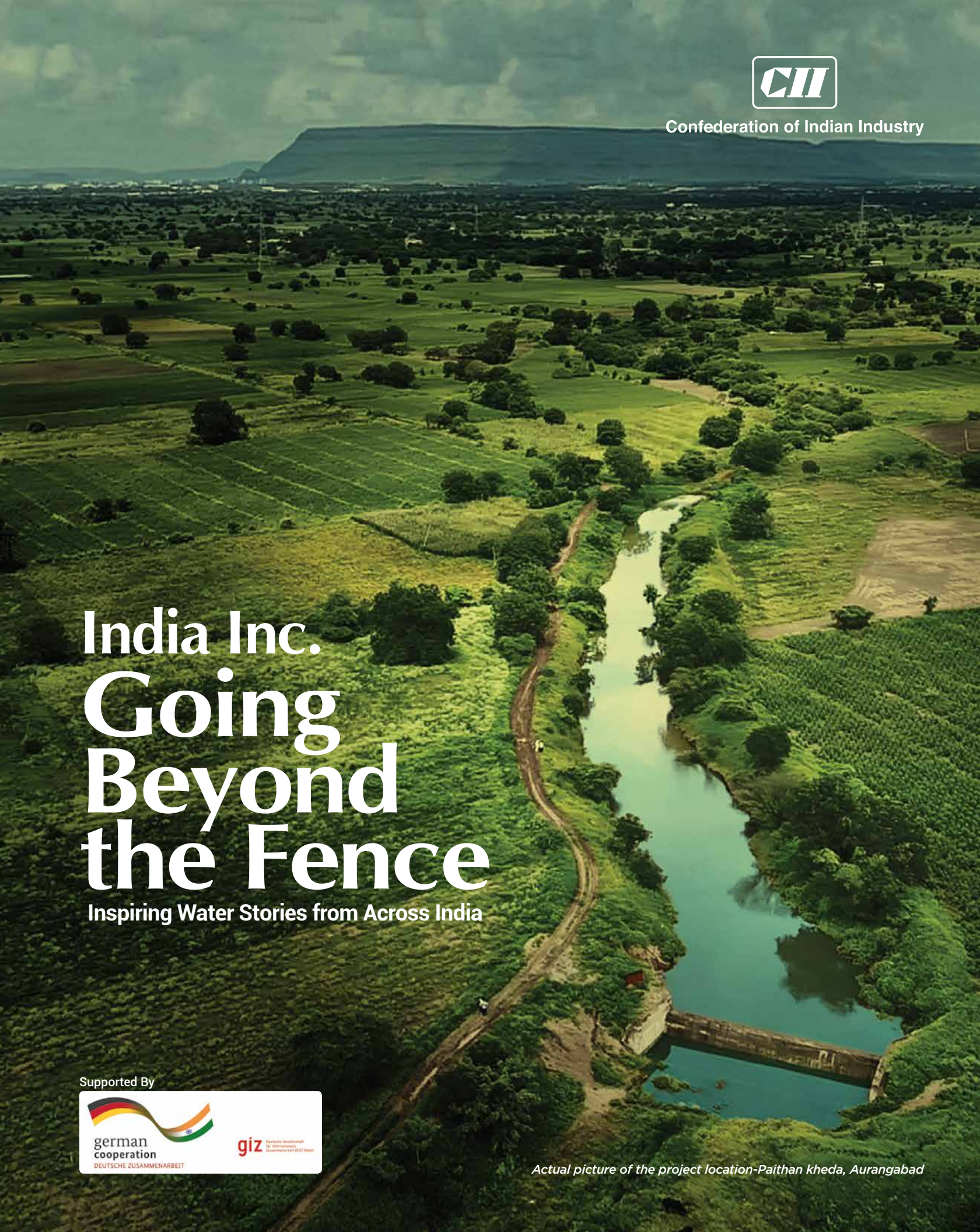

Confederation of Indian Industry

India Inc. Going Beyond the Fence

Inspiring Water Stories from Across India

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Actual picture of the project location-Paithan kheda, Aurangabad

Concept : Sarbani Chakravarty, CII; Project Managers : Neha Khanna, CII and Ankit Rastogi, CII

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India Inc.
Going Beyond the Fence

Inspiring Water Stories from Across India

Impact of India Inc's Beyond the Fence Water Initiatives

Funds Allocated – INR 46,156 Lakhs over 2 years by 15 companies

The Inspiring Stories

Over the years, the industry's CSR initiativeshave been aligned with the national priorities such as public health, education, livelihoods, water conservation, natural resource management and many such thematic areas. More importantly it has generated national interest on the potential role and responsibility of the corporate sector towards achieving Sustainable Development Goals (SDGs).

From times immemorial India Inc has defined its stakeholders to include the society and communities that are a part of its ecosystem. This philosophy reflected in the societal activities driven by India's large corporates. Over the last decade, however, the concept of societal activities has assumed a much deeper meaning, with CSR making its way to the board room and corporates integrating it into their business strategies.

CII National Committee on CSR has been working with companies with a vision to promote and encourage India Inc to become responsible development partners by creating an enabling eco-system for impactful CSR.

Over the years, the industry's CSR initiativeshave been aligned with the national priorities such as public health, education, livelihoods, water conservation, natural resource management and many such thematic areas. More importantly it has generated national interest on the potential role and responsibility of the corporate sector towards achieving Sustainable Development Goals (SDGs).

Given the challenges as well as the good work done by the industry towards this end, it is an appropriate time to document such interventions which can encourage many other companies to replicate or generate new ideas. With this thought, we have developed this knowledge publication that documents the water stewardship efforts led by the industry to inspire others to partner the journey.

I am confident, that we in the industry will continue to take it forward, contributing to India's economic growth and societal wellbeing.

Raghupati Singhania
Chairman- CII National Committee on CSR 2019-2020
Chairman & Managing Director, J K Tyres Ltd

This situation necessitated corporate action and a transformation in the way water was being managed. Many Indian corporates have stepped forward to address this challenge by launching a slew of water stewardship projects, not only within their premises but beyond their fence too.

As the world faces a water crisis, its demand is expected to increase by 50% over the next three decades. India too has not remained untouched by the water challenges facing the world. With erratic rainfall patterns, diverse topography and limited water management focus, today almost about 99 million Indians lack proper access to clean water.

In this scenario, there is steep competition for water amongst the user groups including farmers, domestic users and industry. This situation necessitated corporate action and a transformation in the way water was being managed. Many Indian corporates have stepped forward to address this challenge by launching a slew of water stewardship projects, not only within their premises but beyond their fence too. Adopting a holistic approach, they have partnered the local communities and driven the projects with a long term perspective.

While these corporate endeavors on water conservation, both within and beyond the fence, have made significant impact, given India's geographical spread we still have a lot of ground to cover.

This compendium provides a glimpse into the very inspiring Beyond the Fence water initiatives of a handful of corporates. There are hundreds of other corporates who are implementing significant projects and we hope that many more will join their tribe.

Rumjhum Chatterjee
Co-Chair, CII National Committee on CSR 2019-2020
MD & Head-Human Capital, Feedback Infrastructure

Not only have they made efforts to reduce water consumption within the fence, but have made waves beyond the fence leading to improved watershed health in their catchment areas.

It is a well documented fact that water is fundamental to economic growth and wellbeing of a nation. Thus the importance of water to the survival of both, life and businesses, can hardly be over emphasised. In this backdrop, we are pleased to note that Indian corporates have launched several water stewardship activities under their CSR programs.

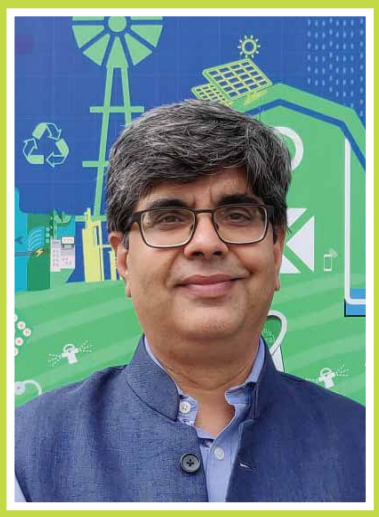
Not only have they made efforts to reduce water consumption within the fence, but have made waves beyond the fence leading to improved watershed health in their catchment areas. With these initiatives, millions of litres of water is being saved across the country, thousands of water bodies have been restored, new water infrastructure created and the quality of water has improved, thus transforming lives of thousands of Indians.

Confederation of Indian Industry (CII) has been working with industry to encourage and handhold water stewardship initiatives. Different arms of CII including CII Centres of Excellence - the Triveni Water Institute and the ITC Centre of Excellence on Sustainable Development; CII Committees and Councils on Climate Change and CSR; and CII Foundation are working with companies towards water management, conservation and protection.

In this compendium CII has documented and recognised the CSR efforts of companies on water conservation, management, reuse and recycling across various sectors.

We hope that these stories of exemplary CSR interventions will encourage many more Indian companies to adopt water stewardship as a way of life. CII remains committed to supporting businesses in their societal endeavours to promote an inclusive India.

Chandrajit Banerjee
Director General
Confederation of Indian Industry



The German Federal Ministry for Economic Cooperation and Development (BMZ) notes that all existing challenges surrounding water, such as too much water causing floods, too little water causing droughts, or water pollution, will be further exacerbated by climate change.

I would like to firstly congratulate the Confederation of Indian Industry (CII) on publishing the compendium titled 'India Inc. – Going beyond the fence: Inspiring water stories from across India', thus enhancing the sharing of experience, knowledge and expertise of private sector cooperation in the water sector in India. On behalf of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, I take this opportunity to thank CII for giving us the opportunity in co-publishing this volume.

As alerted by the Inter- Governmental Panel on Climate Change, water is one of the key resources impacted by climate change. The German Federal Ministry for Economic Cooperation and Development (BMZ) notes that all existing challenges surrounding water, such as too much water causing floods, too little water causing droughts, or water pollution, will be further exacerbated by climate change. The interlinkages of water to food, energy and other essential systems for sustaining life makes the issue further critical. In this changing climate scenario, water security is therefore a prime concern.

GIZ is the agency implementingtechnical cooperation for the German Government and is currently present in over 120 countries worldwide. The Indo-German cooperation is 61 years young and works with Central and StateGovernments and other organizations on issues of environment includingnatural resource management, climate change, sustainable agriculture, energy, social security – to name a few.

The bi-lateral project 'Water Security and Climate Adaptation in Rural India' (WASCA) is commissioned by the BMZ, in cooperation with the Indian Ministry of Rural Development and the Ministry of Jal Shakti. The project aims inenhancing climate resilient water resource management, by improving convergent planning and financing mechanisms, demonstrating innovative water management measures, and strengthening cooperation with the private sector. The project is currently being implemented in Tamil Nadu, Rajasthan, Madhya Pradesh, and Uttar Pradesh.

Given the focus of WASCA project on enhancing private sector cooperation for water security, we believe this compendium is extremely relevant, for learning from existing success stories across India. We hope that the readers including partners, policy makers and practitioners from the private and public sectors, academia, civil society and others will also find this publication interesting, and useful.

Rajeev Ahal
Director, Natural Resource Management
Deutsche Gesellschaft für Internationale
Zusammenarbeit (GIZ) GmbH

India Inc's CSR– A Step Ahead of Compliance

The concept of Corporate Social Responsibility is not new to India; historically speaking, social responsibility of companies is a well-established phenomenon in India and has one of the world's richest traditions of CSR. In its oldest form , CSR in India included the concept of corporate philanthropy and voluntary approach model. Over the years, CSR practices have evolved from notions of pure philanthropy to companies proactively engaging in social development interventions. It further evolved with the wave of globalization, the economy opening up, rise of mid-sized companies and the IT boom. The significance of CSR in Indian businesses galvanized, and businesses started integrating CSR as part of their sustainable business strategy. Specially as India became one of the fastest-growing economies in the world, the rural urban divide as well as the gap between the rich and poor seemed to widen. In the post liberalization period, the global discourse on the role of businesses, especially Transnational Corporations, in respecting human rights, gained momentum. India joined the global community in following this path.

Government of India realised that as one of the fastest growing major economies in the world the country was uniquely placed to deliver on its commitments to inclusive and sustainable development. As a result, the Government stepped up its efforts on implementation of various legislative measures on Corporate Social Responsibility and Corporate Governance to ensure that corporations begin to act as partners in the country's social development and in strengthening the social responsibility of businesses.

It is also very encouraging that the industry is slowly but surely imbibing a culture of being responsible towards society. This is symbolised by the increase in number of companies reporting on CSR from 16,548 in 2014-15 to 21,337 in 2018-19.

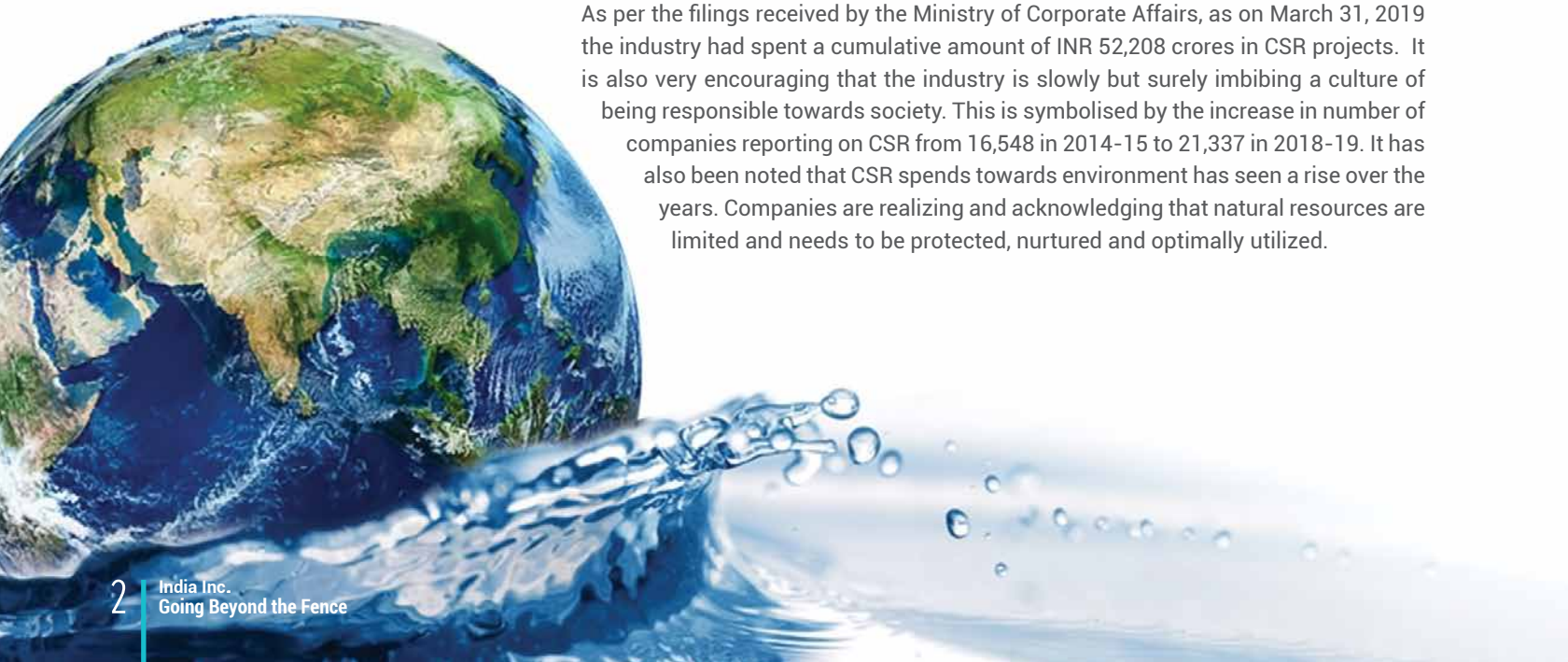
INR 52,208 Crores
The amount Indian industry spent on CSR projects in 2019

Corporate Social Responsibility (CSR) has become an integral part of business philosophy after its introduction as a statutory obligation under Section 135 of the Companies Act, 2013. India mainstreamed business responsibility through the National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business (NVGs). Based on India's socio-cultural context and priorities as well as global best practices, these were revised in 2019 to take into account policy discourses such as the United Nations Guiding Principles on Business & Human Rights (UNGPs) and Sustainable Development Goals (SDGs), while adhering to the thrust of the Companies Act, 2013.

In September 2015, 193 member countries of the United Nations, including India, pledged to achieve the Sustainable Development Goals to end poverty, protect the planet and ensure prosperity for all. India, having played a key role in the definition and evolution of 17 SDGs and the 169 targets, is committed to achieving these.

Following through on the developments at the domestic and international level in the last five years, several Indian companies, moved swiftly to empower communities and deliver long term sustainable value. CSR mandates of corporates are increasingly getting aligned with national priorities of public health, education, livelihood, water conservation and natural resource management, which in turn are aligned to the SDGs. This alignment reflects in the Report of the High-Level Committee on Corporate Social Responsibility released by the Ministry of Corporate Affairs in August 2019.

As per the filings received by the Ministry of Corporate Affairs, as on March 31, 2019 the industry had spent a cumulative amount of INR 52,208 crores in CSR projects. It is also very encouraging that the industry is slowly but surely imbibing a culture of being responsible towards society. This is symbolised by the increase in number of companies reporting on CSR from 16,548 in 2014-15 to 21,337 in 2018-19. It has also been noted that CSR spends towards environment has seen a rise over the years. Companies are realizing and acknowledging that natural resources are limited and needs to be protected, nurtured and optimally utilized.



The Water Landscape

Water, an essential building block of life, also remains at the core of sustainable development. Critical to socio-economic development, building healthy ecosystems and human survival, there is global evidence that safe water & sanitation can substantially improve public health, welfare and productivity of populations.Gains from improvements in water & sanitation facilities bring the maximum benefits for poor people. Access to safe water and sanitation can turn problems into potential by leaving women time for productive work, young children to focus on studies and overall improved health of families. Water related interventions thus have the potential to reduce poverty and boost economic growth.

Ironically, it is a combination of economic growth, socio economic development and changing consumption patterns that have, since the 1980s, led to a steady rise in global water consumption at the rate of 1% p.a. With over 1.7 billion people currently living in stressed river basins, two-thirds of the world's population is likely to be living in water-stressed countries by 2025.

Given the importance of water & sanitation to the economy & sustainable development, corporates have taken up "Beyond the Fence" projects that make a larger impact on the region's watershed and neighboring communities.

India, one of the most populous countries of the world, has not remained untouched by the global water challenge. Almost 99 million people living in India lack access to safe drinking water. Though India gets sufficient rainfall, the country's water challenges are often due to its management - be it inefficient use by all stakeholders, government policy, management of water bodies, rapid urbanization, wastewater treatment and several others. This challenge is further aggravated by the rainfall patterns that have led to parallel instances of drought and floods in recent years. India thus faces a significant water challenge, with an emerging gap between availability of safe fresh water and its demand.

In this backdrop, preserving and restoring the sources of this critical resource can also form the foundation of reversing the impact of climate change and help achieve sustainable development goals. It also requires a focused approach to effective and efficient water utilisation by all competing users i.e. households, agriculture and industry. While agriculture is the biggest consumer of water in India, industry and the Government are more empowered to take positive steps towards water conservation and water use efficiency.

It is reassuring that both the Government and the industry in India are taking positive steps towards addressing this significant challenge. While far from making a splash, innovative initiatives by industry, farming community, civil society and the government are beginning to deliver encouraging results.

The Government of India has launched a holistic program to take charge of India's water crisis. Formation of the Ministry of Jal Shakti by merging the Ministry of Drinking Water & Sanitation with the Ministry of Water Resources, is only one of the steps in this direction. The Jal Shakti Mission is an effort at bringing water stressed districts out of the crisis, through a water conservation Jan Andolan and the Jal Saksharta mission.Under the Jal Jeewan Mission, the Government plans to invest nearly INR 3.5 lakh crore to give access to drinking water to every households by 2024.

Work on wastewater management has been initiated, through tight regulations, directives as well as incentives for recycling and reuse of water. The Ministry of Housing and Urban Development has drafted guidelines for septage management. The Government's Namami Gange Program, planned as an integrated river rejuvenation project, is developing a pilot for restoration of India's rivers, rather than just the Ganga. On the States' front, Maharashtra has taken the lead in setting up a water regulatory authority, a model that is already being replicated by Rajasthan.

Given the importance of water & sanitation to the economy & sustainable development, corporates have taken up "Beyond the Fence" projects that make a larger impact on the region's watershed and neighboring communities. Between 2014 and 2018, Indian industry spent a total of INR 605.45 crores on providing safe drinking water to communities. Corporates spent an aggregate of INR 1633.59 crores on building sanitation facilities across the country.

Inspiring stories of how corporates are increasingly building a strategic fit of their CSR projects to make an impact on communities are beginning to emerge. It is encouraging to see Indian industry gear up to continue to play a constructive role in addressing the shared societal challenges through win-win partnerships and developing frameworks for sustainable success.

Business Growth for Holistic Societal Development

Adani Foundation

Project Name:
Jal Samruddhi, Water Harvesting & Borewell Construction

Project Location:
Tiroda in Gondia District, Maharashtra and 4 Villages (Dhrab, Zarpara, Siracha, Navinaal) in Kutch District, Gujarat

Funds Allocated:
INR 515.62 Lakhs and INR 37.64 Lakhs respectively

Pond - Balapur Village

Background

Adani Group is an integrated business conglomerate with revenues of over USD 13 billion. Founded in 1988, Adani is today a global integrated infrastructure player with businesses in key industry verticals such as resources, logistics, energy and agriculture.

Inspired by the parent company's principle of 'Growth with Goodness', Adani Foundation has aligned it's initiatives with Sustainable Development Goals, thus translating business growth into holistic community development.

Established in 1996, the Adani Foundation has impacted over 3.2 million people across India through the community empowerment initiatives in Education, Health, Sustainable Livelihood, and Community Infrastructure Development.

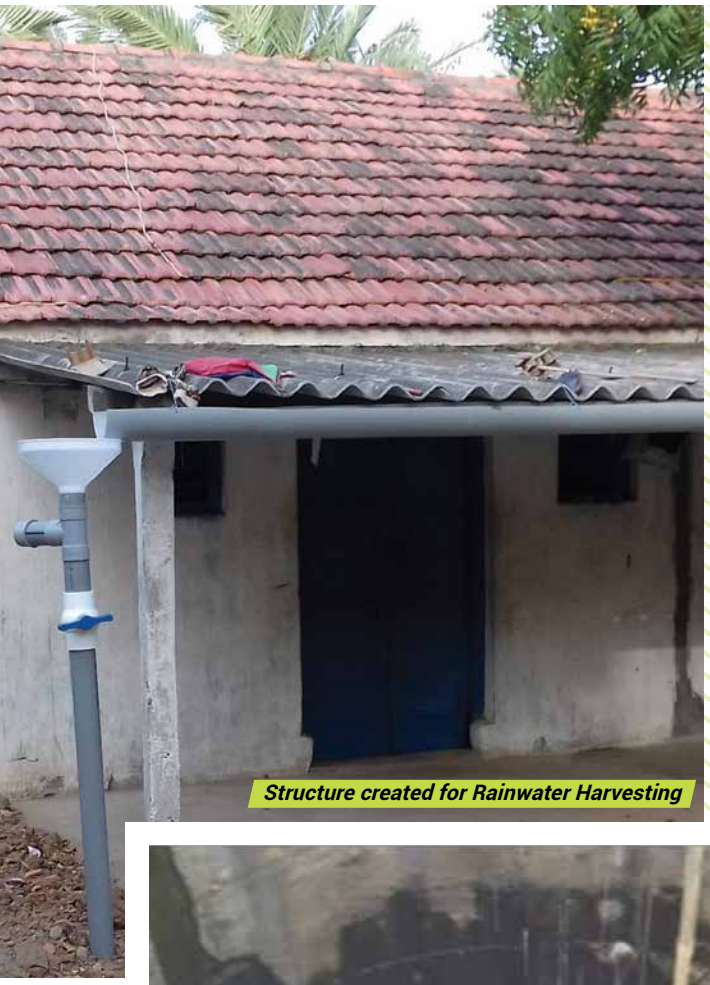
The Foundation strives to create sustainable livelihood opportunities and accelerate betterment of adopted communities. Its framework for sustainable impact is being built through synergies in driving community engagement, collaborating with ecosystem players and developing capacities. These pillars reflect the Foundation's resolve, diligence and perseverance towards its societal commitments.

Jal Samruddhi, is aimed at addressing the alarming depletion of groundwater levels and reduction in water sources in various parts of the country.

Jal Samruddhi with Local Participation

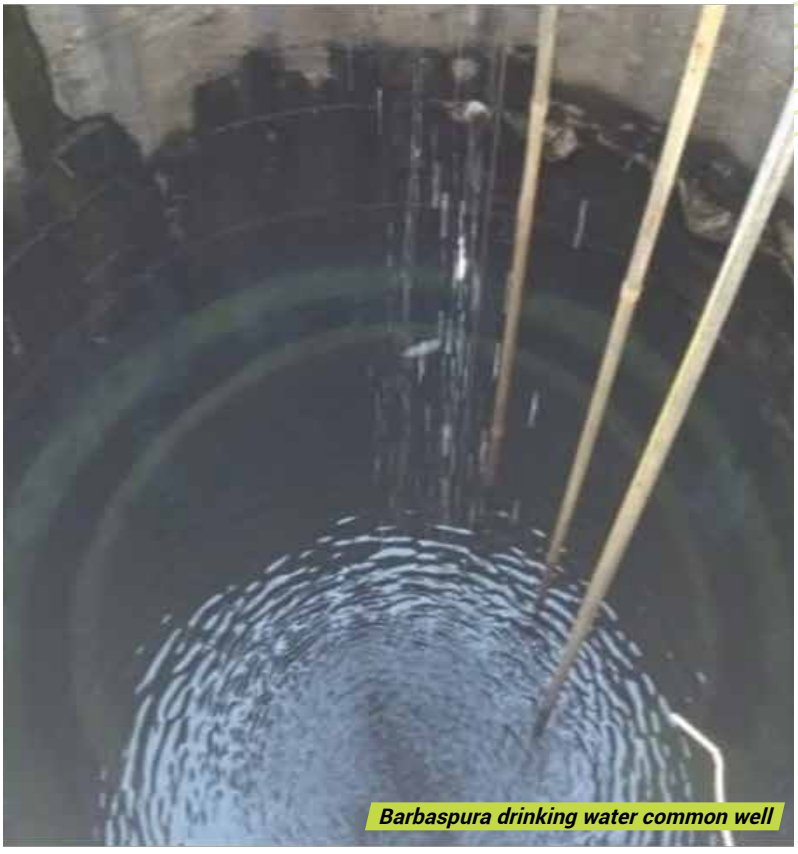
The Foundation's Water Conservation program, Jal Samruddhi, is aimed at addressing the alarming depletion of groundwater levels and reduction in water sources in various parts of the country. Devising eco-friendly and cost efficient methods of water body rejuvenation, the project works to revive existing water resources, plan sustainable infrastructure for protection of natural water bodies and improve ecological conditions around the area. Interventions are focused on groundwater recharge, sustainable agriculture and boosting livelihoods post stream rejuvenation.

The Jal Samruddhi project implemented in the Tiroda Region, Gondia District of Maharashtra has brought significant results. Part of the Wainganga sub–basin, this region faces severe water scarcity during the summers, despite an undulating terrain and an average of 1250 mm of rainfall. This scarcity is triggered mostly by unintelligent utilisation of resources, outdated approach to meeting water demands, silting and a very low intensity rainfall during late Kharif season i.e. late September and October. This hampers the crop yield, especially paddy, which accounts for more than 85% cultivated area during the Kharif season.



Structure created for Rainwater Harvesting

Devising eco-friendly and cost efficient methods of water body rejuvenation, project Jal Samruddhi works to revive existing water resources, plan sustainable infrastructure for protection of natural water bodies and improve ecological conditions around the area.



Barbaspura drinking water common well

In drought prone areas such as the Kutch District, average rainfall is below normal and irregular. The groundwater is being utilized faster than it can be recharged resulting in an alarming decline of groundwater level and quality. The Rooftop Rainwater Harvesting and Recharge Bore-Well Project develops affordable techniques for capturing and retaining runoff rainwater, including that from rooftops, at surface or in sub-surface aquifers. The bore-well recharge technique ensures storage of naturally filtered rain water in natural water-reservoirs i.e. aquifers and groundwater tables. Practiced during monsoon, this project creates a valuable water source for use throughout the year, as borewells never run dry once recharged. The collected water is used immediately and excess is stored to artificially recharge the percolation well and ultimately increase groundwater level.

The Community Engagement Approach

In Gondia the Adani Foundation, along with administrative agencies, Panchayats and farmers, planned the revival and de-silting by utilizing existing water resources in smarter ways. The Foundation encouraged beneficiaries to adopt initiatives such as System of Rice Intensification (SRI), drip irrigation that are simple, cost effective & self-sustainable, yet play a vital role in water conservation.

Following a holistic yet decentralised approach, the Foundation made local farmers, gram panchayat and key government departments as major stakeholders in the implementation roadmap. The topography & watershed delineation and primary water-related data gathered with government's involvement helped identify water bodies and project sites. While deepening and widening the streams, after every 100 metres a 5 metres course was left untouched, creating a natural bund for water storage and passage for farmers. Plantation was carried out alongside streams to reduce water evaporation and soil erosion.

The Foundation engaged with the beneficiaries and government bodies to develop and implement techniques for collection & storage of rain water.

In Kutch District too, the Foundation engaged with the beneficiaries and government bodies to develop and implement techniques for collection & storage of rain water. They reached out to the communities through initial meetings with the Pani Samiti/Gram Panchayat/Village Development Committee, followed by focus group discussions and faliya (hamlet) meetings with women and street plays with school kids. This creates awareness about improved access to clean and safe water, reducing environmental pollution and effects of climate change. Thereafter the work on rooftop rainwater harvesting/bore well recharge is initiated.

Pond - Nandalpar Village

On Ground
Impact

The Jal Samruddhi project helped conserve 10 lakh m3 of water, benefiting 4500 families as well as livestock & wildlife. It initiated the revival of 142 Malguzari tanks, rejuvenation of 71 streams, 64 farm ponds and 2 check dams. The land under irrigation has increased to 11,494 acres with farmers using the available water from rejuvenated streams and ponds for critical Kharif irrigation and to cultivate an extra Rabi crop. The farmers'socio-economic status has improved and there is reduced dependency on tankers for drinking water.

In Kutch, assuming that size of a house is 400 sq. feet and the annual rainfall is 12 inches, the project enables collection of over 10,000 liters of water annually. This collection has eliminated the need for residents to travel to neighbouring villages for fresh water or to pay for water tankers, helping 54 households save at the least INR 10000 pa. Reserving naturally filtered water into the groundwater tables also decreases the impurities.

Under this project, a total of 75 borewells, including a few completely dry ones, have been recharged in four villages of Kutch with water level rising to 30 to 50 ft. The borewell water loses hardness with time and toxic minerals such as fluoride have diminished by upto 500 to 700 mg/l. These borewells are providing for 85% of the annual water requirement of a household and even for irrigation in some cases.

Adani Foundation has constructed 22 check dams, revived 360 ponds and deepened several streams across various geographies. This has helped increase water storage capacity to 7,834,050 m3

Towards Long Term Sustainability

To ensure sustainability of the project, a well-defined monitoring & evaluation system has been set in place. The four key monitoring mechanisms include measurement of water level three times a year, increase in number of farmers cultivating Kharif & Rabi crops, decrease in demand of water tankers, internal monitoring by an appointed team.

The beneficiaries, Gram Panchayat, concerned Government departments and Adani Foundation together maintain the rejuvenated water bodies. Initiatives such as System of Rice Intensification (SRI), cultivation of second crop, fodder cultivation amongst others as supplementary livelihood are encouraged in the project village.

The water harvesting project also undergoes outcome based qualitative and quantitative assessments and measurement of pre and post TDS and salinity data. The results of the Third Party Impact Assessments, currently being conducted with support from geologists and subject matter experts from Kutch University, are awaited.

Fostering Prosperity through Water Management

Ambuja Cements Limited

Project Name:
Community Lift Irrigation Scheme

Project Location:
Farakka, Murshidabad District of West Bengal

Funds Allocated:
INR 47 Lakhs

Background

Ambuja Cements Ltd (ACL), a leading cement company in India, is part of LafargeHolcim, a global conglomerate. Established in 1983, its first integrated plant was set up in AmbujanagarKodinar, Gujarat. Today the company has expanded to 16 locations, with 5 integrated plants, 8 grinding units and 3 bulk cement terminals.

At Ambuja Cement, Corporate Social Responsibility (CSR) is an integral part of business since inception. It is the only company in the industry to be Six Times Water Positive, a critical issue faced bythe communities near the company's plants. ACL's CSR activities are delivered through its CSR arm,Ambuja Cement Foundation (ACF), with a special focus on Water Resource Management. With a presence in 32 districts in 11 states, the company has also been working on other areas such as Agro Based Livelihood Creation, Skill & Entrepreneurship Development, Women Empowerment, Community Health & Education.

Encouraging Water Management Practices

Apart from the many other projects under Water Resource Management, Ambuja Cement Foundation (ACF) encourages farmers to adopt effective irrigation practices in their farms. Towards this end, the Foundation encourages Lift Irrigation (LI), a method by which wateris lifted from a river or irrigation canal, using pumps or other mechanical means.

The Foundation implemented three Community Lift Irrigation Schemes for improving the income of small and marginal farmers launched in Farakka, Murshidabad District of West Bengal, one of the most socio-economically backward blocks of the state. In this area, nearly 80% of the marginal farmers and sharecroppers, farm on less than 1.5 hectares of land. Agriculture in these parts of West Bengal, is predominantly rainfed providing farmers the opportunity to farm a single crop of paddy or jute. Over dependence on monsoons and mono-cropping limitation, generally meant farmers would migrate to nearby towns to earn their livelihood.

A maintenance framework was set in place right from the beginning. Technicalities of pipeline fixing & fittings were discussed with community members. It being a new project, the farmers were taken for an exposure visit to Sadguru Foundation, Gujarat to learn the management & maintenance processes. There after, the Foundation formed an ACF promoted Farmer's club for this particular project.

Though ACF's tests found the water suitable for agriculture the challenge was that the farms were located on an elevation, making it difficult for the local river water to reach them. With ACF offering a solution, the Community decided to install lift irrigation systems and contributed towards the schemes. The Community LI project was designed to provide irrigation on an affordable token basis to help improve crop production. The focus was on marginal farmers and awareness creation was driven through local institutions. Adoption and engagement in the project was driven through about 14-15 awareness meeting held at the village level.

Making Grassroot Level Impact

Post installation of LI, if monsoon is normal and there is sufficient residual soil moisture, some farmers have been able to harvest three crops a year (paddy, pulse/mustard and vegetables) increasing cropping intensity by about 200%. Agriculture incomes have doubled approx. to INR 76,600 per acres from a previous INR 40680 per acre. A total of 223 households, majority of them marginal farmers hailing from tribal & minority communities, are members of the three small lift irrigation schemes.

About 55 ha of land has been brought under irrigation, increasing agriculture production by 1.5 times. Farmer incomes have increased by about 1.5 timesover 1 year.

Production

	In 1 Year	2-3 years potential
Paddy	3705	4446 kg/ha
Grass pea (pulse)	666.9	889.2 kg/ha

Going forward, the project hopes to achieve still better incomes at the household level, with the following

- Shift from singlecropping patterns to three crops a year
- Providing a package of practices for better yield
- Farmers shifting to vegetable and pulses farming
- Increased availability of fodder

Building Self-Sufficient Communities

ACF drove the project through community participation, ownership and cost-effectiveness with a view to making it sustainable. The team worked with the community in the pre-project phase, focusing the discussions on participation, site identification and project management. Being involved in the project from the beginning, the community also contributed towards labor and monetary support.

A monetary system has been created by the Farmers Club for managing contribution and expenses; the club pays the pump operatorsand takes care of maintenance including pump house electricity. Holistically, the system is owned by the community, hoping to create self-sufficient communities.

ACF continuously builds capacity for managing the project post implementation. The beneficiaries receive handholding and training on using the irrigation systems implemented.

ACF regularly monitors the increasing cropping intensity and pump usage, uses the inputs received in community meetings, logs the number of meetings and support provided based on the expected output.

The project's impact will be evaluated after 2-3 years of its implementation.

Agriculture incomes have doubled approx. to INR 76,600 per acres from a previous INR 40, 680 per acre. A total of 223 households, majority of them marginal farmers hailing from tribal & minority communities, are members of the three small lift irrigation schemes.

Testimonials

"The fact that we now get sufficient water,is a miracle. Getting water at field level is a dream come true for us. It feels as if the river is flowing just beside our land. The visit of the farmers to Sadguru Foundation, Gujarat was a big learning. We are happy and expect to have a better crop yield in future."

-Chandan Kisku
President, Farmer's Club

"This type of project is a dream fulfilled. We never thought we would ever get sufficient water in our fields. It is a big project with over 80 farmers having benefitted. ACF trained us in efficient use of water and to increase crop productivity with minimum water usage. We farmers were involved in the process right from the beginning which was a great learning experience for us."

- Ranjeet Mondal,
Farmer, BhairabDanga village

"Even though I was using two machines to lift water, I was unable to carry it to my field. With the water interventions, it has become easy to lift the water and I can get water with very little investment. It also saves cost and time. We are very thankful to ACF for the investments they have made for us farmers. After this project our villages are getting sufficient water throughout the year because of which we expect to grow more crops, thereby achieving economic growth.

- Biswanath Mondal

Back from the Brink: Restoring Water Bodies

Apollo Tyres Limited

Project Name:
Eco-restoration of Water Bodies

Project Location:
Kannur District, Kerala

Funds Allocated:
INR 2,300 Lakhs

Background

Established in 1972, Apollo Tyres Ltd. has since become a trusted name in the industry exporting tyres to over 100 countries across the globe. The company's global brands Apollo and Vredestein are sold through a vast network of branded, exclusive and multi-product stores.

The company has multiple manufacturing units in India and one each in the Netherlands and Hungary. During the financial year 2019, the company clocked in a turnover of USD 2.48 billion, backed by a global workforce of approximately 17,200 employees. As of March 31, 2019, the company traded in India on the Bombay Stock Exchange and National Stock Exchange, with 59.10% shares held by public, government entities, banks and financial institutions.

North Pond - Mathur

Apollo Tyres' works with an ecosystem approach towards pond development. Eco-conservation efforts such as development of theme gardens aimed at biodiversity conservation and introduction of fish to maintain terrestrial/aquatic flora & fauna are also undertaken.

Pursuing the Triple Bottomline

Pursuing the triple bottom line approach to Sustainability, the company's CSR framework revolves around the principle of three I's i.e. Involve, Influence and Impact key stakeholders. Apollo Tyre's CSR activities are aimed at making a positive impact on daily lives of the key stakeholders and on business. Developed in partnership with the community, these programs address their specific needs and aim to inculcate a sense of ownership in the community. These are aligned to national and international development goals, in particular related to Environment, Health & Livelihood.

Water scarcity has emerged as one of the most prominent issues faced in the world. While a large number of people are thriving on water, it has also led to water resources getting ruined. Ponds were traditionally a part of everyone's daily lives as they conserve water, support agriculture and other water needs. They also provide a habitat for local flora & fauna such as birds, butterflies, dragonflies, damselflies to flourish. Since the organisation considers Environment as one of its key stakeholders and ponds have a cultural and environment significance, their conservation & restoration resonates with Apollo Tyre's Environment conservation efforts..

Given that conservation of ponds is an acknowledged solution to water scarcity and ground water depletion, the company has restored several ponds around its manufacturing operations and developed these water bodies into a sustainable model of conservation. The organisation has invested INR 2.30 crores cumulatively for this project till now, which have been used to drive its activities to restore the pond and conserve its ecology based on a baseline study that assess the pond's condition.

As opposed to normal pond development work that usually entails physical interventions like deepening, bund strengthening, etc. Apollo Tyres' works with an ecosystem approach towards pond development Eco-conservation efforts such as development of theme gardens aimed at biodiversity conservation and introduction of fish to maintain terrestrial/ aquatic flora & fauna are also undertaken. Efforts are thus directed at developing a sustainable model for conserving natural resources, especially surface water resources and local biodiversity, ensuring that their traditional uses can be maintained.

To develop the location as a way-side responsible eco-tourism spot with community participation, physical interventions include cleaning, weeding, deepening, bund strengthening, constructing revetment & walkways. Activities are implemented with the objective of promoting the pond as an environmental education hub for natural resource management and sustainable lifestyle practices.

Participatory Approach – Key to Success

The local communities are engaged in the water body restoration and conservation project from the very beginning. Project site selection is done in consultation with the local community and elected representatives, based on several factors such as location, surrounding areas, community usage, pond ecology, interconnecting water supply/outlet/inlet & community preference of pond development & management.

Pond Restoration activities are driven through community engagement, using local resources such as pocline, daily wage workers, plumbers etc. This participatory approach has helped build a sense of ownership amongst local communities, who are the primary beneficiaries of these water bodies. They are often dependent on the water bodies for irrigation, domestic usage and recreational purpose. Local parties with expertise, preferably from the State are appointed with a view to drawing synergies of local language, cultural alignment and better costs.

Pernigamkulam Pond, Perambra, Cochin


Pre situation Alwa Pond

On the theme of Biodiversity the company has also undertaken a pioneering project on conservation of the largest mangroves of Kerala, located in Kunhimangalam village, Kannur, in partnership with the local communities and the government.

Restored Alwa Pond

In addition to the pond conservation work, as a novel community initiative, the company undertook a three year Participatory Conservation project for a 10 km stretch of the Chalakudy River, Kerala in 2016. Focused on assessment and conservation of Riparian vegetation, it helped restore the associated Biodiversity of Chalakudy River in Kerala.

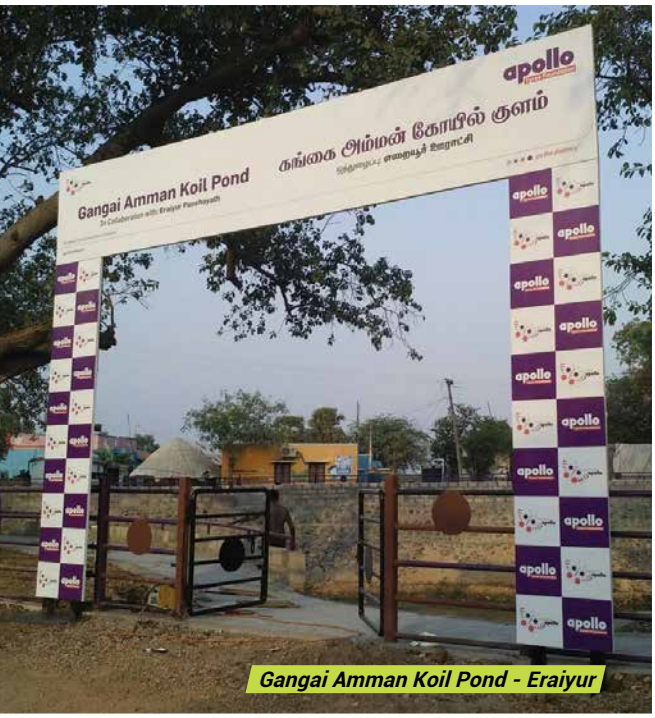
On the theme of Biodiversity conservation, the company has also undertaken a pioneering project on conservation of the largest mangroves of Kerala, located in Kunhimangalam village, Kannur, in partnership with the local communities and the government. The project included setting up of a Mangrove Interpretation Centre for mangrove-based education, serving as an open air laboratory for research, a mangrove nursery, community based initiatives to enhance public awareness and reduce threats to mangroves.

10 km stretch of Chalakudy River, Kerala revived under the Participatory Conservation Project

Making Projects Sustainable and Scalable

After setting in place annual maintenance activities to sustain water quantity & quality and community management programs, the pond is handed over to the community. Hereafter, Pond Monitoring Committees or Village Development Committees maintain the water bodies with support from the respective panchayats.

The projects are monitored & maintained on a monthly/quarterly basis and joint evaluations are undertaken along with the community. Keeping in view the long term sustainability, local implementing agencies are appointed to undertake limited annual maintenance in certain locations.



Gangai Amman Koil Pond - Eraiyur

North Pond - Mathur

Under the Pond Restoration Project, Apollo Tyres has renovated and fully restored a total of ten ponds. Spread across over 3 lac square feet these are located in three different places.

Back from the Brink

Under the Pond Restoration Project, Apollo Tyres has renovated and fully restored a total of ten ponds. Spread across over 3 lac square feet these are located in three different places. The holistic approach has meant that over 3,000+ plants & trees have been planted and are being maintained under the project.

These projects have collectively brought back from the brink, several water bodies that were otherwise lying neglected. Reversing the steep water quality deterioration and ensuring improved groundwater table, these projects have also raised the local awareness on the need to conserve community assets.

Driving Common Good Over Individual Gain

Bajaj Auto Limited

Project Name:

Bajaj Water Conservation Project (BWCP)

Project Location:

Aurangabad, Satara, Yavatmal, Beed, Ahmednagar Districts, Maharashtra

Bhilwara, Udaipur, Rajasamand, Chittaurgarh, Pratapgarh, Tonk, Jodhpur, Udaipur, Nagour Districts, Rajasthan

Almora, Dehradun, Pauri Garhwal, Pithoragarh, Nainital Districts, Uttarakhand

Funds Allocated:

Total Committed amount INR 30,522 Lakhs.
(Mah -27,432 Lakhs) (Rajasthan -2,751 Lakhs)
(Uttarakhand 331 Lakhs)

Background

The Bajaj Group, amongst India's top 10 business houses, has interests across a range of industries, spanning automobiles (two &three wheelers), home appliances, lighting, iron andsteel, insurance, travel and finance. The group's flagship company, Bajaj Auto Limited, is ranked as the world's fourth largest twoandthree wheeler manufacturer and the Bajaj brand is well-known across countries such as Latin America, Africa, Middle East, South and South East Asia.

The Group pursues the belief that true measures of growth, success and progress are the difference made to people's lives rather than the conventional balance sheets or economic indicators. Bajaj Group'ssocial investments thus address health, education, environment conservation, infrastructure and community development challenges facing its neighbouring communities.

All existing water harvesting structures and their current status were mapped to calculate available water harvesting capacity; dysfunctional structures were taken up for repair & maintenance to ensure these regain their designed water harvesting capacities.

Towards Water Conservation

Most parts of Central Maharashtra, including Marathwada and Vidharbha face repeated drought. Most of the villages are tanker fed for 6 to 9 months in a year and the region faced severe drought conditions in 2014~16. Bajaj Auto, in partnership with other Bajaj group companies, thus launched the Bajaj Water Conservation Project (BWCP) in Aurangabad. The project plans to cover an area of 21,500 ha in 51 villages of Paithan, Gangapur Taluka of Aurangabad District and in second phase in 110 villages, 2 blocks (Gangapur, Aurangabad), in Aurangabad Districts of Maharashtra. The key challenges facing these villages include water Scarcity for both drinking and irrigation purposes, low agriculture production & productivity, limited livelihood options, low farmer incomes and migration.

The BWCP was envisaged with the objective of making 425 villages drought free by raising community awareness on degradation of natural resources and empowering them to conserve natural resources. Since the aim was to conserve 75% of the available runoffs and ensure 100% domestic water availability throughout the year, the Bajaj team began the project with a demand supply gap assessment. All existing water harvesting structures and their current status were mapped to calculate available water harvesting capacity; dysfunctional structures were taken up for repair &maintenance to ensure these regain their designed water harvesting capacities.

These endeavours have facilitated the achievement of the objective of increasing area under irrigation for Kharif crops to 44% and under Rabi up to 30% of the cultivable area.

The drainage line treatment for run-off water harvesting and ground water recharge were thus major components of the BWCP, a detailed L-SECTION survey was conducted. Using a Station Instrument, the survey covered a drainage length of 400 kms running across 60,000 hectare watershed area. A hydro-geological study was carried out with the help of expert geo-hydrologists to understand possibilities of vertical as well as lateral movement of water below the ground surface and the technical aspects of ground water recharge and the depths of excavation. The project villages have experienced an increase of 5M in the water level in wells and a 10% increase in the vegetative cover.

These endeavours have facilitated the achievement of the objective of increasing area under irrigation for Kharif crops to 44% and under Rabi up to 30% of the cultivable area. Alongside these initiatives, the Bajaj team also worked to develop productive and intensive cropping systems by helping farmers imbibe good farming practices and improve farm inputs.

With a holistic project approach, the village found several new livelihood opportunities in agriculture and allied sectors. The farms have clocked in an increased productivity of over 20% in the general crops and the areas under vegetable & fruit crops has also increased by about 10%. The outcomes have driven household incomes to double and in some cases even triple from INR 0.5 lakhs to INR 1.5 lakhs.

Going forward, the Bajaj Group plans to undertake New Watershed projects to cover 25,182 Ha in 22 villages spread across Satara, Ahmednagar and Beed districts of Maharashtra.

Testimonials

Due to shortage of rainfall over a long period, Vijay Kishan Tupe and others in his village faced several water related challenges – from scarcity of drinking water for animal& human consumption to lack of water for agriculture purposes. A bandara was constructed under the Bajaj Water Conservation Project (BWCP) on Shivna River, 4 kms from the village. Built at a cost of INR 2.50 crore, this bandara has helped raise the ground water level by 50 feet and recharged about 70 borewells &dug wells in a 1.5 km radius. It has made a positive impact on the lives of the village residents who expect this water level to be maintained for at least a year.

Committed to Drive Common Good

The largest program of its kind in terms of funds commitment, the Aurangabad project is impacting a population of 127,343 comprising 25,847 households in 100 plus villages. It is being delivered in phases

Phase 1: Total outlay of INR 1,900 lakhs

Phase 2 : INR 19,879 lakhs

Phase 3: being implemented in Aurangabad, Satara and Yavatmal Districts of Maharashtra it covers 17,696 Hectares across 30 villages impacting 4,898 households. Bajaj Group has set aside a budget of INR 4,263 lakhs for this phase. These excludes 10% contribution by the community.

Going forward, the Bajaj Group plans to undertake New Watershed projects to cover 25,182 Ha in 22 villages spread across Satara, Ahmednagar and Beed districts of Maharashtra.

Rajasthan: A sum of INR 2,751 lakhs has been committed towards projects being implemented in 210 villages across 13 Districts impacting around 25,866 households comprising 125,879 people.

Uttarakhand: A population of 4,171 comprising 971 households are expected to benefit from INR 339 lacs committed for projects being implemented in 75 villages of 5 Districts.

An Eye on Long Term Sustenance

With an eye on long term sustenance, the project has in built mechanisms to involve the impacted communities right from site selection, to deciding on affordable technical solutions and their implementation. Sustainability of project is ensured throughs intervention that focus on building a local level institutional framework and structured capacity building support, and liaison with local government for developing holistic projects.

The Project Implementation Agency (PIA) drives the community engagement and involvement to ensure sustainability. The PIA makes make a sustained effort to develop local level capacity who will be accountable for operation & maintenance of the water infrastructure. Technical and social experts combine forces with PIA to successfully implement interventions towards the envisaged objectives. A series of systematically planned activities are designed to catalyse development and empower communities to continue the development efforts after project conclusion.

With verification of DPR elements, a well-defined monitoring & evaluation framework kicks-in from the pre-execution phase. Internal Project Monitoring against DPR commitments and a third party evaluation by an independent NGO, a half yearly community based evaluation by the Village Development Committee together create a strong monitoring framework to ensure that projects stay on course.

A VDC is involved in the project from the very beginning so that they can take charge of infrastructure maintenance. Capacity building events ensure that the community takes ownership after Project completion. About 15-20 observation wells,mapped in each village of about 500 hectares, are earmarked for monthly monitoring to assess the project's impact.

Doing it Right, with Human Engineering

Bharat Forge Limited

Project Name:
Water Harvesting underJalayukta Shivir Abhiyan

Project Location:
Pune, Ahmednagar, Satara, Kolhapur Districts, Maharashtra

Funds Allocated:
INR 628 Lakhs

Background

Bharat Forge Limited (BFL), the Pune based Indian multinational, is a technology driven global leader in metal forming having transcontinental presence across ten manufacturing locations, serving several sectors including automotive, power, oil and gas, construction & mining , rail, marine and aerospace.

Part of Kalyani Group - a USD 3 billion conglomerate with 10,000 global work force, BFL today has the largest repository of metallurgical knowledge in the region and offers full service supply capability to its geographically dispersed marquee customers from concept to product design, engineering, manufacturing, testing and validation.

Every village in India has different dynamics. Their geographies, histories and ecologies differ with their environmental conditions, mind-sets, traditions and social practices. This is why a single formula does not work for them all. As a part of their CSR activities, BFL decided to participate in the Government's Jalyukta Shivir Abhiyan in villages of Maharashtra, under the guidance and mentorship of their Chairman, Shri Baba Kalyani. Water harvesting projects were launched in the adopted villages towards this project.

Based on their philosophy of making 'human engineering' the foundation of every initiative, BFL proceeded to work on this project wherein the company planned to develop 100 Maharashtra villages. Water for drinking and agriculture were taken as one of the prime indicators of development apart from development of internal roads, livelihood creation, health and education.

Taluk Panhala, Dist. Kolhapur

The team adopted a principles based approach, followed in all their projects:

The right intent – The intention of giving back, which lies in the company's DNA, is the driving force behind all of their initiatives.

Far sighted approach that delivers – A far sighted, results oriented approach is adopted driving teams to achieve individual project goals, leading to better resource management and minimizing turnaround time.

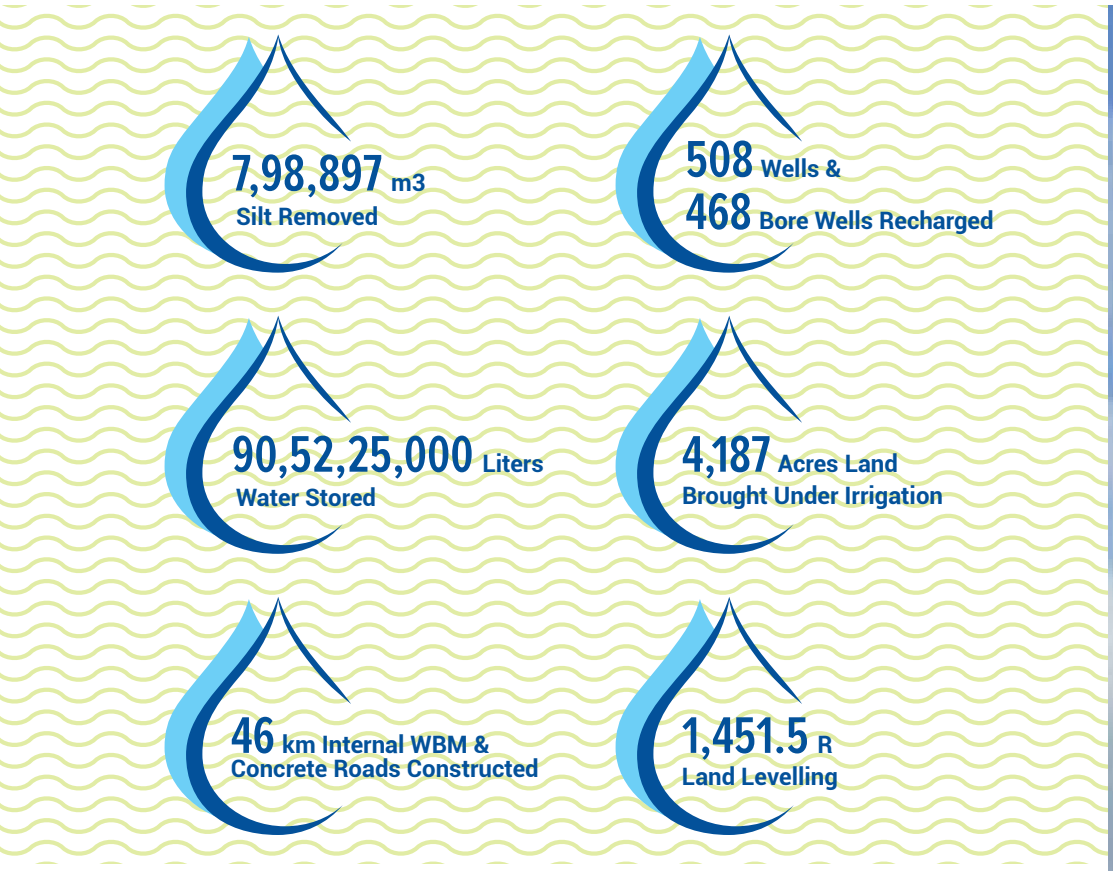
The experience and expertise – CSR projects are conducted, managed and monitored by a dedicated team of experts with diverse and extensive experience.Cross functional teams from different departments work together to achieve the desired goals, ensuring better functionality and efficient resource allocation

Focus on inclusive growth – which is a potential solution to several of India's challenges

Doing it right, with Human Engineering – Mutual understanding with locals through adequate communication and purposeful dialogue, makes it easier to implement change and hence yields better results.

Leading change, one life at a time – BFL's efforts are not limited to helping one village or one section of the society; the BFL CSR team ensures that through interpersonal interactions, support is extended to every individual who needs it.

Taluk Ambegaon, Dist. Pune



Based on these principles, the BFL team adopted a step by step approach starting with requirement profilingwhich involved studying the geographical climatic or social aspects to map possible challenges and scope for change. A needs assessmentwas done based on a baseline survey and personal interactions, which also helped to set the annual goals and define the area of work.

This was followed by project execution which began by the team working to create a foundation for acceptance to change. Dialogues with the people at the grassroots to prepare and educate beneficiaries and local leaders ensured better program implementation. The company met with challenges in being accepted by local leaders and dealing with internal pressure groups in villages.

Across functional team of experts from various departments came together to implement the project for best results.

Details of Water Harvesting Work Done by Bharat Forge Ltd.

Sr. No.	District	Liters	TCM	Beneficiaries
1	Pune	420,000,000	420.26	17,019
2	Ahmednagar	730,000,000	730.60	7,700
3	Kolhapur	23,000,000	23.20	6,300
4	Satara	328,680,000	328.68	12,450
Capacity of Water Storage		1,501,680,000	1,502.74	43,469
Water tank construction at villages from 4 Districts		135,000	-	7,719
Total Water Harvesting Work		**1,501,815,000**	**1,502.74**	**51,188**

Desilting work of bandhara

The company has helped in conservation of 90,50,90,000 litres of agriculture water and built total water storage capacity of 1,35,000 litres per day.

Land Levelling - Taluk Purandar, Dist. Pune

Water Conservation for Improved Life

With an approach focused on outcomes, extensive research and efficient solutions, BFL's endeavours have led to improved water availability in the remote Maharashtra villages. The company has helped in conservation of 90,50,90,000 litres of agriculture water and built total water storage capacity of 1,35,000 litres per day.

The integrated approach to rural development focused on 5 different areas made a positive impact on the quality of life of rural community, helped build greater awareness among women about health & early detection of diseases and led to a three fold increase family incomes. With livelihood/entrepreneurship opportunities being created for local youth, and farming opportunities for villagers who could not cultivate their land reverse migration has taken place in several thinly populated villages.

The Water Harvesting projects launched under the Jalayukta Shivir Abhiyan have impacted 1 lakh villagers with increased water availability and positive changes in cropping patterns as well as crop diversity. These projects have resulted in enhanced agriculture & livestock productivity and the availability of processing units have helped farmers increase incomes.

Interactions and discussions with villagers and local influencers gave the BFL team insights into the real problems and needs.

Desilting work of bandhara

Land Levelling - Taluk Purandar, Dist. Pune

Far Sighted Approach to Project Sustainability

The company has planned to work in the villages on 5 major indicators for a period of 5 years. To build a foundation for project sustainability, local people are involved right from the beginning. Interactions and discussions with villagers and local influencers gave the BFL team insights into the real problems and needs.

This research didn't just form the basis of the project design, but also in villagers accepting the required behaviour change, giving way to better application and functioning of the initiatives. It helped ensure that the villagers take ownership of the project. Many aspects of the projects, such as water pipelines, construction of bunds & water tanks, desilting etc. do not need attention for the next 15 to 20 years after implementation since a group of local representatives takes responsibility of maintenance.

While the company bears the cost of implementation, monitoring, major expense heads and project management, often the villagers contribute a small percentage of the project cost. The local representatives are trained for deployment. The implementation as well as project monitoring are undertaken in collaboration with the Government, Local authorities, Grampanchayts, NGOs and the local villagers.

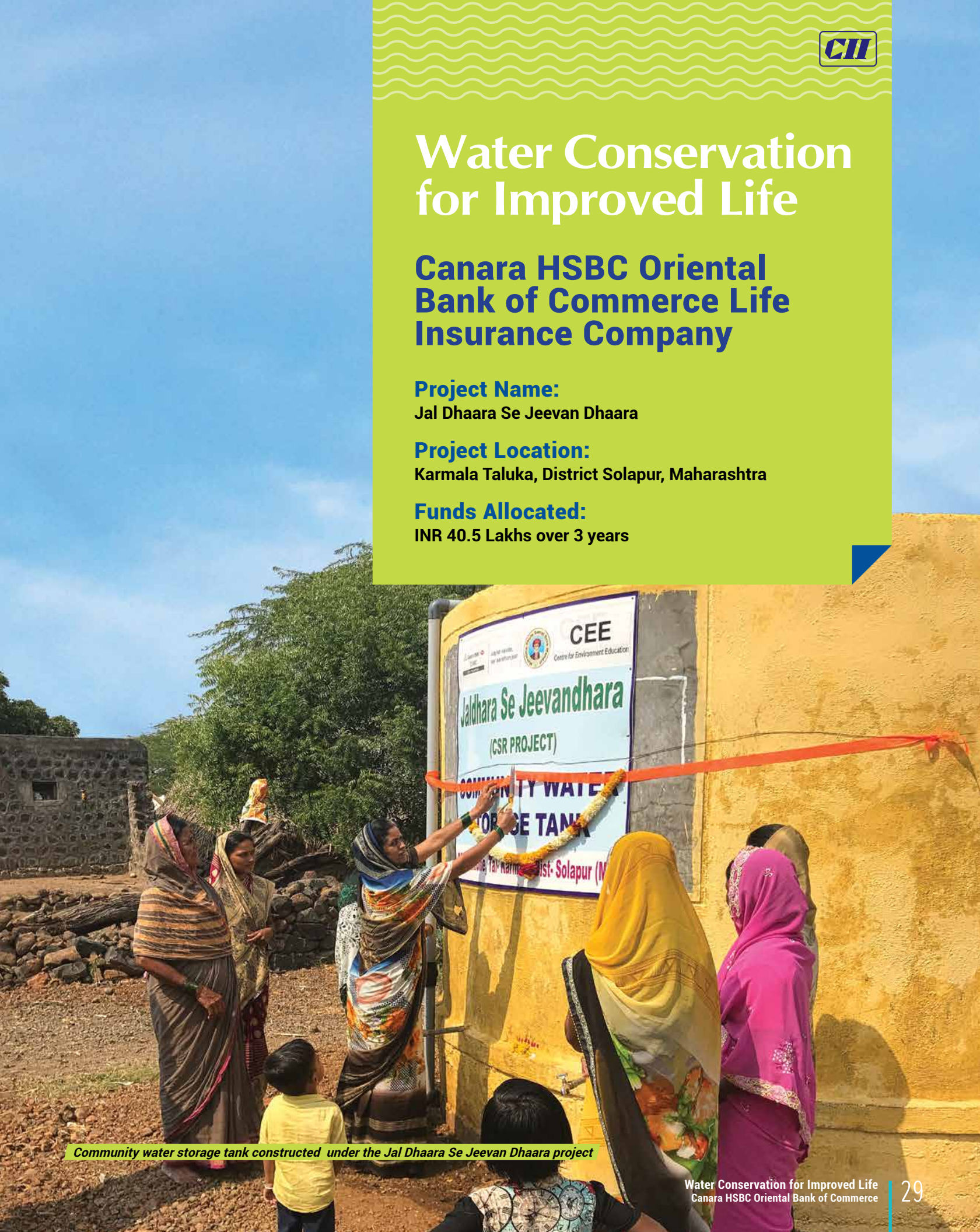
Water Conservation for Improved Life

Canara HSBC Oriental Bank of Commerce Life Insurance Company

Project Name:
Jal Dhaara Se Jeevan Dhaara

Project Location:
Karmala Taluka, District Solapur, Maharashtra

Funds Allocated:
INR 40.5 Lakhs over 3 years



Community water storage tank constructed under the Jal Dhaara Se Jeevan Dhaara project

The Jal Dhaara Se Jeevan Dhaara project was envisaged to provide safe water for drinking and domestic purposes, train stakeholders & help them adopt sustainable agriculture & irrigation practices, promote sanitation & cleanliness

Background

Canara HSBC Oriental Bank of Commerce Life Insurance Company Limited, set up in June 2008, leverages the pan-India network of over 10,000 branches of the partners i.e. Canara Bank, HSBC and Oriental Bank of Commerce and its other partners. The vast infrastructure of the partner banks is helping increase insurance penetration across urban, semi urban and rural markets.

Maharashtra faces an intense water problem, with rural belts such as Karmala in Solapur reeling under acute water scarcity. Triggered by scanty rainfall and lack of water bodies (natural & man-made), semi-arid & arid conditions have emerged in the region and farmer suicides in the nearby areas have been rampant. Sugarcane, a water intense crop, being the mainstay of farmers in this area, they lost a major source of income. High concentration of minerals such as nitrate in the water resulted in diseases like cyanosis, cardiac dysrhythmias amongst others. Water scarcity has thus disrupted socio-economic life in the region forcing residents to migrate out.

The Jal Dhaara Se Jeevan Dhaara project was envisaged to provide safe water for drinking and domestic purposes, train stakeholders & help them adopt sustainable agriculture & irrigation practices, promote sanitation & cleanliness. Emphasis was also placed on developing sustainable livelihood/employment options by enhancing vocational skills, building financial literacy and creating platforms for income generation, especially for the landless.

A sustainable, watershed approach to environment conservation, community development and poverty alleviation was planned in 3 villages of Aljapur, Kamone and Khadki. This project was aimed at touching the lives of the entire rural community, especially farmers, labourers, small entrepreneurs, youth and women including people from the 'Demunde Vasti' or the National Tribes community area.

Drip irrigation channels were installed to improve soil moisutre

Farmers adopted new cropping patterns

Partnerships for Success

The project, designed for sustainability through community action, was planned and implemented together in partnership with the community. Water harvesting and conservation, an immediate need expressed by the community, were thus the thrust areas of this project. It became critical to trigger attitudinal shift in the communities by involving, energizing & enabling them to harness their own potential and become the catalysts of change.

The project began by conducting a need assessment and PRA (participatory rural appraisal) as well as engaging with the agri-pastoral communities, major stakeholders in the habitat. The objective was to understand their level of dependence on water, local water cycle, agriculture, irrigation and livelihood patterns and plot the information on the village map.

Based on an understanding of the rainwater flow revealed by a detailed PRA study it was decided to repair the "Futka Talaw", a damaged pre-independence era structure located on top of a hillock and convert it into a rain-water conservation structure to make water available for daily use and help improve agriculture by incorporating solar/renewable energy. The PRA map and a topography map developed using GIS and remote sensing data were superimposed to develop a base map for the project area. The information on present land use, current ground water scenario, well locations, percolation patterns, watershed and cultivation patterns were plotted basis inputs from the community.

In a very scientific way, water was brought from the hillock to the villages in small reservoirs for storage and use. This water also charged the wells and groundwater, especially near the fields and was linked to drip irrigation channels that increased soil moisture and hence agricultural productivity.

'Tech Jal 500', an extremely low cost, low maintenance village-wise water filtration and purification unit of 500 liters per hour capacity was installed. Fitted with a unique membrane made with polymer, the technology has been developed by an IIT alumnus and was selected for evaluation and as an exhibit by United Nations Science, Technology & Innovation/STI Forum.

Making a Positive
Impact

As a result of the Jal Dhaara se Jeevan Dhaara project, over 400 million liters of potable water for drinking, sanitation, livestock and agriculture is available all year round, in the village, reducing the dependence on monsoons. It has impacted over 5,000 people, 2,500 livestock and 3,000 animals in the neighboring Great Indian Bustard Sanctuary, helping improve the biodiversity of the region.

While the local Panchayat provided land, permissions for the project and facilitated livelihood training, the community contributed through ***'shramdaan'*** by enthusiastically participating and becoming partners at every step, leading to overall village development. A Water Management Committee, a Vigilance Committee or a 'Paani Panchayat' and other such committees were formed by the local community to build infrastructure for sustenance. The Water User Groups manage water in a sustainable manner to ensure permanent ground water recharge and improved soil moisture.

The region has seen increased agricultural productivity, better production and diversification of livelihood. With the community having more time at hand to pursue education, environmental and vocational training several SHGs have been formed in the project villages. Members of the SHGs are being trained in making pickles & savouries, masala grinding and goat rearing.

There are more green spaces, waadis, herb gardens, fruit orchards and medicinal plants leading to better incomes and more nutrition. The nitrate content in the ground water has reduced significantly, leading to improved health conditions. Adoption of locally fabricated solar lights and solar water pumps are further helping environment conservation.

Training for better water management

Towards a Sustainable Jal Dhaara

To ensure that the Jal Dhaara Se Jeevan Dhaara project remains sustainable and scalable, the organisation engaged a local NGO. Measurable objectives, deliverables, defined timelines were agreed with the NGO post discussions. The evaluation parameters, monitoring mechanisms, and reporting formats provided a structure for transparent disclosure policy.

The company also set in place defined methods, platforms & committees. The system of periodic project monitoring & evaluation under the guidance of an independent UNDP assessor was also defined to ensure maximum impact.

Regular training combined with intense engagement with the Gram Sabha and the rural community created the platform for a firm understanding of the objectives and local support. This has helped the villagers structure the processes and take ownership by creating committees which are now overseeing and managing the entire project themselves.

Several SHGs were formed in the project villages


Members of SHG were trained in several livelihood options

"In Hindi, 'Jal' means water, 'Dhaara' means flow and 'Jeevan' means life – the project name was derived basis the fact that water is the elixir of life and therefore the need to use it responsibly as well as conserve it and how the continuous flow and availability of water links and impacts every aspect of life & helps in sustaining it. The objective of our project was to improve living conditions in a sustainable manner and ensure environment conservation especially water. It is indeed heartening to see the socio-economic progress in the community today and how the engagement has secured the interest of local communities who have become powerful stewards of conservation."

- Anuj Mathur,
MD & CEO, Canara HSBC Oriental Bank of Commerce Life Insurance Company

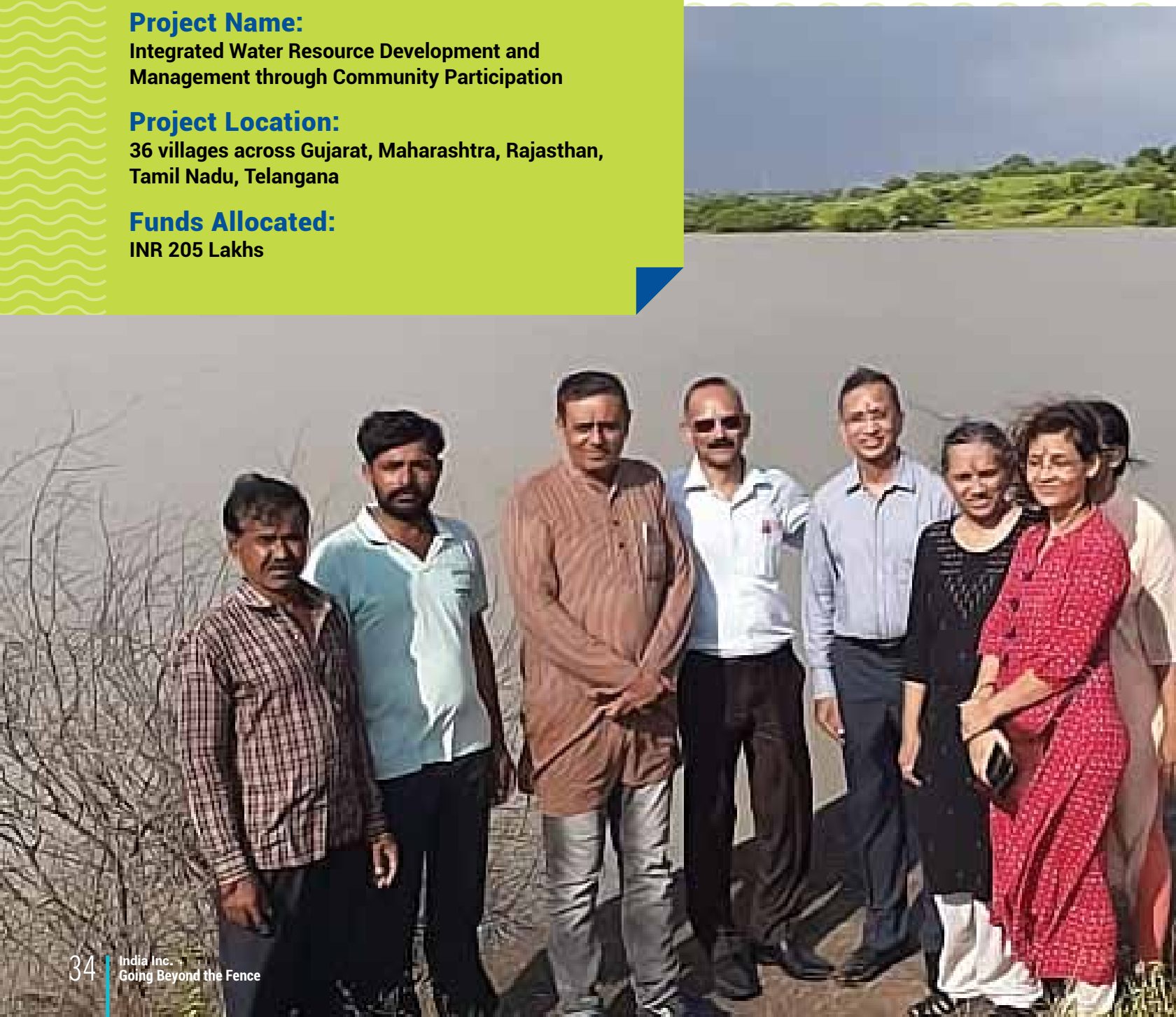
Locally Relevant, Yet Far Reaching Impact

CLP India Private Limited

Project Name:
Integrated Water Resource Development and Management through Community Participation

Project Location:
36 villages across Gujarat, Maharashtra, Rajasthan, Tamil Nadu, Telangana

Funds Allocated:
INR 205 Lakhs



Over the last decade of doing business in India, CLP India has built a responsible, technologically advanced and diversified portfolio of over 3,000 MW.

Background

CLP India is owned by CLP Group, one of the largest investor-owned power businesses in Asia and Caisse de dépôt et placement du Québec (CDPQ), one of Canada's leading institutional fund managers.

CLP entered the Indian market in 2002 with the acquisition of Paguthan CCPP (formerly known as Gujarat Paguthan Energy Corporation), a 655 MW gas-fired power station in Bharuch, Gujarat. Over the last decade of doing business in India, CLP India has built a responsible, technologically advanced and diversified portfolio of over 3,000 MW.

CLP India owns and operates one of the first supercritical coal fired plants of India. Located in Jhajjar, Haryana, this plant has a 1,320 MW (2 X 660MW) capacity. CLP India has also been operating a 655 MW Combined-Cycle Power Plant (PCCPP) in Paguthan, near Bharuch, Gujarat since 2002. At 924 MW, generated across 12 plants in six states, wind energy is an integral part of CLP India's business. Spanning three plants in two states, CLP India's solar generation portfolio stands at 170 MW.

Built more than
30 Water Structures

Built
15 Drinking Water Infrastructures

Giving Back to the Catchment Area

CLP India, as a responsible corporate citizen, takes cognizance of the fact that ensuring water security is vital to community wellbeing and sustainability. Further, the company is keenly aware of its responsibility to replenish the water resources that it uses in the power generation operations.

Given the severity of water related challenges, CLP India has been implementing a range of water initiatives in 6 business locations covering about 36 villages in its catchment areas:

- drinking water facilities for human and cattle (Paguthan, Tejuva, Khandke, Veltoor, Samana, Mahidad),
- water infrastructure projects (Samana and Mahidad, Khandke)
- water harvesting structures (Khandke, Veltoor, Samana, Mahidad).

Designed through rigorous discussions with implementation partners and community members, these projects go beyond building water infrastructure to focus on water-use behaviour. The implementation plan thus includes training on alternate farming techniques, awareness on optimum water-use and water-budgeting to ensure equitable access for all living beings in the area.

Sonewadi local community participating in the water project

The water harvesting projects were designed to ensure water security in CLP India's business catchment region and communities by increasing availability of water for drinking, service and agricultural purposes. A large part of the projects also focused on promoting organic agriculture and water conservation awareness through activities such as water budgeting, soil testing and farmers' field schools.

To enhance the impact of the initiatives, CLP India encouraged the communities to utilise existing Government schemes such as the Jalayukta Shivar Abhiyan in Maharashtra and WASMO in Gujarat. The potential gaps were funded to maximise community benefits.

Customizing solutions to make them locally relevant, the CLP team consulted the communities for whom these were meant. As a result, extensive water harvesting and revival of water recharging structures were undertaken across Khandke, Veltoor, Tejuva, Samana and Mahidad. More than 30 water structures, 15 drinking water structures and 40 sunken ponds were built and 16 village ponds were desilted. The people of Khandke, Paguthan, Veltoor and Theni have benefitted from drinking water facilities such as water ATMs provided by the company.

Extensive water harvesting and revival of water recharging structures were undertaken across Khandke, Veltoor, Tejuva, Samana and Mahidad. More than 30 water structures, 15 drinking water structures and 40 sunken ponds were built and 16 village ponds were desilted.

Maximizing Impact through Locally Relevant Projects

Locally relevant water initiatives combined with community engagement have resulted in creation of resilient water infrastructure and behaviour change, creating framework for long-term water security. Keeping in mind the regional climatic conditions, the team harnessed the indigenous knowledge of the local people and the experience of the subject matter experts to design innovative and effective solutions.

Working closely with the Village Development Committee (VDC) comprising village representatives, helped in handing over ownership of assets and facilities to the communities. These interventions implemented across 36 villages have made a positive impact on the lives of an estimated 57,000 beneficiaries.

Apart from water security, these projects have also impacted the quality of life in the adopted villages. Infrastructure construction generated livelihood opportunities for the local people. Women now have more productive time available to them, since they do not have to walk miles to fetch water. In long run, these initiatives are expected to lead to improved crop yields, better health conditions and higher standards of living.

While the project initiatives have been implemented over the last two years, medium to long term results are yet to be seen. However, the short-term impact of water initiatives undertaken in Khandke, are very encouraging:

221 ha of rainfed land brought under irrigation; additional **20** ha of wasteland converted to grassland

34 water harvesting structures have created an additional water storage capacity of **4.95**

18 test wells have recorded a better water level at an average of 2 meters

7,872-person days of livelihood was generated

Water harvesting structure being built with communiity participation

In Virpur village, the Aarohan project brought water supply from a distantly located well. The village was facing water challenges for last 50 years, either fetching water from others' farms or travelling long distances for water. There was no drinking water infrastructure in the village. The water from the only well in the village was supplied to a common point from where the village residents would collect water.

The CLP team laid a 900 feet pipeline to bring water to the village thus supplying water to every household in the village. As a result, the village residents, especially the elderly and the differently abled, do not need to walk miles to fetch water. About 45 children studying in the primary school, farmers and women have more productive time available at hand. The village residents are very happy that a problem they thought had no solution has been resolved.

The CLP team laid a 900 feet pipeline to bring water to the village thus supplying water to every household in the village. As a result, the village residents, especially the elderly and the differently abled, do not need to walk miles to fetch water.

Towards Long Term Sustainability

Community involvement, an inbuilt feature in all CLP India's water initiatives, is the mainstay of long term project sustainability. Communities are empowered through ownership and management of the assets created for them. For each project, CLP India funds the building infrastructure & maintenance for the initial years; eventually handing over the ownership to the Gram panchayat for ensuring long-term sustainability of the projects.

A well-defined 4 step monitoring process contributes to long term sustainability of the project. Program monitoring sheets are prepared based on the scope and key performance indicators for each project. The data & information collected by the field-teams is verified through regular field-visits and regular peer reviews ensure better quality project implementation.

Testimonials

"Due to Project Aarohan, all villagers get water supply in their homes! We thank CLP India and CEE for solving the 50-years of water problem in Virpur village."

- **Hamidaben**,
Virpur village, Jamnagar

"Repair of water tank and installation of pipelines in our village have ensured that water is easily available for domestic chores, drinking purposes and for he livestock. This has put an end to our problem of travelling long distances to collect water. We appreciate CLP India and WOTR for this contribution."

- **Mangal Raosaheb Chavan**,
Ranjani village, Ahmednagar

"I am so glad that CLP India's efforts have made small but profound impact by ensuring water security in our business catchment area. We will continue to invest in water through locally relevant projects."

-**Dr Priyesh Modi**,
Head- CSR, CLP India Group companies

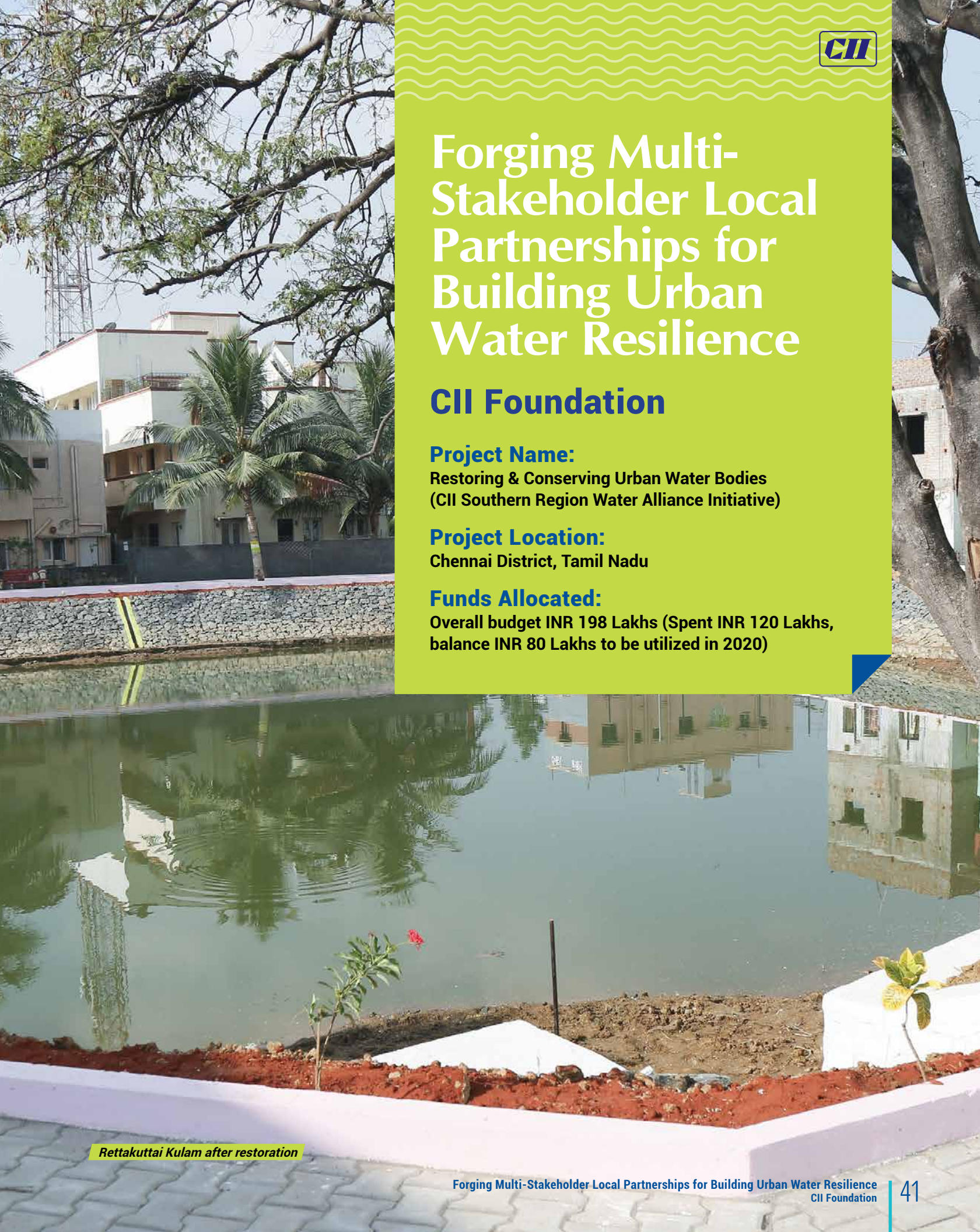
Forging Multi-Stakeholder Local Partnerships for Building Urban Water Resilience

CII Foundation

Project Name:
Restoring & Conserving Urban Water Bodies
(CII Southern Region Water Alliance Initiative)

Project Location:
Chennai District, Tamil Nadu

Funds Allocated:
Overall budget INR 198 Lakhs (Spent INR 120 Lakhs, balance INR 80 Lakhs to be utilized in 2020)



Rettakuttai Kulam after restoration

Background

The CII Foundation was set up by the Confederation of Indian Industry (CII) in 2011 to undertake a wide range of developmental and charitable activities and initiatives across India, by enabling Industry to infuse inclusive development.

CII Foundation works towards inclusive development by providing a meaningful bridge between marginalised communities and donors, especially corporates, by providing strategic guidance on CSR and developing & managing high impact programs.

Over the last eight years, CII Foundation has undertaken projects, with corporate sector support, in skill development, child development & maternal health, water conservation, amongst others. The Foundation focuses primarily on Early Childhood Education, Women Empowerment, and Climate Change Resilience, while continuing various Disaster Relief & Rehabilitation efforts.

The project envisions comprehensive restoration and improvement of water bodies to enhance their storage and recharge capacity there by building resilience against floods and droughts in the fragile city ecosystem.

Comprehensive Approach to Flood Resilience

The city region of Chennai is prone to contrasting water catastrophes – flash floods and water scarcity. In response to the devastating floods of 2015, CII rolled out an initiative to restore the area's dilapidated lakes and water bodies that were disappearing due to encroachment, garbage dumpingand lack of maintenance.

The project envisions comprehensive restoration and improvement of water bodies to enhance their storage and recharge capacity there by building resilience against floods and droughts in the fragile city ecosystem. Strengthening community involvement and enhancing cultural activities around the waterbodies and building capacityof local communities for maintenance of water bodies prone to encroachment and dilapidation were some of the key objectives of the project.

An MoU was signed with the State Government to initiate the project in Chennai, Thiruvallur, and Kanchipuram Districts. The projects received full support of the Greater Chennai Corporation, and the district administrations of Thiruvallur and Kanchipuram. A total of 31 dying lakes were identified by CII with support of the government in these districts.

Commenced in 2017, the project is a multi-stakeholder project. Being jointly delivered by the CII Southern Region Water Alliance and the CII Foundation Tamil Nadu Relief and Rehabilitation Initiatives, major financial support to the project was provided by Grundfos Pumps India Pvt Ltd, Danfoss Industries Pvt Ltd, GMMCO Ltd under their CSR programs. The implementation partner for the project is Balavikasa.

So far, a total of 6 lakes have been restored under this initiative – of which 5 are located in a cluster in ECR in Chennai, which is a prominent IT hub in the city. Restoration work is currently underway in 3 more lakes, and will be further scaled up in 2020.

Gangaiamman Koil Kulam Restoration

So far, a total of 6 lakes have been restored under this initiative – of which 5 are located in a cluster in ECR in Chennai, which is a prominent IT hub in the city. Restoration work is currently underway in 3 more lakes, and will be further scaled up in 2020.

The lake restoration is being undertaken with a holistic approach involving debris cleaning, deepening and de-silting, mechanized channelization of inlet & outlet, strengthening of bunds and construction of revetments. Beautification, laying of pathways, fencing and plantation were taken up in areas surrounding the waterbodies.

A community-based conservation model, it encourages active participation of the community at all stages. Given that the project is being implemented in an urban and peri-urban area, neighbourhood groups such as Trader Associations, Resident Welfare Associations, Temple Management Committees were involved. Inputs of the local communities played a key role in Detailed Project Reports (DPR) preparation. The community was engaged in volunteer clean-up of the lake, maintenance of waterbodies, plantation drives and infrastructure development. Awareness programmes, technical training, exposure, and other handholding support was provided to the local community and resources were procured locally.

Model for Ecological Revival

Restoration of water bodies has created a model for ecological revival in the fragile urban space and addressing water resources related issues, encouraging the Government to replicate such models in other Districts. A self-supporting system of preserving urban lakes, checking encroachment and garbage dumping has evolved with involvement of urban neighbourhood groups.

The project has resulted in improvement of tank storage capacity & the catchment areas of water bodies, better drainage systems and increased recharge of drinking water sources in the neighbourhoods. With enhanced awareness amongst stakeholders about importance of water conservation, about 10,000 people across communities are benefitting from this program.

Uthu Kulam Restoration On-going

Uthu Kulam Restoration Completed

Lakes with On-Going Restoration

1. MGR Street Pond, Uthandi, Chennai district, Tamil Nadu
2. AnanthaKulam, Sholinganalur, Chennai district, Tamil Nadu
3. Gangai Amman Kulam, Sholinganalur, Chennai district, Tamil Nadu

Lakes with Restoration Completed

1. Gangaiamman Koil Kulam located at Injambakkam, Chennai district
2. KarumanchavadiKulam, Karapakkam, Chennai district
3. Rettakuttai, Maddipakkam, Chennai district
4. Uthukulam, Jeledampettai, Chennai district
5. OMR Majestic Layout, Semencherry, Chennai district
6. ThamaraiKulam, located at Vembakkam Panchayat, Walajabad Block, Kanchipuram District,

Karumanchavadi Kulam Project

Local Communities – Custodians for Long Term Sustenance

The local community acts as the custodian of the lake restoration process. At each lake site, a Committee has been formed with community members trained for the water body's maintenance. In some cases, the committee is registered as a society/association with a defined governance structure. For example, the Rajiv Gandhi Salai Trader's Association has assumed ownership of the water body Karumanchavadi Kulam (at Karapakkam, Chennai), including regular cleaning, maintenance and, security. They have set ground rules regarding the activities allowed around the waterbody as well as the timings. Recently 'Karthika Deepam' festival was celebrated at the water body along with members of the community.

The thrust on community engagement and the cluster approach are paying rich dividends by creating ownership. Multi stakeholder partnerships have helped in identifying ecologically fragile urban clusters and bringing together multiple corporate partners to adopt one or few lakes for scalable impact. Partnership with local government is helping ensure necessary regulatory compliances and sustainability. A committeehas been set up with community representatives, local associations, industry, and CII representatives to review and advice on the development of the programme. CII Foundation and Balavikasa teams monitor andundertake necessary course correction from time to time. Further expansion of the programme and a comprehensive program impact evaluation is planned for 2020.

For building resilience against floods and drought, a holistic, long-term, large scale multi stakeholder intervention is required. The lake restoration initiative by CII in Chennai is an effort in that direction.

Testimonials

"We live in a tropical country and depend on 44-45 days of rain to sustain, thus the need to protect and conserve water in our country can hardly be over emphasized. We consider water sacred and protecting waterbodies is highly meritorious work"

- Ravi Sam,
Chairman, CII Southern Region Sub-Committee on Sustainability, CSR & Affirmative Action & Managing Director, Adwaith Lakshmi Industries Limited


Thamarai Kulam before Restoration


Thamarai Kulam after Restoration

"This lake was being used as a public lavatory and had become a place where children could not set foot. The water body restoration initiative has reformed the place; today the lake is a wonderful place with paths suitable for evening walks. The lake area has been modified beautifully and has paved the way for a water source for over 2,000 families. This initiative has benefited everyone in our community to a large extent."

- Suresh Babu,
President,Karapakkam Association

"We are not rain-starved, we are water starved; if we conserve our rain water and naturally recharge our ground water, one year surplus rain can serve us through two years of drought."

- A Community Member

Making Every Drop Count

DCM Shriram Limited

Project Name:
DCM Shriram Water Conservation Project

Project Location
Kota & Jhalawar Districts, Rajasthan

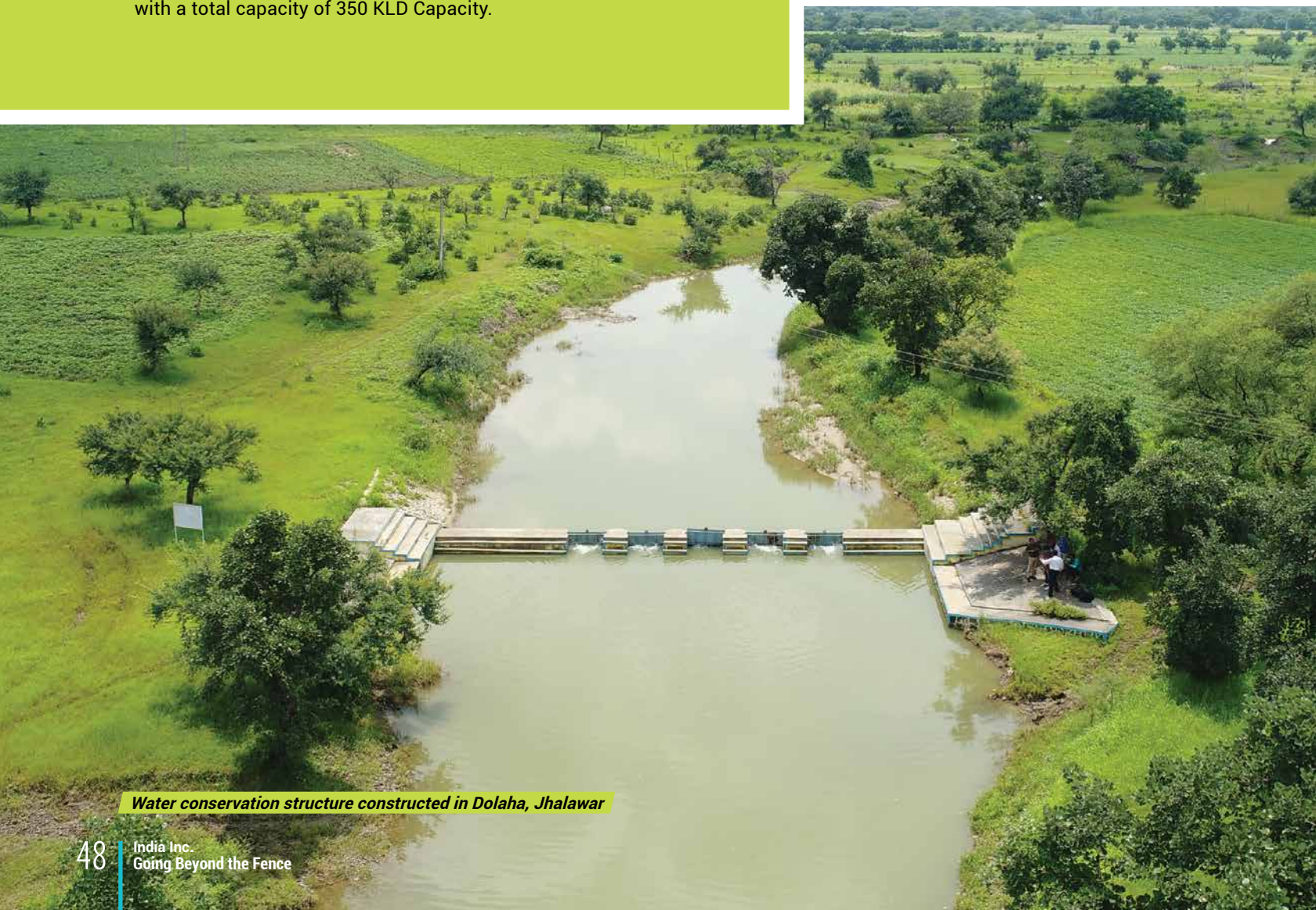
Funds Allocated:
INR 226 Lakhs

Farmers who have benefited from the rejuvenation of the water structure in Kota district

Background

The values of DCM Shriram Ltd. a leading business conglomerate with a group turnover of INR 7,771 crores, are deeply rooted in upholding ethical standards, being socially responsible and delivering on promises.

The Company has business portfolio across: Agri Rural Business, Chloro- Vinyl Business and Value Added Business (Fenesta building Systems). It has manufacturing facilities located in Kota (Rajasthan) and Bharuch (Gujarat). The urea plant in Kota has a production capacity of 379,000 TPA & chlor- alkali capacity of 5,07,000 TPA in both Kota & Bharuch. It also has Sugar factories located in Ajbapur, Rupapur, Hariawan and Loni in Uttar Pradesh, with a combined installed capacity of 38,000 TCD (tonnes crushed of sugarcane daily) and a power- generating capacity of 147 MW. It has added two Distilleries with a total capacity of 350 KLD Capacity.



Water conservation structure constructed in Dolaha, Jhalawar

Mini Storage Tank constructed in Jhodpura, Kota district

Building Long Lasting Relationships

The key to success of the DCM Shriram water conservation project was community involvement and survey based site selection in consultation with the District Administration and the local Panchayat. Not only was the community involved in construction of the water structures, they also attended regular meetings at the construction sites. Village level committees continued to monitor the structures and Farmers Interest Group (FIG) joined in setting-up of demo fields using modern agricultural techniques for better understanding of farmers.

The structures were constructed such that they did not need frequent repair & maintenance. An internal team prepared a detailed schedule defining the major milestones in construction of water structures for both execution as well as monitoring. The progress was shared with the top management in the regular review meetings.

"Water is at the core of sustainable development and is critical to socio-economic development, healthy ecosystems and human survival itself. Going forward, it is going to be one of the most vital resources making it imperative that we manage it efficiently and equitably. DCM Shriram Ltd. is actively working to conserve water through its various sustainability initiatives. By supporting the state administration and launching several initiatives, we have been able to address water related challenges in Rajasthan, Gujarat and Uttar Pradesh. Motivated by the two mantras of water sustainability– 'Every Drop Counts' and 'More Crop per Drop' – we have built multiple water-harvesting structures in different locations, promoted water conservation and optimised rainwater use. We have also embedded water conservation with an agri-skilling project. This has recharged groundwater reserves, boosted the irrigated/cultivable areas and crop production while ensuring year-round availability of potable water."

- **Ajay Shriram**
Chairman & Senior Managing Director, DCM Shriram Limited

Desilted pond in Hariyawan, now used by a farmer on lease for fishery

2 lakh farmers working across 1.65 lakh ha of farmland

Farming Meetha Sona

Project Location:

Hardoi & Lakhimpur District, Uttar Pradesh

Meetha Sona is DCM Shriram Sugar's unique initiative for Sugarcane farmers based on the key principles of Suitability, Scalability and Sustainability. It works by catalyzing behavior change among 2 lakh farmers working across 1.65 lakh hectare of farmland in the catchment area of DCM Shriram's four sugar mills in Uttar Pradesh.

The project is a multi stakeholder engagement running successfully in collaboration with IFC and Solidaridad and also includes multilateral agencies, developmental institutions and service providers, to address specific issues in the entire value chain. Water Management is one of the key components of this program and interventions are basically focused on two fronts- Supply side and demand side.

Bio Control Labs have been set up in two sugar units, Rupapur & Ajbapur to assist farmers in controlling pest attacks while reducing their usage of chemical pesticides. Good agricultural techniques have not only increased yields but led to a saving of 275 billion litres of water in the past three years.

Supply side activities

Supply side activities are focused on increasing water availability and accessibility in the region through the following activities:

- Building Check dams
- Converting disused dugwells into Recharge wells
- Pond rejuvenation and desilting

Demand side

On the demand front, the company works with the farmers for adoption of Good Agricultural Practices, which has resulted in water use efficiency among the farmers. The major set of practices which have been promoted are as follows-

Improved water use efficiency: Trash mulching, laser leveling, furrow irrigation

Demonstration plots: outreach and awareness programs like Kishan Gosthies etc.

This significant community outreach program directly benefits the livelihood of sugarcane farmers. They are provided free press mud for soil health improvement and 260 Apna Sewa Kendras have been set up to promote farm mechanization among smallholders. Bio Control Labs have been set up in two sugar units, Rupapur & Ajbapur to assist farmers in controlling pest attacks while reducing their usage of chemical pesticides. Good agricultural techniques have not only increased yields but led to a saving of 275 billion litres of water in the past three years.

"Sustainable Sugarcane Development Program implemented by DCM Shriram Ltd. has helped me in reducing farm input costs pertaining to water, fertilisers and pesticides. On the other hand my yield and income have increased. Soil quality of my farm has improved which helps me get better yields across a variety of crops including sugarcane."

- Satender Kumar
Farmer, Village Nagla Kallu, District Hardoi

Satellite based imaging analysis technology used by farmers


Trench planting undertaken in the sugarcane plot at Hariyawan

"Sustainability is central to all activities at DCM Shriram Ltd. In the Sugar business too we have taken up many initiatives to drive our sustainability agenda. The multipronged approach with sugarcane farmers is based on training and capacity building which is aimed at increasing productivity, conservation of water and promoting soil health. To achieve these objectives various initiatives like trash mulching, trench planting, laser leveling, drip irrigation, foliar spray of liquid/ soluble fertilisers and propagation of bio fertilisers etc is being implemented on scale.

Covering 2,500 villages in Hardoi and Lakhmipur districts, the initiative has benefitted two lakh plus sugarcane farmers – of which more than 80% are small and marginal ones. Its inclusive, participatory and comprehensive sustainability approach has replaced the ancient practices of flood irrigation and trash burning with simple ones such as trash mulching and furrow irrigation. Sugarcane catchment areas have seen a 25% increase in yield while water saving of more than 275 billion litres has been done."

- Ajit Shriram
Joint Managing Director, DCM Shriram Ltd.

Catalyzing Community Level Change Through Convergence

Feedback Infra

Project Name:
Bhond Model Village Program

Project Location:
Bhond Village, Nuh District, Haryana

Pipe water supply laid in the village

Background

Feedback Foundation (FF) is the community engagement entity of the Feedback Infra Group. Feedback's Bhond Model Village Program (implemented by Feedback Foundation) is a CSR program that follows a Catalytic Model of Change, with a focus on achieving a population-level transformation, rather than introducing standalone activitiesor programs. The project is focused on influencing and moulding stakeholder actions rather than taking direct action on their behalf. Feedback's Bhond Model Village Program believes in invoking change through its 3C Model: Capacity Building; Catalytic Community Institutions; Convergence.

Capacity Building involves catalyzing change at the individual level by enhancing knowledge, technical and leadership capacities of individuals. It is about grooming leaders and developing local role models.

Catalytic Community Institutions is the pillar that focuses oncatalyzing communities into action; itpropels self-governed people-led institutions into action, expedites collective decision making and evokes a community movement.

Convergence directs focus at catalyzing local ecosystems by unleashing the resources and encouraging collaboration with governments and businesses.

Guided by the Feedback Foundation, the community decided to restore and clean the existing water infrastructure and build additional infrastructure as well. An exercise to revive the existing water bodies and construct new ones was launched, based on the demand for waterin the village and its watershed topography.

Driving Change Through Water Infrastructure

Bhond was a very backward village of Haryana, with over 75% of its population being socially and economically backward, over 64% being illiterate and less than 15% having primary education.

In 2014, FIPL and FFCT adopted Bhond village, located in Nuh district of Haryana and having a population of 1,500. Ever since, the Foundation has given tremendous impetus to creating a holistic, integrated and comprehensive model village, through sustained and tenacious actions. FIPL and FF have steadfastly carried out developmental activities as part of the organization's Corporate Social Responsibility (CSR) activities.

In Bhond, among the various CSR activities, one important initiative was that of improving the water situation based on a situational assessment survey carried out 5 years ago. The survey revealed that majority of the households i.e. 44.30 % were dependent on the borewell's untreated water. This was one of the key reasons for a high incidence of diseases and more than 7 days a month of absence from daily work. Hence, the Foundation motivated the communities, who decided to launch an intervention to ensure the availability of safe drinking water.

Guided by the Feedback Foundation, the community decided to restore and clean the existing water infrastructure and build additional infrastructure as well. An exercise to revive the existing water bodies and construct new ones was launched, based on the demand for waterin the village and its watershed topography. To start with, the village pond was re-excavated and renovated to create the infrastructure for rainwater harvesting. Additional infrastructure such as pipelines, submersible pumps and storage tanks were built to provide access to safe drinking water to every home in the village.

A water reservoir (18x4x3 ft) was built and two tube wells were installed in community areas to ensure water supply to the entire village. Two check dams were also constructed to divert the rainwater run-off to the catchment area and a Bandh located in the foothills was repaired to check rainwater run-off.

Pursuing the Catalytic Community Institutions pillar, a Village Development Committee (VDC) was formed. In line with the Capacity Building pillar, the VDC members were trained to undertake maintenance & minor repair of the tube wells and constituted a 'watch & ward' system to ensure that the pipelines being laid are not stolen or damaged.

The drinking water from two sources was tested and analyzed by PHED, Nuh and SGS Labs in Delhi NCR vis-à-vis the BIS 10500 standards. A follow -up visit and interactions of the PHED team with the residents of Bhond village in March 2019 found the water quality to be satisfactory.

Water Security for Prosperity

The water initiatives in the village helped recharge groundwater and the tube wells that had remained dry for over 4-5 years. Today, the village has sufficient clean drinking water as well as enough for farm irrigation. The drinking water from two sources was tested and analyzed by PHED, Nuh and SGS Labs in Delhi NCR vis-à-vis the BIS 10500 standards. A follow -up visit and interactions of the PHED team with the residents of Bhond village in March 2019 found the water quality to be satisfactory. With water reaching every home, the village is also 100% open defecation free and has witnessed a reduction in the incidence of common diseases.

Adopting a holistic approach to village development, and to ensure improved water efficiency, the Foundation trained the farmers to adopt newer agricultural practices. Guidance on changed cropping patterns, and connections were established with mandisbecause of which the farmers are now able to earn better.

With improved water availability and therefore the availability of time the women of Bhond have been empowered both socially and economically. The Foundation has helped them turn their hand-woven baskets craft into an opportunity for livelihood. Gradually, they began to bring the women together creating self-help-groups (SHGs), which has over timegrown to a healthy number.

Catalyzing Local Ecosystems for Convergence

While the Foundation initiated water restoration projects based on the survey, it also encouraged other stakeholders to contribute. The local community's involvement and ownership can bevisibly seen by the efforts made by the Village Development Committee that has been instrumental in making the model successful. The Gram Panchayat came forward to lay the pipeline that took and ensured that water supply reached every home in the village. The VDC mobilized the community and along with the village residents ensured that pipelines were laid.

Post completion of the project village level institutions ensured that tube wells remain functional by undertaking regular maintenance. The VDC along with the village Sarpanch monitored the quality of potable water by ensuring periodic testing by the District Jal Nigam.

The Foundation empowered the local people to avail benefits from the state and central government schemes. As a result the Government departments also partnered in this initiative. The Department of Renewable Energy constructed a storage tank that supplies adequate water during the dry season.

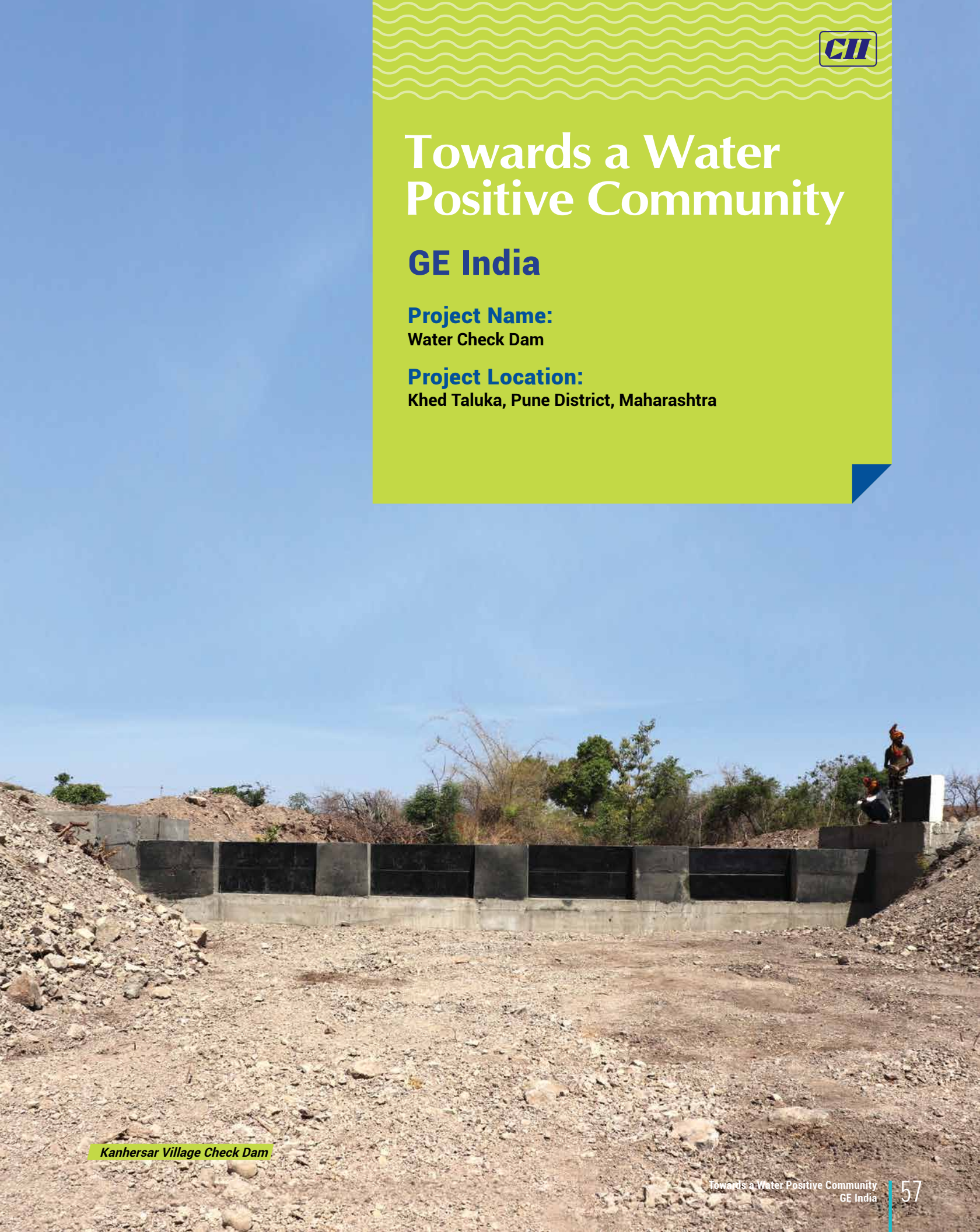
Going forward, village Bhond and its residents have been empowered and taken their destiny in their own hands. They now have taken the next big step - of adopting two nearby villages, named Sidhrawat and Bidoli, there by cascading their learnings to fashion a similar success story over the next three years.

Towards a Water Positive Community

GE India

Project Name:
Water Check Dam

Project Location:
Khed Taluka, Pune District, Maharashtra



Kanhersar Village Check Dam

Background

GE drives the world forward by tackling some of the biggest challenges facing the globe. By combining world-class engineering with software and analytics, GE helps the world work more efficiently, reliably, and safely.

For more than 125 years, GE has invented the future of industry, and today it leads new paradigms in additive manufacturing, materials science, and data analytics. GE people are global, diverse and dedicated, operating with the highest integrity and passion to fulfil GE's mission and deliver for our customers.

Kanhersar Village Check Dam

Delivering on Societal Responsibility

GE's focus on inclusiveness and social responsibility are part of its sustainability strategy. Diversity, efficient resources management,climate change and engaging partners in the process of sustainability are part of the overall agenda. The company's CSR efforts are driven through local communities and are generally focused on village development, sanitation & hygiene, livelihoods, skill development, improved farm productivity, access to basic healthcare and support to socio-economically vulnerable population.

Balancing the Drought and Floods

In pursuit of this philosophy, GE Multi Modal Facility (MMF), Pune has been working on Water Conservation projects in the last few years to address the challenges being faced by drought prone villages. The construction of a water check dam was undertaken in February 2019 in Kahnersar Village in partnership with the local villagers and the local/district administration. Kanhersar is amongst the most drought prone villages of Khed Taluka (Pune District).

To identify the site for the check dam, GE engaged in discussions with the local government bodies. The local government representatives including the Tehsildar, Deputy District Collector, and Water Conservation Department, who helped in project evaluation and selection.

It was decided that the check dam must be constructed before the onset of monsoons, which was about three months away. The idea and the expected impact were shared with villagers and the nearby communities at the planning stage. Given that Kanhersar was a highly drought prone area, anything that could bring a sigh of relief was expected to motivate the villagers. GE's implementation partners kept the villagers involved and educated them on the benefits of water conservation, enhancing their level of participation.

The construction was completed within 3 months through involvement of local communities. The Tehsildar of Khed Taluka, local government officers and gram panchayat members provided the requisite support to ensure that the three months deadline was met.The community members contributed by cleaning,revivingand digging the water-bed and supporting construction of the water check dam.

The village could store the rain water as this check dam was completed before the monsoons and it also ensured that the excess rain water did not flood the village. Community

Kanhersar Village Check Dam

participation at all stages made the project impactful and sustainable. Slowly the water level of nearby areas is expected to increase eventually benefitting 1000+ families living in the area.

The check dam has been built with a storage capacity of .88 MCFT i.e. approx. 32,000 litres. Currently check dam is filled with water. Moreover the water levels in the check dam are expected to improve the groundwater levels in nearby villages too.

Project Sustenance with Local Support

Driven as a public-private partnership project with the Govt. of Maharashtra, local villagers & GE MMF, the project has been designed for sustenance. GE has formed a committee of members from the local water conservation department and gram panchayat who will monitor the project. GE will continue to support the project; Gram Panchayat & local farmers have undertaken the task of desilting of water bed to get maximum benefit.

GE has delivered similar projects in the past as well including two check dams that were built in 2016-17 in another drought prone village. Most of GE's projects focus on impacting the communities around their establishments. The projects are chosen based on community requirements and potential to make long term sustainable impact. GE plans to build few more check dams during 2019-20 and will scale up this project in the future.

"The water check dam built by GE has been really beneficial. The floods in Maharashtra had impacted many villages but the check dam prevented a large amount of water from entering our village."

- Sarpanch of Kanhersar village

Leading the Way to a 'Sunehra Kal'

ITC Limited

Project Name:
Water Stewardship Programme

Project Location:
Across 16 States in India

Funds Allocated:
Rs. 7,767 Lakhs (FY 2018-19)

Background

ITC is one of India's foremost multi-business enterprises, with a market capitalisation of USD 50 billion and Gross Sales Value of USD 10 billion. ITC has a robust portfolio of businesses encompassing FMCG, Hotels, Paperboards & Specialty Papers, Packaging, Agri-Business, and Information Technology (IT).

The Group has also been featured by Boston Consulting Group as one of world's largest sustainable value creators in the consumer goods industry. ITC is a Carbon Positive company for the last 14 years, Water Positive for last 17 years and Solid Waste Recycling Positive for last 12 years.

Check Dam in Rajasthan

The Water Stewardship Program creates 'Positive Water Balance Status' by drought proofing the project sites. The focus is on soil & water conservation, biodiversity conservation and promotion of sustainable agriculture.

Inclusive Growth Through Water Stewardship

The company's vision of sustainable and inclusive growth has led to the adoption of a Triple Bottom Line approach that simultaneously builds economic, social and environmental capital. ITC's Water Stewardship Programme (WSP) launched in 2001 through its Social Investments Programme Mission Sunehra Kal, is aligned to this approach. Aimed at ensuring Water for All – today and tomorrow, the program creates 'Positive Water Balance Status' by drought proofing the project sites. The focus is on soil & water conservation, biodiversity conservation and promotion of sustainable agriculture.

The WSP addresses issues related to availability of and access to water for livelihood requirements. ITC's WSP is demand driven and community based participatory approach, employs low cost technologies to arrest erosion, enhance moisture, conserve rainwater and recharge groundwater.

Supply side augmentation is delivered through watershed development, field treatment and construction of water harvesting structures. Emphasis on aquifer mapping to identify potential recharge zones for groundwater recharge and improving biomass & biodiversity to enhance the soil's water holding capacity.

The demand side is managed bypromoting water use efficiency and more-crop-per-drop through agronomical practices and micro irrigation systems such ring bund & mulching in coconut, drip irrigation in banana, seedling plantation along with drip in sugarcane, zero tillage method of cultivation in wheat, Direct Seeding of Rice (DSR) etc.

In addition, ITC engages in Information, Education and Communication (IEC) activities and workshops delivered through community based organizations (CBOs) help diffuse water conservation techniques, and efficient usage of water practices. Expert and 34 grassroots NGOs implement the programs with ITC's funding support, program management support and cross learning.

34.64 million m3
total water storage capacity

Making Holistic Impact

Started with one Andhra Pradesh district, within 18 years the program has been scaled up to 43 districts in 16 States of Andhra Pradesh, Assam, Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and Uttarakhand. Covering 10.12 lakh acres, it has created water storage potential of 34.64 million kl in the Company's agri-business and factory catchments. The program has reached over 3 lakh beneficiaries including small & marginal farmers, landless agri labourers including women.

The company has initiated river basin revival programs in four sub-basin/basins spread over 13 lakh acres comprising Ghod river (tributary of Bhima - Krishna, Maharashtra), Mureru river (tributary of Kinnerasani – Godavari river, Telangana), Upper Bhawani (tributary of Kaveri river, Tamil Nadu) and Kolans river (feeds the Upper Bhopal lake, Madhya Pradesh).

As part of supply side management, over 15,000 water-harvesting structures such as farm ponds, check dams, irrigations tanks etc., have been constructed/revived and 953 groundwater recharge units have been constructed, resulting in a total water storage capacity of 34.64 million m3. Additionally, biodiversity conservation covers 22,031 acres, which improves moisture retention capacity.

Demand side management has focused on agronomical and micro-irrigation practices, which resulted in water-saving of 95.04 million m3 of water during 2018-19. While water use efficiency practices such as the use of 5,800 sprinklers/drip sets in 1.54 lakh acres helped save water, over 40,600 compost units established led to improved organic content & moisture retention capacity of soils and reduce irrigation demand. Around 5.9 million person-days of employment was generated by activities taken up by the program.

The Third Party Impact Assessments of these project have reported increase in crop yields in the range of 20-25%, increase in soil organic carbon (SoC) between 0.66% to 0.7% as against baselines of around 0.3%, reduction in cost of cultivation by 25-30%, and improvement of groundwater table up to 40%. Improved water availability led to increased productivity and net sown area under cultivation and reduced cost of cultivation, which compounded together have resulted in up to 250% annual net income increase for farmers who cultivated three crops. In addition, increased water availability has reduced the daily drudgery for women and boosted cattle rearing. Through its supply side augmentation activities, more water is available, which has increased on-farm employment in the villages, thereby reducing seasonal out-migration.

Farm pond revived in Haridwar

Water For All – Today & Tomorrow

The WSP has ensured sustainability, replicability and scalability by forming over 2,700 Water User Groups (WUGs) with a membership base of over 49,000 and a maintenance fund of INR 117.43 lakhs. These Groups participate in the program from the planning stage till the evaluation. The WUG members are trained on techno-financial aspects to enable them to independently handle the intervention in the long run, access government schemes and engage with member farmers.

ITC Social Investments Programme, as a process, launches a new programme with a baseline assessment against identified key parameters. The WSP projects are audited on a quarterly and annual basis to track progress against stated objectives/ indicators, validate financial spends and undertake field assessments. Independent assessments /studies of Projects are also undertaken 3-4 years post initiation to assess impacts.

The WSP has ensured sustainability, replicability and scalability by forming over 2,700 Water User Groups (WUGs) with a membership base of over 49,000 and a maintenance fund of INR 117.43 lakhs.

A holistic framework that rests upon adoption of package of practices on both demand and supply side, multi-stakeholder partnerships including PPPs aligned to Government programmes and supporting knowledge partnerships have ensured that the project is replicable and scalable.

Watershed Development for Building Local Communities

Mahindra & Mahindra

Project Name:
Watershed Development Fund Project

Project Location:
Hatta Block, Damoh District, Madhya Pradesh

Funds Allocated:
Total budget INR 940 Lakhs
M&M - INR 602 Lakhs & NABARD - INR 380 Lakhs

Karanjkheda KT Weir

Amongst the largest selling brands in the world, M&M's tractors & implements help raise farm productivity across continents. India's no.1 tractor maker for over three decades, it is the only tractor company to have won the Deming Prize and Japan Quality Medal.

Background

Every time the society needed Mahindra & Mahindra (M&M), the company stepped in to create a new industry. In 1945, the company's journey commenced with steel business, and over time, the group expanded to 22 key sectors.

A need for change in agricultural practices just before the country underwent the agricultural revolution, triggered M&M's foray into that sector. Today, the company empowers farmers with most relevant technology & agricultural knowhow and links them with markets to help them get better returns.

The company's agricultural inputs, advisory services, and output procurement businesses equip farmers to deliver continued Farm Prosperity, while the Farm-to-Fork model ensures stringent quality checks throughout the supply chain. Amongst the largest selling brands in the world, M&M's tractors & implements help raise farm productivity across continents. India's no.1 tractor maker for over three decades, it is the only tractor company to have won the Deming Prize and Japan Quality Medal.

The company's foray into automotive sector was also triggered by a larger noble objective of making the commute from point A to B smoother. This objective led to the introduction of India's first utility vehicle. The desire to continuously identify ways to enhance the automotive experience, pushed the company's entry into electric vehicles, pickups, and commercial vehicles. This automotive experience comes with the M&M brand values of durability, reliability, environment-friendliness, and fuel-efficiency.

Over time the company has also become a key torch-bearer of the IT revolution. With a strong belief that energy conservation will play a huge role in ensuring a better future, not just for India and its local communities, but the entire world, M&M's focus now lies in developing alternate energy sources.

Scientific Approach to Watershed Management

With success in the Pradhan Mantri Krishi Sinchai Yojana (PMKSY) in Madhya Pradesh, Mahindra & Mahindra Ltd. decided to undertake more water related projects. The company thus collaborated with NABARD in Hatta Block,Damoh district under Watershed Development Fund (WDF) Program. Aligned to M&M's vision of Farm Tech Prosperity and the RISE philosophy, this project focuseson participatory watershed development through soil &water conservation, productivity enhancement and generation of alternatie livelihoods.

Bhungroo

Gabion Structure (Village Kachnari)

The watershed project functions on the 'Ridge to Valley' approach encompassing efforts to conserve every drop of water, starting from top of the catchment to the valley along the slope. By trailing in the direction of the water flow, the intervention intends to reduce surface run-offs while influencing the flow velocity. This measure contributes to efficient management of soil, water and funds.

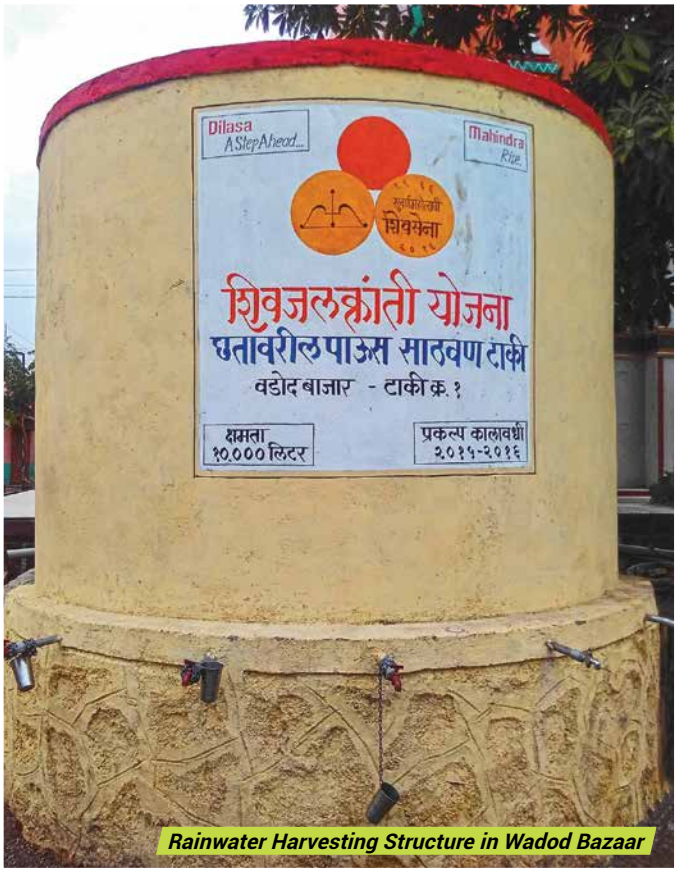
The villages are chosen basis their geographies including topography, assessment of existent watershed structures, rainwater drainage mechanism, storage tanks and irrigation channels. Each village benefits from several watershed structures working in unison to achieve the final output.

The watershed project aims at improving standards of living by doubling farmer incomes through improved agricultural efficiencies and increased access to irrigation by adoption of mechanical and vegetative measures to prevent soil erosion. Demand efficiencies are improved by guiding farmers in adoption of best practice across the crop cycle.

The project also endeavours to conserve & help regeneration of forest species and establish agri-horticulture, dry land horticulture and commercial plants for ecological balance and economic development. Efforts are also directed at achieving sustainable use and management of natural resourcesfor fulfilling increasing demand of food, fodder and fuel.

The watershed project aims at improving standards of living by doubling farmer incomes through improved agricultural efficiencies and increased access to irrigation by adoption of mechanical and vegetative measures to prevent soil erosion.

Local community involvement in the watershed project



Rainwater Harvesting Structure in Wadod Bazaar

Planned to be delivered over 7 years, (2016-2023), the program began with a 6 to 8 months of 'Shramdaan' Phase, followed by a 1.5 years of Capacity Building Phase (CBD). The program is now in the Full Implementation Phase (FIP) stage which will be delivered over a total of 4.5 years.

Post identification of watershed and target group the villagers were motivated to contribute through Sharamdaan. Together with villagers, representatives were nominated/elected to the Village Watershed Committees (VWC), the core execution / supervision institution and first administrative unit at the village watershed level.

The VWC conducted awareness programsthrough tools such as street plays to bring overall understanding of the program and for adoption of new agricultural practices. With the help of a Participatory Rural Appraisal (PRA) and village &watershed transect walks needs were assessed and resource maps developed. Based on need identification a net plan was prepared for inclusion of the village &community and linkages with government departments. The project delivery began based on a seasonal calendar of possible interventions that were designed based on a scientific study of the slope, drainage, land capability, vegetation and water resource of the watershed. NABARD approved the project funding based on this plan.

Using the drainage line and area treatment approach, M&M have linked water harvesting structures to slow down the drainage mobility. Most farm ponds are carved close to the drainage line and the outlet is also connected to the drainage once the drain velocity is minimised. This will help increase the discharge longevity of the stream.

Towards Holistic Village Development

The project is being implemented in 13 villages of Hatta Block , District Damoh, Madhya Pradesh. Spread over 4,816 hectares, it is benefiting 1,613 households and 6,884 individuals.

Sustainable Farming models for achieving round the year income have been demonstrated in 1 acre units under this project. Improved ground water levelsfrom watershed structures coupled with use of sprinkler irrigation & improved seed varieties aided many farmers to extend the cropping seasons to 3 from 2. Wheat recorded the maximum crop yield which rose from 27 to 34 Quintalspost intervention, a 30% incremental increase. Beneficiaries using flood irrigation methods reduce from 83% to 44%, as they switched to sprinklers, distributed under the M&M/ NABARD watershed project. Soil Water Conservation (SWC) treatment measures helped improve longevity in soil moisture regimes and fertility replenishment

Women Development & Promotional activities such as Female Self-Help Groups have been formed indicating their willingness to lead and participate in inclusive development. Alternative livelihood opportunities such as stitching, tailoring and utensil selling have been initiated in these villages .

With these initiatives the average annual household income increased to INR 4,41,123/- of which farm based income stood at INR 4,04,472. The baseline annual income was 29% lower at INR 3,40,774/-. Increase in annual savings witnessed recorded a 116% increase from INR 21,431 to INR 46,274.

Apart from increased interaction of villagers amongst themselves it was noticed that female participation in the project has increased over time. For drinking water, low cost ferro cement tanks have been constructed to tap and harvest wastage of domestic water. Old community ponds were renovated and linked with fish farming helping both in water availability and livelihoods. Solar Pump for water lifting is proposed in irrigation to reduce dependency on electricity.

Interculture Operations (Muhrai)

Women Development & Promotional activities such as Female Self-Help Groups have been formed indicating their willingness to lead and participate in inclusive development. Alternative livelihood opportunities such as stitching, tailoring and utensil selling have been initiated in these villages .

Demonstration of Wheat JW-1531 (Pipariya)

Framework for Long Term Sustenance

A detailed maintenance and evaluation plan was drawn up including the role &responsibilities of VWC, Project Facilitation Agency (M&M) and NABARD (RO, Bhopal). VWC monitored the project progress on a daily basis along with the M&M team at the village and watershed level. The periodic reviews by M&M management at different levels including their Head Quarters and technical experts from NABARD ensure that the project meets its objective. A monthly project report is submitted to M&M & NABARD.

The community engagement in the project continues with handing over of assets to village panchayat and VWC towards the end. To ensure long-term existence of physical infrastructure, user groups are groomed to undertake minor maintenance and long term upkeep and VWCs monitor the structures.

To sustain farm level interventions, seed banks are created at the village level and collective initiatives towards marketing have been demonstrated. Pilot initiatives of sustainable farming models are being demonstrated to help farmers achieve round the year income. Farmers are being encouraged to form Farmer Producer Organization (FPO) to develop forward linkages.

From Drought Prone to Drought Proof

Standard Chartered Bank

Project Name:
Improving water scenario in drought prone Aurangabad villages

Project Location:
Paithan Kheda, Shivnai, Kesapuri and Pangra in Paithan Taluk, Aurangabad District, Maharashtra

Funds Allocated:
INR 367 Lakhs (2017-2019)

Planned Allocation for Project Scale Up:
INR 1,500 Lakhs

Overflowing check dam post monsoons

The Bank's community investment programs are progressively adopting digital technology to be more future relevant, and to create a larger and more sustainable social impact. In this light the Bank has partnered CII Foundation and CII TWI for its water stewardship program.

WATSCAN assessed location – cement nalla bund

Background

Standard Chartered Bank is India's largest international bank with 100 branches in 43 cities, and has been operating in the country since 1858. Key clients segments include Corporate & Institutional Banking, Commercial & Private Banking as well as Retail Banking. The Bank's community investment programs are progressively adopting digital technology to be more future relevant, and to create a larger and more sustainable social impact. In this light the Bank has partnered CII Foundation and CII TWI for its water stewardship program.

CII Foundation is a public charitable trust set up by CII that works towards inclusive development by providing a meaningful bridge between marginalised communities and donors, specially corporates by providing strategic guidance on CSR and developing and managing high impact programmes.

One among CII's 9 acclaimed Centers of Excellence, CII-Triveni Water Institute is a unique institution where government, industry and civil society have partnered to address water related issues in a holistic manner.

The technology helps in identification of high/ low water generation, water accumulation and water losses pockets in the watershed.

Integrating Technology & Behaviour Change

CII – Triveni Water Institute has developed WATSCAN, an integrated IT driven, GIS and Remote Sensing based information system. It generates millions of digital pixels, links satellite and on ground databases and undertakes analytics with cloud computing. Based on these outcomes, the system identifies and designs water management strategies and demonstrates improved water scenarios, which if implemented resultin better water availability in the project areas.

The technology helps in identification of high/low water generation, water accumulation and water losses pockets in the watershed. It also highlights areas that experience high/low rate of groundwater fluctuation and other findings to facilitate appropriate decision making on interventions to ensure water security. With WATSCAN application across geographies, area specific strategies have helped save about 4 billion litres of water since 2017.

Infrastructure strategies are combined with training and awareness on water use efficiency, cropping patterns, agricultural practices and community engagement, resulting in long term transformation. Essentially, the initiative has adopted an integrated approach in aiding drought proofing, with an amalgamation of technology, community ownership, behaviour change & digital water solutions.

Actual drone shot of the site showing the Cement Nala bandhara

The project was launched in 2017 with support from Standard Chartered Bank under its WASHE programme. It has successfully implemented strategies for stabilizing/improving water resource scenario in the identified villages, positively impacting lives and livelihoods of the community.

Recharge shaft submerged under water, for groundwater recharge

Drought Proofing with Digital Water Solutions

Successful on ground implementation of WATSCAN led interventions, behaviour change and high level of community ownership & participation, are helping villages in Paithantaluk to transit from being drought prone to drought resistant. The project was launched in 2017 with support from Standard Chartered Bank under its WASHE programme. It has successfully implemented strategies for stabilizing/improving water resource scenario in the identified villages, positively impacting lives and livelihoods of the community. Engaging with villagers/community and dovetailing with ongoing Government programs such as Jalayukt Shivar Abhiyan and Village Social Transformation Mission, the project has been working towards adoption of water management strategies for enabling Social Transformation through Water Security. Concerted efforts have been made to build ownership, develop a holistic water management strategy and a model for scale and replication.

In 2017, Phase I of the Aurangabad project, WATSCAN was applied to six drought prone districts of Maharashtra for undertaking water resource assessment at the district's watershed level. The outcomes guided selection of 4 drought prone villages in Aurangabad, that aligned well with the ongoing Government initiatives. An exercise to identify critical gaps was undertaken to create maximum impact with optimal investment.

Phase II of the project involved village level assessment and implementation to scientifically enable siting of appropriate water management strategies – a combination of demand and supply side measures.

In the pre project scenario, the selected villages were experiencing a negative demand-supply water balance. With high vulnerability and low resilience, waterwas becoming increasingly scarce. Erratic rainfall meant that village wells would go dry by February- March each year, leading to high dependence on tanker water supply. Several farmers were giving up agriculture and their selling land to adopt another vocation to earn their livelihood.

Subsequently, the initiative/project led interventions, both supply side and demand side measures, were planned and implemented.

Training on shade nets

Supply side interventions:

- Identification of strategies with pin-pointed locations for implementation using drone surveys, Vertical Electrical Sounding (VES) groundwater surveys and water quality testing.
- Implementation - check dams, gabion bandharas, recharge shafts and rainwater harvesting structures were constructed based on the findings; desilting was undertake where required andlocalised Automatic Weather Stations were installed.
- Additional water storage capacities were created to bridge the village water demand, impacting over 4,000 villagers
- Water for sanitation in rural schools was successfully linked

Demand side interventions:

- Training of small-scale farmers in Sericulture, a multi-cycle 'crop', crop advice, to create alternate livelihood options
- Technical support and expert advice on input material, best practices and linking
- Soil quality analysis for selected farms recorded on farmer soil health cards
- Provision of shade nets to control evaporation and help cultivate healthier crops
- Adoption of drip irrigation to reduce water demand by 60% and optimising water usage

Cocoon - Sericulture

Sericulture when adopted by farmers under proper training and supervision will not only save water but also can increase their income by approximately 3 times against their traditional cropping practices – cotton. With sericulture, the farmers' families are getting gainfully employed.

"Solutions based on integrated approaches and decision support tools such as CII's WATSCAN which identify competing demands and assess trade-offs between different uses to guide decisions are important to move towards an improved water scenario."

- Haribhau Bagde,
Speaker of Legislative Assembly, Maharashtra

Making a Sustainable Impact

Given that the supply side interventions were based on scientific analysis, 40% infrastructure slippages were avoided, making investments credible and transparent. The check dams, nalabunds, trenches and recharge shafts were constructed in the appropriate water accumulation zones, thus leading to enhanced storage capacities. Post monsoon (2019) rise in the water levelin the observation wells have been witnessed.

With the supply side interventions, water availability at the farm level in village Paithan Kheda has increased approximately by 1500-1700 cu.m/Ha.

Improved agriculture water use through promotion of demand side measures such as sericulture, other inputs and practises is helping reduce water demand in the area. Sericulture when adopted by farmers under proper training and supervision will not only save water but also can increase their income by approximately 3 times against their traditional cropping practices – cotton. With sericulture, the farmers' families are getting gainfully employed. Shade nets are helping reduce water loss and preserving soil moisture, which will help increase productivity by 1.5 to 3 times. The demand side interventions are helping reduction in water demand by 2,300-2,500 cu.m/Ha at the farm level, thus helping bridging the demand-supply gap at the farm.

Overall the groundwater level in the village is stabilizing and water tables are showing signs of improvement , taking the village towards becoming Water Secure.The indication of potential availability of water has increased interest in farming and has prevented distress selling of farm land in these villages .

In 2019-2020 the Project will continue its focus on adoption of demand side measures-diversified agriculture practices for mitigating climate risks. This is helping the village progress from Resilience to Transformation, from Drought Prone to Drought Proof. The Project is being scaled up to another 20 villages in Aurangabad and Solapur.

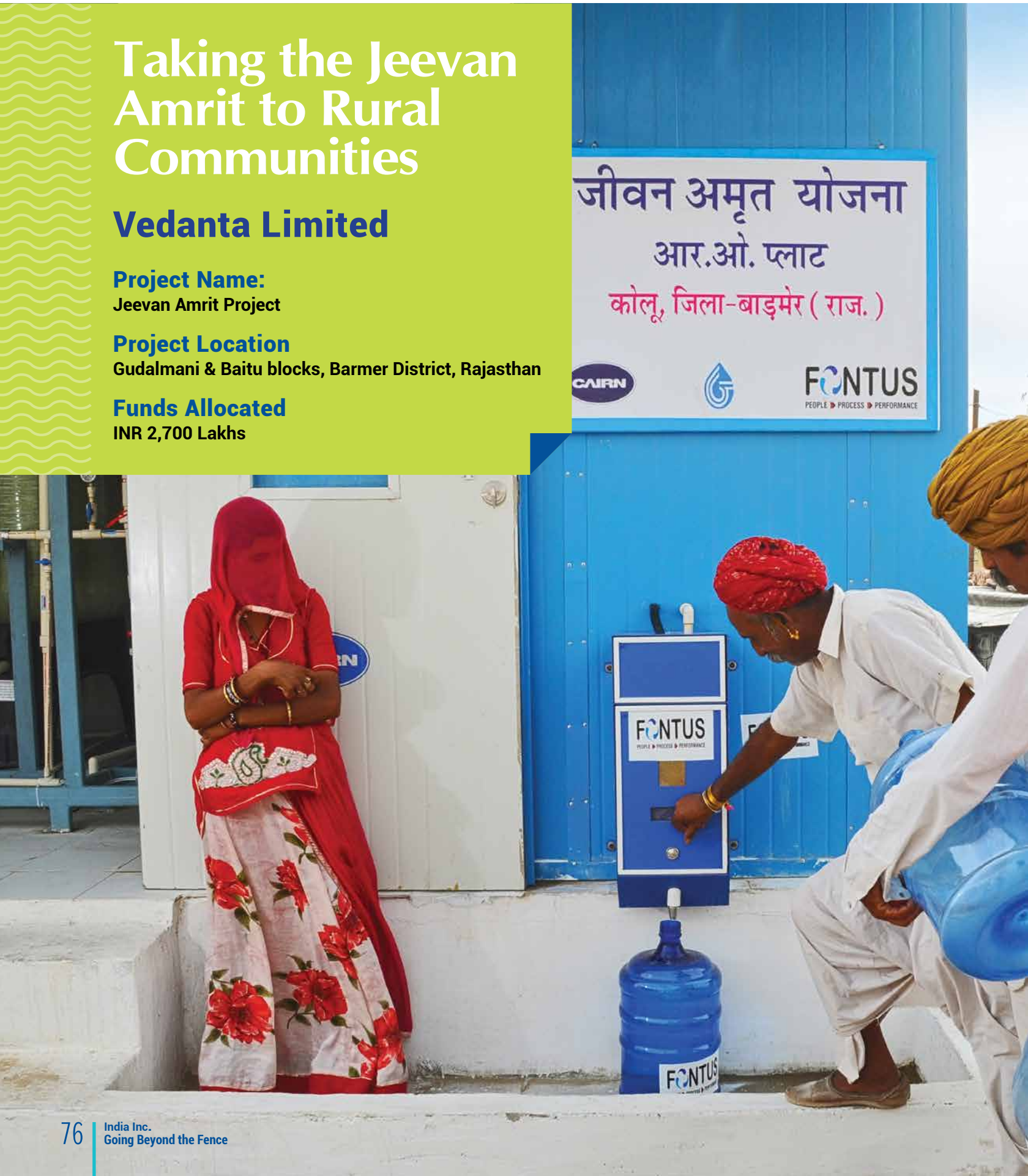
Taking the Jeevan Amrit to Rural Communities

Vedanta Limited

Project Name:
Jeevan Amrit Project

Project Location
Gudalmani & Baitu blocks, Barmer District, Rajasthan

Funds Allocated
INR 2,700 Lakhs



Safe Drinking Water Project -Jeevan Amrit

Good governance and sustainable development are at the core of Vedanta's strategy, with a strong focus on health, safety and environment, and on enhancing the lives of local communities.

Background

Vedanta Limited, a subsidiary of Vedanta Resources Limited, is one of the world's leading diversified natural resource companies with business operations in India, South Africa, Namibia, and Australia. Vedanta is a leading producer of Oil & Gas, Zinc, Lead, Silver, Copper, Iron Ore, Steel, Aluminum & Power.

Good governance and sustainable development are at the core of Vedanta's strategy, with a strong focus on health, safety and environment, and on enhancing the lives of local communities. The company has been conferred with the CII-ITC Sustainability Award, a FICCI CSR Award, Dun & Bradstreet Awards in Metals & Mining, and The Great Place to Work Award.

For two decades, Vedanta has been contributing to India's growth story. The company is among top private sector contributors to the exchequer with the highest ever contribution of INR 42,560 Crore in FY 2019. Vedanta's operations contribute 1 per cent to India's GDP as per the IFC report.

Vedanta Limited is listed on the Bombay Stock Exchange and the National Stock Exchange in India and has ADRs listed on the New York Stock Exchange.

Vedanta's Jeevan Amrit project is aimedatproviding access to potable water in areas of Rajasthan that are facing water scarcity. Vedanta's endeavors to provide access to safe drinking water is rooted in the vision & dream of Dr APJ Abdul Kalam, Former President of India.

1,000 to 2,000 litres of purified water produce by Water ATMs per hour, rejecting 99%TDS from raw water.

Making the Jeevan Amrit Safe

The state of Rajasthan constitutes some of the most water-stressed regions of the country, accounting for a little over 1% of the country's water resources. Almost 60% of the State's land mass is desert and the average annual rainfall is 530 mm, less than half of India's annual average of 1,080 mm.The state is thus almost 50% more prone to droughts than other regions of the country. Apart from water scarcity, Rajasthan suffers from water quality challenges. According to one estimate, 75% of villages in India with water quality problems are located in Rajasthan.The water available for human consumption is adjudged contaminated and unfit as per WHO standards.

Vedanta'sJeevan Amrit project is aimedatproviding access to potable water in areas of Rajasthan that are facing water scarcity. Vedanta's endeavors to provide access to safe drinking water is rooted in the vision & dream of Dr APJ Abdul Kalam, Former President of India. In 1997, having noticed the high level of salinity in the in the areas and districts surrounding his nuclear experiment area, Dr Kalam had 75 community based de-saline plants installed. In 2013, Vedantainitiated the 'Jeevan Amrit' – Safe Drinking Water Project following Dr Kalam's vision of

Safe Drinking Water Project -Jeevan Amrit

providing basic amenities to Barmer&Jalore districts. It was also launched in Viramgam, Gujarat.

The success of the project, started in partnership with TATA Projects with 32 community-based RO plants, encouraged the company to scale it up with another 92 RO plants. These were installed in partnership with FONTUS, WATERLIFE and Public Health Engineering Department (PHED) (PHED), a Government of Rajasthan body. The company has signed a MoU with Government of Rajasthan to install approx.330 RO plantsacross Barmer district to provide clean drinking water to the water-compromised communities in remote areas. The village community can draw water from these plants, also known as Water ATMs, using a pre-paid smart card. For those who can't reach the ATM, salesmen deliver water cans priced at INR 5.00 each. 'Water-on-Wheels' or Jal Raths are being operated in collaboration with local entrepreneurs who transport water in vehicles at a nominal charge.

The villages for water interventions were selected based on a certain pre-defined criteria and detailed discussions with the village Sarpanch. The village Panchayat identifies and allots the land for the plant, and helps the team get access to electricity from the Electricity Board and supply of raw water from the PHED. Villages with minimum of 250 families, located in the company's intervention area, where the PHED water has TDS above 1,000 ppm are considered for the project. Most of these village have either limited or no dhanisat all. The RO plant is generally set up at a centrally located place provided by the village.

The Water ATMs produce about 1,000 to 2,000 litres of purified water per hour, rejecting 99%TDS from raw water. Since only 45% of the total output is product water, the project is designed to utilize parts of the balance water to minimize water wastage. The waterplants can be monitored remotely in real-time on parameters such as TDS levels, input &output water quality, flow rates, etc.

Empowering Societies through Water

In the first phase, 32 RO plants were installed in Rajasthan and 10 in Gujarat; the number was later scaled up to 134 plants. The Jeevan Amrit project has benefited ~17,000 families living in the project villages.

The results reported by Gudamalani block of Barmer district, where the first clean water plant was installed in April 2013, are encouraging. Significant improvements in the health of the community, relief from joint pain, good appetite, fewer cases of diarrhea amongst children are only some of these benefits. Additionally, women, who in the absence of doorstep water delivery, had to walk several kilometres to fetch water, have derived significant benefit from the intervention. Similar results have been recorded in other villages too.

Vedanta Limited, through its flagship CSR project, Nand Ghar, has prioritized health & hygiene amongst children of rural areas by providing access to water. The Nand Ghar project aims to create model Anganwadis by providing an integrated package of services to promote early childhood development.

All Nand Ghars are provided with a borewell (or other water source) and a water purifier which ensures availability of clean drinking water for children. Additionally, access to water at Nand Ghars helps in inculcating proper sanitation and hygiene habits such as flushing and handwashing.

Framework for Sustainability

An important aim of the project is to ensure the long-term sustainability of the initiative. To ensure continued success, adoption by community and involvement of local stakeholders is paramount. Therefore, community engagement has been at the core of the Jeevan Amrit project with communities being involved in project execution, ATM operation &maintenance amongst others. The water ATMs are sustainable given that many of them are already earning revenues beyond the breakeven point, leaving a surplus that can be deployed towards community development.

Village Water Committees, formed to integrate communities into the core of the project, manage the routine operations of the ATM. They are also empowered to participate in other community development initiatives such as health, sanitation, and infrastructure. The VWC appoints an ATM operator on a salary and collects user charges.The company places major emphasis on building capacity of the VWC and ensuring transparency in its functioning through the village Sarpanch.

The project is monitored& evaluated both by the implementation partner on a daily basis and the company's team. Surprise checks and beneficiary interactionsprovide insights that help improve the project. The recommendations made in the annual externalaudits provide the basis for future action.

Testimonials

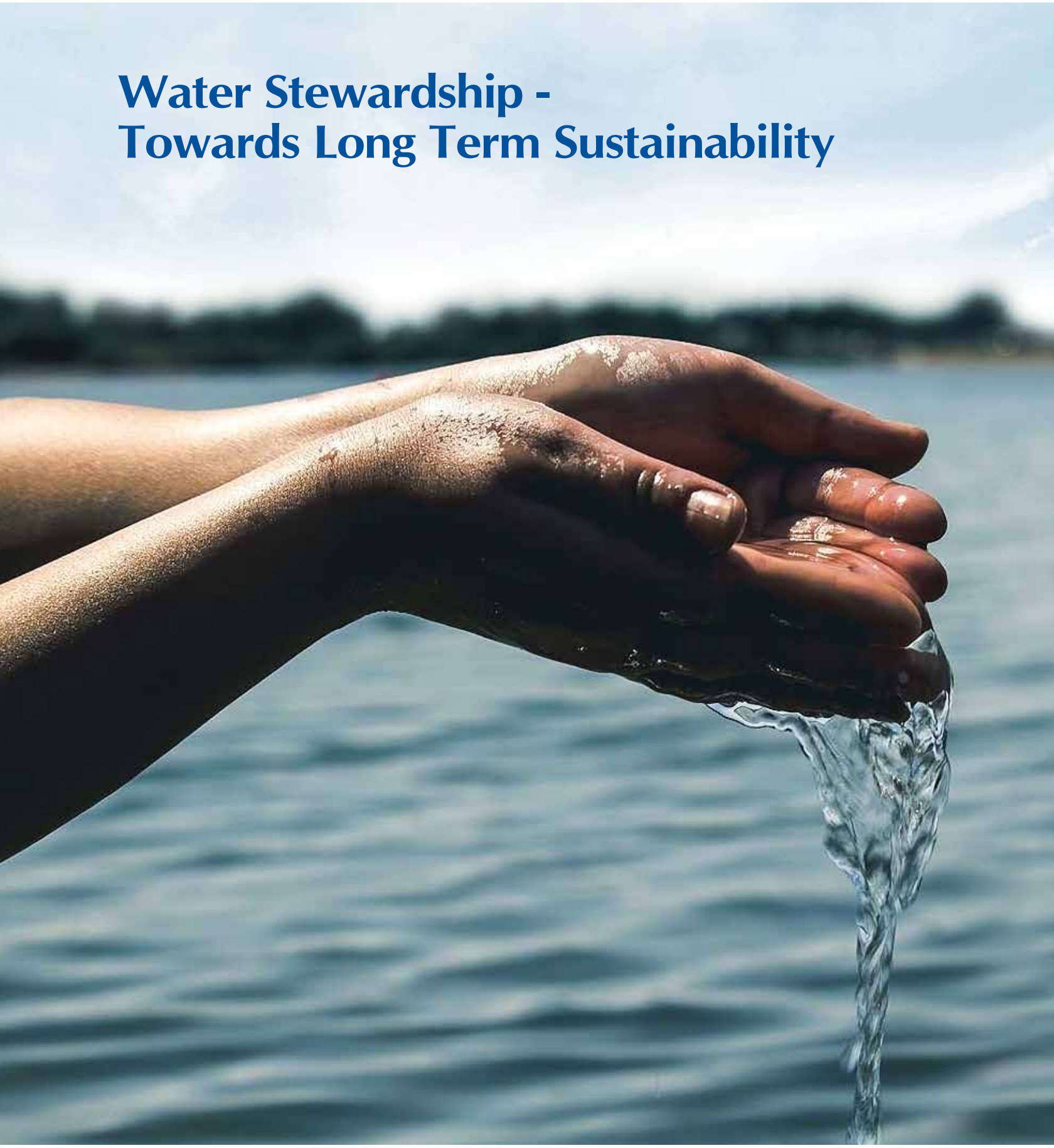
Ms Hua Devi, a resident of Pachapadra village for over 25 years and now a RO plant operator, has emerged as an icon for her community. Known as the “Water Woman" or the “Paani Waali Bai" today, her story reflects how this project contributes to women's empowerment.A change-maker and an empowered woman who is leading the entire community towards a better life, Hua Devi's is a fierce and independent woman.The sole breadwinner of her familysince her husband passed away, she acknowledges the role of the Jeevan Amrit project in making her journey through difficult times simpler.

“The appointment as RO Plant Operator has not only stabilized my family's economic status but also promoted a healthier lifestyle. Since I began earning both, the community and my family look up to me, as I now walk shoulder to shoulder with men. In addition, the job has enabled me to make my presence felt in the public sphere."

-Hua Devi

Safe Drinking Water Project -Jeevan Amrit

Water Stewardship - Towards Long Term Sustainability



The 15 inspiring stories of water stewardship symbolize the importance Corporate India is placing on water management. These stories depict how companies have gone Beyond the Fence, to improve the quality of life of their neighborhood communities.

Round the year access to clean water has meant improved livelihoods for entire families; the source of income no longer being limited to a single crop some farmers have been able to double their incomes. With restoration of water bodies, de-silting, deep cleaning of ponds, recharging of wells, construction of appropriate water infrastructure such as bandaras, nalla bunds, rainwater harvesting structures, the watershed health has registered significant improvement in various project sites.

Women and children, specially girls, have more time at hand as they no longer have to walk miles to fetch water and the family's general health conditions have improved. From the point of view of women's empowerment, Corporates have consciously involved them in the water projects and set up Self Help Groups transforming them from being only homemakers to breadwinners as well.

A Five Point Approach to Scale Up and Project Sustainability

Based on the observations in these stories, corporates could consider adopting the following five-point approach to making their water stewardship projects sustainable and scalable:

- 360-degree approach: Deploy a 360-degree approach in project design that is not limited to just restoring a water structure or providing access to drinking water. The water project must envisage driving the community's economic growth, driven by improved water availability.
- Top management involvement: The senior management needs to ensure that water stewardship projects are part of the corporate strategy led by the top management and not just one-off CSR projects. If implemented as business projects, they have better chances of long-term sustenance.
- Form win-win partnerships: These partnerships could be corporate-corporate partnerships, local partnerships or implementation agency partnerships. Collaboration helps in leveraging strengths, optimizing resource utilization and attaining scale.
- Co-Create Solutions: Involving local communities from the very beginning will help address the specific needs of the impacted audience, thus encouraging project ownership and long-term sustainability of the projects
- Create local infrastructure: Local infrastructure refers to softer aspect of project management. Creating organization frameworks such as Village Water Committees or Water Panchayats that take charge of the project from the beginning has ensured long term sustenance of the project

As India's corporates become increasingly conscious and responsible towards water management, not only to ensure continued business operations, but also towards the watershed, India can look forward to leaving its water crisis behind.

India Inc.- Gear Up to Make Waves; Not Just a Splash!

The CII Foundation (CIIF) was set up by CII in 2011 to undertake a wide range of developmental and charitable activities pan India by enabling industry for infusing inclusive development.

CIIF works towards inclusive development by providing a meaningful bridge between marginalized communities and donors, especially corporates by providing strategic guidance on CSR and developing and managing high impact programmes.

The Foundation works together with corporates, governments, communities and civil society organizations to channelize their collective resources towards social and community development. CII foundation is catalyzing collaborative efforts in implementing high impact CSR projects, particularly in the areas of Early Childhood Education, Women Empowerment, Crop Residue Management and Climate Change Resilience.

Under climate change resilience, CIIF has been working towards restoration of water bodies in Tamil Nadu and supporting improved water management practices through water mapping, planning and conservation across seven districts in Maharashtra and Haryana. The Foundation works with various stakeholders to implement local solutions and proactively engages community to ensure sustainability of its initiatives.

CII Foundation

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CII – Triveni Water Institute (CII-TWI) is one of the 9 acclaimed Centers of Excellence of CII that works towards transforming water conservation and management in India by changing the mind set and behaviour of diverse stakeholdersresulting in more effective and sustainable water management practices at the grassroots level.

The Institute, through its unique services, that make use of innovative state-of-the-art digital analytic tools and frameworks—WATSCAN, WatSmart, Water Audits and Water Awards is engaging with various stakeholders for enabling water security in the country. For transforming water management in the country the Institute works at various levels- policy, technology, governance, infrastructure, and for catalysing change in mind-sets and behaviour.

Key Areas

- Water risk evaluation and planning: WATSCAN Tool
- Evidence based implementation of appropriate water management strategies
- Water Smart Rating System : WatSmart
- Water auditing across sectors such as industry, municipality, buildings
- Water Pinch Analysis
- Benchmarking and baselines for improving water use efficiency
- Facilitating a conducive policy framework for treated wastewater; promoting new modes of financing for implementing PPP projects
- Interfacing municipality and industry; municipality and agriculture
- Facilitating an efficient framework for water usage for sustainable Smart Cities
- Stakeholder sensitisation on water use efficiency through focussed events
- Recognising companies for water management initiative

Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering industry, Government, and civil society, through advisory and consultative processes.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, playing a proactive role in India's development process. Founded in 1895, India's premier business association has more than 9100 members, from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from 291 national and regional sectoral industry bodies.

CII charts change by working closely with Government on policy issues, interfacing with thought leaders, and enhancing efficiency, competitiveness and business opportunities for industry through a range of specialized services and strategic global linkages. It also provides a platform for consensus-building and networking on key issues.

Extending its agenda beyond business, CII assists industry to identify and execute corporate citizenship programmes. Partnerships with civil society organizations carry forward corporate initiatives for integrated and inclusive development across diverse domains including affirmative action, healthcare, education, livelihood, diversity management, skill development, empowerment of women, and water, to name a few.

India is now set to become a US$ 5 trillion economy in the next five years and Indian industry will remain the principal growth engine for achieving this target. With the theme for 2019-20 as 'Competitiveness of India Inc - India@75: Forging Ahead', CII will focus on five priority areas which would enable the country to stay on a solid growth track. These are - employment generation, rural-urban connect, energy security, environmental sustainability and governance.

With 68 offices, including 9 Centres of Excellence, in India, and 11 overseas offices in Australia, China, Egypt, France, Germany, Indonesia, Singapore, South Africa, UAE, UK, and USA, as well as institutional partnerships with 394 counterpart organizations in 133 countries, CII serves as a reference point for Indian industry and the international business community.

Confederation of Indian Industry

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