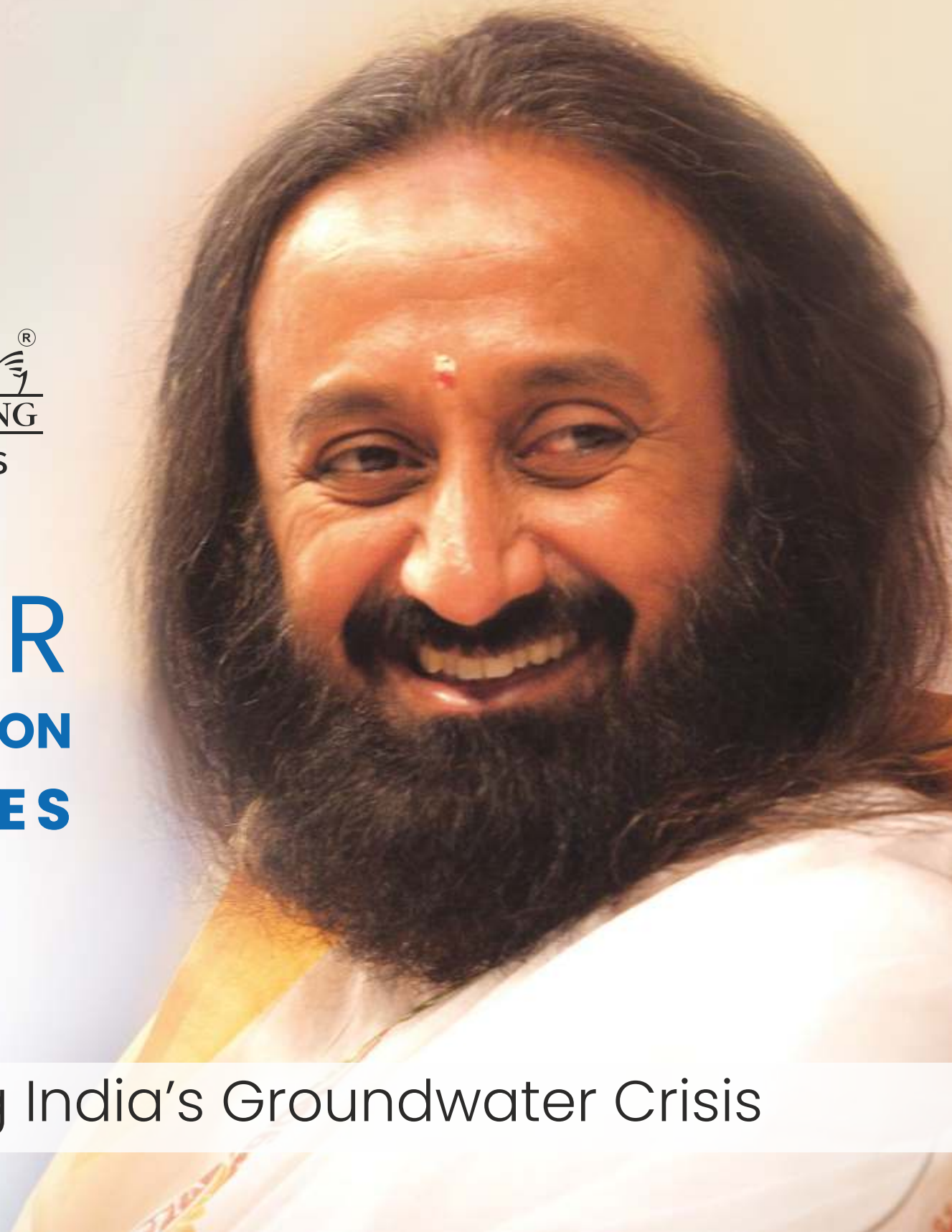
THE ART OF LIVING
Social Projects

WATER CONSERVATION ACTIVITIES



Solving India's Groundwater Crisis

THE ART OF LIVING
Social Projects

Creating a sustainable world where individuals
are empowered & communities prosper

OFFICE OF GURUDEV SRI SRI RAVI SHANKAR
ART OF LIVING INTERNATIONAL CENTRE, 21 KM KANAKAPURA ROAD,
UDAYPURA, BENGALURU - 82, INDIA P | +91.80.67262616 F | +91.80.28432833
SECRETARIAT@ARTOFLIVING.ORG | WWW.SRISRI.ORG | WWW.ARTOFLIVING.ORG

April 29, 2024

MESSAGE

Life finds its greatest purpose and fulfilment in seva - serving others selflessly. It's our very nature. When this innate quality of our Being gets a direction and platform, individual efforts ripple into a vast ocean of collective welfare.

In the true sense, each one of us is empowered to take responsibility for the whole world. But this is often obscured by personal stress and tension. When people become free of stress by applying spiritual wisdom and supplementing practices, the latent desire to be useful starts expressing itself in one's actions and behaviour.

Over the past several decades, The Art of Living has grown into a vibrant platform for collective public action. The vast base of dedicated volunteers across the country consistently takes the lead in addressing any challenge that emerges in society, whether social, economic, or political.

When the country was faced with challenges from time to time, our volunteers consistently rose to the occasion. For instance, their dedicated efforts at the grassroots level led to a remarkable turnaround in combating the country's water crisis. These achievements stand out not just for their sheer magnitude, but also for the extensive engagement of communities spanning thousands of villages, all accomplished with remarkably low costs.

I am proud of the contributions of all the volunteers in spreading happiness, prosperity and peace in society. I am certain that this spirit of volunteerism will thrive even more in the days to come.

Blessings and Best Wishes
Gurudev Sri Sri Ravi Shankar

जल शक्ति मंत्री
भारत सरकार
Minister of Jal Shakti
Government of India

सत्यमेव जयते

सीआर पाटील
CR Paatil

Date: 9th August, 2024

MESSAGE

As we face the growing challenges of water scarcity and environmental degradation, the work being done by The Art of Living stands out as a beacon of hope and progress. Under the visionary leadership of Gurudev Sri Sri Ravi Shankar ji, The Art of Living has embarked on a mission to rejuvenate our precious natural resources, a mission that is both critical and commendable.

The organization's extensive efforts in rejuvenating over 70 rivers and streams, constructing over 90,500 recharge structures, planting over 7,00,000 trees along river basins have already benefited millions of people and reached more than 19,000 villages across eight states where work is currently ongoing. These initiatives are not just numbers; they represent the lives and livelihoods that have been uplifted, and the ecosystems that have been restored.

Water is at the heart of our nation's prosperity, and the dedication of The Art of Living to conserving and replenishing our water resources is truly inspiring. The scale and impact of these efforts demonstrate the power of collective action and the profound difference that focused, sustained work can make in our communities.

As this book chronicles the significant achievements of The Art of Living in the field of water conservation, may it inspire many more to join in this vital cause. Together, we can ensure that our natural resources are preserved for future generations and that every individual enjoys the benefits of clean and sustainable water.

Let us continue to collaborate and expand these efforts, safeguarding the well-being of our environment and our people.

(C R PAATIL)

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WATER CONSERVATION

Making India Water +ve

The Art of Living is solving India's groundwater crisis head-on with a strategic, multi-faceted approach. The focus is on rejuvenating water resources and revitalising stagnant water bodies to ensure a sustainable water ecosystem. Through practical solutions and determined efforts, we're working to restore balance to the hydrological cycle and promote the natural flow of water.

“Our survival depends on water, it is the basis of our life force. We need to protect and nurture the sources of water.”

Gurudev Sri Sri Ravi Shankar

India Faces Groundwater Crisis

India's groundwater crisis has reached a critical stage; NITI Aayog's 2018 report says 54% of wells in India are declining. The country can avoid an imminent severe water shortage with immediate preventive measures, despite receiving substantial rainfall in many regions. Surprisingly, rain alone fulfils only 20% of the total water demand, while the remaining 80% relies heavily on depleting groundwater reserves.

Over the past two decades, groundwater levels have declined drastically due to disruptions in the hydrological cycle, leading to widespread water stress across various regions. The loss of forest cover and vegetation has significantly hindered the recharge rate of groundwater, exacerbating the situation. Additionally, unregulated extraction from depleting sources further compounds the challenges.

Data from the Central Ground Water Board of India (CGWB) reveals a staggering annual extraction of 239 trillion litres of groundwater, which relies solely on rainfall for recharge. Unfortunately, the Central Water Commission of India (CWC) reports that 78% of rainfall water runs off the surface and eventually flows into the oceans, rendering it unsuitable for domestic use and failing to replenish groundwater.

To address the impending water crisis, utilising existing rainwater recharge mechanisms in nature is crucial. These mechanisms hold the key to tackling pressing challenges and ensuring sustainable availability of water resources.

78%

Monsoon rainwater flows into the ocean every year
***Source: CWC**

6%

Annual rainwater saved and stored every year
***Source: CWC**

239 Trillion Ltrs

Groundwater extracted every year
***Source: CGWB**

Driven by Gurudev Sri Sri Ravi Shankar's vision to address the water crisis and establish sustainable solutions, we embarked on a mission to revive dried-up rivers in India. By employing meticulous planning, a participatory approach, and integrated development of natural resources, we strive to restore the hydrological cycle, rejuvenate rivers and streams, and revive other water bodies to their natural state. This comprehensive effort ensures easy access to surface water sources while replenishing groundwater aquifers.

With a focus on collaborative action, we engage local communities as active participants. Our efforts align with the broader goal of preserving and restoring the hydrological balance; and safeguarding the nation's water security for generations.

WATER CONSERVATION

We have adopted a comprehensive and multi-pronged approach to tackle the pressing issue of groundwater crisis in India. Our concerted efforts aim to restore water resources and rejuvenate water bodies, ensuring a sustainable and resilient water ecosystem. By implementing effective and scalable solutions, we aim to restore balance in the hydrological cycle, allowing nature's processes to thrive.

AFFORESTATION

We're on a mission to make a difference on planet Earth through the revival of the green cover. This is being achieved by planting trees in various locations such as government-owned lands, dry forest lands, nurseries and around recharge structures and river basins. These efforts aim to conserve water, prevent soil erosion, mitigate climate change and reinstate ecological equilibrium. Worldwide, over 9,12,00,000+ trees have been planted and the count continues.

TECHNICAL EXPERTISE

We have a team of experts that includes environmental scientists, geologists,hydrogeologists,and Geographic Information Systems (GIS) specialists, who collaboratively develop a detailed and technically precise action plan. Using cutting-edge tools such as GIS and remote sensing technology, we have successfully constructed improvised structures across India and are working towards seamless integration of Internet of Things (IOT) based technologies.

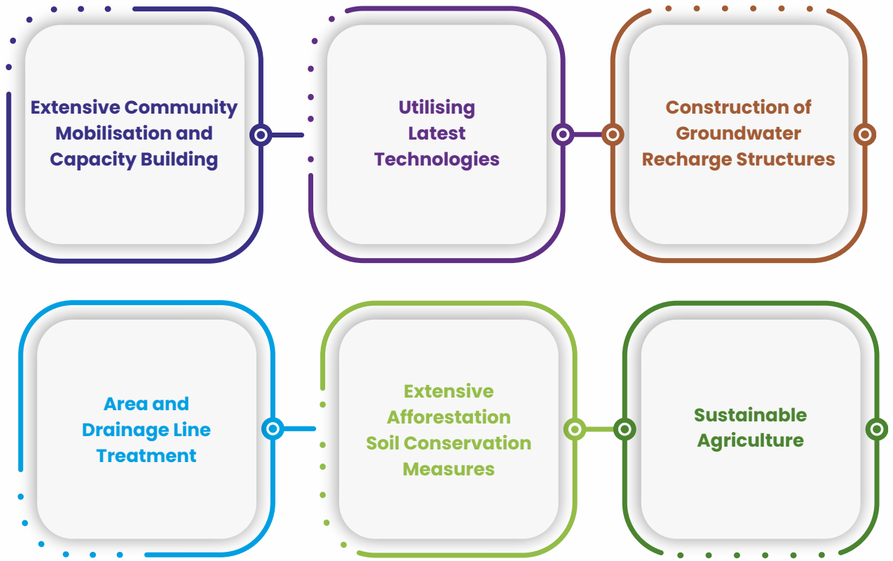
ENVIRONMENT

We are deeply committed to nurturing our environment and actively engage in various areas to achieve this goal. Some of our key initiatives focus on providing natural farming training to farmers, recycling organic waste into compost, organising cleanliness drives and harnessing the potential of cow dung to create organic bricks and paint.

REJUVENATING RIVERS

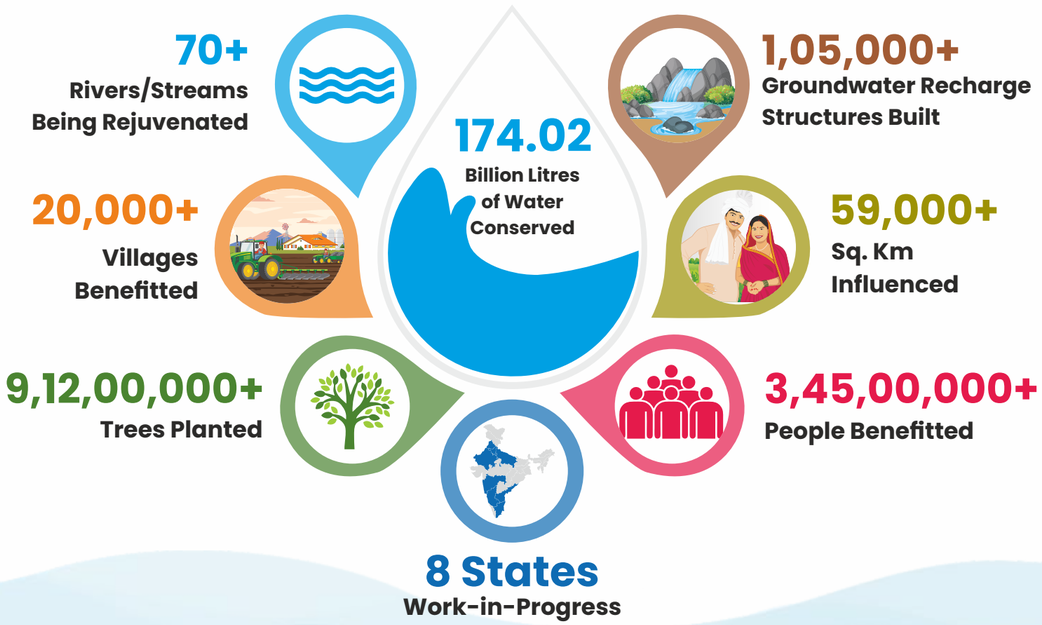
Our journey to revive dried up rivers began over a decade ago. By implementing innovative and scalable solutions, we are successfully reviving 70 rivers/streams, benefitting over 19,000+ villages across India. Our efforts include extensive community mobilisation, afforestation, construction of groundwater recharge structures, drainage-line treatments and implementation of soil conservation measures.

An Innovative Multi-Faceted Approach



Our expert geologists and hydrologists have created a technically precise plan based on GIS technology and geological surveys.

Contributing to India's Water Security



The efforts have transformed regions from being water-deficient to water-secure.

*2013 - 2024

We adopt a comprehensive approach to tackle the groundwater crisis by focusing on restoring the hydrological cycle and rejuvenating water bodies. Our primary goal is to revive natural conditions in surface water sources such as rivers, streams, lakes, storm drains and reservoirs. To enhance rainwater percolation into groundwater aquifers, we have developed innovative structures across open land areas. Our team of environmental scientists, geologists, hydrogeologists and GIS experts have conducted extensive research to design these structures, aiming to improve water percolation through soil layers and facilitate groundwater recharge. Community involvement is key to our approach.

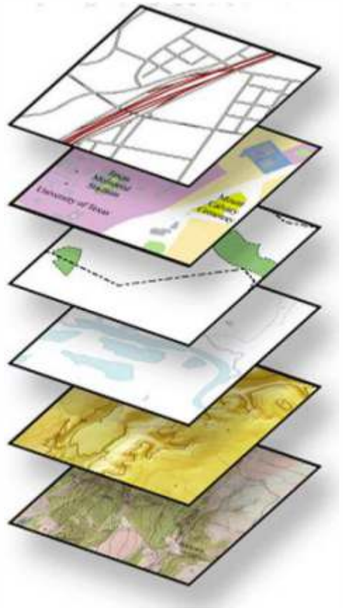
We engage local communities, prioritise capacity-building through training, and enable them with water conservation skills to preserve and restore resources. This participatory approach fosters a sense of ownership and collective responsibility, ensuring long-term sustainability of initiatives. In addition, we restore and expand forest cover through afforestation initiatives, effectively reducing soil erosion, enhancing water infiltration, and maintaining ecosystem health. By addressing multiple aspects of the water crisis and involving communities as vital stakeholders, we create enduring and viable solutions.

Scan to watch

Technology for Sustainable Development

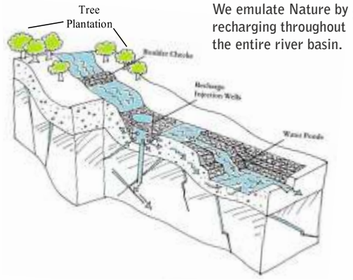
Strategies revolve around cutting-edge technology, empowering young leaders, fostering community involvement, encouraging public participation, and ensuring sustainability. Through the integration of GIS and Remote Sensing, valuable insights are gained into environmental patterns and resource management, paving the way for informed decision-making and long-term sustainability.

Geographic Information Systems and Remote Sensing



- Topography
- Soil Type
- Lineaments
- Land Use
- Geomorphology
- Slope and
- Groundwater
- Prospect
- Zones

Mimicking Nature to Optimise River Basin Recharge



We emulate Nature by recharging throughout the entire river basin. >>

01 **GABION/BOULDER CHECK**
Reduces soil erosion and recharges groundwater

02 **RECHARGE & INJECTION WELLS**
Recharges groundwater (Shallow and Deep Aquifer)

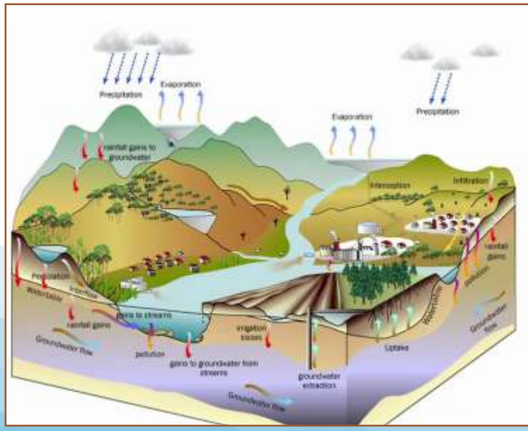
03 **WATER POOLS**
Revives lakes and larger water bodies

04 **SUBSURFACE DYKE**
Reduces groundwater flow Recharges groundwater

05 **TREE PLANTATION**
Reduces soil erosion and Recharges groundwater

- Improves groundwater table by more rainwater recharge and tree plantation across the entire river basin.
- Slows down the run off and optimises recharge across the river basin.

We incorporate awareness about Water Conservation and Local Stakeholder Participation into all our initiatives to maximise the output and make the approach sustainable.



NATURAL
HYDROLOGICAL CYCLE

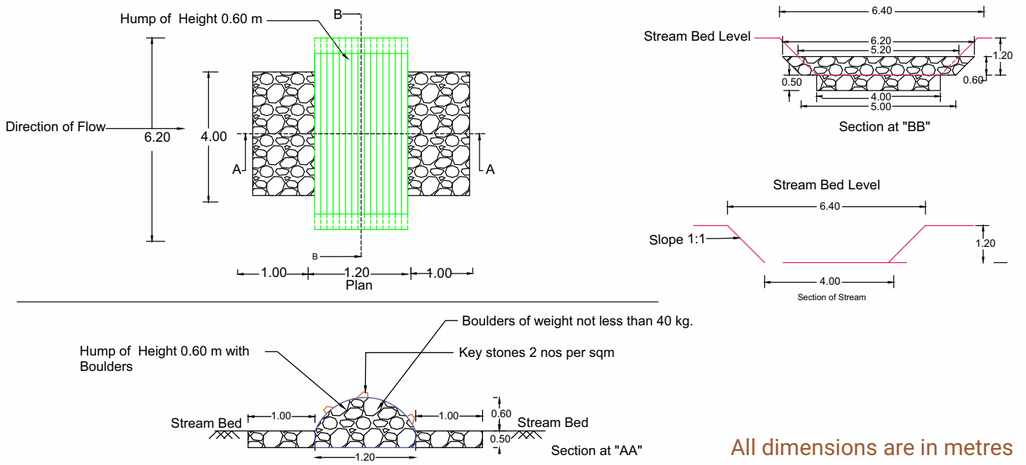
Underground water is really important

Many know about the hydrological cycle, but the relationship between underground water and surface water often goes unnoticed.

INNOVATIVE & SCALABLE APPROACH

Boulder Check Dam

Construction of Boulder Check Dam for Bundelkhand Watershed Project

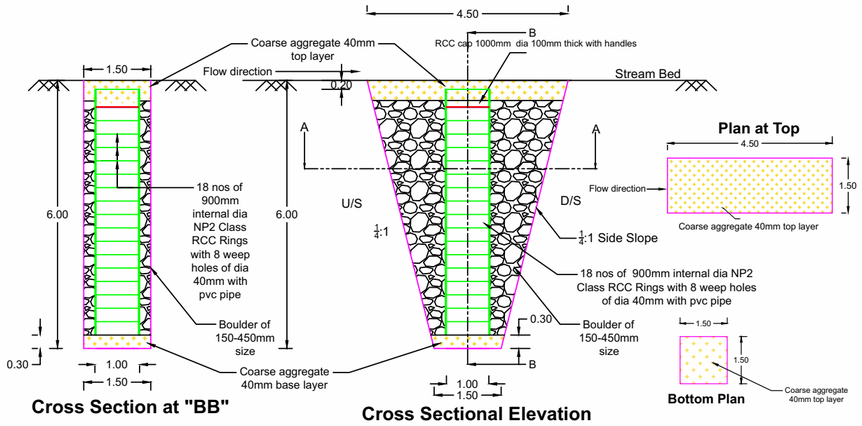


All dimensions are in metres

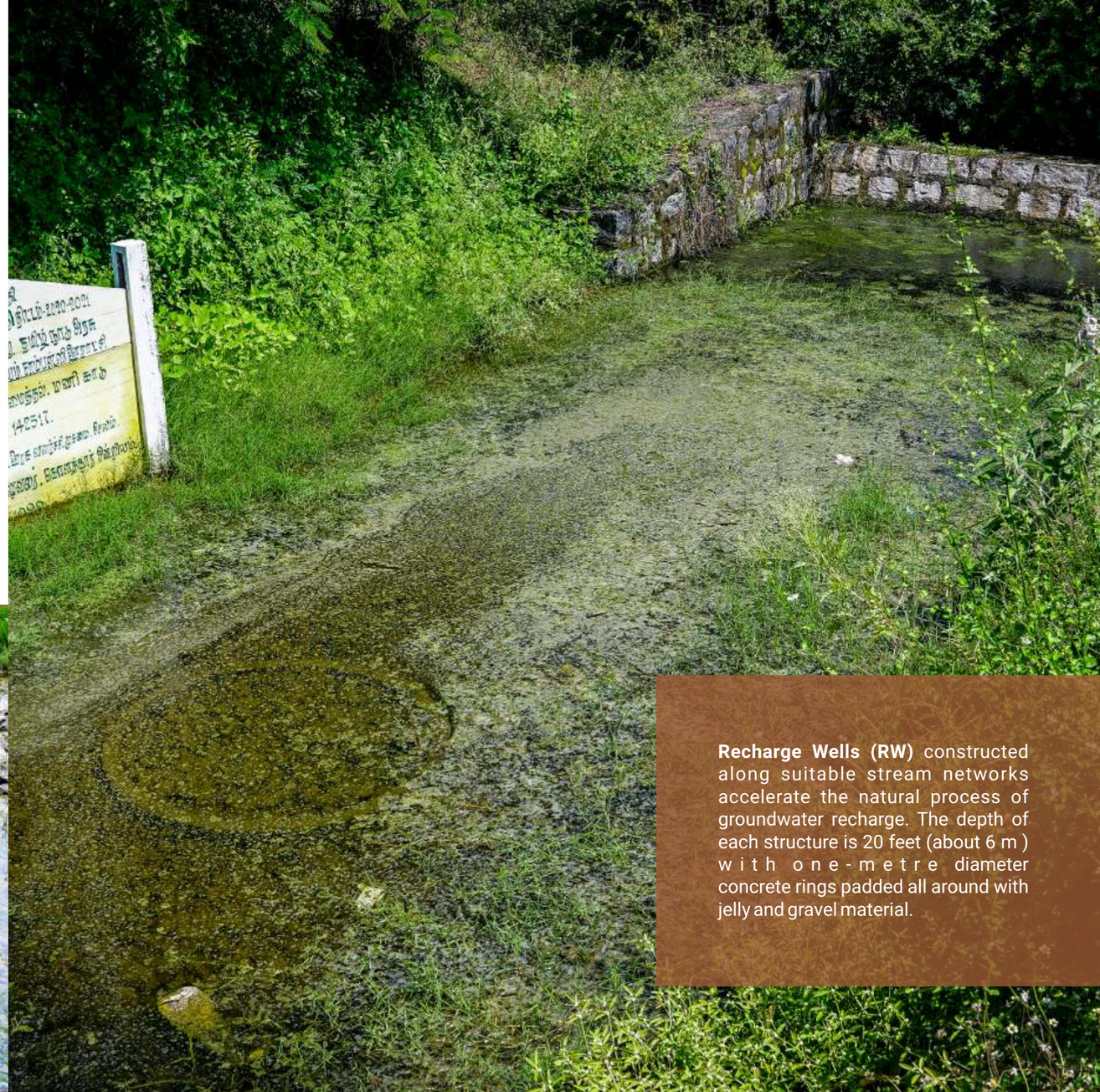
Boulder Check Dams (BCD) reduce the runoff velocity of rainwater. This increases soil moisture and minimises erosion.

Recharge Well

Construction of Recharge Well for Bundelkhand Watershed Projects



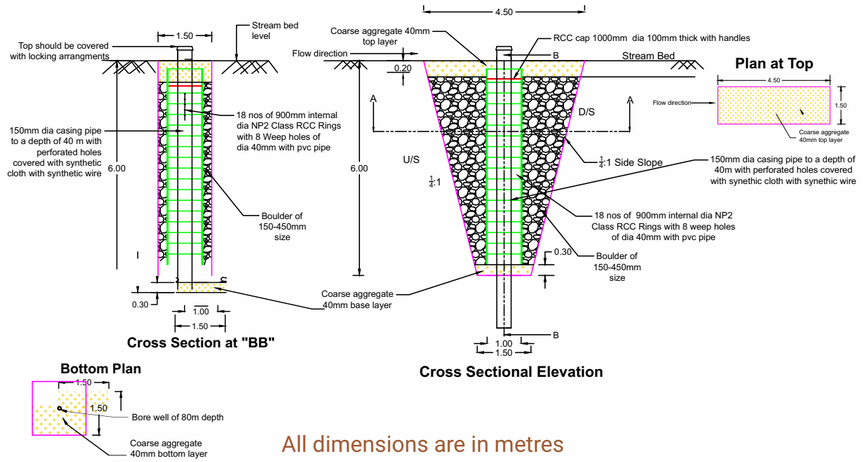
All Dimensions are in meter



Recharge Wells (RW) constructed along suitable stream networks accelerate the natural process of groundwater recharge. The depth of each structure is 20 feet (about 6 m) with one-metre diameter concrete rings padded all around with jelly and gravel material.

Recharge Borewell

Construction of Recharge Borewell for Bundelkhand Watershed Projects

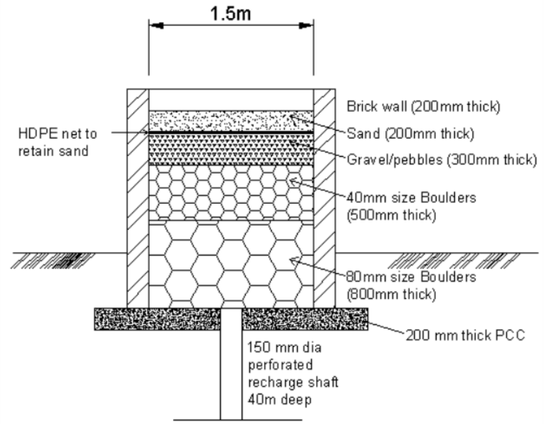


All dimensions are in metres

Recharge Borewells / Injection Wells are shallow recharge borewells acting like point recharge structures. They help augment groundwater recharge in dried-up fracture horizon and lineament zones.

Recharge Shaft

Recharge shafts are suitable in areas with high runoff and low permeability

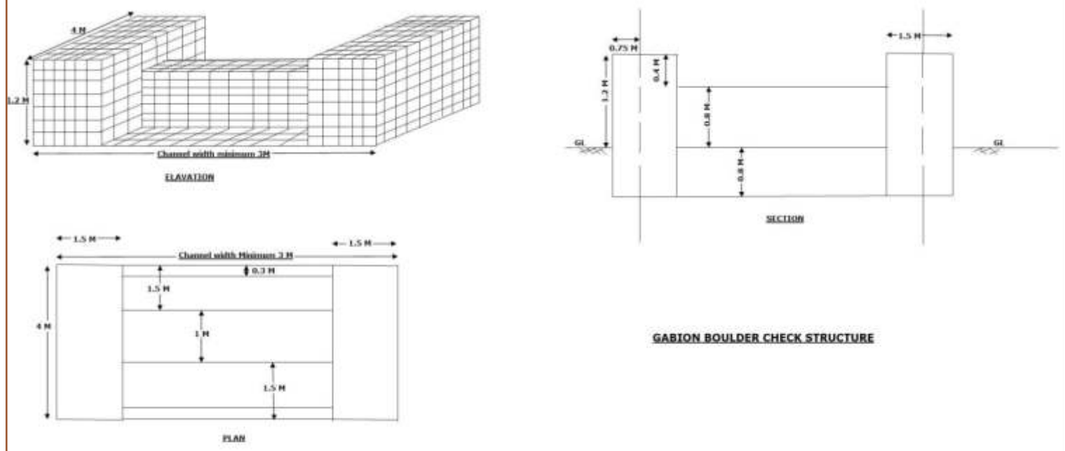


Filter Chamber (1.5m x 1.5m x 2.0m)

Recharge Shafts (RS) are used in ponds for water conservation through rainwater harvesting. The surface flow of the water can be tracked. Natural filters used in RS help to filter water up to 100 ft.

Gabion Structure

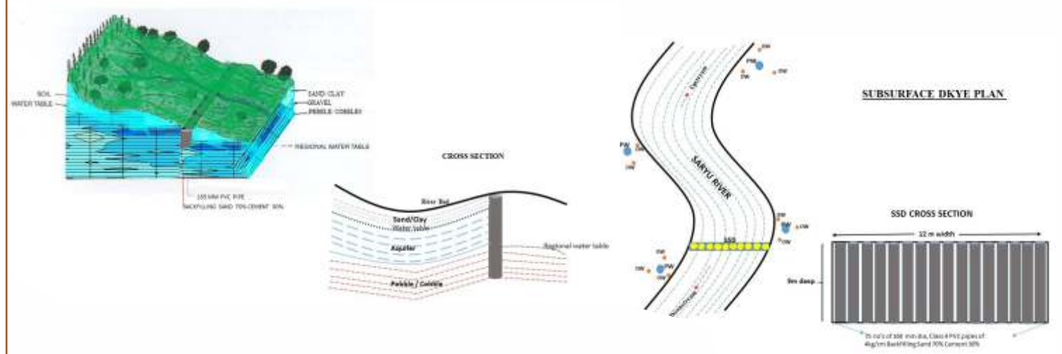
Typical Drawing Construction of Gabion Structure



Gabion Structures are constructed across the stream flow using locally available boulders. These boulder checks reduce the speed of water and recharge soil moisture, thus supporting natural vegetation.

Subsurface Dyke

Subsurface dyke: A barrage is used to retain surface flow



A **Subsurface Dyke** is a barrier built below the ground in the active channel (permeable zone) to prevent the base flow from flowing downstream and also to enhance the water level on the upstream side.

Desiltation

Before

After

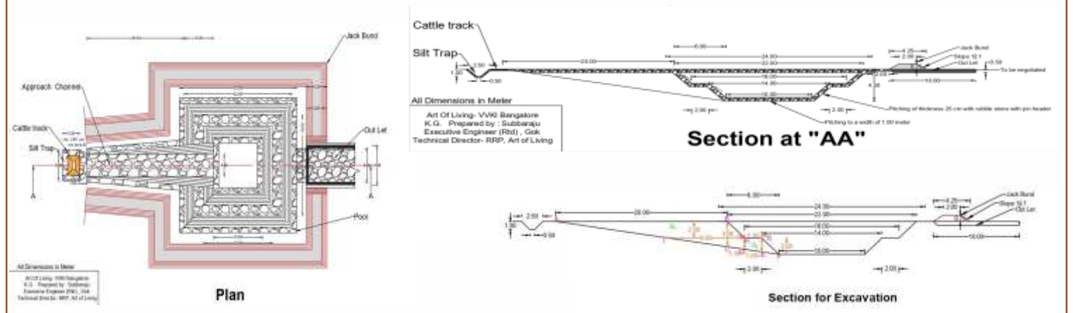
Desilting helps remove poorly permeable clay deposited in the water body over a period of time. It deepens the river bed, making it possible to collect more water. The fertile soil obtained is used by farmers. Desilting is also done using the 80:20 rule, in which 80 metres of the river bed is desilted. The remaining 20 meters are left untouched. This creates a series of small water storage ponds which enhances groundwater recharge.

Contour Trench

Contour Trenches are built where there is low rainfall (less than 750 mm per year) and the slopes are 8%. The purpose of contour trenches is to arrest soil erosion and increase soil moisture.

Water Pool

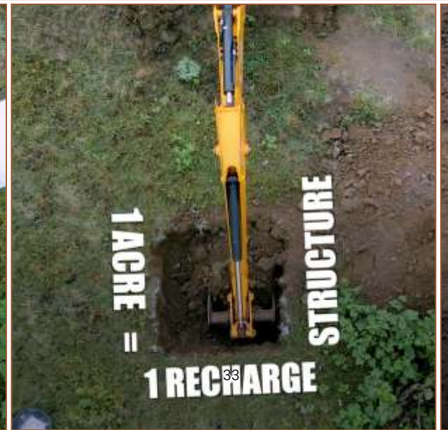
Typical Drawing No-04 Construction of Water Pool for MGNREGA Work of Karnataka



All dimensions are in metres

Water Pools are constructed at the entry point of streams to existing tanks. These help minimise evaporation and collect the subsurface flow from natural streams. Water Pools are also called microeco-restoration cells.

JalTara: The Groundwater Crisis Solution



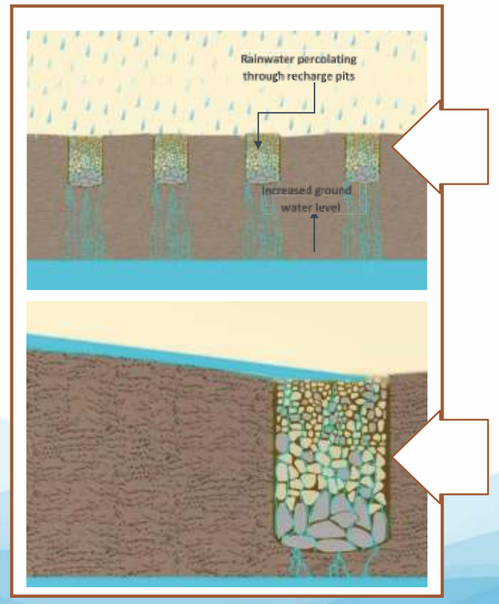
Conservation of water is imperative for India to overcome its current groundwater crisis. This situation calls for a practical and scalable solution. In pursuit of this goal, The Art of Living has developed highly effective methods such as JalTara. Tailored to diverse terrains and supported by a dedicated technical team, these scalable solutions are crafted with active local involvement.

JalTara Recharge Structures

Recharge structures which are approximately 4 x 4 feet wide x 6 feet deep are built at the lowest gradient within an arable acre plot of land.

This structure is then filled with varying sizes of rocks, which enables rainwater to bypass the dense impervious topsoil to the lower surface of the structure.

Two fruit bearing trees are also planted on the land to make optimum use of it.



Scan to watch

140+
Villages Impacted

60,000+
Recharge Structures Built

1,00,000+
Trees Planted

2,01,200+
Acres Covered

***As on September 2024**

JalTara Validated across Multiple Projects

Impact of JalTara

Increase of Water Level in Wells

14 ft

Average Increase in Water Table
March 2021 - March 2022

Farmer Income More Than Doubled

120%

Average Increase in
Farmer Income

Increase in Crop Yield

42%

Average Increase in
Crop Yield

Eliminated Crop Spoilage

100%

Decrease in Crop Spoilage
due to Waterlogging

Increase in Employment

88%

Average Increase in Work
Availability Year Long

Improvement in Land Usage

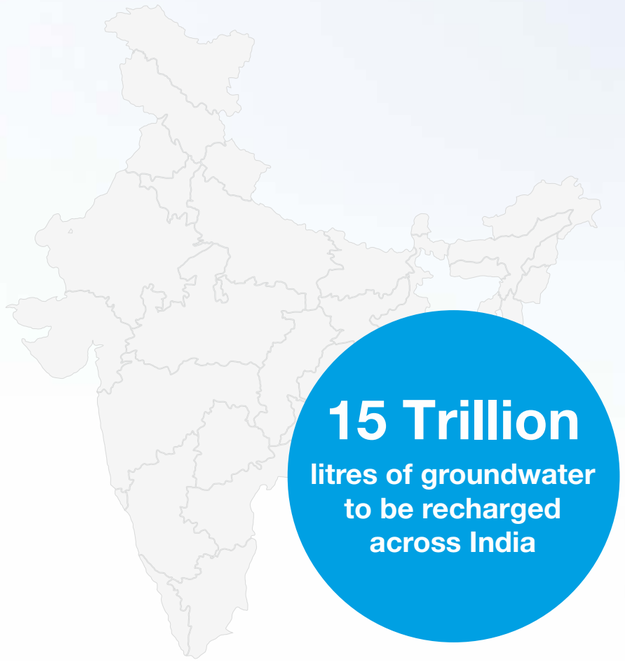
58%

Average Increase in Land
Usage (Rabi Season)

*Detailed report: Page 114 to 125

The JalTara Vision:

To Solve India's Groundwater Crisis in the Next 5 Years



15 Trillion
litres of groundwater
to be recharged
across India

5,00,00,000
Recharge Structures

To be Built in
1,00,000 Villages

In 5 Years

Water Conservation across 8 States

The Art of Living is actively rejuvenating rivers, tributaries, streams, and other water bodies; constructing recharge structures and planting trees across the length and breadth of India. These efforts, along with various other initiatives, are aimed at making the nation water +ve and improving the lives of millions.

Overview of Water Conservation in Karnataka

14+
Rivers/Streams
Being Rejuvenated

41,900+
Recharge
Structures Built

1,15,000+
Cubic Metres Desilted

1,55,000+
Trees Planted

13,000+
Villages Benefitted

18
Districts

Scan to watch

Kumudvathi River

460+
Sq. Km Catchment
Area Covered

2,500+
Recharge
Structures Built

86,000+
Trees Planted

200+
Villages Covered

1,90,000+
People Benefitted

Kumudvathi watershed is located on the left bank of the river Cauvery. The catchment area of Kumudvathi is declared as overexploited. A thorough study was made to uncover the reasons for the degradation of the river. Work on the entire ecosystem began to restore the dried-up river, where different types of recharge structures were constructed along with extensive afforestation.

Scan to watch

Vedavathi River

5,400+
Sq. Km Catchment Area Covered

17,200+
Recharge Structures Built

12,000+
Trees Planted

1,200+
Villages Covered

91,98,300+
People Benefitted

Vedavathi river, a tributary to Krishna river, which originates in the Western Ghats near the Trilangeshwar temple in the Hoskote Village of Lakya Hobli, had run dry since two decades. The major causes for drying rivers were deforestation, eucalyptus plantations, soil erosion and siltation. To revive the complete ecosystem, different recharge structures were constructed along with exclusive afforestation.

Palar River

2,400+
Sq. Km Catchment Area Covered

700+
Recharge Structures Built

40,000+
Trees Planted

250+
Villages Covered

4,25,700+
People Benefitted

Palar river originates from Karnataka near Kaiwara, flows through Andhra Pradesh and Tamil Nadu and joins the Bay of Bengal. The total basin area is 17,970 sq.km of which 15% is in Karnataka, 27% in Andhra Pradesh and 58% in Tamil Nadu. The cause of river degradation was analysed in detail. Work on the entire ecosystem began to restore the dried-up river. Trees were planted and other recharge systems were constructed.

Overview of Water Conservation in Tamil Nadu

25
Rivers/Streams Being Rejuvenated

6,500+
Recharge Structures Built

4,84,000+
Lives Impacted

2,50,000+
Trees Planted

1,400+
Villages Benefitted

18,000+
Sq. Km Catchment Area Covered

Scan to watch

Naganadhi River

44,000+
Women Revived Naganadhi and Other Rivers

500+
Recharge Wells Built

1,000+
Boulder Checks Built

360+
Sq. Km Catchment Area Covered

3+
Years: Continuous River Flow

Naganadhi, which was dry for the last two decades, has been revived now. The rejuvenation of Naganadhi is a story of the transformation, determination, and hard work of 44,000 rural women. Due to their efforts Naganadhi has been flowing continuously for more than 3 years. It was a matter of pride for the women when the Prime Minister appreciated their work for the third time in his talk “Mann Ki Baat”.

Scan to watch

Overview of Water Conservation in Uttar Pradesh

11,600+
People Attended Water Literacy Programmes

400+
Recharge Shafts Built in 105 Ponds

200+
Villages Benefitted

3
Rivers/Streams Being Rejuvenated

1
Subsurface Dyke

Scan to watch

Kosi River

To revive the Kosi river and its tributaries, we conducted a thorough investigation of the situation, analyzing surface and water levels, and reasons for the inefficiency of existing structures. We devised an innovative solution, the Subsurface Dyke, to convert floodwater and post-monsoon base flow into groundwater. After constructing the subsurface dyke on the Kosi river in U.P. and recharge shafts in ponds, groundwater status in 2 blocks improved significantly. Chamraua progressed from 'critical' to 'semi-critical', and Saidnagar improved from 'semi-critical' to 'safe', as per the Central Ground Water Board's 2022 report.

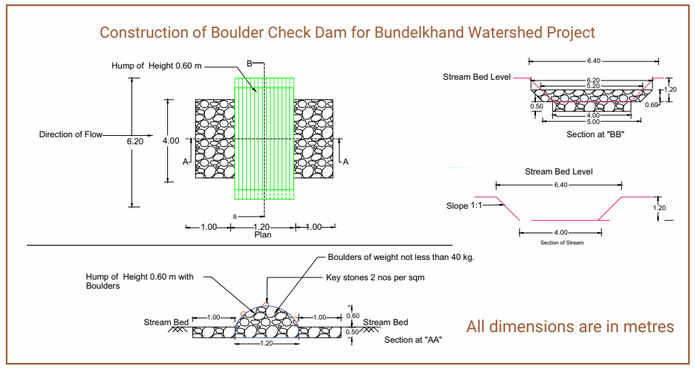
Bundelkhand

42.82
Sq. Km Catchment Area to be Treated

7,000+
Lives Impacted

110+
Recharge Structures Built

Lalitpur Watershed Project, Gobind Sagar Catchment, Lalitpur, U.P.



Overview of Water Conservation in Maharashtra

33+
Rivers/Streams Being Rejuvenated

57,000+
Recharge Structures Built

22,75,000+
People Benefitted

7,28,900+
Trees Planted

2,90,64,600+
Cubic Metres Desilted

27
Districts

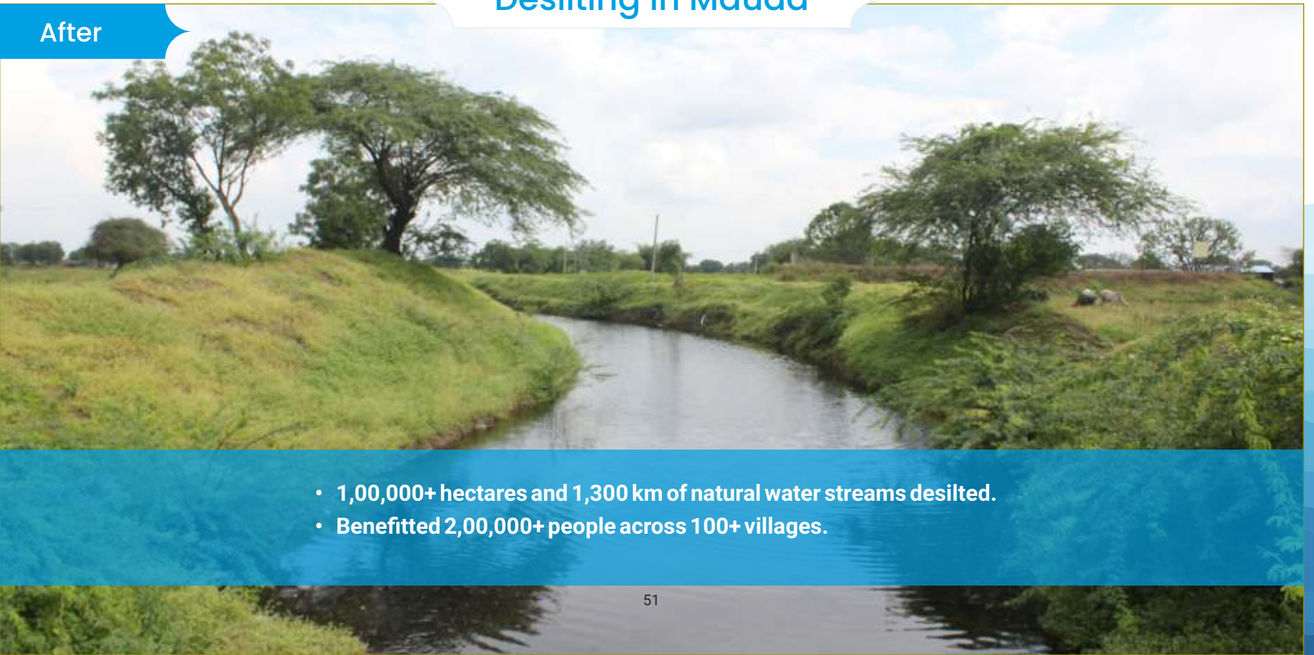
940+
Sq. Km Influenced

Scan to watch

Before

Desilting in Mauda

After



- 1,00,000+ hectares and 1,300 km of natural water streams desilted.
- Benefitted 2,00,000+ people across 100+ villages.

Groundwater Recharge through Desilting in MH

1,350+
Km Desilted

300+
Villages Benefitted

4,25,000+
People Benefitted

39%
Increase in Crop Productivity

68%
Increase in Farmer Income

18%
Increase in Land Usage

3.25%
Increase in Labour Employment

3
Metres Rise in Groundwater Table in Wells

*Detailed report: Page 105 to 113

Groundwater Recharge through Desilting in MH

- Amravati: 49 Km - 7,10,000 CBM
- Ahmednagar: 55 Km - 8,20,000 CBM
- Akola: 26 Km - 3,97,000 CBM
- Beed: 16 Km - 2,62,000 CBM
- Buldhana: 52 Km - 8,34,000 CBM
- Chandrapur: 2 Km - 28,000 CBM
- Hingna: 100 Km - 14,00,000 CBM
- Jalna: 100 Km - 14,00,000 CBM
- Jalgaon: 40 Km - 5,60,000 CBM
- Latur: 218 Km - 1,24,92,668 CBM
- Nandurbar: 79 Km - 11,18,000 CBM
- Nagpur Mauda/Kamtee: 354 Km - 49,75,000 CBM
- Nashik: 25 Km - 3,50,000 CBM
- Osmanabad: 50 Km - 7,00,000 CBM
- Pune: 40 Km - 5,60,000 CBM
- Solapur: 19 Km - 2,71,000 CBM
- Wardha Arvi: 125 Km - 17,75,000 CBM
- Washim Mangrulpir:13 Km - 1,82,000 CBM
- Yavatmal: 20 Km - 2,30,000 CBM

Total 1,383 Km - 2,90,64,668 CBM

Andhra Pradesh

The Andhra Pradesh River Rejuvenation Project addresses declining rivers and groundwater in India due to deforestation, soil erosion, overexploitation, and erratic rainfall. It implements Managed Aquifer Recharge (MAR) to reduce vulnerability to climate change. Collaboration with State Panchayat Raj departments and the use of MGNREGA aid in implementing recharge structures. The MOU signed between the Commissioner of Panchayat Raj and Rural Development and The Art of Living reflects government support.

The revised MOU focuses on Cuddapah and Anantapur districts, covering their entire river basins. The Panchayat Raj and Rural Development Department has accepted the provided training materials. Phase 1 training is completed in Kadapa district, with Anantapur's schedule awaited. Immediate work will start in Muddanur Mandal of Kadapa district for ground truthing and construction of 1000 structures, with 400 already completed.

Rajasthan

The groundwater condition in Rajasthan has become a matter of serious concern. Due to the excessive use of groundwater for agriculture and other consumptive uses, the groundwater level is retreating at a fast pace in the whole state. This depletion is happening despite average to low annual rainfall; natural streams; and a few perennial rivers with many tributaries flowing through Rajasthan. Our team has made a thorough study of the geography and water position of the state and presented a solution to the Soil & Water Conservation Department.

Our groundwater recharge plans as well as our awareness programmes have been approved. We hope to start work in 5 districts very soon. In addition to our association with government agencies, we are also engaged in talks with the army for the water management and beautification of the whole cantonment area in Jaipur. Work on this will begin shortly.

Haryana

Haryana Despite the region's high annual rainfall, presence of natural streams, and two major perennial rivers with numerous tributaries, the groundwater situation in Haryana remains a cause for concern. In addition, the state experiences significant flooding in various areas during the rainy season, exacerbating the issue further. Our team has thoroughly studied Haryana's geography and water resources and has approached the authorities to implement groundwater recharge measures and awareness programmes.

We are pleased to report that our proposal to the offices of the Chief Minister of Haryana has been positively received, indicating a willingness to address the problem.Implementation of this project will commence soon.

Punjab

According to the current GWA report, the groundwater situation in 85% of Punjab is rapidly deteriorating due to excessive agricultural and consumptive extraction. Despite abundant rainfall, streams, and perennial rivers, groundwater levels continue to decline; compounded by poor quality. Flooding during the rainy season further exacerbates the challenges. Our team conducted an extensive study and presented a comprehensive plan to the Soil & Water Conservation Department and Water Resources Authority. The response has been positive, indicating a commitment to address the issue. Memorandums of Understanding have been executed with a couple of CSR partners for capacity building and pond restoration.

Currently, work is ongoing to restore two ponds in Nabha and Rajpura tehsils that have been contaminated with sewage over the years. Two sewage treatment plants are being set up near both ponds, to provide cost-effective and natural sewage treatment. The treated water will be made available for agricultural purposes. It is hoped that these two ponds along with several other ponds that will be restored by The Art of Living will serve as models, inspiring the restoration of the 20,000 ponds scattered across Punjab.

Success Stories: Echoes of Triumph

With the blessings of
Gurudev Sri Sri Ravi Shankar, the "Nala Jodo Abhiyan" initiative was started in two districts of Nagpur, Maharashtra. Under The Art of Living's supervision and collaboration with the Maharashtra Government, all the nalas were connected.The benefit of this is that no crop flows away during floods.All the drains get water now .
10,000 acres of agricultural land have been irrigated, and people are taking two crops. The design of Nala Jodo Abhiyan, created by
The Art of Living, has been accomplished in our district.

Shri Chandrashekhar Bawankule
Bharatiya Janata Party,
State President, Maharashtra

Scan to watch

Dr. Satyagopal praises the Naganadhi River Rejuvenation Project in Tamil Nadu, funded by the government and implemented with the help of The Art of Living. This multi-stakeholder initiative, integrating MGNREGS, showcases sustainable development through community involvement. The Art of Living's role, particularly in mobilising women, is crucial for project sustainability. The project achieves its goal of restoring natural water flow and enhancing agricultural activities in the Naganadhi watershed.

Dr. K.Satyagopal IAS Rtd
Honourable Expert Member National Green Tribunal Southern Zone
Former Additional Chief Secretary/Commissioner Revenue Administration
& Former Chairman & Managing Director, TAMILNADU WATER RESOURCES CONSERVATION & RIVERS RESTORATION CORPORATION

Scan to watch

Earlier in Nisatkheda, the water supply was minimal due to construction and developmental work. The Art of Living team sent a proposal to address this issue, and we began working. The Art of Living has a team of experts who work passionately and enthusiastically.

There was no technical error as they took care of minor things like slope management. They made sure that water did not overflow onto anybody's farm. It was a great experience, and I would also like to work with them in the future.

Akshata Vyas
CSR Lead at Persistent Ltd, Nagpur, MH

Scan to watch

There was a lot of mud on my farm. Construction of The Art of Living JalTara Recharge Structures absorbed excess water from my farm, which has increased crop production. Earlier, I hardly reaped a single bag of grain, but now my godown is full. The water level in my well has also increased, which allowed me to farm both Rabi and Kharif crops. I can now sow wheat, chana and soybean too.

Sulabai Chavhal
Farmer, Jalna District, Maharashtra

Scan to watch

Due to water scarcity in 2018-19, our crops were damaged. When The Art of Living started the "Nala Kholikan Project" in our village, problems related to irrigation supply were reduced.We had enough water for drinking, and we also noticed a rise in the water levels of our wells.

Yogesh
Farmer, Mauda, Maharashtra

Scan to watch

Community mobilisation by The Art of Living helped unite villagers in Satara who then worked together to carry out crucial water conservation projects in drought hit Satara. Deep CCT work increased water levels in rivers, crops are now being cultivated in the scorching heat of summer. 66 villages in the area became tanker free. Dahiwadi is able to manage its scanty rainfall so that 25,00,00,000 litres of water can now be stored.

Pushpanjali Nagar
Bidal Village, Satara, Maharashtra

Scan to watch

A population of 3,000 had to manage with only one barrel of water per week. This prompted The Art of Living to carry out water conservation projects involving desilting of water bodies, construction of water dams and similar water conservation projects in 39 villages - of which work in 21 villages has been completed. After the first rains in 2019, canals, water bodies and dams got filled. Drinking water problems disappeared. Agricultural output was boosted.

Ramchandra Mandale
Farmer, Shirur, Maharashtra

Scan to watch

Partnerships:
Uniting Strengths for Shared Success

September 2024

Creating lasting change with Ashirwad by Aliaxis

The Art of Living, in partnership with Ashirwad by Aliaxis, is leading the way toward an eco-friendly future through meaningful initiatives in water conservation, women empowerment and afforestation.

February 2024

Collaboration with MH Govt. for JalTara Project

The Art of Living, in collaboration with the Government of Maharashtra, is implementing the JalTara project to conserve water across all districts.

Scan to read

MOU with WIPRO: JalTara Recharge Structures in KA

An MOU was signed in Bengaluru with WIPRO Enterprises Pvt. Ltd. to create 500 JalTara Recharge structures in Kesaramadu Gram Panchayat of Tumkur Taluka, Karnataka. This initiative incorporates capacity building and community mobilisation to facilitate rainwater bypassing dense impervious topsoil in order to recharge groundwater.

Scan to read

MOU with IIT Madras for Water Conservation Project

The MOU signed in the presence of Gurudev Sri Sri Ravi Shankar involves The Art of Living leading nationwide water conservation and groundwater recharge projects, while IITM offers advisory services, technology solutions, GIS surveys, impact assessments, and DPR preparation for groundwater recharge projects as required.

Scan to read

January 2024

CKS MOU to Showcase Indian Innovation Globally

The MOU with The Centre for Knowledge Sovereignty (CKS) will spotlight India's innovative policy-making and technologies globally. This collaboration emphasises knowledge exchange in education, research, and technology, with a focus on joint initiatives like workshops and seminars. The shared goal is to showcase India's excellence on the global stage, particularly in waste management and environmental protection.

Scan to read

November 2023

MOU with MH Govt. for Jalyukt Shivar Abhiyan 2.0

An MOU was signed with the Government of Maharashtra (GOM) in Mumbai, with Gurudev Sri Sri Ravi Shankar present, for the Jalyukt Shivar Abhiyan 2.0 project. The initiative aims to ensure water conservation across 24 districts and 86 Talukas, striving to make Maharashtra a drought-free state.

Scan to read

November 2023

MOU with Madhav KRG for Water Conservation

The partnership will focus on groundwater recharge, river rejuvenation and village pond rehabilitation in the state of Punjab under "Project Virasat".

Scan to read

August 2023

MOU with CTI for Tamil Nadu Groundwater Projects

An MOU was signed with COODU TRUST OF INDIA (CTI) to collaborate on groundwater recharge projects in Tamil Nadu. Activities such as field surveys, project planning, social mobilisation, capacity building, fund mobilisation, execution of engineering structures, monitoring and evaluation, documentation, and project sustainability will be shared.

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU") is made on this 28th day of August 2023 at Bangalore, Karnataka.

Between

M/s Coodu Trust India is a trust incorporated in the year 2000, under the provisions of the Indian Trust Act 1882, having its registered and head office at H-83, R.M. Colony, Dindigul-624001, Tamil Nadu, India (hereinafter referred to as the "CTI" which expression, unless it is repugnant to the context or meaning thereof, shall be deemed to mean and include its successors in interest and permitted assigns) of the FIRST PART;

For COODU TRUST

Director

And

Vyakti Vikas Kendra India, a Public Education and Charitable Trust and registered under Indian Trust Act 1882, having its office at The Art of Living International Center, 21st Km, Kanakapura Road, Udayapura, Bengaluru, India- 560082 (hereinafter referred to as the "**VVKI**" which expression, unless it is repugnant to the context or meaning thereof, shall be deemed to mean and include its successors in interest and permitted assigns) of the SECOND PART.

The trust and the Social Organization are hereinafter individually referred to as a "Party" and collectively as the "Parties".

WHEREAS

A. CTI, as part of its various development activities, undertakes community organization, capacity building, research, monitoring & evaluation and documentation of various development issues. They have implemented projects in Watershed Development, Women Development, Self Help Groups (SHGs), Micro-Credits, Agriculture and Organic farming, Health, and Skill Development over two decades. CTI has been appointed as the Field Agency for the State of Tamil Nadu by National Water Mission under Ministry of Jal Shakthi to foster sustainable water conservation and Water rejuvenation activities.

B. VVKI as part of its charitable activities has been engaged in implementing various social service projects, particularly river rejuvenation and water conservation activities in various districts of Tamil Nadu

The Coodu Trust India is desirous of partnering with VVKI to meet its Objectives on societal needs with Water conservation and sustainability activities

The parties are desirous of entering into an MOU / Agreement to set out terms and conditions there in.

1. CTI and VVKI will engage in active collaboration in all activities associated with conservation of water through restoration, recharge and rejuvenation of streams and other water bodies based on scientific planning, community participation and institutional support. They will work together and involve themselves for undertaking activities and programmes in the following domain areas across the State of Tamil Nadu

For COODU TRUST

Director

MOU with Madhav KRG Group for Capacity Building

An MOU was signed under 'Project Virasat' in Punjab, aiming to provide 'Capacity Building Training' to over 11,000 youths.

Scan to read

MOU with IUCN for Various Initiatives

An MOU was signed between Shri Yash Veer Bhatnagar, Country Representative, International Union for Conservation of Nature & Natural Resources (IUCN) and The Art of Living Social Projects for potential collaboration in water conservation, afforestation, soil conservation, waste management & making 1,000 villages carbon neutral.

Scan to read

Extension of Antarjala Chetana Yojana, Karnataka

The partnership with the Rural Development Commissionerate, RDPR Department, and the Government of Karnataka under the 'Antarjala Chetana Programme' signed in June 2020 has been extended for three years. This MOU focuses on capacity building and constructing JalTara Recharge Structures to address the nationwide water crisis and promote water positivity in India.

Scan to read

MOU with National Water Mission for Groundwater

This MOU tackles India's groundwater crisis and promotes sustainable water management. It will sensitise stakeholders and communities on the conservation of water and also help initiate action plans for water recharge structures.

Scan to read

April 2023

Partnership with AquaKraft for +ve Water Balance

The partnership between The Art of Living and AquaKraft aims to make India Water +ve by 2030, leveraging sustainable drinking water and sanitation technologies, alongside the expertise of The Art of Living. This collaborative effort integrates stakeholders inclusively for water balance, accounting, and sustainability.

Scan to read

March 2023

Aakhri Boond Bhoomi Jal Mission

In the presence of Gurudev Sri Sri Ravi Shankar, Shri Manohar Lal Khattar, Chief Minister of Haryana, announced the 'Aakhri Boond Bhoomi Jal Mission.' As part of this mission, The Art of Living introduced JalTara, an initiative focused on water conservation. Gurudev confirmed that their team is fully prepared to initiate the project in Haryana, which involves the construction of check dams and recharge structures to elevate groundwater levels in rural areas.

Scan to read

February 2023

River Rejuvenation Work Commences in AP

An MOU was signed with the Commissioner, Panchayat Raj and Rural Development, Government of Andhra Pradesh to start river rejuvenation work in Penna and Papagni river basins located in the Cuddapah and Anantapur districts of Andhra Pradesh. The work of river rejuvenation is now in progress.

Scan to read

October 2022

Partnership with National Mission for Clean Ganga

An MOU was signed with the National Mission for Clean Ganga (NMCG) to conduct diverse activities aimed at ecological and cultural conservation. Cleaning the Ganga is an ongoing process, with the NMCG implementing various projects to conserve and rejuvenate the river Ganga and its tributaries.

Scan to read

September 2022

MOU with HAL, Lalitpur to Recharge Groundwater

The collaboration between The Art of Living and Hindustan Aeronautics Limited (HAL) marks a significant step towards sustainable development in Lalitpur district, Uttar Pradesh. Through innovative techniques, such as groundwater recharge, the project aims to replenish vital water resources in the arid Bundelkhand region, enhancing community well-being and fostering environmental resilience.

Scan to read

Events:
Dynamic Gatherings for Change

Participation in ‘Vande Jalam Mahaabhiyan'

Prasana Prabhu, Chairman, Vyakti Vikas Kendra India (The Art of Living) attended the 'Vande Jalam Mahaabhiyan' in Indore, an initiative for water conservation. Kanh and Saraswati rivers will be revived in collaboration with the government.

Scan to read

Kisan Samruddhi Mahotsav 2.0

The Kisan Samruddhi Mahotsav 2.0, held at the Art of Living International Center in Bengaluru on February 13th and 14th, 2024, brought together over a thousand farmers from Maharashtra villages for a transformative experience. Notably, these farmers, experiencing air travel for the first time, covered their own expenses, proving their commitment to agricultural advancement and their eagerness to embrace new opportunities for growth.

Scan to read

February 2024

SMX CSR Leadership Summit and Awards 3.0

The SMX CSR Leadership Summit and Awards 3.0 took place at the Art of Living International Center in Bengaluru on 15th February 2024. This event gathered senior corporate decision-makers, CSR professionals, implementing agencies, NGOs, and policymakers to celebrate achievements, share insights, and discuss best practices. It also provided networking opportunities for CSR professionals.

Scan to read

January 2024

Hon. Central Minister Visits Naganadhi

Central Minister and former Army Chief General V.K. Singh visited Naganadhi village in Tamil Nadu, highlighting the government's commitment to grassroots engagement. His presence fostered solidarity and hope, leaving a lasting impact on the community.

Scan to read

Celebrating 3+ Years of Naganadhi's Revival

'3+ Years of Naganadhi River August 2024' This event was conducted to celebrate The Art of Living's crowning achievement: the successful rejuvenation and culmination of the 730 day journey of the Naganadhi River, which had remained dry for decades. The saga of Naganadhi's revitalisation speaks of transformation, resilience, and the tireless efforts of 44,000 rural women. As of August 2024, Naganadhi has flowed continuously for over three years, bringing invaluable benefits to the surrounding villages.

Launch of The Art of Living JalTara Phase 2

The Art of Living celebrated the success of Jaltara Phase 1 and the launch of Phase 2 in Watur, Jalna District, with 30,000 farmers from Maharashtra. The JalTara Project increased groundwater levels by 14 ft, boosted crop yield by 42%, and doubled farmer income by 120% within a year. It also resolved drought and waterlogging issues, eliminated crop spoilage by 100%, increased land usage by 58% and employment by 88%. The Hon. CM of Maharashtra, Shri. Eknath Shinde commented, "JalTara is a major relief project for the farmers of Jalna district. The Government will take this initiative forward, it will certainly be part of Jalyukt Shivar Abhiyaan 2.0."

January 2023

National Symposium on Riverine Ecosystem

National Symposium on Resilient Riverine Ecosystems was conducted by The Art of Living Social Projects Team in collaboration with the Ministry of Jal Shakti, Chanakya University, IIM Bengaluru, University of Agricultural and Horticultural Sciences at The Art of Living International Center. The event brought together ISRO scientists; geologists; professors from IIM; and NLIU Vice Chancellor Chanakya University; the Director, The National Institute of Hydrology; and the former Chief General of NABARD. Indigenous knowledge and modern approaches to address issues like access to clean drinking water, pollution, preserving wetlands, and combating climate change was shared.

Scan to read

November 2022

Tree Plantation along Naganadhi River

The Art of Living Social Projects Team has received official recognition from the World Records Union for sowing 2,50,100 seeds along the banks of the Naganadhi River in the Vellore District of Tamil Nadu.

Scan to read

Kisan Samruddhi Mahotsav

A 3-day event was organised at The Art of Living International Center for farmers across India who benefitted from The Art of Living's Water Conservation Work. This training programme provided a platform for farmers to become self-reliant, optimise crop production and participate in the global market.

1,200+ farmers gathered to express their gratitude to Gurudev Sri Sri Ravi Shankar
355 Farmers from Nagpur's Mauda Tehsil paid for their own flights to attend the event

Scan to read

Awards:
Celebrating Excellence

October 2024

Honoured at 5th National Water Awards 2023

The Art of Living wins an Award in the Best Civil Society Category at the 5th National Water Awards (NWA), 2023 announced by The Department of Water Resources, River Development, and Ganga Rejuvenation (DoWR, RD & GR), under the Ministry of Jal Shakti.

June 2024

Best CSR Impact Award for JalTara

The Art of Living received Best CSR Impact Award for the JalTara Project at the NGI CSR Summit in Hyderabad on June 21. Prasana Prabhu, Chariman, Vyakti Vikas Kendra India (The Art of Living) highlighted the significant environmental and social contributions made by The Art of Living and shared future plans for making India water +ve.

June 2024

NGO of the Year for Water Conservation

The Art of Living won Best NGO of the Year (2024) for water conservation at the Global CSR & ESG Awards 2024 on June 29th. Prasana Prabhu, Chairman, Vyakti Vikas Kendra India (The Art of Living) highlighted the collective efforts behind this achievement and reaffirmed the organisation's commitment to making India water positive.

January 2024

Recognised for Naganadhi River Rejuvenation Efforts

The Art of Living Social Projects Tamil Nadu State Director for River Rejuvenation projects Shri Chandrashekar Kuppan was invited by Prime Minister Shri Narendra Modi's Mann Ki Baat team to participate in the 75th Republic Day Parade in New Delhi. This recognition underscores efforts made in restoring the flow of River Naganadhi in Vellore District.

THE MINISTRY OF DEFENCE

requests the pleasure of the presence of

Dr. & Smt. K. Chandrasenkhasan

at the

75th Republic Day Parade

On Friday, the 26th January, 2024 (6 Magha, 1945) at 10:30 a.m.

on Kartavya Path, New Delhi

The President will take the salute.

SPECIAL INVITATION

R.S.V.P :
Under Secretary (Ceremonials)
Tel. No. : 2301 6547, 2301 2904

Not Transferable.
Please bring this card with you and follow the enclosed instructions.
(Please be seated by 7:00 a.m. Seating will be on "First come first occupy" basis)

December 2023

NGO of the Year for Water Conservation

The Art of Living received the NGO of the Year Award for Water Conservation at the SMX CSR Change Maker Summit & Awards 2.0 in Mumbai on 1st December 2023. This recognition highlights the organisation's dedication to addressing critical water issues and its significant strides in protecting this precious resource,reflecting efforts toward a sustainable future.

Scan to read

November 2023

Sustainable Development Award for Social Projects

The US India SME Council has honoured The Art of Living Social Projects for its exceptional contributions to sustainable development. This recognition celebrates the team's dedication to fostering a more sustainable future. The award ceremony occurred on 2 November, 2023, in Mumbai.

Scan to read

July 2023

Union Minister Shri Shekhawat at Capital Dialogue

In December 2019, iTV Network launched the Aakhri Boond initiative, inaugurated by Hon'ble Minister Shri Gajendra Shekhawat and Gurudev Sri Sri Ravi Shankar at the Art of Living Ashram in Bengaluru. The session recognised the progress made in the last four years by key partners, with the Union Minister for Jal Shakti awarding Prasana Prabhu, Chairman, Vyakti Vikas Kendra India (The Art of Living) Jaltara project.

Scan to read

May 2023

'Mann Ki Baat - 100th Episode'

Shri Chandrashekhar Kuppan, Director of The Art of Living River Rejuvenation Projects, was honoured with the prestigious Ponnadai (Golden Shawl) Award for his role in revitalising rivers like Naganadhi. The award not only recognises his efforts but also celebrates the 44,000 women inspired by The Art of Living's initiatives in Vellore District. This marks the third acknowledgment by the Prime Minister, this time during the 100th episode of 'Mann Ki Baat.' 23 rivers and streams were successfully revived - initially with 20,000 women, an additional 24,000 were inspired to join later.

Scan to watch

Recognised for Mobilisation and River Rejuvenation

The Government of Karnataka, Department of Rural Development and Panchayat Raj under the Mahatma Gandhi National Rural Employment Guarantee Scheme honoured The Art of Living with an award for commendable mobilisation and river rejuvenation efforts. The organisation's technical proficiency, effective mobilisation of people, and innovative approach to reviving dried-up rivers have been duly recognised.

March 2023

Jal Prahari Samman Samaroh

The Art of Living's water conservation and river rejuvenation work and the support given by the Ministry of Jal Shakti, Department of Water Resources was honoured at the Jal Prahari Samman Samaroh 2023. The exceptional effort in rejuvenating 70 rivers has addressed the water shortage problem for thousands of farmers and helped them increase their income.

September 2022

Rampur Water Conservation Award

The Ministry of Jal Shakti and the Ministry of Rural Development recognised The Art of Living's water conservation work in Rampur for practising innovative and cost-effective methods to turn flood water into groundwater.

March 2022

Excellence in Participatory Water Management

The Water Sustainability Award 2021-22 was presented to NTPC Limited, Mauda; and The Art of Living for facilitating the participation of communities in water management towards the achievement of the sustainable development goal on clean water and sanitation by UNDP, Water Resources and The Energy and Resources Institute (TERI), New Delhi.

Third Party Impact Assessment Report

GIST IMPACT

Stakeholder Impact Assessment for the

RIVER REJUVENATION PROGRAMME

Mauda, Nagpur, Maharashtra

November 2022 | GIST Impact

Scan to read more

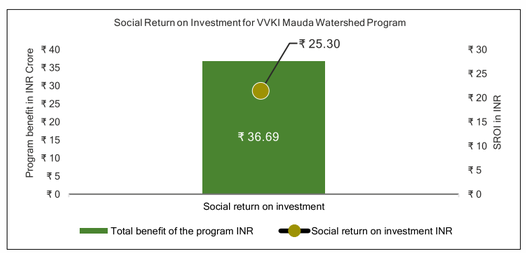
Executive Summary

This assessment has been driven by VVKI's desire to evaluate the benefits generated by the watershed program to the local community at Mauda tehsil. The scope of this impact assessment centered on the positive impact generated by the watershed in terms of social and natural aspects for the first year. The assessment is evaluated for 10% of the sample size i.e. 7 villages (namely Nimkheda, Nandapuri, Paradikala, Metshiwadouli, Virshi, Nishethkkheda, Ghotmundari) that were selected through random sampling for primary data collection. GIST has assessed the stakeholder impact generated by the construction of the watershed structure (nullah) of 290 Km covering 70 villages in Mauda Tehsil of Nagpur district by
VVKI (The Art of Living). The constructed watershed structure intends to percolate the stored water to a 500 metre distance on either side of the nullah.

The watershed program's impact evaluation results show that VVKI's intervention generates a high economic value due to:

- The marginal gains in farm productivity
- The economic cost of water recharge
- Avoided water tanker costs
- Avoided damage from disaster (flood and drought)
- Avoided pollution cost of fertiliser use

Social Return on Investment (SROI)
The impact assessment result shows a Social Return on Investment worth INR 25.30 on each invested rupee. A high SROI* value is generated due to major benefits generated from crop productivity and a rise in the water table.



Source: GIST Impact (2022)

*The SROI cannot be 100% attributable to the reference program intervention, as multiple ecological andanthropogenic factors could contribute to the same (which is beyond the scope of the current assessment).

Result Overview

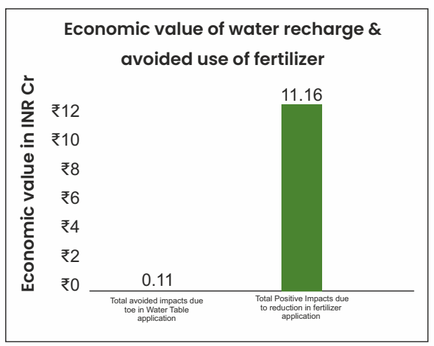
Total benefit generated by Mauda Watershed Program (in INR Cr)	
Individual Driver	**Impact Generated**
Farm Profit	25.42
Avoided Water Tanker Cost	0.02
Water Recharge	11.16
Avoided Pollution from Fertiliser Use	0.11
Avoided Crop Loss from Waterlogging/Drought*	7.19
Total Program Benefit	36.69
SROI *Total Economic benefit from farm profit i.e., INR 25.42 Cr includes monetary benefits of avoided crop loss i.e., INR 7.19 Cr	25.30

Source: GIST Impact (2022)

Natural Capital

The Natural Capital impact evaluation elucidates that watershed development in Mauda Tehsil created an overall positive environmental impact. The GHG (Greenhouse gases) emissions and water pollution were drastically reduced producing a positive impact worth INR 5.4 Lakhs per hectare because of the rise in the water table. Furthermore, INR 973 per hectare was produced as a result of the limited use of fertilisers. Total natural capital impact comprises a positive impact generated through a rise in the water table and avoided use of fertiliser leading to the reduction in air & water pollution. The rise in the water table contributed significantly (INR 11.16 Cr.) followed by economic impact generated via avoided pollution by the use of fertilisers (INR 11.17 lakh).

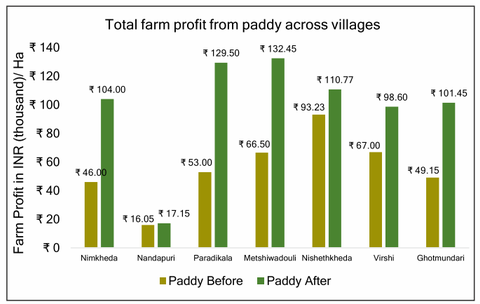
This has led to the economic cost of water recharge; we estimated the benefits such as:
(i) Avoided negative health impact of malnutrition
(ii) Avoided increase in the incidence of infectious diseases
(iii) Avoided negative impact of energy consumption.
The avoided use of fertilizers has led to avoided water pollution due to leached nitrogen and phosphorus which has resulted in **(i) A reduction in GHG emissions due to fertilizer usage and (ii) Avoided process emissions.**
Furthermore, the avoided process emission has resulted in (i) a reduction in GHG emissions during wastewater treatment and (ii) a reduction in GHG emissions, air, water, and land pollution due to less electricity consumption.



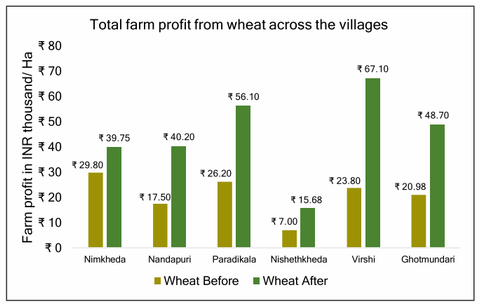
Source: GIST Impact (2022)

Social Capital Impact

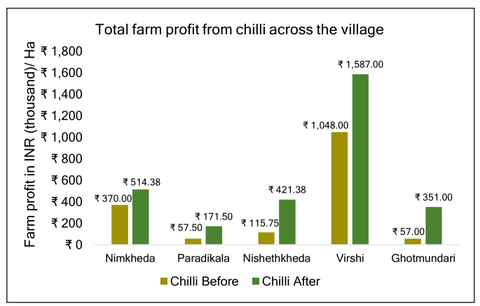
Under the social capital assessment, it is observed that the program has positively impacted Mauda Tehsil. These impacts were visible through increased farm profits that are estimated to be 25.41 Cr. For farm profit, we have estimated the benefits such as (i) Increased farm productivity due to enhanced crop productivity and (ii) Reduced agricultural input cost. Chilli as a cash crop has high farm profit due to (i) Multiple harvesting (ii) Optimal market price (iii) Mix cropping pattern (iii) Perennial Crop.



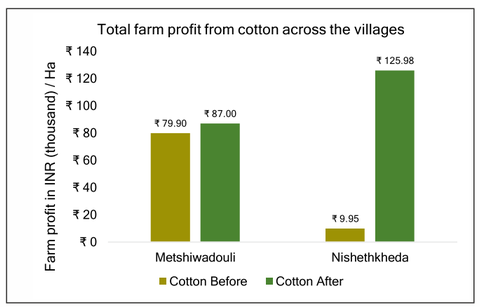
Note: Farm profit for paddy has grown after the intervention for all the villages varying from a minimum of 7% for Nandapuri to a maximum of 144% for Paradikala.



Note: Farm profit for wheat has grown after the intervention for all the villages varying from a minimum of 33% for Nimkheda to a maximum of 182% for Virshi

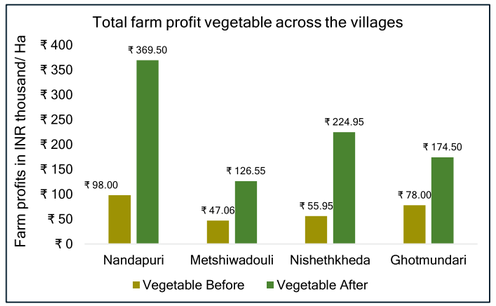


Note: Farm profit for Chili has grown after the intervention for all the villages varying from a minimum of 39% for Nimkheda to a maximum of 515% for Ghotmundari.

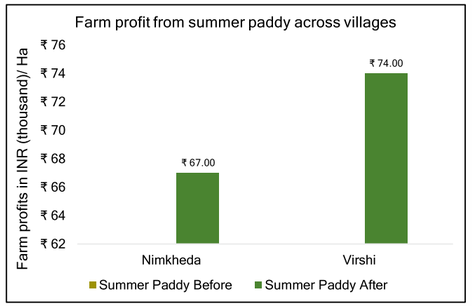


Note: Cotton is grown in 2 villages, Nishethkheda farm profit has shown a significant increase after the intervention due to the high market price of cotton.

Social Capital: Results



Note: Farm profit for vegetables has grown for all the villages varying from a minimum of 123% for Ghotmundari to a maximum of 307% for Nishethkheda.

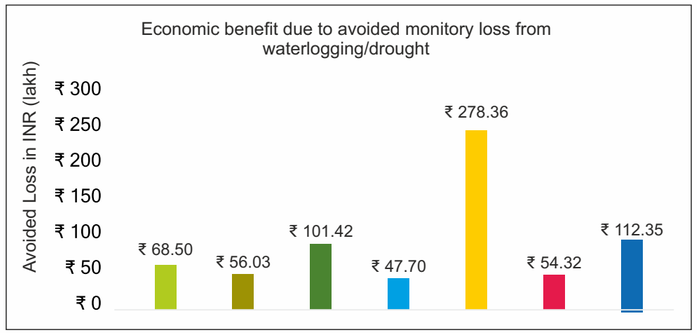


Note: Summer paddy is grown in Nimkheda & Virshi villages, which has been introduced after the intervention considering the increased water availability

Source: GIST Impact (2022)

Economic Benefit from Avoided Crop Loss

Avoided damage through disasters is estimated to be 7.16 Cr. By avoiding waterlogging and drought, the estimated benefits were **(I) An increase in annual farm productivity and (ii) Enhanced soil quality.** Nishethkheda has the highest avoided monetary loss considering the high cultivation area. On the contrary, Metshiwadouli and Virshi have the lowest avoided monetary loss considering less variety of crops.



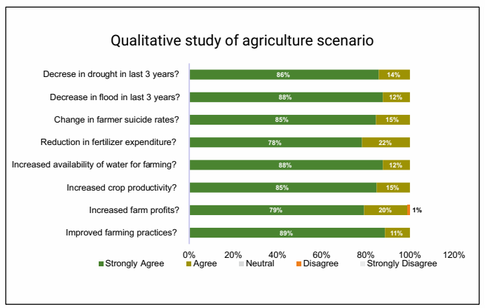
Source: GIST Impact (2022)

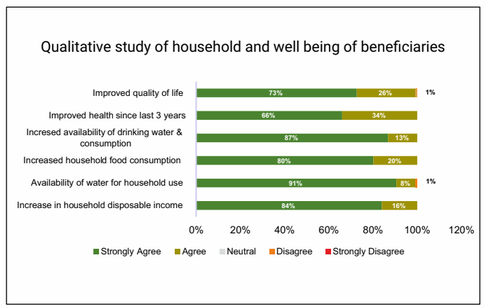
Qualitative Study

There were various components involved in the impact evaluation process that cannot be quantified to get an effective impact. Those components have been evaluated using a qualitative approach through the Likert scale which allows us to validate and substantiate quantitative numbers. As a result, this study demonstrates the following scenarios: **(i) Agricultural (ii) Household and well-being.**

The qualitative assessment shows that most beneficiaries strongly agree to a reduction in loss due to drought and waterlogging postintervention; a reduction in suicide rate due to increased farm productivity; an increase in farm productivity due to increase in water availability and improved farm practices, a reduction in fertiliser usage due better soil quality, water holding quality and increased awareness regarding sustainable farming practices and enhanced farm profit due to an increase in crop productivity and reduction of input cost in the better market price for crops.

As per the qualitative study results for household and well-being of beneficiaries, an increase in the availability of water for drinking and household use and an increase in household food consumption and household income is evident. Further, a significant number of beneficiaries raported improvements in health conditions.





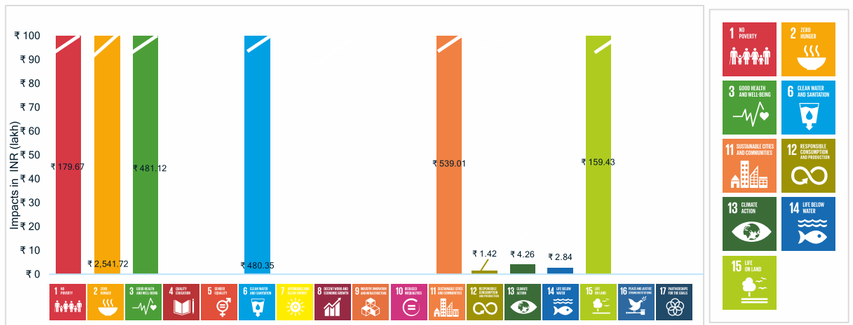
Source: GIST Impact (2022)

Sustainable Development Goals

Additionally, the report also highlights the importance of SDGs and the interlinked impact generated through achieving those targets. Under the GIST SDG impact assessment methodology, impact values are mapped at only the SDG target level. The key SDGs that are positively impacted are SDGsi 1, 2, 3,6,11,12, 13, 14, and 15. SDG 2 creates the highest positive impact whereas, SDG 12 has the lowest. The study extrapolates that the holistic nature of the intervention created a significant positive social capital and natural impact.

As a result of the tangible impact generated, intangible and long-term impacts such as reduction in loss due to drought and waterlogging post the intervention, reduction in suicide rate due to increased farm productivity, increase in farm productivity due to increase in water availability, and improved farm practices, reduction in fertiliser usage, and enhanced farm profit this led to boost in the farm profits and land under cultivation leading to a better standard of living. Multiple cropping or mixed cropping is recommended to maximize the farm benefit because of accessible water sources.

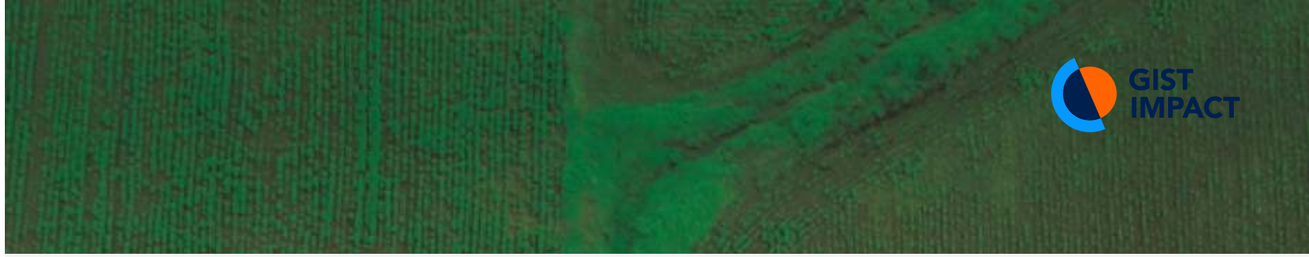
VVKI Watershed program Mauda



*As a result, a high value of impact is generated through the program, and appropriate measures have been taken to reduce the negative impacts that may or may not be a direct result of the watershed program by VVKI.

SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health and well-being), SDG 6 (Clean water and Sanitation), SDG 11(Sustainable cities and communities), SDG12(Responsible consumption and production, SDG 13 (Climate Action), SDG 14(Life below water), and SDG 15 (Life on land).

SDG 1: No Poverty (Avoided crop loss)
SDG 2: Zero Hunger (Increased farm profits)
SDG 3: Good Health & Well Being (Water recharge & Avoided water pollution)
SDG 6: Clean Water & Sanitation (Household saving & water recharge)
SDG 10: Reduced Inequalities (Additional labour requirement)
SDG 11: Sustainable Cities & Communities (Avoided crop loss)
SDG 12: Responsible Consumption & Production (Avoided water pollution)
SDG 13: Climate Action (Avoided pollution)
SDG 14: Life Below Water (Avoided pollution)
SDG 15: Life on Land (Water recharge)



GIST IMPACT

Stakeholder Impact Assessment for

THE ART OF LIVING JALTARA GROUNDWATER RECHARGE PROJECT

(Mantha, Jalna District, Maharashtra)
Impact Assessment for Pilot and Forecast Villages

December 2022 | GIST Impact

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Executive Summary

As per recent surveys, several districts in Maharashtra are facing an acute water shortage that has wreaked havoc on people, especially in the agricultural community. It was also revealed that only 37 percent of water remains in the state reservoir (Vedika Pathania, 2022). In 2019, the state administration had to dispatch the highest water tankers to arid areas (Kundu, 2021). This has led to immense pressure on rural agrarian populations, who are forced, in large numbers, to quit farming and migrate to urban areas in search of livelihoods. As a result, policymakers have strongly emphasised decentralised water management strategies for water storage to assure crop survival and assist farmers in planting a second crop during the rabi (winter) season.

The Art of Living (AOL) headed by committed professionals with years of experienc is currently engaged in developing numerous watershed projects across India. JalTara intervention in Jalna, Maharashtra is one of these projects. Mantha, one of the water-deficient Tehsils of Jalna District, has now overcome its water scarcity issues due to the groundwater Recharge Structures Project of AOL initiated in 2020. Jaltara, the groundwater recharge project was first initiated in pilot mode in 4 villages (Summer of 2021) and then replicated in 33 villages (Summer of 2022) of Mantha Tehsil. The idea behind the pilot intervention was to test the viability of the project and its scale-up prospects. A Recharge Structures was constructed on every acre of the beneficiary's land across the villages. A total of 18400*1 Recharge Structures with a dimension of 6ft*4ft*4ft have been constructed under the JalTara project.

GIST Impact has evaluated the overall programmes impact through the lens of social and natural capital on the local community. The objective of the assessment is to capture economic benefit generated due to an increase in farm productivity and annual earnings (due to farm labour requirement, animal husbandry), water recharge, reduction in crop loss and fertiliser usage, avoided water purchase, and monetary carbon savings in sample villages. Based on the evaluated values of the two pilot villages, we have also forecast the impact that could be generated as a result in the remaining villages considering 20% sample site i.e., eight villages of Mantha.
The study encapsulates the magnitude of the impact generated by AOL's JalTara Groundwater Recharge Project in terms of monetary values and an in-depth analysis of measure taken during the implementation of the programme to maximise the net impact.

1. 18,400 is the total number of recharge pits across pilot and forecast villages (1,400 pits in pilot villages and 17,000 pits in forecast villages)
2. Forecasting refers to the practice of predicting what will happen in the future by taking into consideration events in the past and present. Basically, it is a decision making tool that helps businesses cope with the impact of the future's uncertainty by examining historical data and trends.

This report has been divided into two segments, wherein the first indicates the impact assessment of the Groundwater Recharge Structures for the 4 pilot villages and the latter discusses the forecasted results for the remaining 33 villages. This exercise was conducted for eight villages based on the results and estimation of the two sample villages to showcase the picture of the overall net impact. However, the economic value of the eight sample villages has not been calculated due to data constraints, since we are yet to see the cropping results of the full annual season after the completion of the project in the Summer of 2022. Hence, only forecasted values have been extrapolated. As per our analysis of the primary data, it was observed that the intervention has brought about changes in farm profits, crop productivity, water recharge, reduction in crop loss fertiliser usage, avoided water purchase, and carbon sequestration in the two pilot villages - Meshkheda and Palashkheda. The aforementioned factors have been determined by using the Driver- outcomes and Impacts framework that provides a holistic view of the project and its impact.

Overview of Results

Total Benefits Generated by AOL JalTara: Groundwater Recharge Project (in INR Lakhs)		
Program Benefits	Program Benefits	Forecast Village
Farm Profits	90.13	608.00
Benefit from Livestock	0.55	3.00
Benefit from Increased Labor Requirement	10.72	116.00
Avoided Crop Loss from Waterlogging1	4.88	16.19
Avoided Water Tanker Cost2	0.21	3.70
Avoided Pollution from Fertiliser Use	3.98	18.64
Water Recharge	217.33	609.41
Monetary Carbon Savings3 (Forecasted)	0.08	1.79
Total Programme Benefits (Lakhs)	322.73	1359.60
SROI (INR)	19.21	30.81

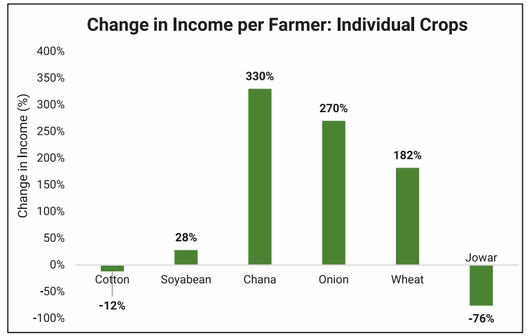
Note:
Total Economic benefit from farm profit includes monetary benefits of avoided crop loss.
The benefit of avoided water tank cost is accruing to local government bodies, hence this value is excluded from SROI calculation. The assessment considers the overall benefits generated for the farmers at the household level.
Social cost of carbon savings is excluded from SROI calculation as it is a forecasted value considering the carbon sequestration by the planted saplings in the next 20 years.

Overview of AOL JalTara: Groundwater Recharge Project

- This assessment is driven by AOL's desire to evaluate the benefits generated by the JalTara Groundwater Recharge Structures for the local communities in Mantha tehsil, Maharashtra – across two separate projects from 2021 and 2022.
- Scope of this assessment is centered on the positive impact generated by the watershed in terms of social and ecological aspects for a period of one year*.
- Pilot Project: Summer 2021
  This project was completed in the summer of 2021, the JalTara team dug ~1400 Recharge Structures across 4 villages in Mantha Tehsil, Jalna, Maharashtra. We surveyed 40 farmers from 2 villages (out of the 4) for this analysis.
- Forecast Project: Summer 2022
  This project was completed in the summer of 2022, the JalTara team dug ~17,000 Recharge Structures across 33 villages in Mantha Tehsil, Jalna, Maharashtra. We surveyed 100 farmers from 8 villages (out of the 33) for this analysis.

*The SROI cannot be 100% attributable to the reference program intervention, as multiple ecological and anthropogenic factors could contribute to the same (beyond the current assessment's scope).
*Reference year is the 1st year of the project initiation.

Farmer Income: More Than Doubled

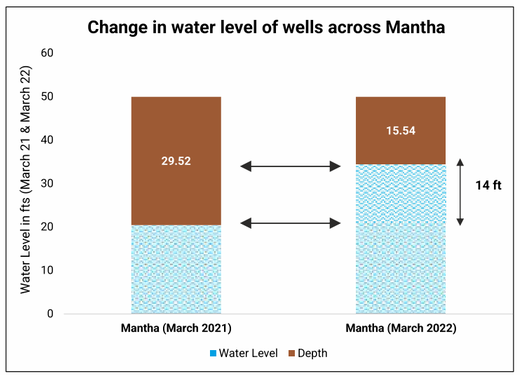


Average Increase in Farmer's Income

120%

Note:
• Farm income for all crops has increased due to an increase in overall cultivation land except for Cotton & Jowar
• For cotton and jowar farm income has decreased by 12% and 76% due to decrease in overall cultivation area

More Water Available Even In Summer



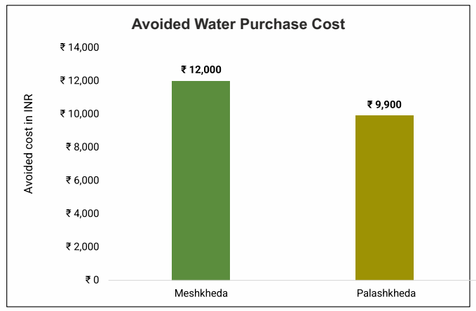
Average Increase in Water Table

14 ft

Note:
There has been an increase in the water levels (for wells across both villages) by 48% post the intervention.

Average depth of well is taken as 50 fts

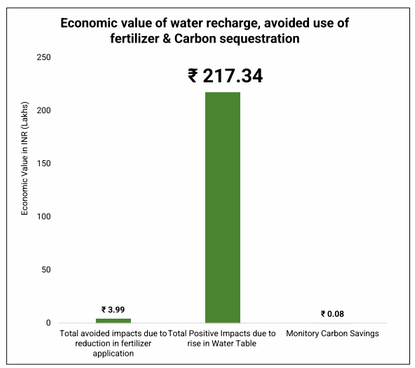
Social Capital Impact: Pilot Villages



For avoided water tanker costs, we have estimated the following benefits:
*Savings generated from avoided water purchase Meshkheda village generates around INR 12,000 of annual savings due to avoided water purchases.

*Note: The benefit of avoided water tank cost is accruing to local government bodies, hence this value is excluded from SROI calculation. The assessment considers the overall benefits generated for the farmers at the household level.

Natural Capital Impact: Pilot Villages



For the economic cost of avoided fertiliser usage, we estimated the following benefits:

- Avoided water pollution due to leached nitrogen and phosphorus.
- Reduction in GHG emissions due to fertiliser usage.
- Avoided process emission.

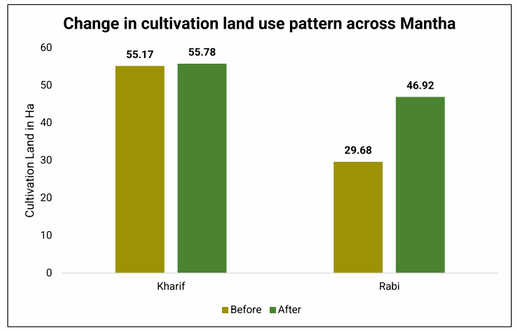
*Reduction in GHG emissions during wastewater treatment.
*Reduction in GHG emissions, air, water, and land pollution due to less electricity consumption.

For the economic cost of water recharge, we estimated below benefits:
- Avoided negative health impact of malnutrition.
- Avoided increase in the incidence of infectious diseases.
- Avoided impact of energy consumption.

For the monitory carbon saving, we have forecasted below benefits:
- Amount of carbon sequestration by planted saplings from the environment in the next 20 years.

Maximum positive results are accruing from water recharge (INR 217.34 Cr), subsequently followed by avoided fertilizer use (INR 3.99 Lakhs).

Improvement In Land Usage

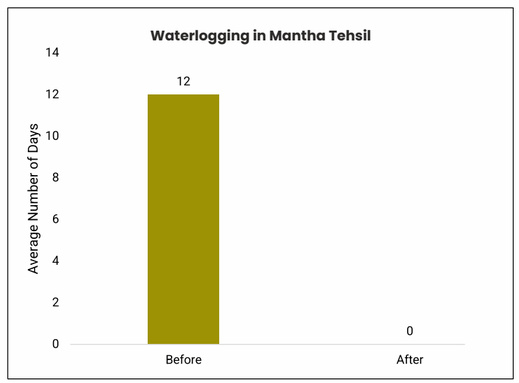


Average Increase in Land Usage (Rabi Season)

58%

Note:
For the Kharif season cultivation land use has increased by 1% after the intervention, whereas the land use during the Rabi season has increased by 58%. This is mainly due to the availability of water in the Rabi season.

Eliminated Crop Spoilage Due to Water Logging

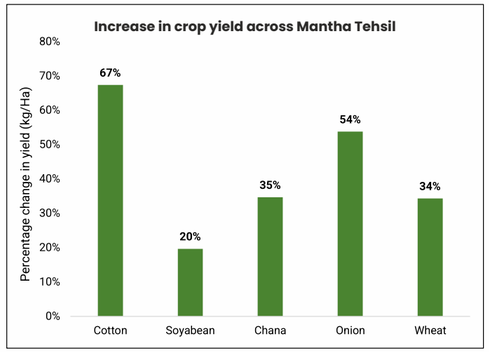


Decrease in Crop Spoilage Due to Water Logging

100%

Note:
The occurrence of waterlogging has been completely eliminated after the intervention. This has reduced crop loss by 100%

Significantly Better Crop Yields

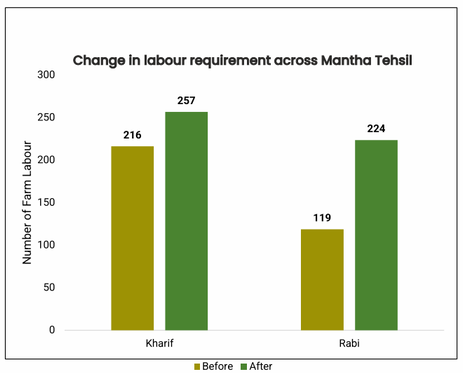


Average Increase in Crop Yield

42%

Note:
Maximum increase in yield has been observed in cotton by 67% followed by 54% increase for onion, and an increase of 20% in soyabean.

Work Available Year Long

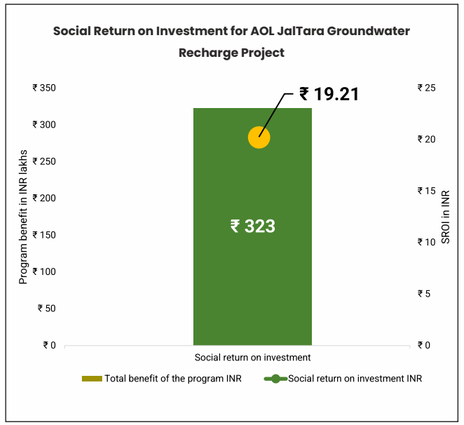


Average Increase in Labour (Rabi Season)

88%

Note:
Labour requirement has increased by 19% during the Kharif season and by 88% during the Rabi season.
The increased labour requirement is due to the enhancement in the cultivation area.
*Since farmers have work all year long, they don't have to migrate from their village for livelihood.

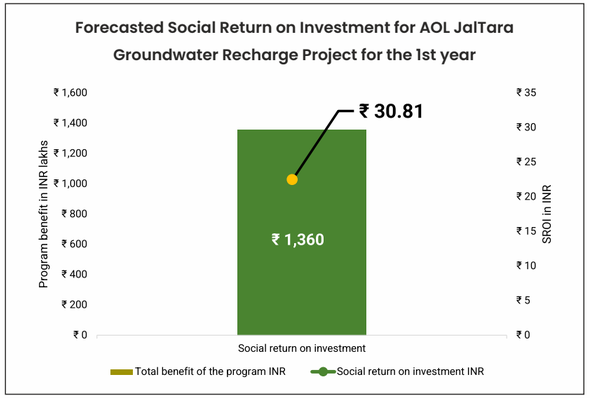
One Year SROI Of ₹ 19.21 Per Rupee Invested



- This assessment is driven by AOL's desire to evaluate the benefits generated by the JalTara Groundwater Recharge project for the local communities in Mantha tehsil, Maharashtra.
- This project was completed in summer of 2021, the JalTara team dug ~1400 recharge pits across 4 villages in Mantha tehsil, Jalna, Maharashtra. We surveyed 40 farmers from 2 villages (out of the 4) for this analysis.
- Scope of this impact assessment is centered on the positive impacts generated by the watershed in terms of social and ecological aspects for a period of one year*.
- Results show a high amount of economic benefit due to an increase in farm productivity and annual earnings, water recharge, reduction in crop loss, avoided water purchase, fertilizer usage and monetary carbon savings.
- The intervention generates an overall 'Social Return on Investment (SROI)' value of INR 19.21 (per INR invested).

*The SROI cannot be 100% attributable to the reference program intervention, as multiple ecological and anthropogenic factors could contribute to the same (beyond the current assessment's scope)
*Reference year is the 1st year of the project initiation.

Forecasted One Year SROI Of ₹ 30.81 Per Rupee Invested

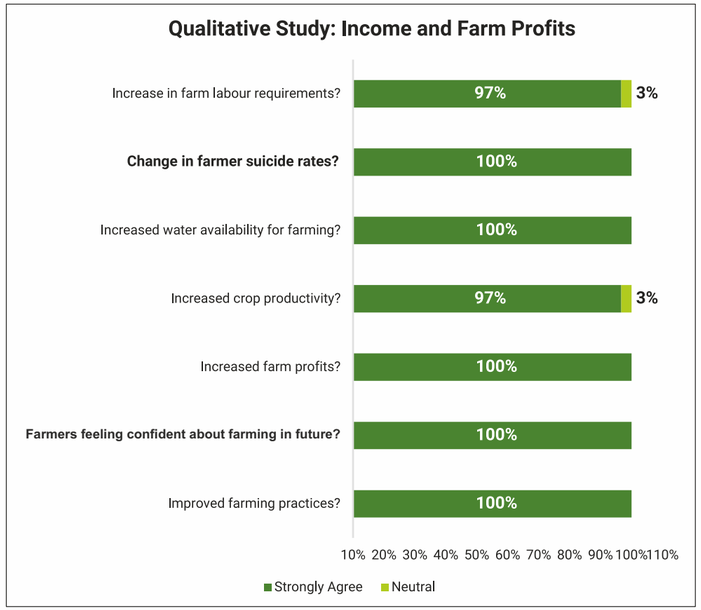


- This assessment is driven by AOL's desire to evaluate the benefits generated by the JalTara Groundwater Recharge Programme for the local communities in Mantha Tehsil, Maharashtra.
- This project was complete in the Summer of 2022, the JalTara team dug ~17,000 recharge pits across 33 villages in Mantha Tehsil, Jalna, Maharashtra. We surveyed 100 farmers from 8 villages (out of the 33) for this analysis.
- Scope of this impact assessment is centered on forecasting the positive impact generated by the watershed in terms of social and ecological aspects for a period of one year.
- Results show a high amount of economic benefit due to an increase in farm productivity and annual earnings, water recharge, reduction in crop loss, avoided water purchase, fertiliser usage, and monetary carbon savings.
- The intervention generates an overall 'Social Return on Investment (SROI)' value of INR 30.81 (per INR invested).

*The SROI cannot be 100% attributable to the reference program intervention, as multiple ecological and anthropogenic factors could contribute to the same (beyond the current assessment's scope).
*The forecasted SROI is calculated based on the assumption taken from the pilot study to extrapolate the monetary impact. Hence this valuation cannot be considered as actual impact.
*The results are forecasted for a period of one year using the data set provided by by AOL Jaltara Team for pilot villages.

Qualitative Study: Pilot Villages

The overall qualitative results indicate and affirm that a positive impact has been generated through the intervention and it also substantiates and validates the quantitative numbers.

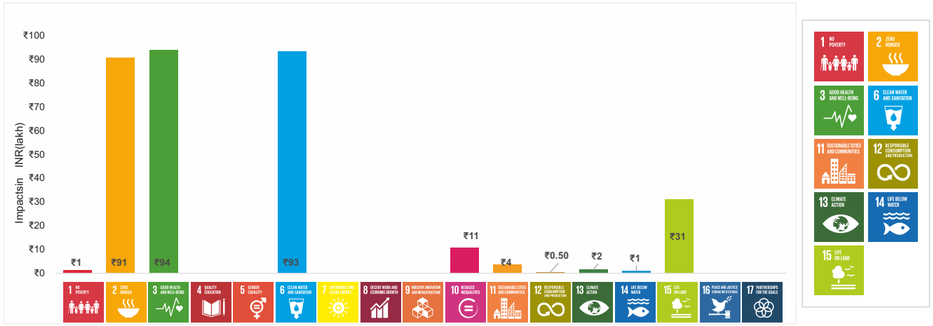


The qualitative study results are based on the survey response of 30 beneficiaries.

SDG Impact: Pilot Villages

The highest impact is reflected on SDG 2 (Zero Hunger), SDG 3 (Good Health & Well Being) SDG 6 (Clean Water & Sanitation) due to a significant increase in farm profits, water recharge and avoiding water pollution.

AOL JalTara Groundwater Recharge Project: SDG Mapping



SDG 1: No Poverty (Avoided crop loss)
SDG 2: Zero Hunger (Increased farm profits)
SDG 3: Good Health & Well-Being (Water recharge & Avoided water pollution)
SDG 6: Clean Water & Sanitation (Household saving & water recharge)
SDG 10: Reduced Inequalities (Additional labour requirement)
SDG 11: Sustainable Cities & Communities (Avoided crop loss)
SDG 12: Responsible Consumption & Production (Avoided water pollution)
SDG 13: Climate Action (Avoided pollution)
SDG 14: Life Below Water (Avoided pollution)
SDG 15: Life on Land (Water recharge)

More Impact Assessment Reports

- River Rejuvenation Impact Assessment Report - Kumudvathi & Latur
- River Rejuvenation Initiatives under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)
- Kumudvathi River Rejuvenation Impact Assessment Report 2021 V-2.0 Summary
- A Scientific Report on the Ground Water Prospects and Water Recharge Structures, Kambling Nadi Basin - A Tributary of Amaravathi River, Tiruppur District, Tamil Nadu
- An Impact Assessment Report Kumudvathi River Promising to Flow by Pixel Softek Pvt Ltd
- Groundwater Artificial Recharge Structures and its Impacts on Socio-economic Status in Parts of Kumudvathi River Basin
- Impact Study on Naganadhi River Rejuvenation, Kaniyambadi Union, Vellore, Tamil Nadu
- Central Ground Water Board (CGWB) Impact Assessment Report on Artificial Recharge Work, Mantha Taluka, Jalna (Maharashtra) District Implemented under JalTara Project by The Art of Living, Jalna
- KPMG Impact Report on Groundwater Management

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SUSTAINABLE DEVELOPMENT GOALS

ABOUT US

Vyakti Vikas Kendra India (VVKI), established in 1996, is a charitable trust operating under The Art of Living. Dedicated to sustainable development, VVKI implements a diverse range of initiatives in both rural and urban India; focusing on social, economic, and environmental transformation. With a vision of fostering widespread change through The Art of Living Programmes, VVKI empowers individuals to become catalysts for societal transformation, alleviating poverty and enhancing overall well-being.

The organisation operates through dedicated verticals, such as Social Projects, Government Programs, Corporate Programs, Dharma Sthambha Yojana and Gnana Kshetras. VVKI's impactful social projects span diverse areas, tackling issues such as water conservation, agricultural sustainability, environmental protection, afforestation, rural and border village development, women's empowerment, skill development, free education, waste management, renewable energy and disaster relief. These multifaceted initiatives highlight VVKI's commitment to fostering positive change in diverse sectors and communities.

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