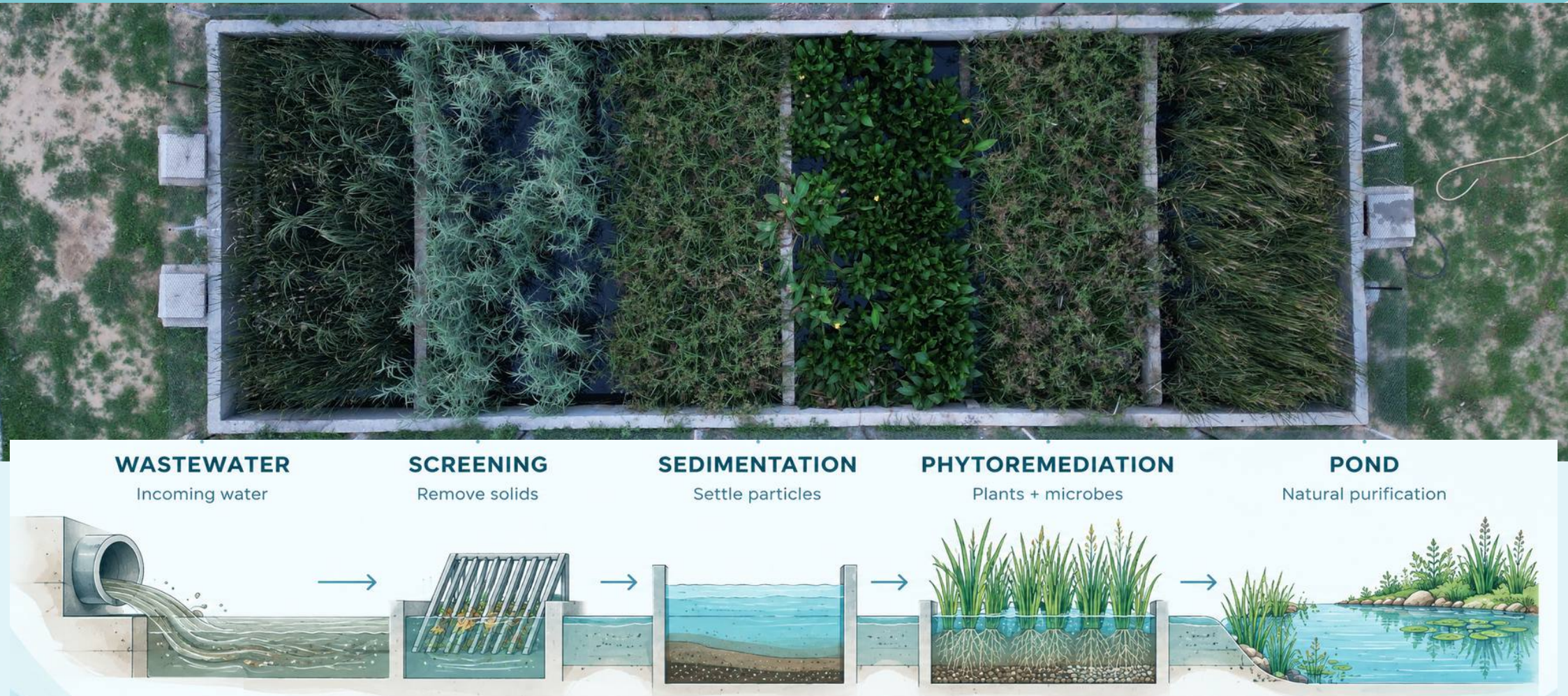
MANAGED DRAINAGE

Separating the flow

Drainage and stormwater infrastructure were developed to manage wastewater conveyance and runoff before it reaches the pond, reducing uncontrolled inflow and pollutant loading.

TRIVENI POND: From Wastewater Pond to Living Landscape

03 THE LIVING FILTER



A **200 KLD Phytorid-based wastewater treatment plant** was constructed near the pond to treat incoming wastewater through a nature-based process. The system uses screening and sedimentation to remove solids, followed by **phytoremediation** using wetland plants and microbes. The treated water is then discharged into the pond, supporting natural purification, biodiversity and long-term pond health.

TRIVENI POND: From Wastewater Pond to Living Landscape

04 THE POND RETURNS



59.1 ML/YEAR

Groundwater Recharge Potential

BOD: 66.7→5.2 mg/L

Improved Water Quality

2.02 meter in 2 years

Groundwater Level Rise

40 Species

27 Birds | 9 Reptiles | 6 Butterflies

FROM A DEGRADED WATERBODY → TO A RESTORED ECOLOGICAL SYSTEM

TRIVENI POND: From Wastewater Pond to Living Landscape

05 A LANDSCAPE FOR LIFE



The transformation of the pond extended beyond physical restoration. **Community members took ownership** of the space, helping keep the area clean and cared for, while **Suntory Global Spirit supported plantation activities** to further green and enhance the landscape.

TRIVENI POND: From Wastewater Pond to Living Landscape

06 OWNERSHIP



Restoration extended beyond the Pond

Community meetings, school activities, plantation drives, health camps, composting workshops and Jal Pe Charcha helped build awareness and local ownership. An Amrit Sewa Samooh was formed to support long-term community stewardship.

BSF CAMP, GURUGRAM

Towards a Water-Neutral Campus

Once parched and flooded, after interventions groundwater levels increased by approx. 4 ft. in 3 years at Bhondsi, Gurugram, stops flooding and reduces ambient temperatures

The BSF Bhondsi Campus faces significant challenges in its water management

Design solution for 200 acre campus which floods in monsoons, water stressed in summers and has 3 defunct STPs housing 5000+ jawans & families dependent on groundwater for their water needs.

CHALLENGES

Waterlogging issues

Over-reliance on Borewells

Sewage Mismanagement

Defunct Sewage Treatment Plants (STPs)

Inefficient Water Management:



BSF SUSTAINABLE CAMPUS DESIGN , GURUGRAM



CONCEPTUAL SITE PLAN | SCALE 1:2000

ADMINISTRATION BLOCK , BSF GURUGRAM

Towards a Water-Neutral Campus



01 THE CRISIS

Before intervention, ***dysfunctional treatment systems contributed to sewage accumulation and land degradation.*** The project set out to address stagnation and waterlogging. WeForWater and GuruJal partnered with the Border Security Force to map out a complete ecological transformation.

ADMINISTRATION BLOCK: Towards a Water-Neutral Campus

02 EARTHWORKS & POND SHAPING



POND EXCAVATION



GEO-COIR SLOPE STABILISATION

EARTHWORK → BASIN FORM → STABLE EMBANKMENTS

Excavation carved out the pond storage area, while natural geo-coir matting was applied along the earthen slopes to stabilise the banks against erosion.

ADMINISTRATION BLOCK: Towards a Water-Neutral Campus

03 NATURE-BASED TREATMENT SYSTEM · DEWATS



A **50 KLD nature-based wastewater treatment system** was built from the ground up, combining an **Anaerobic Baffled Reactor with vegetated gravel wetlands** to treat incoming wastewater. A planted treatment area brought a living layer into the wastewater infrastructure.

ADMINISTRATION BLOCK: Towards a Water-Neutral Campus

04 PARK AMENITIES & WATER CHANNELISATION



A WATER BODY BECOMES A PLACE

Peripheral brick walkways, plantation and park seating were introduced around the pond, alongside designed pathways for directing rainwater toward the restored water body.

ADMINISTRATION BLOCK: Towards a Water-Neutral Campus

05 ECOLOGICAL RECOVERY & MONITORING



Stewardship: Water quality sample collection and monitoring in action to ensure long-term sustainability



FROM DEGRADED WATER BODY → TO A RESTORED WATER LANDSCAPE

9.1 MILLION Ltr estimated annual groundwater recharge potential

MAHILA BARRACK POND, BSF GURUGRAM

Towards a Water-Neutral Campus



01 THE PRE-INTERVENTION REALITY

Before restoration, **the 1.75-acre site** held two depressions: one received rejected RO water and wastewater from WC facilities, while the other held rainwater seasonally. Overflow from the Mahila Barrack septic tank also reached the pond area.

MAHILA BARRACK: Towards a Water-Neutral Campus

02 CONVERGENCE AND NATURE BASED SOLUTION



JOINT SITE WALKTHROUGH



POND DREDGING + PROFILING

Success began with **alignment**. Technical teams surveyed the site and defined the intervention, while BSF leadership and project partners worked together on permissions, layout and implementation. The site was reshaped through **pond profiling, dredging, embankment and dual-bund formation**. **Slope stabilisation with geo-coir** formed part of the physical protection strategy, while excavation prepared the ground for the treatment system.

MAHILA BARRACK: Towards a Water-Neutral Campus

03 NATURE BASED DEWATS



50 KLD TREATMENT SYSTEM



THE LIVING WETLAND

A **50 KLD DEWATS** system was constructed to treat incoming wastewater from the Mahila Barrack. The treatment train included civil structures, a settler and ABR, followed by a constructed wetland with filter media and plants.

WASTEWATER → TREATMENT → A PLANT-ROOTED FILTER

MAHILA BARRACK: Towards a Water-Neutral Campus

04 INAUGURATION & LASTING IMPACT



FROM INFRASTRUCTURE TO STEWARDSHIP

The restored site brought together wastewater treatment, landscape development, groundwater monitoring and community amenities. The pond edge was extended with pathways, fencing, planting, play and seating areas, while discarded materials were reimagined as landscape elements. An Automatic Water Level Recorder supports ongoing monitoring, helping transform the restored pond from infrastructure into a space for community use and long-term stewardship.



A RESTORED COMMUNITY LANDSCAPE

**18,250 KL/YEAR WASTEWATER TREATED • 9.1 MILLION LITRES/YEAR
GROUNDWATER POTENTIAL • 0.4 M RISE OBSERVED IN ~1 MONTH**

WATERSHED STRUCTURE AT BSF CAMPUS

Taming Aravalli Runoff Through Agro-Civil Engineering



01 THE RIDGE & THE TORRENT

At the 95 BN BSF campus in Bhondsi, **the Aravalli foothills** send concentrated **monsoon runoff down** natural gully channels. With little to slow the flow, high-velocity water eroded the slopes, carried away topsoil and put pressure on downstream drainage. Contour lines revealed how water moved across the ridge and where the natural drainage channels concentrated runoff.

WATERSHED STRUCTURE: Taming Runoff Through Agro-Civil Engineering

02 READING THE SLOPE



SURVEYING THE SLOPE

Joint survey teams from **GuruJal**, **PepsiCo** and **BSF** walked the rugged gully channels to identify suitable locations for the plugs.

FAST RUNOFF → GULLY PLUG → SLOW WATER → SEDIMENT RETENTION → INFILTRATION

Downstream roads and buildings are protected, and the low ground no longer stays flooded after heavy rain.



ENGINEERING THE PLUGS

WATERSHED STRUCTURE: Taming Runoff Through Agro-Civil Engineering

03 THE FINAL STRUCTURE



390 kL holding capacity · 16,532 m² watershed area · 64.25% soil-moisture increase ·
620 kL/year recharge potential · 2.956 ML/year stormwater mitigation

The plugs ***break the speed of the water*** coming down the hill. Instead of racing across the campus, the water slows, spreads out, and has time to soak into the ground. Soil that used to wash away now settles behind the stones. Downstream roads and buildings are protected, and the low ground no longer stays flooded after heavy rain.

ECO- ZONE SECTOR 32, GURUGRAM

From Neglected Triangle to Urban Green Space



APPROX. 0.5 ACRE · SECTOR 32, GURUGRAM

01 THE TRIANGLE NOBODY SAW

Thousands of vehicles pass Rajiv Chowk every hour, and few drivers ever noticed the half-acre triangle beside the highway. On paper it was a GMDA green belt. On the ground it was a ***dumping spot overrun with invasive weeds.***

A site survey still found 37 trees, including Champa, Peepal, Neem and Shisham. Butterflies and pigeons still came. ***The land was neglected, but it was not dead.***

ECO- ZONE, SEC 32: From Neglected Triangle to Urban Green Space

02 GROUNDS UP



BEFORE



AFTER

From December 2023, the land was cleared and levelled. A **245-metre stone path, brick benches, fencing and solar lights followed**. So did 161 trees, 245 shrubs and 1,130 sq m of grass. To bring water in without cutting the highway, a pipeline was drilled underneath it.

ECO- ZONE, SEC 32: From Neglected Triangle to Urban Green Space

03 WALL PAINTING BY VOLUNTEERS



With support from **funder Pearl Global**, **local volunteers** and **Pearl Global team members** came together across multiple engagements to bring the green belt's boundary wall to life. Vibrant murals featuring waves, water drops and handprints transformed the space into a shared canvas for water conservation and environmental awareness.

ECO- ZONE, SEC 32: From Neglected Triangle to Urban Green Space

04 THE TRANSFORMATION



FROM A NEGLECTED TRIANGLE



TO AN URBAN GREEN SPACE

161

TREES

245

SHRUBS

1,130 SQ M

GRASS

80 SQ M

FLOWER BEDS

40 SQ M

HEDGES

A site once used for dumping waste is now a clean, fenced green space open to the public. Where there was garbage and weeds, there are now walking paths, benches, lawns and new trees. People passing through one of Gurugram's busiest junctions **have a place to stop and rest**. The **greenery helps absorb traffic dust and noise** and keeps the area cooler. Rainwater now soaks into the ground instead of running off, and the native plants give birds and butterflies a place to return to.

WELL RESTORATION, KHANDEWLA

From Waste Pit to Rainwater Recharge

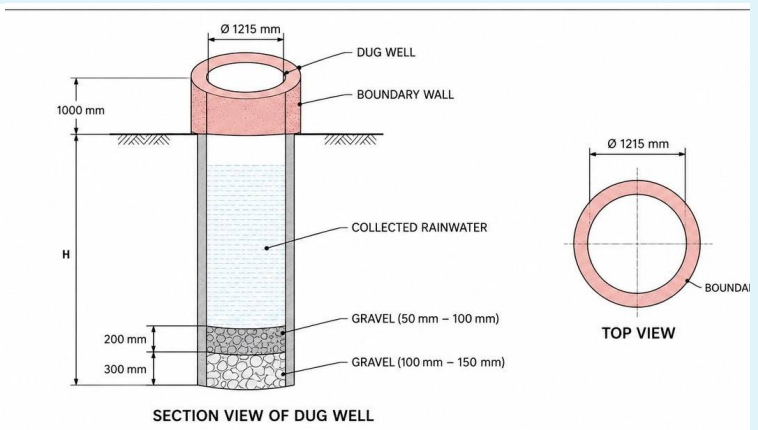


01 A WELL THAT WAS LEFT BEHIND

In Khandewla village, Farrukhnagar block, **a 24-foot brick-lined well stood unused**. Groundwater in the area was about **110 feet below ground**, while people had shifted to borewells and piped water. Over time, the well filled with soil, plastic, leaves, wood debris and other solid waste.

KHANDEWLA: From Waste Pit to Rainwater Recharge

02 RESTORATION METHODOLOGY



4 ROOFTOPS → SILT TRAP → GRAVEL FILTER → RECHARGE WELL

With support from the village Panchayat, the well was cleaned out and structurally strengthened. Rainwater from four nearby houses was diverted into the well instead of allowing runoff to be lost. A silt trap catches incoming dirt, while gravel layers inside the well support filtration before the water infiltrates into the ground.

KHANDEWLA: From Waste Pit to Rainwater Recharge

03 THE WELL TODAY



"Sometimes the future of water lies in remembering what we left behind."

46.8 m³
WASTE REMOVED

4
ROOFTOPS

~190,000 L
RECHARGED

The well that once held garbage now functions as a rainwater recharge structure. About **189.95 KL** of water has been captured and recharged into the groundwater system.

Its revival also reconnects the water structure with village life - creating an opportunity for **traditional practices like Kuan Pujan, community gathering and collective care** to continue around the well.

SMRITI VAN, JAIPUR

From polluted inflows to a living waterbody



01 THE STAGNANT CORE

At the heart of Jaipur's 108-hectare Smriti Van lies a **3.7-acre** pond - a critical ecological basin receiving untreated wastewater from two urban drains (**432m and 95m**)². Years of unmanaged inflows left the **waterbody severely eutrophied, choked under invasive weeds, and posing a risk to local groundwater quality**

SMRITI VAN: From polluted inflows to a living waterbody

02 MAPPING AND RESTORATION



Desilting of pond



Pond Embankment Stabilisation work in progress

The restoration began with a simple shift: treat the system, not just the pond.

Rather than treating the wastewater pond as an isolated basin, the intervention works across the flow system - using bioswales, constructed wetlands, natural filtration and ecological planting to slow, filter and treat polluted water before it reaches the pond.

SMRITI VAN: From polluted inflows to a living waterbody

03 BIOSWALE 1 (From the North)



BEFORE



AFTER

“From a choked drain to an ecological bioswale”

The **432 m drain** was **cleared, desilted and reshaped to restore flow**. Stone structures, screening and ecological treatment elements now help intercept solid waste and polluted runoff before it reaches the pond. over 1,200 tons of accumulated solid waste has been removed.

Construction of stone gabion walls and sluice gate structures along the drain corridor

SMRITI VAN: From polluted inflows to a living waterbody

04 BIOSWALE 2 (From the South)



*Clogged channel
Uncontrolled polluted runoff
Damaged drain walls*



Ecological Bioswale

The **95 m secondary drain** was clogged and unmanaged. Cleaning, levelling and rebuilding turned it into an ecological bioswale with filter media and a screen wall.

SMRITI VAN: From polluted inflows to a living waterbody

05 REJUVENATION OF MAIN WATER BODY



The 3.7-acre pond was rejuvenated through de-weeding, desilting and in-situ treatment. Floating wetlands and aerators support water quality and ecological recovery, while restored embankments strengthen the waterbody for the long term. Together, these interventions bring the pond back as a functioning part of the urban-forest landscape

Beyond the Projects

The collage consists of 24 small images arranged in a grid-like fashion, with the text "Beyond the Projects" centered over the middle. The images depict a wide range of community and educational activities:

- Top left: A group of people, including men in white traditional attire, are gathered outdoors.
- Top center: A group of men in blue and white shirts stand together for a photo.
- Top right: A group of people, including children, stand in front of a brick building with banners that read "#WaterSolutions", "#SaveWaterSaveLife", and "#WaterConservation".
- Second row left: A group of people are sitting on a red carpeted area, possibly for a ceremony or meeting.
- Second row center: A group of people in blue shirts are standing in a line outdoors.
- Second row right: A person is working on a small garden or landscaping project.
- Third row left: A group of people are walking along a path in a rural or semi-rural area.
- Third row center: A large group of people are sitting on the ground, engaged in a community activity or meeting.
- Third row right: A group of people are standing around a table, possibly for a workshop or training session.
- Fourth row left: A group of people are sitting on the ground, engaged in a community activity or meeting.
- Fourth row center: A group of people are standing around a table, possibly for a workshop or training session.
- Fourth row right: A group of people are sitting on the ground, engaged in a community activity or meeting.
- Fifth row left: A large group of people, including women in colorful headscarves, are sitting together for a group photo.
- Fifth row center: A group of people are sitting on the ground, engaged in a community activity or meeting.
- Fifth row right: A group of people are sitting on the ground, engaged in a community activity or meeting.
- Sixth row left: A group of people are standing around a table, possibly for a workshop or training session.
- Sixth row center: A group of people are sitting on the ground, engaged in a community activity or meeting.
- Sixth row right: A group of people are sitting on the ground, engaged in a community activity or meeting.

THE PEOPLE BEHIND THE WATER



LISTEN

Local knowledge helps identify challenges and shape solutions. Community voices bring lived experience and insights to the process.



PARTICIPATE

Through Jal Pe Charcha (community meetings), volunteers, school people become part of the process.



OWN

Residents, Panchayats and local institutions build shared responsibility for restored spaces.



STEWARD

Local Champions continue to care for, protect and value these water spaces beyond implementation.

Our Partnerships

Government Bodies



Brand and Foundations



GURUJAL LEARNING

Every landscape has taught us something.

- Water has taught us that no intervention exists in isolation. A pond is connected to its catchment, its aquifer, its ecology and the people who depend on it.
- Communities have taught us to listen before designing. The strongest solutions are shaped with people, not simply delivered to them.
- Nature has taught us that restoration cannot be engineered alone. Time, ecological processes and natural systems must be part of the solution.
- Government has taught us that institutions, coordination and shared responsibility are what sustain change once a project is complete.
- Data has taught us to look beyond activity, and to ask what changed, for whom, and for how long.

And every landscape has reinforced one lesson above all : Solutions scale when principles travel, not templates. What works in one place cannot simply be copied into another. But the principles and ways of working behind it can be adapted to new landscapes and new realities. These lessons shape how GuruJal works: as an institution that learns from implementation, turns experience into knowledge, and uses that knowledge to enable better action.

From doing, to learning. From learning, to sharing. From sharing, to scaling.



Other Collaborations



THE ROAD AHEAD

GuruJal's next chapter is about taking what works and enabling it to scale - through stronger science, data, partnerships and community stewardship. The focus is shifting from individual interventions to resilient landscapes, where water, nature, infrastructure and communities work together.

Field experience will become knowledge, evidence and replicable models, allowing proven solutions to adapt across geographies while remaining rooted in local realities.

OUR DIRECTION

FROM PROJECTS → PLATFORMS

FROM SITES → LANDSCAPES

FROM IMPLEMENTATION → KNOWLEDGE

FROM IMPACT → REPLICABLE MODELS

The ambition : To build water-secure, climate-resilient landscapes where science informs action, nature strengthens infrastructure, communities sustain change, and proven solutions travel beyond the places where they began.



GuruJal's work contributes to the global vision of the United Nations Sustainable Development Goals (SDGs) by translating sustainability into action at the landscape and community level.

ABBREVIATIONS & TECHNICAL NOTES

01 WATER & TREATMENT

Abbreviation	Meaning
KLD	Kilolitres per Day — wastewater treatment capacity
ML	Million Litres — volume of water
MLD	Million Litres per Day — flow/treatment capacity
BOD	Biochemical Oxygen Demand — indicator of biodegradable organic pollution
COD	Chemical Oxygen Demand — indicator of chemically oxidisable organic matter
TSS	Total Suspended Solids — suspended particles in water
WWTP	Wastewater Treatment Plant
STP	Sewage Treatment Plant

02 NATURE-BASED & DECENTRALISED SYSTEMS

Abbreviation	Meaning
NbS	Nature-based Solutions
DEWATS	Decentralised Wastewater Treatment Systems
ABR	Anaerobic Baffled Reactor
CW	Constructed Wetland
GW	Groundwater
O&M	Operations & Maintenance

03 MONITORING & HYDROLOGY

Abbreviation	Meaning
AWLR	Automatic Water Level Recorder
GW	Groundwater
WL	Water Level
PZ	Piezometer

CONCLUSION

A pond is never only a pond. A well is never only a well. And a drop of water never exists alone.

Every intervention in these pages is connected to something larger, an aquifer beneath the ground, an ecosystem around it, a community that depends upon it, and a future shaped by how water is managed today.

GuruJal's journey shows what becomes possible when science meets local knowledge, nature becomes part of the solution, institutions collaborate, and communities become custodians.

Across different landscapes, the stories share a common thread: when water returns, ecology responds, communities reconnect and landscapes begin to transform.

There is still much to do. But every restored waterbody, every litre recharged, every community engaged and every partnership created moves us closer to a water-secure future.

Every drop connects a larger story.

Every restored landscape shows what is possible.

GuruJal. Making India Water Secure.





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