Project

DESERT BLOOM

Bringing Water to the Desert

A CSR Initiative By Dabur India Ltd.

Project

DESERT BLOOM

Bringing Water to the Desert

Funded by:

Jivanti Welfare and Charitable Trust,
a CSR arm of **Dabur India Ltd**

Implemented by:

Society to Uplift Rural Economy (SURE)

Glimpses of a

Water Management & Conservation Initiative in Rajasthan

by

Dabur India Ltd.

मुख्यमंत्री जल स्वावलम्बन अभियान

Dabur

Sure

JIVANTI Welfare and Charitable Trust

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About

DABUR

Dabur India Limited is the fourth largest FMCG Company in India with Revenues of Rs. 7,680 Crore & Market Capitalization of over Rs 48,000 Crore. Building on a legacy of quality and experience of over 133 years, **Dabur is today India's most trusted name and the world's largest Ayurvedic and Natural Health Care Company.**

Known as the 'Custodian of Ayurveda', Dabur marries age-old traditional wisdom with modern-day Science to develop products for consumers across generations and geographies. Dabur India is a world leader in Ayurveda with a portfolio of over 250 Herbal/Ayurvedic products. Dabur's FMCG portfolio today includes five flagship brands with distinct brand identities -- Dabur as the master brand for natural healthcare products, **Vatika** for premium personal care, **Hajmola** for digestives, **Réal** for fruit juices and beverages and **Fem** for fairness bleaches and skin care products.

Dabur has a strong in-house research wing that follows a 'bush-to-brand' approach. Company has in-house nursery, which grows several rare herbs that go into various products. This research wing undertakes detailed tests on individual ingredients and products to ensure that the final product meets customer needs and aspirations. This in-depth knowledge about nature and natural ingredients is one of our big strengths, not just while developing efficacious products for our consumers but also for devising ways to recycle and re-use the herbal waste and to effectively conduct life cycle analysis of our products.

As a Company, we have been marrying this age-old traditional knowledge with modern day Science to not just develop highly efficacious products but also scientifically prove the benefits of each ingredient and product. As a global enterprise, Dabur has been working systematically to reduce its impact on the Environment. We take seriously our impact on the natural resources in the communities where we operate and have put in place measures to not merely comply with regulations but to responsibly take care of the Planet, preserve its beauty and

resources for future generations. Conservation of biodiversity is a strong pillar of our Environment Sustainability initiatives. Protecting biodiversity, particularly endangered plant species, is an integral part of our commitment to sustainable development.

As part of our Environment Sustainability strategy, Dabur has stepped up efforts to halt the accelerated loss of biodiversity through programmes aimed at protecting rare medicinal herbs from extinction. Under this programme, we identify environmentally sensitive species of medicinal plants and herbs, and develop methodologies to address their sustainability concerns. We have partnered with local NGOs across the country and have been involved in undertaking special training programmes for farmers, villagers and tribal communities across the country to train them on sustainable and environment-friendly cultivation processes.

Dabur has now taken a big step forward in its mission to address the issue of water scarcity in villages of Rajasthan. This initiative, rolled out under the state government's *Mukhya Mantri Jal Swavalamban Abhiyaan*, is aimed at helping the community tide over the water crisis in their area through cost-effective, eco-friendly community-based technologies. The project would also go a long way in recharging the ground water table and making water available to the farmers all through the year for their irrigation needs.

At Dabur, we believe that an organization's true worth lies beyond its business, and is best reflected by the service it renders to the community and the society. Businesses have a responsibility to sub serve larger societal goals as they have the ability to contribute significantly and impactfully to sustainable and inclusive development.

Our Vision

Dedicated to the Health & Well-Being of every Household

Our Principles

Ownership:

This is our Company and we accept personal responsibility and accountability to meet business needs.

Passion for Winning:

We all are leaders in our area of responsibilities with a deep commitment to deliver results. We are determined to be the best at doing what matters the most.

People Development:

People are our most important asset. We add value through result driven training, while encouraging and rewarding excellence.

Consumer Focus:

We have superior understanding of consumer needs and develop products to fulfill them.

Team Work:

We work together on the principle of mutual trust and transparency in a boundary-less organization. We are intellectually honest in advocating proposals, including recognizing risks.

Innovation:

Continuous innovation in products and processes is the basis of our success.

Integrity:

We are committed to the achievement of business success with integrity. We are honest with consumers, with business partners and with each other.

About

JIVANTI

Welfare and Charitable Trust

Founded by Dabur India Limited, Jivanti Welfare and Charitable Trust has been working towards empowering people and enhancing their livelihood. Jivanti is the CSR arm of Dabur, and has been helping marginalized communities develop skills to become self-sufficient.

Jivanti has been working with marginalized farmers, educating them on latest plantation techniques, giving them free saplings for cultivation and entering into an arrangement with the farmers to ensure sale of their produce. As part of its larger community development mandate, Jivanti also supports rural schools, providing them with basic infrastructure while improving sanitation facilities in these institutions. It also runs several other initiatives towards community and village development.

Jivanti also been working with local NGOs (community-building organisations) for several of these initiatives. The idea is to work at the grassroot level and develop partnerships that lead to a larger positive change in the society.

Vision

To create a society where people are self-sufficient, live in a healthier & cleaner environment, have access to better education and do not face scarcity of food & water.

Mission

To help marginalized communities, empower them and make them self-sufficient, protect the environment, provide quality education environment and improve quality of water & sanitation.

Aim & Objectives

- Environment Sustainability
- Healthcare and Medical Assistance
- Promotion of Education and Vocational Training
- Protection of Art, Sports, National Heritage
- Other Welfare Activities


मुख्यमंत्री जल स्वावलम्बन अभियान
2016-17 के अन्तर्गत
कुआँ रिचार्ज पश्चात् फसल प्रदर्शन

About

SURE

SURE has been working with village communities, rolling out development processes and programmes for several years now. It is committed to transparency and accountability while seeking to foster community ownership of assets, funds and institutions.

SURE began its community development activities in Binjrad (70 kms from Barmer), a remote, inaccessible area, devoid of any facilities and almost no means of communication, electricity or transport. SURE initially worked with women refugees from Pakistan following the Indo-Pak war of 1971. These women had exquisite skills in embroidery and patchwork. In the absence of any other option for livelihood, they were working at very low wages and were caught in a vicious debt cycle. SURE organized these women by holding skill enhancement programmes, exposure visits to craft exhibitions and other NGOs.

SURE's Vision

- All social and economic relationships must be non exploitative
- There is a 'just' social order
- Women are empowered
- There is opportunity for the downtrodden to develop by their own efforts

SURE's Mission

To work for sustainable development of the villages and the improvement in quality of life of deprived people (Tribal, SC and other backward communities, especially women of all castes and class) through capacity building and appropriate programme interventions.

TONK

DISTRICT PROFILE

General Characteristics of Tonk District : *Nawabi Nagari* Tonk is known for its historical legends. Jaipur's King Man Singh is known to have conquered Tari & Tokra Janpad in the regime of Akbar. In 1643, twelve villages of Tokra Janpad were given to Bhola Brahmin, who later rechristened these twelve villages as Tonk. One of the well-renowned districts of Rajasthan, Tonk was also the capital of the eponymous princely state of British India from 1817 to 1947. Tonk has been called *Rajasthan ka Lucknow*, *Adab ka Gulshan*, Romantic poet *Akhtar Shreerani ki Nagri*, *Meethe Kharboojo ka Chaman*, and *Hindu Muslim Ekta ka Maskan*. These names designate Tonk a significant status in Rajasthan.

Location & Geographical Area

The dstrict is bounded on the north by Jaipur district, in the east by Sawai Madhopur district, in the southeast by Kota district, in the south by Bundi district, in the southwest by Bhilwara district, and in the west by Ajmer district. The city of Tonk is situated on National Highway No. 12 at the distance of 100 Km. from Jaipur. It is located between longitudes 75°07^ to 76°19^ and latitude 25°41^ to 26°34^. The total area is 7,194 Km^2.

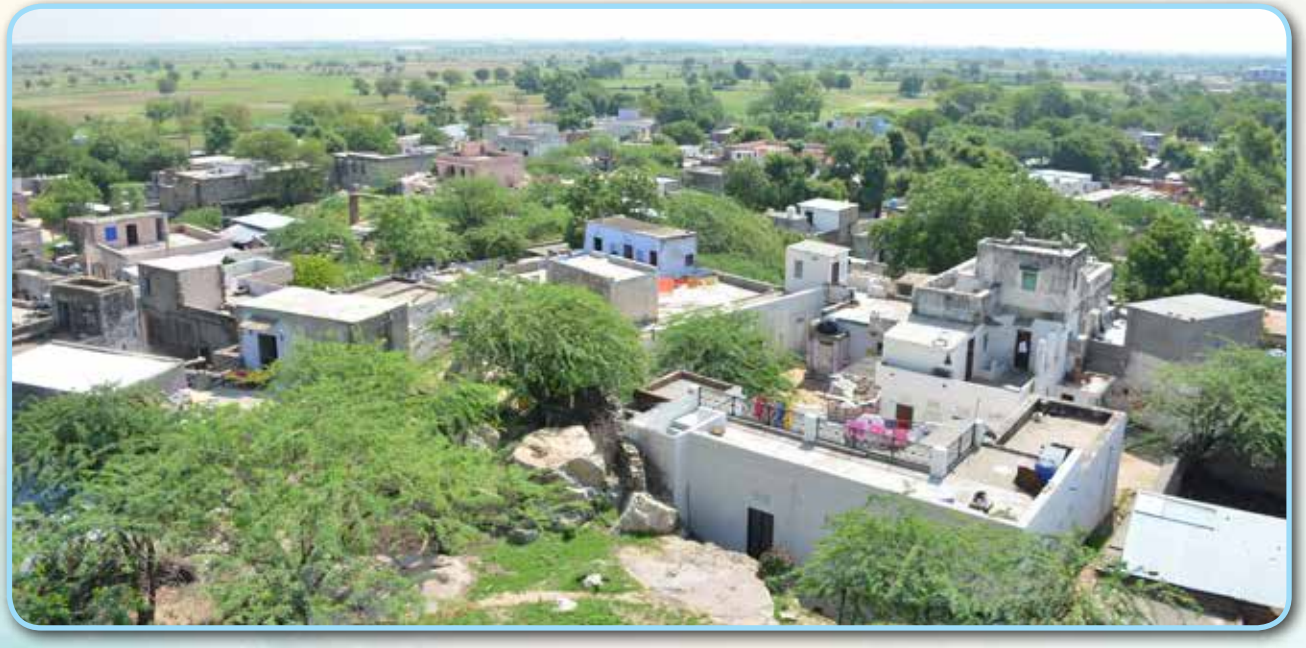
It is one of the four districts headquarters of Rajasthan state that are not directly connected with rail. The nearest railway station, Newai, is within the district, but is 30 Km from the district headquarters. Average rainfall here is 62 mm. Most of the population depends on agriculture and animal husbandry.

Physiography

The Tonk district forms the shape of a kite or rhombus, with its eastern and western sides bending inward and the south-eastern portion protruding between Sawai Madhopur and Bundi districts. The district is flat at a general elevation of about 214.32 meters above sea level with rocky but scrubby hills. The soil is fertile but sandy and the subsoil water is limited.

The distinguishing feature of Tonk district is the Aravali system, which starts from Bhilwara district and running along the boundaries of Bhilwara and Bundi districts, enters Tonk district in the south near Rajkot and continues in a northeastern direction until it leaves the district near Banetha.

The rivers and streams of this district belong to the Banas system, which is non-perennial. During Monson and for a few months thereafter, new streams appear and retain water in hollows at some places. Though it is not of much use for direct irrigation, it does lend a helping hand by raising the subsoil water level of wells. Banas River enters Tonk district at Negdia in Deoli Tehsil and thereon takes a serpentine course, dividing the district in roughly two-thirds to its west and north and one-third to its east and south. Its total length is 400 Kms. Negdia, Bisalpur, Rajmahal, Deopura, Mahendwas and Shopuri are the important villages on the bank of this river. Mashi, the principal tributary of Banas, travels along the borders of Jaipur and Tonk district between the Tehsils of Malpura and Phagi until it turns south to join the Banas at Galod village. The Sohadara is another important river as it feeds the Tordi Sagar Tank, the biggest irrigation tank in Rajasthan. It joins Mashi near village Dundia and thereafter meets Banas River near village Galod. Other small rivers are Khari, Dai, Bandi and Galwa, which join Banas and Mashi river at Negdia, Bisalpur, Chaturpura and Chouth-ka-Barwara respectively.



There are no natural lakes in the district. However, several tanks formed by harnessing the feeders of Mashi and Banas are available. The biggest of such tanks is Tordi Sagar in Tehsil Malpura, irrigating an area of more than 5,000 hectares, followed by Bhairon Sagar that irrigates an area of about 1,295 hectares.

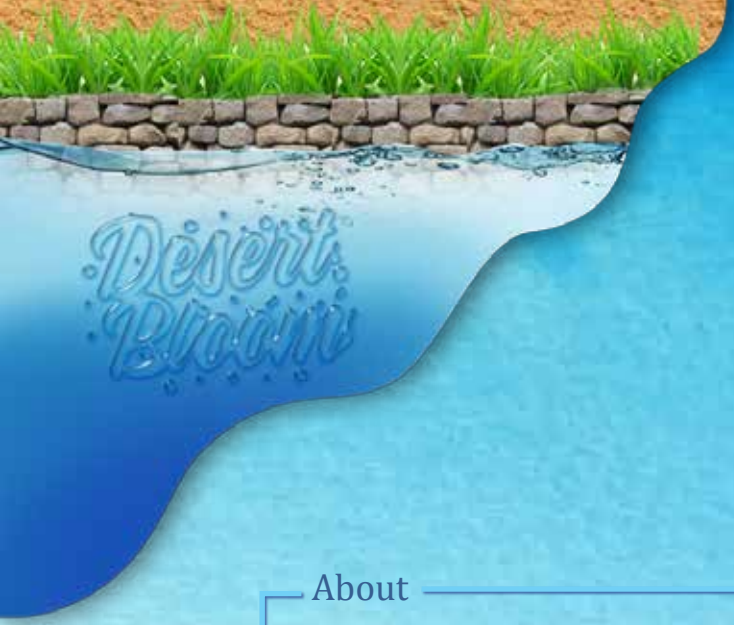
The Bisalpur dam is situated 17 Km from Deoli. The water storage capacity of this dam is 1.1 billion cubic metres. Apart from providing water to Jaipur, Ajmer, Nasirabad, Beawar, Kishangarh etc., this dam provides irrigation facilities to Deoli, Tonk and Uniara tehsils. Due to this dam, subsoil water level has risen in Deoli, Tonk, Malpura and Todaraisingh, which has resulted in increasing the fertility of soil and yield of crops.

Climate and Rainfal

The climate of Tonk district is generally dry. The monsoon season starts from the month of June and continues till the middle of September. From September to November, the post-monsoon season commences and between the winter season is between December and February. In March, summer commences and extends till the middle of June.

A metrological observatory was established very late at Tonk and according to the observation, the maximum temperature of 22°C and minimum temperature of 8°C remains in winter, whereas in summer the maximum and minimum temperature is 45°C and 30°C respectively.

About 93% of annual rainfall is during June to September, of which July and August witness the heaviest rains. The rainfall data is available from Six stations, which show the large variation in rainfall.



About

PROJECT DESERT BLOOM

Project Desert Bloom was initiated to improve the sustainable livelihood of the poorest and excluded rural communities in the project area through cost-effective, eco-friendly, community-based technologies like Water Harvesting, Water Conservation, Recharging of Tube Wells and Plantation.

Project Objectives

- Increase and diversify the economic base of excluded and poor small landholding farmers through information dissemination and application of eco-friendly and sustainable technologies for recharging of existing tube wells & wells
- Facilitate inclusive and equitable development of target communities by strengthening their access to water and technology as well as management capabilities
- Improve sustainable livelihood
- Reduce the sufferings of drought and water crisis
- Increase groundwater level by tube well and well recharge
- Water harvesting and recycling for supplemental irrigation

Expected Outcome

- Water table would rise significantly by around 8 to 10 ft
- Collection of about 3,000 cu. Metre of rainwater and delivering it to tube wells & wells
- Stored water in Tanka could be used for drinking purposes during critical period
- Stored water can be used for irrigation purpose during dry spell as protective irrigation
- Due to recharge of tube well and availability of water, farmers can cultivate wheat, barley and vegetables other than mustard
- Run-off water continuously delivered to tube wells to help the farmers pre-irrigate their field for sowing of Rabi crops in the absence of September rains
- Area under cultivation of wheat, barley could be increases due to availability of water, which would help to reduce the risk of cultivation
- Cost of irrigation would be reduced.
- Soil salinity would be decreased due to use of good quality irrigation water
- Increase awareness about water harvesting and conservation
- Increase greenery due to plantation


Dabur

Project Description

The proposed project will be working on the issues of Water Harvesting, Water Conservation and recharging of tube wells in the villages of Newai block.

Preparation:

SURE has been working towards promotion of rural livelihood, water harvesting and water conservation in close collaboration with scientific institutions. It has extensive experience in farmer education through demonstration farms and farmer field schools.

Dabur India Ltd is leading Fast Moving Consumer Goods maker. It has a manufacturing presence in Newai, a tehsil in Tonk District of Rajasthan. As part of its community development initiatives, Dabur has been rolling out Environment Sustainability programmes across the country and had successfully implemented a herb cultivation project in Barmer recently. Extending its community development initiatives in the state, Dabur has decided to undertake activities towards Water Management and Water Conservation to help farmers in the region.

As a first step, a baseline survey was conducted in all the six villages to record the ground realities. This also formed the basis for future evaluation, post the project implementation. Overall, the project seeks to help the most marginalized and vulnerable communities, comprising small and marginal farmers and landless farmers in Newai Block.

The activities can be divided into the following two categories based on the expected results:

- **Technology Transfer:** The activities herein will include Water Harvesting, Water Conservation and Recharging Tube Wells.
- **Institution building:** Raising awareness and community mobilization, strengthening Community groups, registration and capacity building of cooperatives, establishing long-term sustainability of the project.

Broad timeframe:

The project is spread over 36 months, in a phased manner. The first year would largely focus on community mobilization, organization of target groups, institution building programmes, and initiation of technology transfer regarding Water Harvesting, Water Conservation and Tube Well Recharging.

In the second year, the implementation programme would be enhanced by extending the coverage to newer locations within the block. The third year would focus on mobilization, capacity building of community members and maintenance of the established infrastructure to ensure long-term sustainability of the project.


Sure सोसायटी टू अपलिफ्ट रुरल इकोनोमी (श्योर) बाड़मेर
द्वारा संचालित जल संरक्षण परियोजना के तहत्
ग्राम स्तरीय समिति सदस्यों का क्षमतावर्धन प्रशिक्षण
सहयोग :- जीवन्ती वेलफेयर एण्ड चेरीटेबल
JIVANTI
Dabur

NEED ASSESSMENT

Need Assessment is a systematic process for determining and addressing the specific needs of the community. The results of the survey guide future course of action and help develop specific projects and programmes for community development

With the introduction of amendment to the Companies Act, 2013, spending on Corporate Social Responsibility (CSR) has become mandatory for private, public and Public Sector Undertakings operating in India. At Dabur, we have been engaged in community development activities since 1994, long before the CSR norms came into play. We strive for a positive impact in the communities where we operate, and our CSR activities have been designed to put a smile on the faces of every individual we touch.

As a responsible Corporate Citizen, we strive to build an inclusive society by helping to improve the well-being of the community. To achieve this, we have been organizing and implementing various initiatives, in partnership with the communities. The initiatives have been finalized community after a thorough understanding of the specific requirements of each community through stakeholder dialogue and engagement.

Environment creation in villages

The project was rolled out in the first week of May, 2016, with a series of survey meetings with local farmers and community elders. The idea was to create awareness about the project and introduce the beneficiary communities to the project objectives and activities. Officials from Dabur India Ltd and SURE interacted with the community members and visited the sites where the initiative would be undertaken.

Survey

For successful implementation of the project, an initial point survey is an important step. This survey was carried out between May 5 and May 9, 2016 by officials from Dabur and SURE. The survey covered six villages to ascertain the present condition of the villagers as also to gather information regarding the village profile, total population, land holding, use of rainwater, source of income etc.

The six villages covered in the survey are Palai, Aliabad, Maharajpura, Jaisinghpura, Bhamta and Jugalpura. The random survey covered 30 families from each village. On completion of the survey, a report was compiled and submitted to Dabur's CSR arm Jivanti Welfare and Charitable Trust. Chart 1 shows a tabular representation of the survey findings

Chart 1: Survey findings

	Village																							
	Bhamta				**Jugalpura**				**Maharajpura**				**Aliabad**				**Palai**				**Jaisinghpura**			
Population	2000				400				1500				1500				2000				600			
Total No. of Households	300				40				200				150				225				60			
APL** Households	248				29				158				22				180				56			
BPL# Households	52				11				42				128				45				4			
Source of drinking water	Hand pump/Well				Hand pump				Hand pump/Well				Hand pump/Well				Hand pump/Well				Hand pump/Well			
Use of rainwater	Talab/Anicut				Talab (1)				Talab (1)				Talab (2)				Talab (2)				Talab/Anicut			
Source of water	Pond	Well	Hand pump	Nadi	Pond	Well	Hand pump	Nadi	Pond	Well	Hand pump	Nadi	Pond	Well	Hand pump	Nadi	Pond	Well	Hand pump	Nadi	Pond	Well	Hand pump	Nadi
	1	50	5	3	1	10	4	1	1	10	10	1	4	50	15	2	1	100	20	5	1	40	4	1
Total Area (in bigha*)	20,000				400				1,500				2,400				12,000				5,000			
Irrigated (in Bigha*)	400				150				50				600				800				1,000			
Rain-fed (in bigha*)	18,000				250				1,450				1,800				11,200				4,000			
Main cultivated crops	Bajra (Pearl Millet), Sorghum, Groundnut, Wheat, Mustard, Barley, Gram																							

*4 bigha = 1 acre
** APL = Above Poverty Line
# BPL = Below Poverty Line

Institution Building

After the detailed survey and basis the response from the individual villages, we identified three villages for carrying out the Water Management & Conservation project. The selected villages are: Palai, Maharajpura and Aliabad.

Special Village Development Committees were formed in the identified villages and they were entrusted with the task of supervising the work being undertaken in their respective villages. They were also given the responsibility of taking care of the project after completion. Dabur and SURE assured them technical and financial support for maintaining the entire infrastructure created under the development programme. Chart 2 provides details of the three Village Development Committees.

Chart 2: Village Development Committees

Village	Total Members	President	Vice-President	Secretary	Group Leader
Palai	15	Shriram (s/o Ramdyal Chaudhary)	Sojjiram (s/o Jamnalal)	Bhawani Shanker (s/o Ramkishan)	Suraj (s/o Kaluram Chaudhary)
Aliabad	10	Sukhdev (s/o Shriram Bairwa)	Sohanlal (s/o Jagannath Biarwa)	Babulal (s/o Mangilal Bairwa)	Ramwatar (s/o Chittarram)
Maharajpura	11	Prahladram (s/o Kalyanmal)	Shankerlal (s/o Gopilal Sharma)	Harinanrayan (s/o Jagdeesh Sharma)	Hanumanra (s/o Kalyanmal Sharma)

ACTIVITIES

Water scarcity is a global concern with water becoming a scarce commodity, particularly in India where several parts of the country are facing acute water shortage. As a result, careful use of this precious natural resource is becoming important with every passing day.

India is the largest user of groundwater in the world. It accounts for over a quarter of the world's total usage every year, leading to a continuous drop in groundwater levels in the country. India extracts 251 cubic kilometer (cu km) annual groundwater –- equivalent to 26 times the water stored in the Bhakra Dam -- making it the world's biggest consumer of groundwater, according to a 2012 United Nations Educational, Scientific and Cultural Organization report. With annual extraction rates of 112 cu km, China and the US tie at a distant second.

More than 60% of irrigated agriculture and 85% of drinking water supplies are dependent on groundwater. There's been a 6% dip in share of groundwater wells within 10 metres below the ground. This depth is the threshold beyond which farmers have to start using deep-water equipment, which adds to their hardship.

For a company like Dabur, with a host of nature-based products, water availability is highly critical. Over the years, we have been working towards reducing our water consumption and we have developed a water management strategy that provides guidance on how we drive water efficiencies and reduce water usage within our manufacturing facilities. As part of our commitment towards water conservation, we initiated this project for protecting water resources in water-stressed areas, and also aiming for significant water-balancing. For implementation of the project, the following three activities were carried out in the working area:

- Nadi digging
- Tanka construction
- Recharging Pits

Nadi Digging

Nadis are village ponds that are used for storing water from an adjoining natural catchment during the rainy season. Nadis in Rajasthan serve the purpose of building up water reserves for human beings and their cattle. Besides, being a surface water body, they also act as a watering hole for animals.

The site is selected by villagers based on an available natural catchments and its water yield potential. Water availability from a nadi would range from two months to a year after the rains. The location of the nadi has a strong bearing on its storage capacity due to the related catchment and run-off characteristics.

After detailed discussion with the community, an existing nadi in Palai village was selected for rejuvenation. The nadi was in a neglected state with uneven ground level and very little water storage capacity. We started the rejuvenation work on this nadi by cleaning, repairing, desilting and deepening it with the aim of completing the nadi digging and other related activities around this pond before the onset of Monsoon. Alongside rejuvenating the nadi, our officials also conducted programmes to create awareness among the communities on water conservation and regeneration.

The 66 metre (length) x 33 metre (breadth) x 3 metre (depth) nadi now has a capacity to store around 65 lakh litres of water, enough to met the potable as well as irrigation needs of the villagers for a year. Given the good Monsoon spell in 2016, the nadi was filled to the brim with rainwater. Even after eight months, the water level in the nadi continues to remain high.

Today, this nadi has been providing water to three adjacent villages for irrigation as well as their drinking purposes. The groundwater table of wells in these villages has also risen, enabling the farmers to meet their irrigation needs. Being an industrial belt, even industries in Newai will benefit from this development, going forward.

We have also erected a barbed wire fence around the periphery of the lake. This fence, along with the herb plantation, is part of the beautification plan for the massive water body in the heart of the village. The fencing – using 60 cemented poles of 6 feet length each and three barbed wires tied horizontally at a gap of 1.5 feet – ensures that the water body is protected from encroachment and people do not throw garbage on the banks.

It also offers protection for the animals coming to the waterbody from accidentally falling over the embankment. An opening has been created to allow animals safe passage to the water body.

As part of our conservation drive, Dabur also undertook herb plantation activity in the three villages selected for this project. Under this, herbs were planted along the banks of the nadi to increase the green cover in this arid region. We planted 100 trees on the periphery of the pond to foster sustainable livelihood in the district.

Another 100 herb saplings were planted in the beneficiary villages, alongside the infrastructure created for this water conservation project. A tree guard was installed around each sapling planted by Dabur to protect it from cattle and other animals as also to provide it protection from storm and heavy wind.


सार्वजनिक टांका निर्माण
वर्ष 2018

Tanka Construction

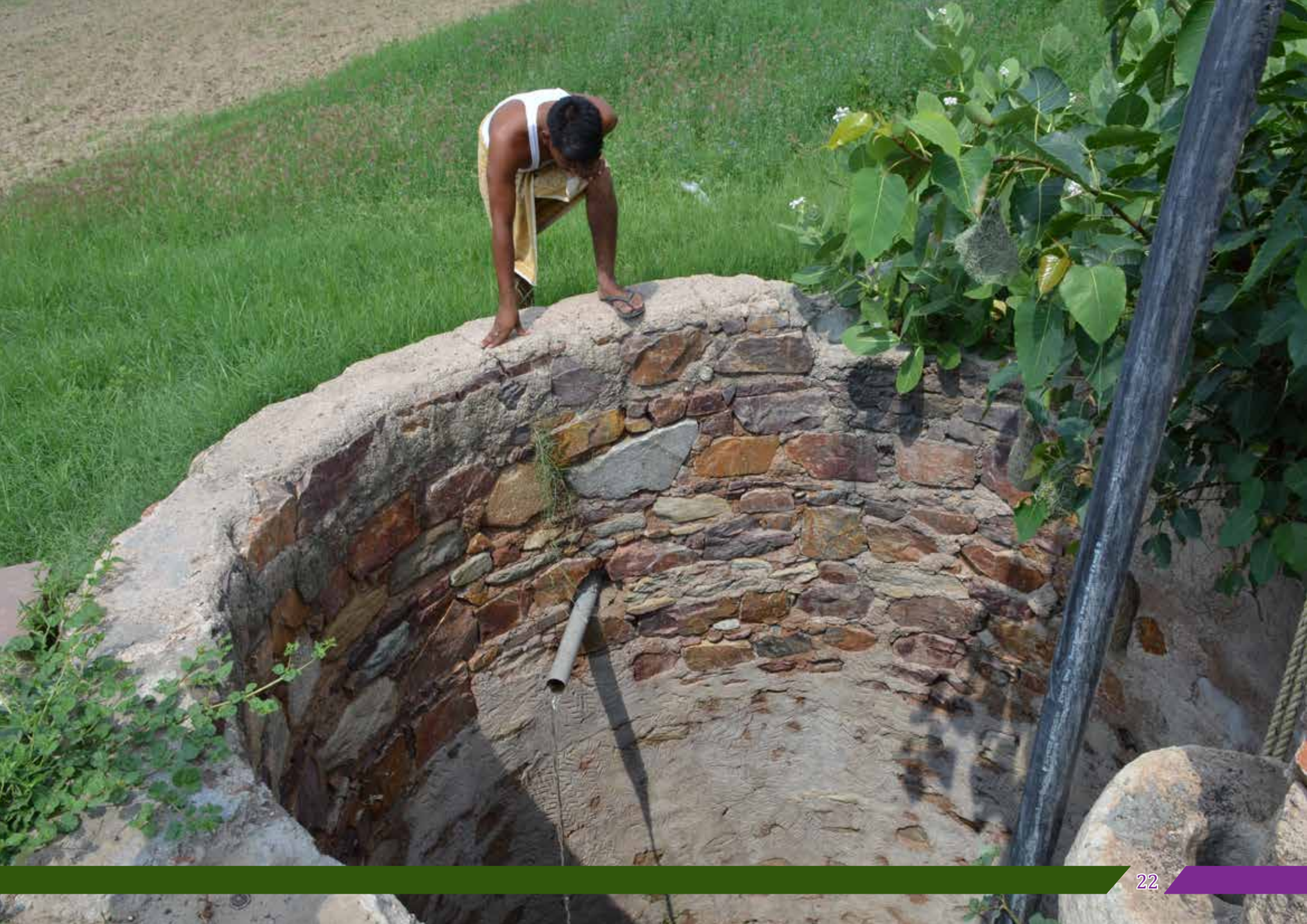
A traditional water-harvesting system in Rajasthan, Tanka (small tank) is an underground tank that is built in the main house or in the courtyard. The Tankas are circular holes made in the ground, lined with fine polished lime or cemented, in which raiwater is collected. In some cases, they are also beautifully decorated with tiles, which helps keep the water cool. The Tankas are fed by paved catchment areas, and the water is mainly used only for drinking and cooking by households.

Under this project, we decided to construct an improved version of the Tankas with labour contribution from the participating families. In all, four Tankas have been constructed in different villages for public use. These Tankas, having a dimension of 12 ft x 12 ft, were constructed at common places so that every household in these three villages can have easy access to potable water. Each Tanka has a cemented catchment area for collection of rainwater and one hand pump for taking out water. Chart 3 shows the sites where these Tankas were constructed.

Chart 3: Sites for Tanka construction

Place	Village	Panchayat
Mandir premises	Palai	Palai
IFFCO store	Palai	Palai
Beron ki Basti	Aliabad	Palai
Brahmin Basti	Maharajpura	Palai

Each Tanka – with cement plaster, cement concrete and covered with a cemented roof – has the capacity to harvest 32,000 litres of rainwater. While the Tankas were constructed primarily for meeting domestic-water needs, families can use the tanka water for irrigating their plots. Today, 50 families are benefiting from these Tankas



Recharging Pits

Water is an essential component of life. With the groundwater level receding in most parts of the country, the need to use it judiciously for all purposes and also conserve it has started gaining importance in our lives. Today, there is a growing realisation among people and government agencies about the need for prioratisation of projects related to water conservation, and ensuring that there concerted efforts are made not just to reduce reckless extraction of groundwater but also indulge in recharging groundwater.

Over the past decade, scanty rainfall and long periods of dry spell have led to a drop in ground water levels in Tonk district. This has even led to severe damage to the Kharif crop sown by the community that's largely dependent on agriculture for their livelihood. As a result, most farmers are now dependent on the rain-fed Rabi crop. However, the farmers have been facing soil-related constraints due to low nutrient content, soil degradation and poor availability of irrigation water.

Shallow tube well is a major source of water for irrigation in these villages. However, given the decline in water table, they have been facing problems because water is saline beyond a depth of 25-30 metres. Traditional rainwater harvesting systems do not have an answer to surplus rain water and follow percolation method where rain water percolates into the Earth layers and takes significant time before reaching the ground water table. The lack of awareness among villagers about in situ conservation techniques meant that nearly 40% of the total rainwater was lost.

Understanding the fact that tube well recharge is the answer to harvesting every possible drop of rainwater and sending it directly to the ground water table, we initiated a recharging project as part our larger Water Management & Conservation initiative in these villages. Under this project, we have recharged 15 tube wells and wells across the three villages. For the purpose cemented containers (with a 3ft x 3ft x 3ft dimension) were constructed and 50-200 ft long pipeline set-up. During rainfall, the catchment area water flows towards these containers. Once the container was full, the water moved from these containers to the well through the pipeline, thereby recharging the well. Additionally, a 6ft deep circular ring structure has been constructed near the existing tube wells. The containers are connected to these structres, directing the water flow to recharging these tube wells.

During the rains in July and August, 2016, all the 15 wells were recharged, ensuring that the farmers have access to water for irrigation all through the year. Chart 4 shows the number of families that have benefited from this exercise across the three villages

Chart 4: No. of beneficiaries across villages

Tube well No.	Village	Total beneficiary families
1	Aliabad	2
2	Aliabad	5
3	Aliabad	7
4	Aliabad	5
5	Aliabad	3
6	Aliabad	3
7	Aliabad	4
8	Aliabad	15
9	Palai	3
10	Palai	21
11	Palai	21
12	Palai	2
13	Maharajpura	2
14	Maharajpura	3
15	Maharajpura	2

As part of the programme, we also organized special sessions for farmers to generate awareness about recharging tube wells and adoption of sustainable farm practices for collection and storage of rainwater. The results of this initiative were immediately visible after the Monsoon season in 2016, with the village water table rising and farmers gaining access to quality water for irrigation. Around 200 farmers have benefited from this initiative, earning higher crop yields and better income for their produce. Some of the key achievements were:

- Water table has risen significantly (8-10 ft)
- Nearly 3,000 cu metres of rainwater collected and delivered to tube wells
- Stored water used for irrigation purpose during dry spell
- Run-off water continuously delivered to tube wells helped the farmers pre-irrigate their field for sowing Rabi crop despite not receiving any rainfall in September
- Due to recharge of tube well and improved availability of water, farmers cultivated wheat, barley and vegetables in addition to mustard
- Area of cultivation of wheat and barley increased
- Reduced cost of irrigation
- Soil salinity decreased due to availability of good quality irrigation water
- Production increased by 10-20%, resulting in Rs 10,000-50,000 higher annual earnings for the farmer

CAPACITY BUILDING

Capacity Building is the process by which individuals obtain and improve their skills and knowledge so that they can overcome the causes of their exclusion and suffering. It is a conceptual approach to social and behavioural change, empowering the community to achieve measurable and sustainable results.

Under the Water Management & Conservation project, a meeting with the community members was organized on February 1, 2017 and March 9, 2017 in village Aliabad and Maharajpura respectively. Forty farmers (both men and women) from Aliabad and 49 from Maharajpura attended the meeting, which sought to reiterate the need for water conservation. The farmers were informed about the best practices in tube well recharging, besides being educated about promotion of horticulture and sustainable cultivation techniques. They were also given the responsibility of maintaining the physical infrastructure created for this project.

Given the success of the project, it was decided that the initiative be extended to cover other villages in the vicinity in the future.


JIVANTI
मुख्यमंत्री जल स्वावलम्बन अभियान 2016-2017
के अन्तर्गत
जीवन्ती वेलफेयर एण्ड चेरिटेबल ट्रस्ट, नई दिल्ली
(डाबर इण्डिया लिमिटेड निवाई, राजस्थान)
एवं
श्योर संस्था बाड़मेर
द्वारा
पलेई, निवाई मे नाड़ी निर्माण कार्य सम्पन्न हुआ।

HANDING OVER CEREMONY

Following the completion of the project, Dabur and SURE organised a ceremony on 25th November, 2016, in Palai village to formally hand over the project and all related infrastructure to the villagers.

The villagers, under the supervision of officials from both organisations, will be in charge of maintaining the structures. Newai Sub-Divisional Magistrate (SDM) Mr. Haritabh Aditya was the chief guest for the function, which was attended by Block Development Officer Mr. Murarailal Sharma, Deputy Director, District Industry, Mr. Shalender Kumar, Deputy Pradhan Mr. Shankerlal Sharma, Pilai Sarpanch Ms Mamta Sharma and Former Sarpanch Mr. Shriram Choudhary, among others.

Addressing the gathering, Mr. Aditya appreciated the work done by Dabur and SURE in the area of water conservation. He said this unique project has been developed in the interest of farmers and urged Dabur to roll out similar initiatives to cover more villages in the region.

WORDS OF APPRECIATION

NATHULAL

A resident of Aliabad village in Newai Tehsil, Nathulal is a farmer by profession. On coming to know about the water conservation project being undertaken in his village by Dabur India Ltd, Nathulal decided to participate in one of the meetings being held in his village. At the meeting, he informed the officials about the hardships being faced by the villagers due to lack of water. He said the water level in his well had dropped considerably and even the tube well installed there wasn't functioning properly He further stated that the water in the well was also slightly bitter in taste.

The officials conducted a detailed survey of the village and realized that the water in his well was hard with quantity of fluoride. This 350-feet deep tube well was serving three families.

We decided to dig a large cemented basin in the area near the fields where excess rainwater was getting collected. This area was connected to Nathulal's well, which was at a distance of 80 feet, using a plastic pipe. This would allow the excess rainwater to flow into the well and help recharge the ground water.

With the construction activity completed ahead of the Monsoon showers, water quality in the well had seen a marked change and the farmers were now well equipped for a good harvest this year. The mustard and wheat crop in 2016-17 saw a sizeable growth during the year. In the previous year, the farmers could sow mustard in only 8 bigha of land, whereas the spread increased manifold this year with wheat being sown in an additional 16 bigha land. Even the farmer income from the harvest has shown a remarkable growth from Rs 43,200 a year earlier to Rs 1,00,800 in 2016-17. This marks an additional income of Rs 57,600 for the families and Rs 19,200 for each family connected with this well.

OM PRAKASH

A resident of Aliabad village, Om Prakash is a farmer and is also engaged in animal husbandry. When he got to know about the water conservation project being initiated in his village by Dabur India Ltd, Om Prakash decided to attend the meeting and apprised the officials about the poor water situation in his village. After a detailed survey, his well was selected to be included in the recharge initiative.

This 85-feet well used to serve 5 families, However, the depleting water level had forced the families to reduce the spread of their crop and restrict sowing to only a small portion of their field. This meant lower harvest and lesser income for all the families attached to this well.

The survey helped identify a tract of land where rain water would get collected. It was decided to construct a basin at this spot and connect it to the well, which was located about 60 feet away, using a plastic pipe. With this structure in place, the excess rainwater would not get collected at one place and go waste but was directed to the well and helped improve the ground water level there. This initiative has helped recharge nearly 2-feet water daily for almost a month during the Monsoons in 2016.

As a result, Om Prakash could sow mustard and wheat in an additional 30 bigha land in 2016. In the previous year, he had harvested 60 quintals of mustard and 30 quintals of wheat, and earned Rs 40,000 from the crops. With this recharge exercise in place, he managed to harvest 175 quintals of mustard and 45 quintals of wheat, resulting in a quantum jump in his earnings.

SOJIRAM

A resident of Aliabad village, Sojiram is a farmer and part-time labourer by profession. He was an active participant in the meetings being held in his village by officials from Dabur India Ltd and SURE for the water conservation project. During these discussions, the villagers raised the issue of dropping water levels in their village. After a detailed survey conducted by the officials, Sojiram's well was selected to be taken up for the recharge initiative.

This 50-feet well, which served three families, had low level of water. As a result, the motor attached to this well couldn't function for more than three hours. As a result, the Rabi crop of all the three families was affected the previous year.

The survey helped identify the area nearby where rainwater would get collected and go waste or end up flooding the fields. A large basin was constructed at this spot to collect the rainwater, which was then directed to the well, about 20-feet away, using a plastic pipe. This ensured that the rainwater would not flood the fields or go waste but would be properly channelized into the well, thereby helping raise the ground water level.

In the year 2016, they had reaped a harvest of around 15 quintal of mustard and earned Rs 52,500 from the crop. Following the water recharge initiative, they managed to harvest 30 quintals of mustard and another 12 quintals of wheat from nearly half the field. Their income too increased to Rs 1,17,600, which translated to an additional income of Rs 21,700 per family.

PRABHULAL

Prabhulal of Aliabad village is a farmer by profession and has been associated with Dabur's Water Conservation initiative. He has been a regular at all the meetings organized by Dabur and SURE officials, and had often raised the point about the need to increase the water table and to recharge the wells in his village. Members from SURE conducted a detailed survey and selected eight wells, including one that belonged to him, to be taken up for recharge.

The survey revealed that for the past two years, the 65-feet deep well has been drying up due to scanty rains. Also, the new tube well that was installed nearby to support 15 families had little water. This had led to a Rabi crop failure in the year 2015.

It was decided to dig a large cemented basin in the area where excess rainwater used to get collected. Since the well was located at a distance of about 180 feet from this place, it was decided to connect the well with this basin using a plastic pipe. This ensured that during rainfall, the excess water would get collected in this basin and flow into the well. With this structure in place, the water level started rising and the well was also filled with water during the Monsoon period in 2016.

In 2015, the poor rain had led to the wells drying up, thereby affecting their crop. With the well recharge completed this year, the farmers had enough water to ensure a good harvest. As a result, the farmers sowed mustard and wheat in nearly 28 bigha area, which led to a harvest of nearly 78 quintal. As a result, the farmers earned Rs 1,65,600 during the year with each family earning Rs 11,040.

THE ROAD AHEAD

Given the success of this pilot project, Dabur and SURE are now extending this project to another village in Newai & Alwar, besides augmenting the infrastructure in the existing three villages.

The second phase commenced in 2017-18 with the project been extended to one more village in Nawai. This will directly benefit 55 more families staying in this village of Nawai. This phase will include:

- Construction of 32 water conservation pits in all four villages
- Construction of two water collection tankas with a capacity of 30,000 litres each
- Organising capacity-building programmes for farmers

In addition, a similar Water Conservation project is being rolled out in Alwar. The intervention in Alwar will, in the first phase, cover one village, directly benefiting 400 families staying there. This project will include:

- Development of a pond with a capacity of 2,60,00,000 litres
- Cleaning, desilting, refilling, levelling and stone-pitching, wire fencing and plantation activities would be undertaken at this pond, which will be used for recharging ground water, agriculture and fishing
- Construction of 10 water conservation pits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