

Report on Review of Impact Indicators (FY2024)

SRIJAN

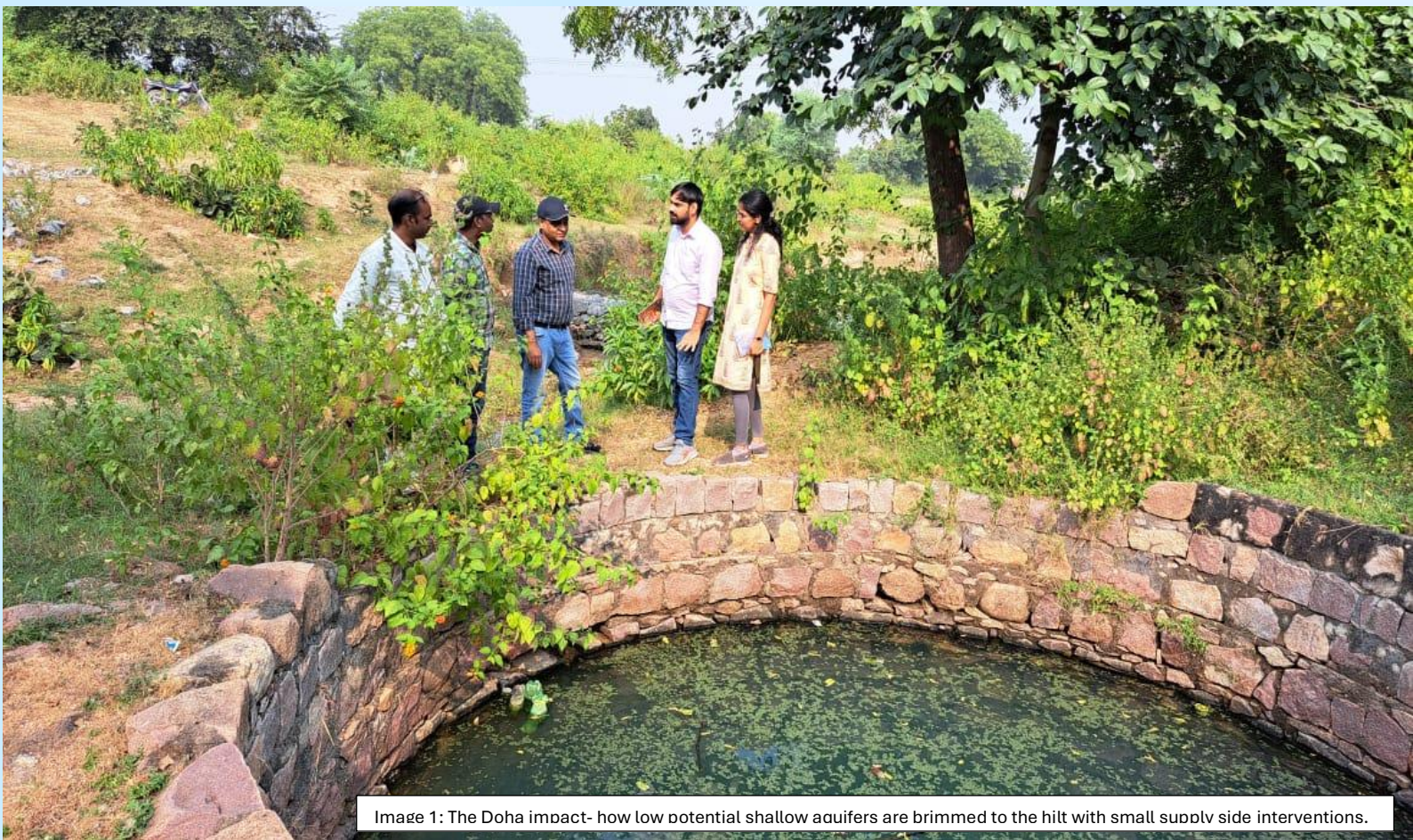


Image 1: The Doha impact- how low potential shallow aquifers are brimmed to the hilt with small supply side interventions.

Hindustan Unilever Foundation

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Introduction

HUF operates on the principle that water is a shared resource that should be governed by local communities. Recognizing India's diverse water challenges, HUF collaborates with NGOs to develop region-specific solutions based on groundwater availability and annual rainfall patterns.

The flagship initiative, *Water for Public Good*, seeks to address widespread water security concerns by fostering partnerships with non-profits, co-funding agencies, and government bodies. Rather than adopting a one-size-fits-all approach, HUF tailors its interventions to the unique hydrogeological and agro-climatic conditions across the country.

HUF's approach places communities and farmers at the center, enabling them to:

- **Know More** about their water resources,
- **Save More** through conservation strategies, and
- **Use Less** in agriculture.

The organization implements both supply-side and demand-side programs. Supply-side initiatives focus on water body rejuvenation, new water harvesting structures, and governance improvements to enhance regional water security. Demand-side programs work closely with smallholder farmers to improve irrigation efficiency, promote water-efficient crops, and enhance agricultural productivity with lower water consumption.

To evaluate the impact of its initiatives, HUF engaged EY (Ernst & Young) to conduct a comprehensive review of identified impact indicators. EY conducted stakeholder consultations and field visits in reference to the OECD Framework at selected locations



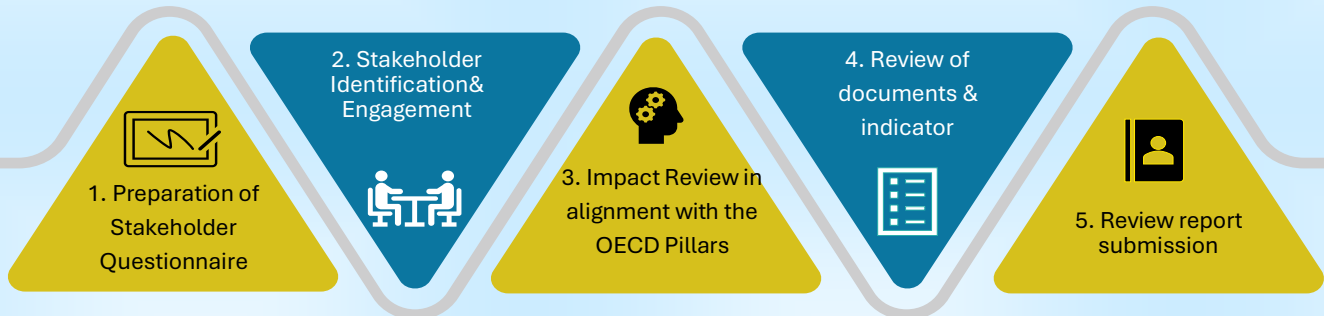
Image 2: Stakeholder interaction regarding agriculture and fishing at Thurat

Project Overview

S. No.	Parameters	Details
1.	Project Title	Reviving Bundelkhand's traditional tanks through community-led action to stabilise agricultural livelihoods in a region vulnerable to chronic water distress
2.	Project Implementation Agency	Self-Reliant Initiatives through Joint Action (SRIJAN)
3.	Funding Agencies	Hindustan Unilever Foundation (HUF), IndusInd Bank, NITI Aayog, Community Contribution, and Ramesh Kacholiya (Individual - philanthropist)
4.	Project duration	April 2022 – March 2024
5.	Total project cost	INR 10.39 Crores ¹
6.	HUF's contribution to total project cost	INR 4.18 Crores
7.	Project Locations	Chhatarpur, Tikamgarh & Niwari District of MP and Mahoba & Chitrakoot District of UP)
8.	Visit Locations	Chittarwada, Thurat and Tikariya jiatpur Village of Jaitpur Block, Mahoba
9.	Project Interventions	<p>Supply Side Interventions: Water-saving structures include Doha, renovated check dams, and the restoration of old tanks through convergence efforts.</p> <p>Demand side: Water saving through improved agricultural practices like:</p> <ol style="list-style-type: none"> 1. Preparation of Natural Manure & Bio-Pesticide 2. Advance Multilayer Farming 3. Seed preparation & Seed Treatment <p>Adoption of water saving agriculture practices</p>

¹The project timeline spanned from January 2019 to December 2023. However, the costs mentioned in the table above reflect the revised figures after re-contracting which happened in April 2022 and a subsequent addendum to the project budget, which amounts to total of INR 10.39 crores, including an HUF contribution of INR 4.18 crores.

Approach



OECD Framework and Evaluation Criteria



Summary of Stakeholder Consultations

Over two days, the EY team visited Mahoba district to evaluate water-related KPIs and assess the impact of SRIJAN interventions across Chittarwada, Thurat and Tikariya jiatpur Village of Jaitpur Block, Mahoba.

On the first day, the EY team travelled to Mahoba district, accompanied by field experts from the SRIJAN. During the visit, the experts provided an overview of Project BIWAL's history and accomplishments, emphasizing the organization's dedication to advancing water management and agricultural practices in the Mahoba region.

Later that day, the team visited Chitarwada village, where the SRIJAN has undertaken the restoration of the Chandela tank, increasing its depth to 1 meter. Previously, the tank would dry up during the summer, but now it can store water year-round. The increased depth has also helped raise groundwater levels in the surrounding areas, greatly benefiting the village by ensuring a reliable water source. In conversations with the community, the team learned that the tank water is used exclusively for irrigation, and while no one is allowed to have their own motor connections to extract water. Also, the silt extracted from the tank has been utilized to enrich nearby farmland, converting land into more fertile farms for crops. This improvement has provided the community with significant economic benefits, as they now have more land for cultivation and improved crop yields. Due to these efforts, the Chandela tank has become a source of financial stability for the village. Reliable water availability throughout the seasons ensures that livestock also have access to water, supporting both agriculture and livestock management, and further enhancing the village's resilience and prosperity.

"The tank restoration has benefited the entire village community, not just individuals, providing shared resources and support for everyone." - Community Remark

Doha provides for surface storage as well as help recharge ground water. The photograph shows the water table in a well adjacent to the drainage line on which a series of Doha's were constructed. Clearly, these supply side interventions have helped recharge aquifers thus leading to water for irrigation and drinking water requirements of the region.

The team visited the water supply interventions at Thurat, implemented in alignment with SRIJAN recommendations, where tank rejuvenation has taken place. This has helped store water during the summer months and has supported the growth of both the fisheries and water chestnut farming. Additionally, the sediment from the tank has improved soil fertility. The Tank Management Committee In close coordination with Gram Panchayats have encouraged villagers to adopt organic farming, allowing them to sell any surplus bio-manure.

Through interaction with the community, the team learned that before the tank rejuvenation, farmers migrated for livelihood. Due to the project intervention, the migration has reduced greatly. Before the project intervention, the village needed 17 water tankers each day, but now, this demand has been eliminated, highlighting the significant impact of the rejuvenation efforts.

The project improved water availability, supported local businesses, and promoted sustainability, reducing reliance on external water sources and encouraging organic farming.

On Day 2, the EY team visited SRIJAN office in Jhansi, where they learned about the organization's initiatives with HUF, including nano orchards, tank rejuvenation, local cadres, TMC formation, and bio-manure training. Team also reviewed relevant data points.



Image 3: Community interaction (Chitarwada Village)

Impact Indicators wise Summary

Overall Approach of the program:



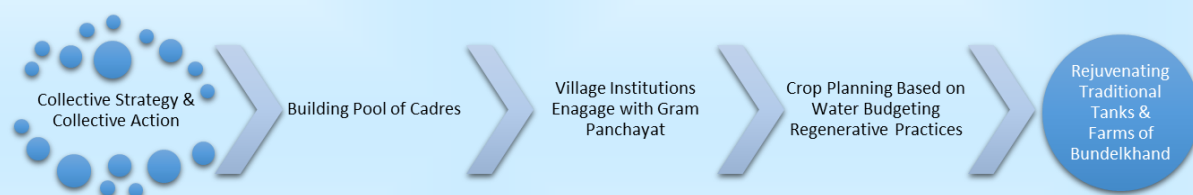
- **Relevance and Coherence**

The program and its initiatives were designed through comprehensive consultations at the grassroots level, engaging local communities, administrations at panchayat and district level, etc. SRIJAN representatives collaborated closely with farmers to understand and evaluate the historical significance of tanks constructed by the Chandela and Bundela kings. These rulers built over 8,000 tanks across Southern Uttar Pradesh and Northern Madhya Pradesh, with over 1,800 now in disrepair. These tanks, originally constructed to control water runoff and provide security during droughts, underscore the critical need for water resources in the region. However, inadequate management of these community assets has diminished their effectiveness, leading to a substantial loss of water reserves.

The target region experiences significant water stress, where the primary sources of livelihood such as farming, and cattle rearing are highly water dependent. Persistent drought conditions, combined with low rainfall, pose ongoing challenges. The area's socio-economic profile is marked by comparatively high poverty levels. The undulated terrain, limited aquifer availability, and shallow groundwater levels contribute to increased runoff and soil erosion. Over time, silt accumulation in these tanks has rendered many water bodies unusable, further impacting the fertility of agricultural lands, which are predominantly rainfed.

The "Tank Restoration" program aims to address these broader water-related issues through locally adapted solutions. The first phase of the program focuses on desilting existing tanks and lakes, enabling villagers to utilize nutrient-rich silt to enhance the fertility of their farmlands. The second phase promotes sustainable water resource management practices and encourages climate-resilient farming methods to strengthen the region's long-term water security. In addition, the program seeks to shift community perspectives on these tanks, fostering a sense of collective responsibility for maintaining these shared water assets. This approach aligns with the needs and expectations of stakeholders, whose livelihoods stand to benefit from the program's outcomes.

- **Effectiveness**



The initiative focused on both technical and social approaches to rejuvenate Bundelkhand's traditional tanks and farmlands through a collaborative strategy aimed at water security and sustainable agriculture. This strategy included building a cadre of community farmers to promote water harvesting & conservation methods, soil health, crop planning etc. based on water budgeting, and natural farming practices. The continual water scarcity, which affects daily life and livelihoods in the community, was the primary catalyst for launching this program. By the end of fiscal year 2023-24, with guidance and support from HUF, the PIA had successfully rejuvenated total of 149 tanks, spanning 100 villages.

Farmers in the tank catchment area took an active role in the initiative by hauling and spreading the extracted silt across their farm fields, leading to improved soil health and enhanced crop productivity. In addition to improving the soil in active agricultural areas, the silt was also applied to barren land where crops had previously struggled to grow. As a result, these lands have become more fertile and suitable for farming. The PIA supports these farmers through various training sessions focused on climate-smart agriculture, aimed at building soil health and enhancing crop yields. These sessions cover a wide range of techniques, including seed treatment, establishing seed banks, creating bio-resource centres, composting, using biopesticides, and utilizing agricultural tools. Additionally, farmers are encouraged to focus on adopting water-efficient crop cultivation practices and exploring alternatives such as fruit orchards.

A core component of the program is fostering a collective responsibility among villagers for the maintenance and sustainable use of the tanks, emphasizing their role as shared resources critical to long-term water security and agricultural stability. The application of silt and the various training sessions imparting knowledge on improved agriculture practices have contributed to reducing crop water requirements. Even during summer months water in the tank enables livestock to survive and provide for critical drinking water requirement through recharge of ground water. Water percolates in the ground from the tank all through the year, enabling water availability in open wells. Open wells are the

main source of drinking water for the people. There is noticeable change in the availability of water during summer months which has helped people protect their livestock. The water in the tank is also very critical to the wildlife and during months from March to onset of monsoons all other natural water sources runs dry.

Villagers have collectively decided to refrain from using individual water extraction from these tanks and wells for personal use. Instead, they have adopted a more structured approach, using water based on crop needs and reserving water for sustainable use and for livestock. In some areas, these tanks are also being used to support fish farming and cultivating water chestnut crops.

The construction of Doha's has immensely helped farmers in multiple ways. As these structures are constructed on drainage lines with adjoining sub-prime agricultural lands (as these lands have remained fallow and are usually bereft of water sources), these small water harvesting structures have provided for the critical protective irrigation requirement. Water accumulated during retreating monsoons (September and October) is utilised for any irrigation requirement and finally for harvest. This moisture is also utilised for sowing of Rabi. In addition to this, adjoining open wells gets recharged (as represented in the photograph). Thus, both ground water potential and surface water harvesting potential is utilised maximally. This has indeed been a hallmark of interventions undertaken in the last year as it fully supplements efforts undertaken in rejuvenation of tanks. Inspired by the demonstration farms set up by the PIAs across various villages, community members are increasingly adopting water-efficient and climate-resilient agricultural practices. The shift towards natural farming has also played a key role in rejuvenating the local farm ecosystem. Applying silt has improved soil cover and provided vital micronutrients, enhancing soil fertility.

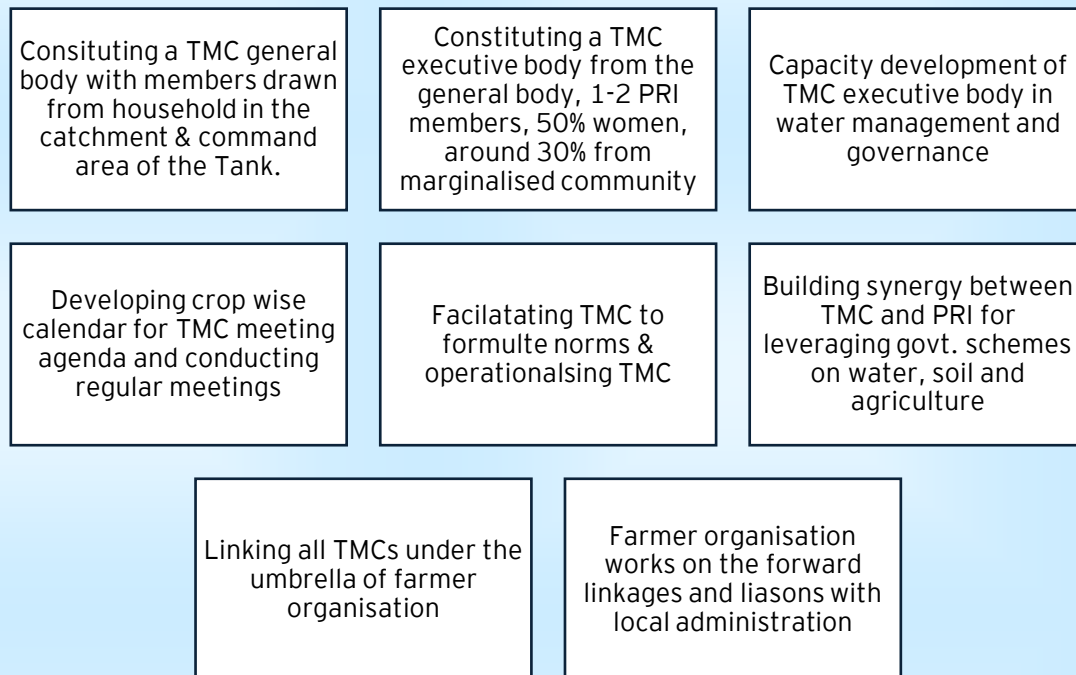
- ***Efficiency***

The programme demonstrates a region solve. The interventions undertaken in the programme aims at making best use of the available resources and the low hanging fruit to transform lives and livelihoods of the people. Tank siltation undertaken at a minimal expenditure not only revives the tank but also the farms. It would be important to mention here that the cost of transportation of silt is borne was the farmers themselves. The entire process is community driven which makes the program a totally community driven and owned initiative.

The program's efficiency stemmed from the effective use of Tank Management Committees (TMCs) to allocate resources, monitor water security, and promote climate-resilient agriculture. Supported by local governments and driven by women, the TMCs and with assistance from program staff, successfully transformed agricultural livelihoods. TMC supports the community by organizing year-round activities, using a crop-specific calendar to streamline meetings and ensure focused progress. Sustainable

practices like crop rotation, and rainwater harvesting were promoted, maximizing resource use and enabling the program to achieve its goals within the fiscal year.

Working Strategy for the efficient implementation of Program:



- **Impact**

The impact of the programme is clearly visible in the ownership of the initiative by the people. As a result, farmers stay put on their farms and do not migrate. Reduced migration has broken the vicious circle in which the farming community were entangled. Farming households, with support from the programme (including co-funding) are investing in horticulture and vegetable cultivation. It would be important to highlight here that the small orchards developed during the programme (well supported by water from tanks) have not only ensured climate resilience but also hiked annual income of the households.

Additionally, the initiative has expanded beyond agriculture by encouraging collaboration in animal welfare. Workshops were organized to share knowledge about ensuring secure and safe animal health, which has improved livestock management practices in the community. The project fostered a deeper appreciation for traditional farming methods, helping the local community understand and adopt these practices. Through engaging with the community, the project highlighted that natural or traditional farming has lower initial costs and can achieve profits comparable to conventional chemical-based farming within two years. In the first year, traditional methods help reduce expenses on seeds, bio-manure, and even healthcare costs due to healthier crops. Unlike conventional farming, which relies on purchasing costly hybrid seeds and chemical fertilizers like urea—costing around 4 to 5 thousand rupees per crop cycle—traditional farming

significantly cuts these costs. While organic crop yields may be lower in the first year, by the second year the yields are similar to that of the yields of chemical-based farming, providing both financial and health benefits to the local population.

This collective approach not only addresses water scarcity but also promotes sustainable agricultural and animal welfare practices, strengthening the community's resilience and contributing to long-term financial stability and improved livelihoods.

- ***Sustainability***

The sustainability of the program is supported by several key measures that address community needs, improved agricultural practices, and foster long-term environmental and economic stability. Community Action is foundational, with Tank Management Committees (TMCs) established to ensure the program's lasting impact. SRIJAN have nurtured 101 TMCs effectively breaking the laissez faire to coordinated management of community water resources. In this process women have been encouraged to participate and contribute. The process has enabled women empowerment by defining their role in management of common resources. This is a big win from the earlier situation where most of the control over the common resources were limited to the elite group. TMCs, which function independently, raising awareness about water management, agriculture, and livelihoods, and are supported with resources from the PIAs. This self-sufficiency model ensures sustainability by empowering local communities to take ownership of the program's success.

The Rejuvenation of Tanks and Farmland is central to addressing local challenges, such as water stress, drought, and over-reliance on traditional farming methods. By restoring traditional tanks and improving water availability, the program directly addresses critical socio-economic and environmental issues. The involvement of local governance and the engagement of elected gram panchayat members further strengthen community ownership, ensuring that the rejuvenation efforts remain locally driven and sustainable.

Climate-Smart Agriculture plays a crucial role in enhancing water management and resilience to climate variability. The program promotes sustainable farming practices, including silt utilization, intercropping, and seed treatment, which improve soil fertility, reduce water use, and increase crop yield. These techniques are specifically tailored to local economic conditions, fostering economic growth while mitigating environmental stress. As farmers adopt these practices, they become more resilient to droughts and shifting climatic conditions.

Finally, the program fosters Farm-Based Livelihoods by creating economic opportunities through improved water security and sustainable farming practices. The initiative reduces seasonal migration by supporting year-round farming and providing farmers with resources, training, and market linkages. The program's focus on Behavioral Change and

Community Ownership encourages local communities to view water bodies as shared assets, instilling a sense of responsibility for their preservation. This collective ownership ensures long-term sustainability, as the community embraces both enhanced agricultural techniques and the preservation of vital water resources.



Latitude: 25.280171
Longitude: 79.51927
Elevation: 208.53±100 m
Accuracy: 8.8 m
Time: 11-05-2024 14:00
Note: Village chhitwara doha

Image 4: The structure in Doha, along with gabion wall.

Hindustan Unilever Foundation's Contribution to Programme

HUF played a pivotal role in the success of the project, going far beyond financial backing. Their active involvement ensured accountability and real-world impact throughout the program's duration. By collaborating closely with the SRIJAN Program Implementing Agency (PIA), HUF allowed the project to adapt to challenges on the ground, encouraging the development of tailored solutions such as the adoption of Doha, Check dam renovations, and traditional tank excavation / de-siltation. Their continuous engagement ensured the project was not only well-funded but also effectively executed.

The Bundelkhand region has long grappled with persistent water scarcity due to geological condition and subsequent low agricultural productivity. Recognizing the need for intervention, the Hindustan Unilever Foundation (HUF) and the Project Implementation Agency (PIA) embarked on a mission to rejuvenate traditional water bodies and restore agricultural productivity in the region.

This initiative centred around the rejuvenation of traditional tanks which are more than 8,000, which are an integral part of historical Bundelkhand's traditional water management system. The HUF-SRIJAN approach involved not only the rejuvenation of these tanks but also the innovative use of the silt dredged from them to enrich the fertility of farmlands.

This dual-purpose strategy improved the water-holding capacity of the tanks while simultaneously enhancing soil health, thereby directly benefiting agricultural activities in the region. Building on this foundation, HUF-SRIJAN promoted organic farming practices to achieve sustainable and resilient agricultural yields. Farmers were encouraged to adopt farm manure, reducing dependency on chemical inputs and fostering long-term soil health. Over time, the project evolved from a focused tank restoration initiative into a holistic ecosystem rejuvenation model.

By integrating water resource management with soil health restoration and sustainable farming practices, the program created a robust framework for addressing the region's interlinked challenges.

HUF's efforts also focused on community empowerment through the establishment of Tank Management Committees (TMCs). They encouraged the SRIJAN team to build capacities of TMCs to independently manage water resources, ensuring the long-term sustainability of the project. Local governance structures, including gram panchayats, were integrated into decision-making processes, further strengthening the community's ownership of the project. Additionally, HUF supported the SIRJAN to promote the

education of TMCs on government schemes and facilitated knowledge sharing with other Program Implementing Agencies (PIAs), helping to create a governance model that would sustain both water management and agricultural practices for future generations.

HUF's involvement was key to the success of the SRIJAN project, ensuring both adaptability and accountability. Their strategic partnership set a new standard for impactful, long-term project implementation.



Image 5: Chitarwada Village Tank

Impact Assessment Numbers



Total No. of Water Conservation Structures Created

576



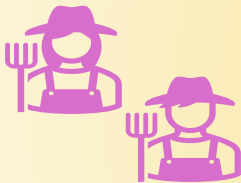
Hectares of Plantation completed

0



No. of villages benefitting from water conservation works & demand side management

100



No. of farmers benefitting from agriculture interventions

13,471



Additional income generated from Agriculture and MGNREGS (in INR Cr.)

14.7



Community institutions created and operational on water governance and agriculture interventions

101