

# Embracing Duality

A Community Driven Approach to Reviving  
Traditional Water Harvesting Systems in Rajasthan



Published By            Arghyam, Bangalore, India.

Citation                A Community Driven Approach to Reviving Traditional Water  
Harvesting Systems in Rajasthan

Produced by            Arghyam, Bangalore, India.

Year                     2011

Available from        ARGHYAM, #599, 12th Main, HAL 2nd Stage, Indiranagar,  
Bangalore, Karnataka INDIA. PIN- 560008

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*Girdhari Singh*



*Mohan*



*Chattar Singh*

# Acknowledgement

Often we are led to believe that meticulous plans and implementation strategies are key to successful projects that bring change in a community and deliver the social impact that the project envisioned. But these plans and implementation strategies are realized on the ground by the grassroots NGOs working in the region and more importantly the people themselves, for whom such work means a significant change in their lives or livelihoods. It is the relentless work of scores of dedicated individuals who actually make things work and realize that change. The work presented in this report is a product of such efforts by the people themselves. We are mere agents in putting it together here.

We thank Sambhaav Trust for showing us all the possibilities that exist in doing good and doing it well. We owe a great deal to three extraordinary individuals Chatter Singh, Girdhari Singh and Mohan. We could have hardly understood the nuances of community dynamics between various groups had it not been for their insights.

Finally, we are thankful to the people of Ramgadh and all those villages who stand testimony to the fact that environmental crisis especially that of water isn't quite so much about its physical availability. It is to do with how we use it and manage it for all our needs. The day we really understand it, we would have taken a huge leap towards our goal of safe, sustainable water for all!

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*When we assume people are principally selfish, we design systems that reward selfish people.*

*- Elinor Ostrom*



## Summary

The current discourse on development process is often found oblivious of the cultural considerations of the community. Often the end result of a project does not match with the set of aspirations with which it had initially started. While the situation prevails and keeps repeating itself in various parts of the country, a relatively young NGO in Rajasthan has been successful in working towards the overall wellbeing of the community by the way of water.

This report shares findings from the study of Sambhaav's unconventional approach to development. Their culturally conditioned process is yielding results which have also resulted in an unprecedented revival of traditional rainwater harvesting systems in the region.

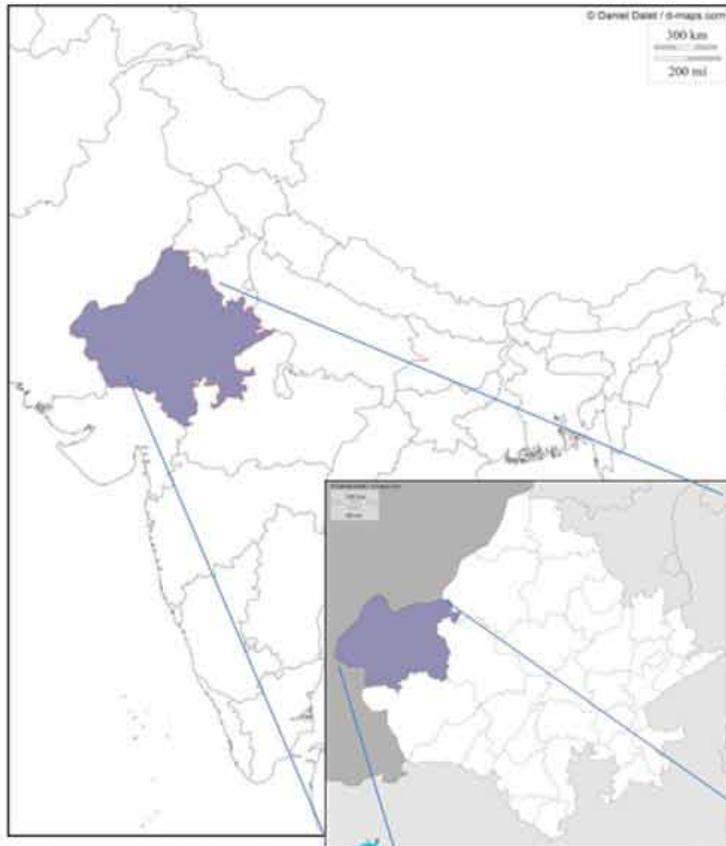
The report discusses the state of water resources in western Rajasthan where Sambhaav works, followed by an outline of the organization's engagement process with the community. Cultural context forms a common thread throughout.

There exists a duality of existence and working in Sambhaav's approach to development. This duality relates to the ability of the organization to exist in two states -philosophical and practical and at the same time manage them with great agility. They accommodate philosophical considerations like human values and public perception in their work as easily as the practical ideas of socio-economic conditions, implementation and impact. Such an ability to exist in two states- one pertaining to the higher ideals of development work and the other pertaining real work on the ground, in a manner which the people understand, is termed duality here. This duality is characteristic of Sambhaav's process and its success in western Rajasthan.

Based on field observation and interviews with Sambhaav's staff we have developed a schematic of the process that Sambhaav typically follows. It is a simple version of Sambhaav's work with the community, so that learning and innovation can be identified and adopted by other NGOs interested in seeing similar impacts in their projects elsewhere. The schematic has some attributes like time and cultural peculiarities. These are highlighted because Sambhaav's understanding of these attributes is different from the conventional understanding. And often it is this understanding that yields the kind of results that Sambhaav has seen.

Sambhaav's process is explained with a set of case studies from its project area in Jaisalmer district. Five case studies are included which illustrate various aspects of Sambhaav's work in Traditional Water Harvesting Systems (TWHS) revival.

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Inset 1: Jaisalmer District

Figure 1: Rajasthan Map



Inset 2: Ramgadh Region, Jaisalmer

*Figure 1: Location of Rajasthan and Jaisalmer District*

# 1 1. Introduction

The current discourse on development process is often found oblivious of the cultural considerations of the community. Often the end result of a project does not match with the set of aspirations with which it had initially started. While the situation prevails and keeps repeating itself in various parts of the country, a relatively young NGO in Rajasthan has been successful in working towards the overall wellbeing of the community by the way of water.

Sambhaav's work in Rajasthan should be of particular interest to those in development sector because of the organization's nimble yet multi dimensional approach that also delivers 'lasting' results. What they accomplish with the community is not just a piece of infrastructure which delivers but a revitalization of community's confidence in their own abilities.

## 1.1 Background of the Region

Kalibangan, was a major provincial city of the civilization that first spread in this part of the world. A provincial city on the banks of river Saraswati where world's earliest evidence of a ploughed field was found. It was a part of the civilization which flourished across the Indus and which developed earliest ideas of planning and organization in the human society. This major city folded up 4000 years ago due to acute water stress. Kalibangan lies in what is known as the Great Indian Desert in the state of Rajasthan. Kalibangan, archeologist believe was abandoned because the Saraswati river dried up. Hydrological evidence and radio carbon dates indicate that acute water stress developed in the region and brought its end.

Kalibangan was not the first and last time that water availability threatened the very existence of the people in the region. It happened over and over again, as the history suggests. Instead of having an adverse impact on people's lives, what it in fact did was spawn a amazingly vibrant culture and time tested traditions which came out of the

fine web of interactions between people, nature and its resources. Today's Rajasthan is in many ways a highly evolved form of interaction and co-existence of man in the environment which many would find harsh and difficult to live in.

While many object to a plain notion of calling Rajasthan a desert state, and argue that one must look not only at the amount of rainfall in the state but also the pattern, it is equally true that the available water in the region is lower than other regions of India. In such an environment conservation of every drop of water that is available becomes imperative. This message as well as practice of traditional water conservation techniques has been well documented by researchers and anthropologists over the years. Most prominent of the work being Anupam Mishra's Radiant Raindrops of Rajasthan.

The range of water conservation methods employed by people of Rajasthan if anything, are an indication of the ingenuity of the people. It also leads to an understanding of how communities in their own manner (sometimes vague, sometimes a concerted approach) find a way around their problems. One of the goals of this report is to highlight this process of the community which must not be disregarded in the interested of development.

This study is about Rajasthan's Jaisalmer district. The district is located within a rectangle lying between 26°.4' -28°.23' North parallel and 69°.20'-72°.42' east meridians. The water in the region is generally brackish, with groundwater level lying at an average of 250 ft. The district has no perennial streams. The geography is marked by vast stretches of sand which is a part of the Thar Desert.

Sambhaav Trust is a partner organization of Arghyam and has been working in the villages of Jaisalmer district for over five years now. It works towards welfare of the people here, often by employing water as a medium of change. There is an understanding that water has been a unifying agent which brings people together or at times separates them. For the central role that water plays in the lives of people, it plays a key role in a community's well-being and unity. Sambhaav harnesses this common factor and facilitates change by organizing people around addressing their water related problems and in the process bring together the community in a manner that it has a significant spillover effect on everything that the village does that point onwards.

The observations were made during a trip to the region in



*Image 1: Girdhuwala Village, Ramgadh. The approach road to this village is often covered with sand dunes.*



*Image 2: Isawal village and its livestock.*

August 2011 with Sambhaav's team. The villages covered in this are Netsi, Hemma, Ekalpar, Dablapar, Ratan Ka Gaon, Koriyon Ka Gaon, Girduwala, Dherasar, Habur, Ramgadh, Naval Singh Ka Gaon, Raghua, Sherawa, Joga, Miyon Ki Dhani, Goval and Siddha.

## 1.2 Problem

This report identifies cultural and traditional practices that people have evolved around water and how these practices are leveraged by Sambhaav in working with the community. Sambhaav's core approach is to facilitate a development process which is thought, led and implemented by the community itself. Therefore, while referring to the problem care must be exercised, for the nature of problem is a shifting landscape. What was a problem of inadequate water availability in a village five years back, may not be a problem at the time of researching and writing this report.

However the recurrent problem in various villages that concern this report is that of water availability. Water conservation is the overarching issue. Systems like Khadein, beri and tanka have fallen in disuse or are in damaged condition in many villages. These are the same villages where the available water resource is not sufficient for drinking water needs, livestock and agriculture. At times state of disuse of an earlier used system like Khadein is due to interpersonal issues where quarrels and disagreements have led to the neglect of the Khadein. Overall, the problem is about availability of adequate water for three main requirements- drinking, for livestock and agriculture.

## 1.3 Water Availability

Rajasthan's mean annual rainfall varies from 100 mm in Jaisalmer to around 900 mm in Udaipur. The desert region of Rajasthan receives the lowest annual rainfall in the country. However, in terms of per capita availability of renewable water resource, Rajasthan isn't water scarce because it also has lower population density across the state. Therefore, physical availability of water is adequate

for the region. The prevailing problem of availability of water then implies that this probably has to do with how people in the region are conserving and managing their water resources.

Jaisalmer district comprises of semi-consolidated formations which include sandstones, limestones and Aur beds. The dugwells in Jaisalmer limestones yield 13 to 68 m<sup>3</sup>/day. The yield of wells in Lathi sandstone varies from 50-150 m<sup>3</sup>/hr. The consolidated rocks includes gneiss, granites, schist, phyllites, marble and Vindhyan sandstones, limestone, quartzite and basaltic flows, mostly restricted to eastern part of the State. The yield prospect is limited unless the well is located near major lineaments or any other weak planes. The ground water quality is in general poor (brackish to saline) at deeper levels.

## 1.4 Modern Changes

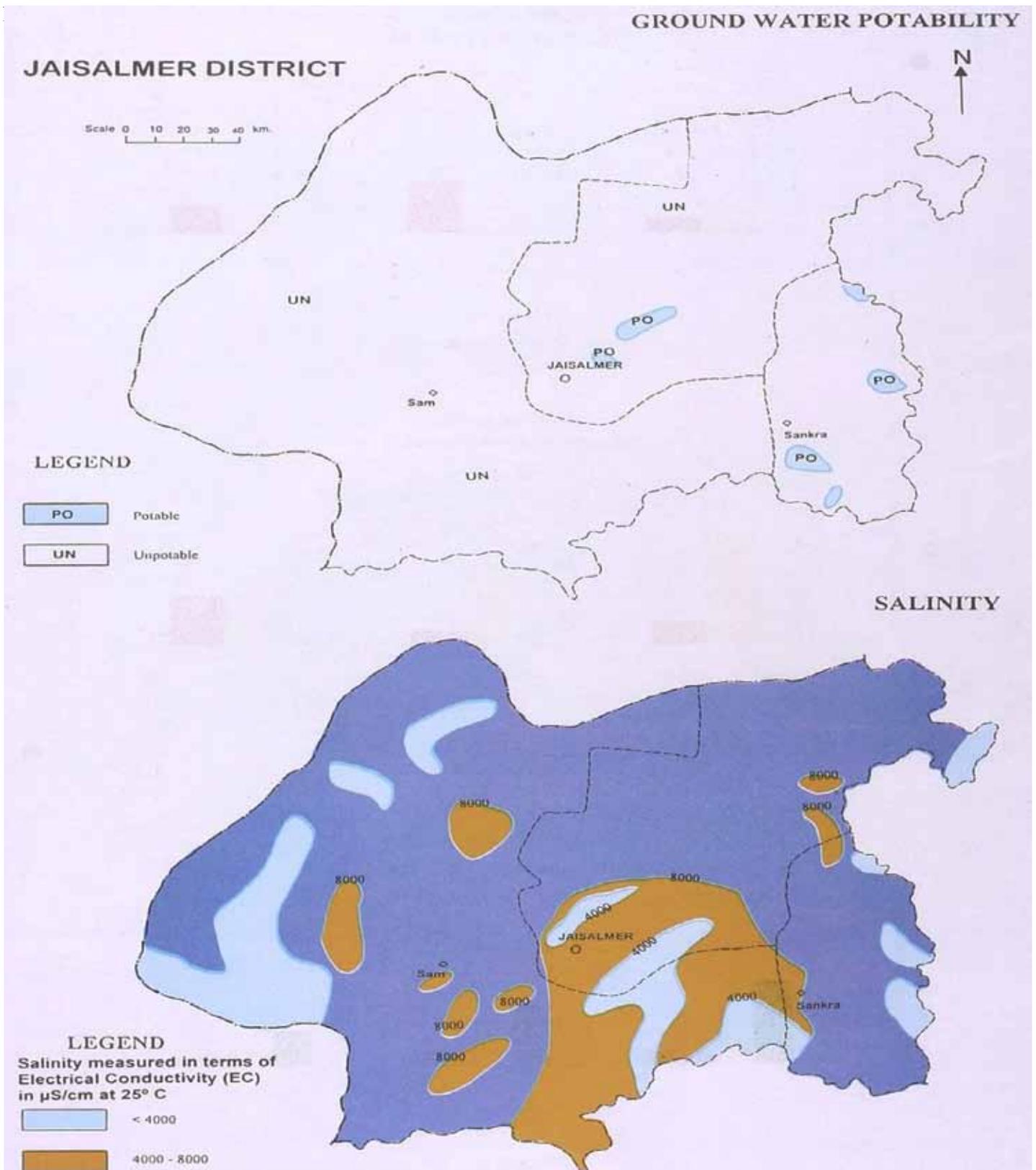
A visible change in the landscape and geography of this region was brought about by the Indira Gandhi Canal Project (IGCP) started in the year 1965, which was originally planned to bring water to the deserts of Rajasthan. The water was to meet agricultural as well as drinking water demand of the region. While this project had limited success, it was heralded as a landmark project as many believed that it would contribute significantly towards address the water shortage in the region.

Higher economic growth countrywide has impacted the region in a limited manner in terms of growth in infrastructure and people's standard of living. There may be an apparent increase in income but based on limited exposure to ground situation we believe that the increased income has not translated into any observable improvement in general conditions that people live in.

## 1.5 Population Density

Jaisalmer district has a population of 672,008 (Census of India 2011) with a population density of 17 inhabitants per square kilometer (44 /sq mi).

The villages are spread far and wide, with an average of 100 families constituting a village.



*Figure 2: Distribution of potable groundwater in Jaisalmer district*

## 2. Traditional Water Harvesting Systems (TWHS)

### 2.1 Traditional Understanding of Hydrology

Water resources- its conservation, augmentation, judicious use and management has been a central element of people's lives in Rajasthan. Water pervades the Rajasthani culture like no other aspect of their lives. The relation between man and water resources has transcended beyond the realm of human beings using an ecological service. Instances of this exceptional man and water resource have been extensively documented by Anupam Mishra in his works like Radiant Drops of Rajasthan. A culture with such deep rooted relation with water is bound to have a highly evolved practice of water conservation and use. These practices exhibit a planned and efficient arrangement that people have developed over centuries. These practices (and water harvesting and storage structures) are generally referred to as traditional water harvesting system (TWHS).

Now, for some reasons TWHS are not being used as extensively as they were used in nineteenth and twentieth century. A few large wells and lakes are still in use but these are a fraction of what existed earlier. With the region facing acute water shortages again, it is widely believed by planners and environmental experts that these TWHS must be brought back in use, promoted widely and perhaps construct new ones as these can potentially address the water stress that many districts like Jaisalmer face.

In Rajasthan, people understand water to be of three types. This classification is based on the region of earth's crust where it is located.

**Palar Pani:** The water obtained from rains is referred to as palar pani. This water forms most of the surface water resources. As the rains are scant in this region, the water from it is also scant. It is the most important source of fresh water and therefore every effort is taken to conserve this water.

**Patal Pani:** This is the water that forms the water table

underneath the surface. It is tapped from wells and the depth below the ground level at which the water is available varies across the region.

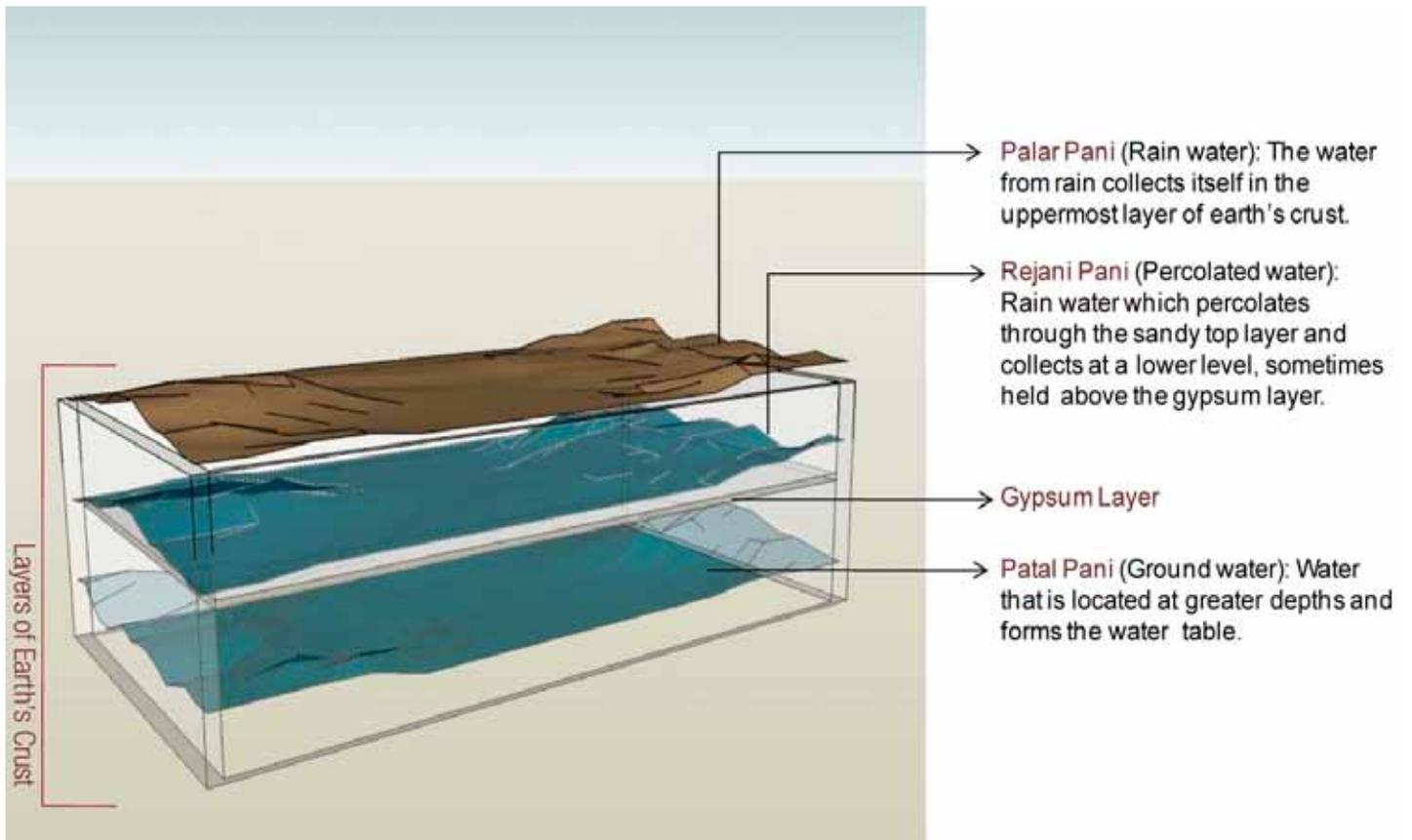
**Rejani Pani:** The surface water which percolates down enters into a zone of several layers of soil. In this zone a substantial amount of water gets trapped. This water is called Rejani pani. In places where the geological composition also contains a gypsum layer, this water collects above the gypsum layer. Gypsum is impermeable to water after it absorbs a certain quantity of water itself. Therefore, in places where the ground underneath has a gypsum layer another layer of water is accessible as a resource. In western Rajasthan rejani pani is a key source of water. It is accessed with structures like beri.

Various types of structures have evolved over time to access these different sources of water. These are illustrated and discussed in the next section.

### 2.2 Water, Traditional Knowledge and Architecture

The region's hydrogeology is such that the water is dispersed across the medium and in varying quantity. Accessing this water then needs a close understanding of the environment as well as of ways through which this water can be tapped for use. The method of tapping the water has to be such that every drop of water is used for a purpose and at the same time the quality of water is maintained to ensure potability. The water use and conservation practices of the people over years has led to development of specific structures which have the following features:

- The structures are multi-purpose. They serve people's drinking water needs as well as their livestock. The surplus if any is used for agricultural purpose.
- The structures are designed to keep water clean and maintain its quality.
- These have a high storage capacity and ensure use over many seasons.



*Figure 3: Types of water and their locations below earth's surface according to traditional hydrology in Rajasthan*



*Image 3: A man drawing water from a beri. Water in the beris is said to be rejani pani.*

d) The structures have a high water harvesting potential.

## :2.2.1 Kacchi Beri

Another form of beri which helps in accessing rejani pani is a structure with minimal construction above ground. Since this is not completely developed into a formal or permanent structure is it referred to as kacchi beri.

The mouth of kacchi beri lies at ground level. This is an easier structure which can be readily developed.

## 2.2.2 Beri

Beris are structures that provides access to the percolated water or rejani pani. This is a tank type construction above the ground level, constructed with locally available sandstone. The opening (mouth) of a beri is about 2 feet wide. As it goes deeper the diameter of the hole widens from 3 feet to 5 feet. The purpose of a small mouth is to reduce water loss due to evaporation. Water available in these beris can last at least two seasons of draught and still provide drinking water for people and their livestock. An elevated platform on top of the beri facilitates easier access and is ergonomic for reducing the load when drawing water from it. This also reduces instances of contamination of water.

Water for livestock is drawn into a separate tub from the mouth of the beri to avoid contamination. Transfer outlet lets the water flow from tub 1 to tub 2 when a user pours water into tub1.

## 2.2.2 Khadein

This structure is used for harvesting rainwater or parlar pani. It is a low lying area where rain water is harvested and appears as a temporary lake when completely filled. The water harvested here stays for few weeks to few months depending on the amount of rain the region receives that year.

When the water of this temporary lake dries up, the dry bed is used for farming as a substantial amount of moisture is still present in the soil. The size of a khadeen ranges from a few hectares to hundreds of hectares.

**Pal/Dhora:** is an earthen embankment made from sand and shrubs planted over it. The embankment is made in

an interesting manner. For the first time when the embankment is made people work together and contribute their labour voluntarily. This practice of co-operative work and contribution of labour is known as LASIPA. The Pals are mostly built in a direction which is opposite of the general direction in which the wind blows so that winds which carry a lot of sand can deposit them on the embankment. Over the years the natural phenomenon of blowing wind makes the embankment stronger.

The catchment area of the khadein is indicated with red arrows.

**Spillway/Chaddar:** This is a construction which functions as a regulator of water level. Once the khadein is filled up to a certain level excess water flows over the top. Chaddar's height is always lower than the embankment's height. The chaddar is a stone masonry structure bound with cement concrete mixture. It has a 4-5 feet foundation below ground to withstand the force of stored water.

**Nala:** This is an outlet built on the embankment to release water from the khadeen in situations like a crack in the embankment or other emergencies.

**Figure:** This shows the community's practice and interaction with the khadein.

The deposition and direction of flow of water is the direction in which the land is divided among the people. This ensures equitable distribution of water and equitable share of fertile silt deposits.

There is a zone besides the embankment which is designated as a 'no till' zone. Traditionally there are temples and trees in this zone to ensure that no one tills this area. This zone is not tilled to prevent the embankment from weakening due to agricultural use.

It is observed that over several years of use of a particular khadein the land on the otherside of the Khadein also gets replenished of its fertility and brought under farming. Many families have begun to practice agriculture from the water that spills away from the chaddar.

## 2.2.4 Tanka

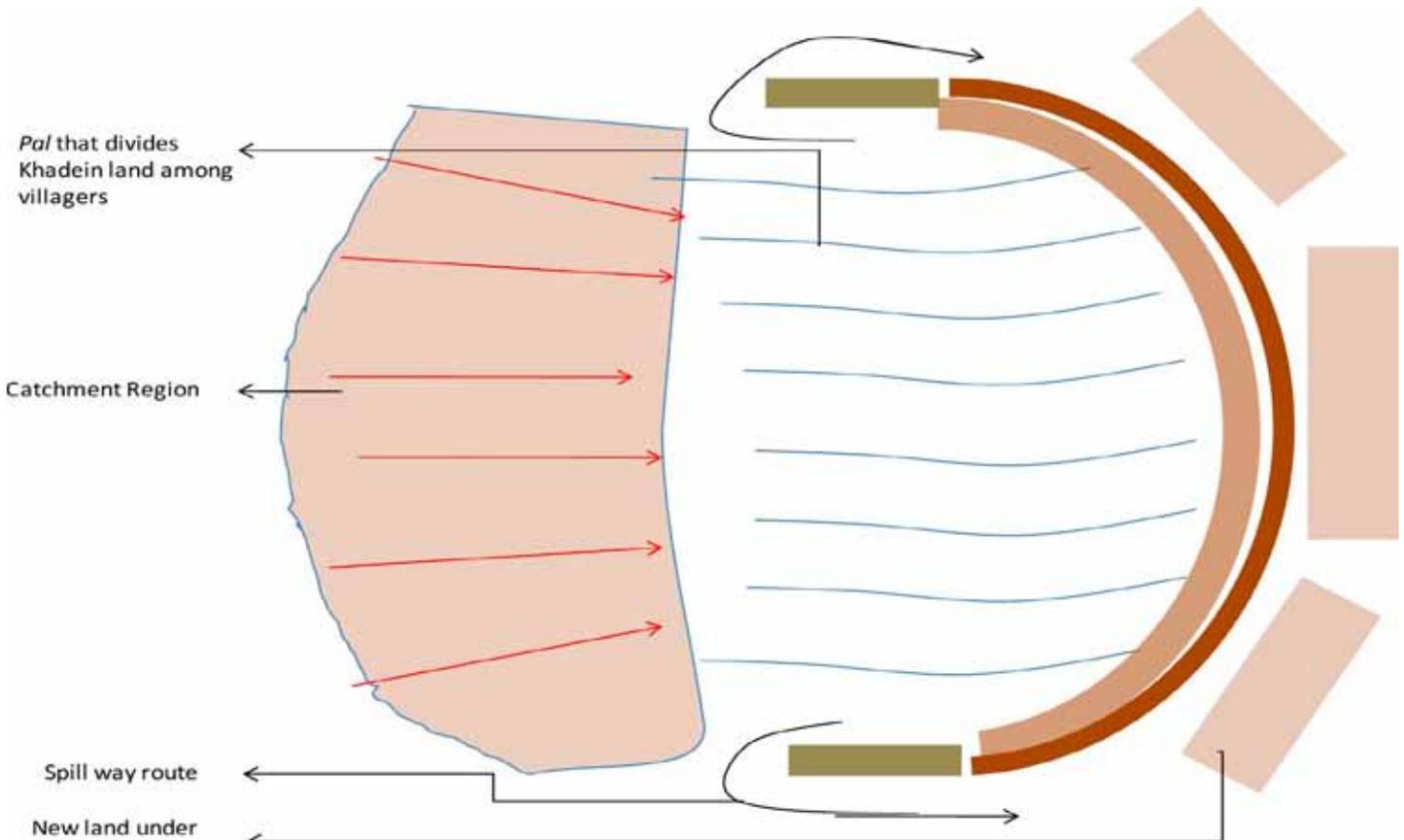
These are structures used to harvest rain water and store them for future use. Tankas can be built for individual (household) use as well as large ones for community structures.

It is generally understood without any explicit rules in the community that the catchment area around a tanka has to be kept clean and so no human activity like bathing, washing etc should be performed in that region.

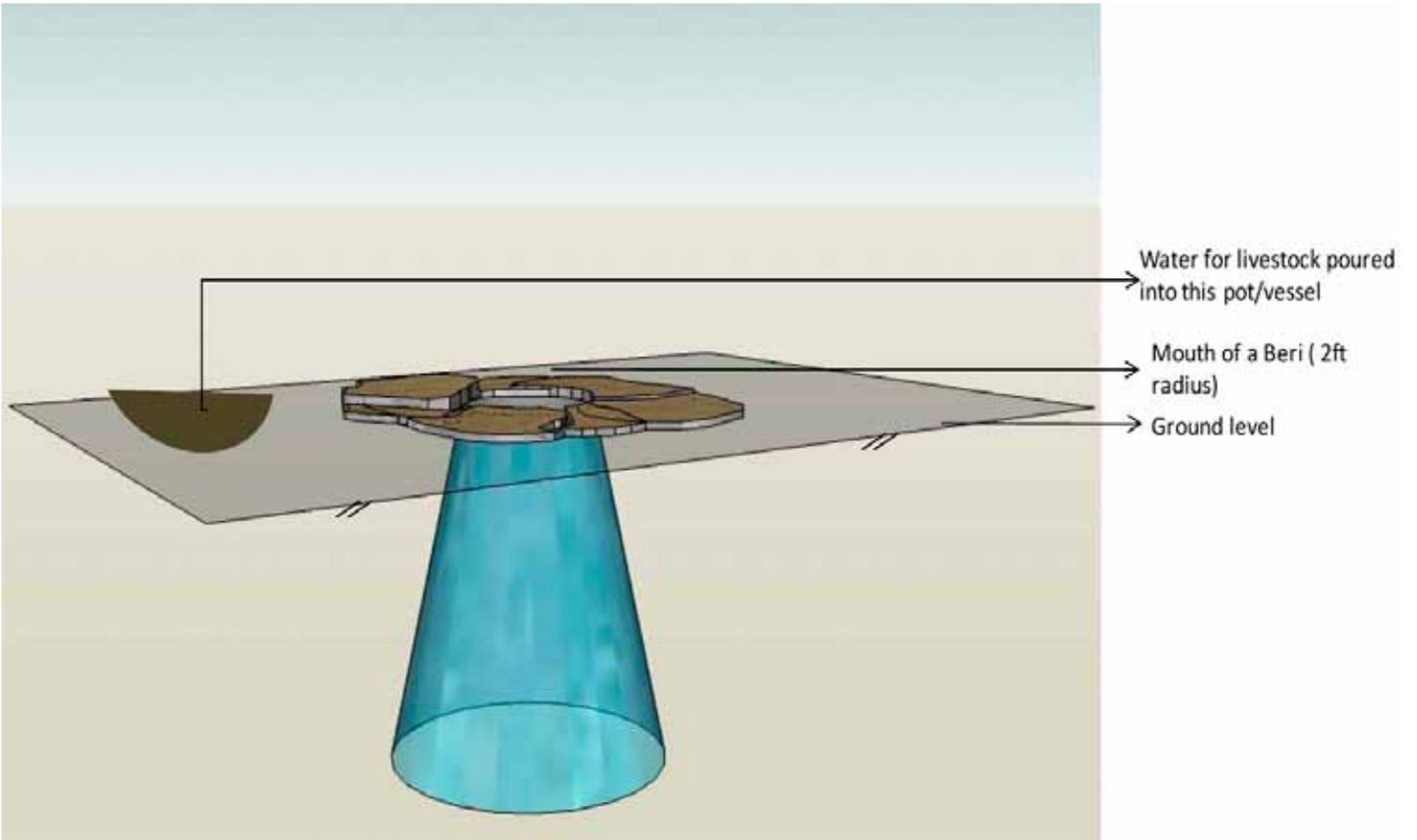
These tanks can store water for drinking purpose for a year. The time period depends on the size of the tanka and the catchment zone as well.

Inlet- water from the catchment region enters the tanka through the inlet vent.

**Silt trap:** Right before the water enters the tanka there is a depression created in front of the inlet to trap any silt carried by the water in the depression.



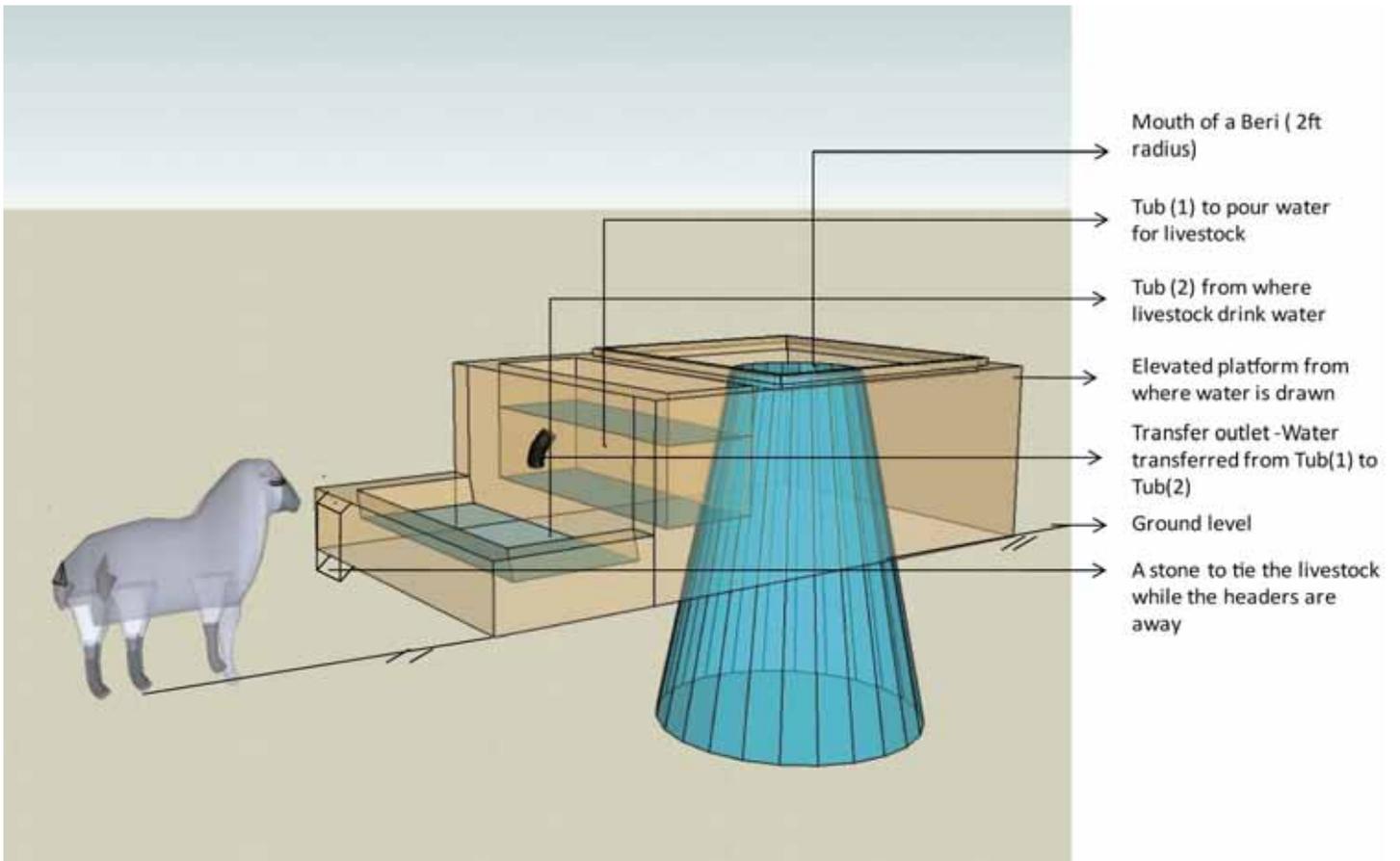
*Figure 4: The figure illustrates the flow of water from a khadein and its parts.*



*Figure 5: Structure of a kacchi beri*



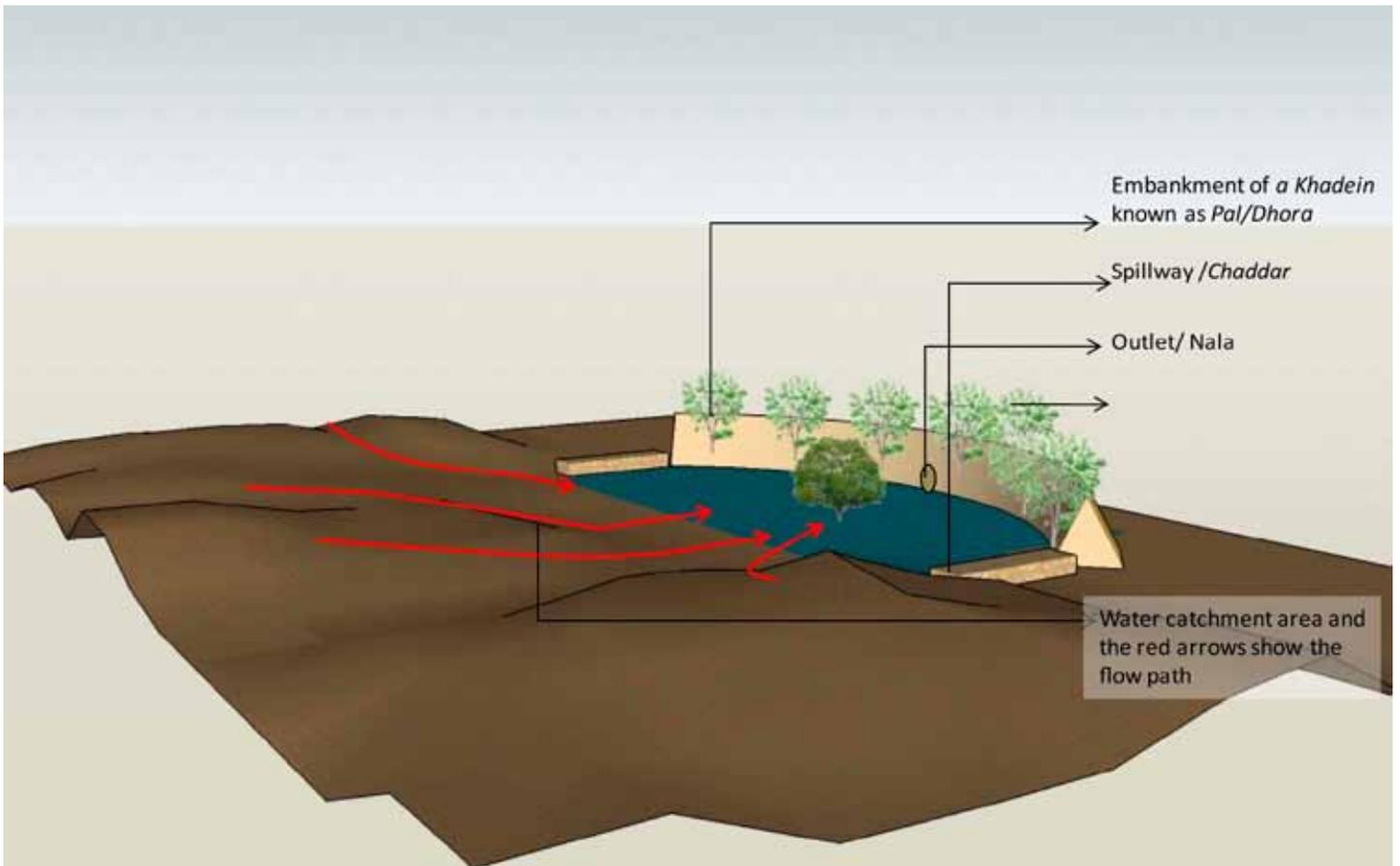
*Image 4: A woman drawing water from kacchi beri*



*Figure 6: Structure of a beri.*



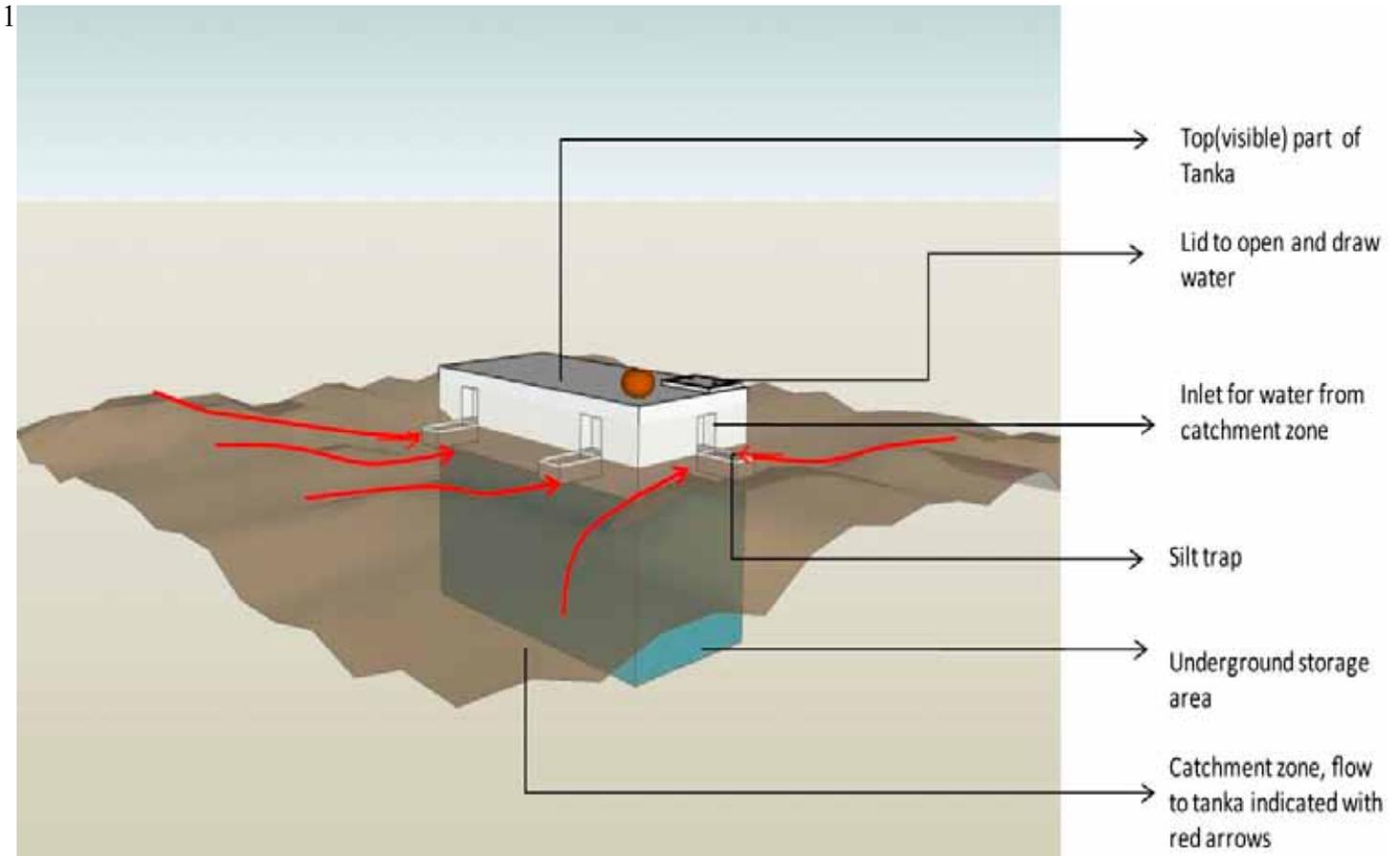
*Image 5: A man drawing water from a beri for his sheep.*



*Figure 7: Structure of a khadein.*



*Image 6: Embankment of a khadein.*



*Figure 8: Structure of a tanka.*



*Image 7: A well maintained tanka.*

## Box 1:

Sambhaav developed a brief on TWHS revival which they call the Barmer Model. It is stated as such in the box below.

### *Traditional Water Harvesting Systems of Western Rajasthan - Barmer Model*

*Conscientizing people into understanding their rights, especially those related to drinking water is what we strive towards.*

*Barmer being a part of the Thar Desert suffers from sandy loam soil, extreme climate (2°C – 49°C) and scanty, irregular rainfall (27.75 cm). Moreover the lack of surface water and saline underground water leads to frequent droughts in the area. As a result there is acute scarcity of drinking water. Further, agriculture and livestock, the two main sources of income in the area also suffer as a result of this. Conscientizing people into understanding their rights, especially those related to drinking water is imperative in the process of Community Building. Community Development is a form of social change. Drinking water has been one of the major tangible work around which education i.e. capacity building of the community takes place. In Barmer, this has been one of our major works because of its situation. In view of the severe droughts that take place here, the focus is on the construction and repairs of traditional rainwater harvesting systems in various areas of Barmer district rather than just provide temporary relief.*

*The various structures are built by the local artisans themselves with the participation of the village people and grass root organisations of the region. The role of the support agency (Sambhaav, in this case) is that of lending support in the form of education and building village communities as change agents. At the commencement of the activity the village community is encouraged to draw out plans, initiate and implement work, and also educate the people at large in maintaining these structures. Today when we look back we realize the wisdom that exists in our villages out of experience.*

*All these factors are suggestive of social change from:*

- Very little participation to a major one.*
- Individual concern to community concern.*
- Lack of information and understanding to conscientization.*
- Dependency to involvement in planning and monitoring.*

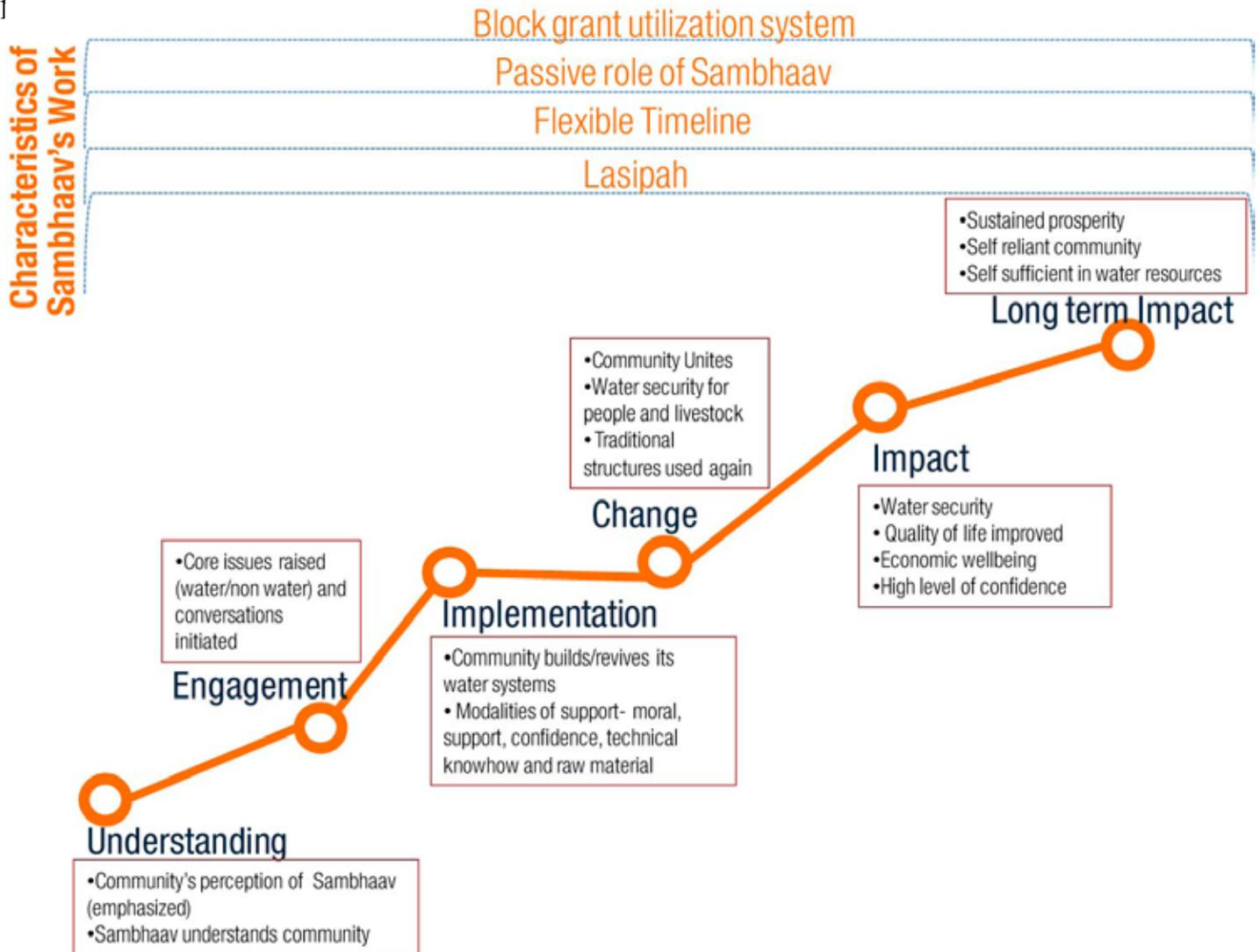


Figure 9: Sambhaav's process of engaging with the community and typical steps involved from understanding the community to successful implementation of a TWHS

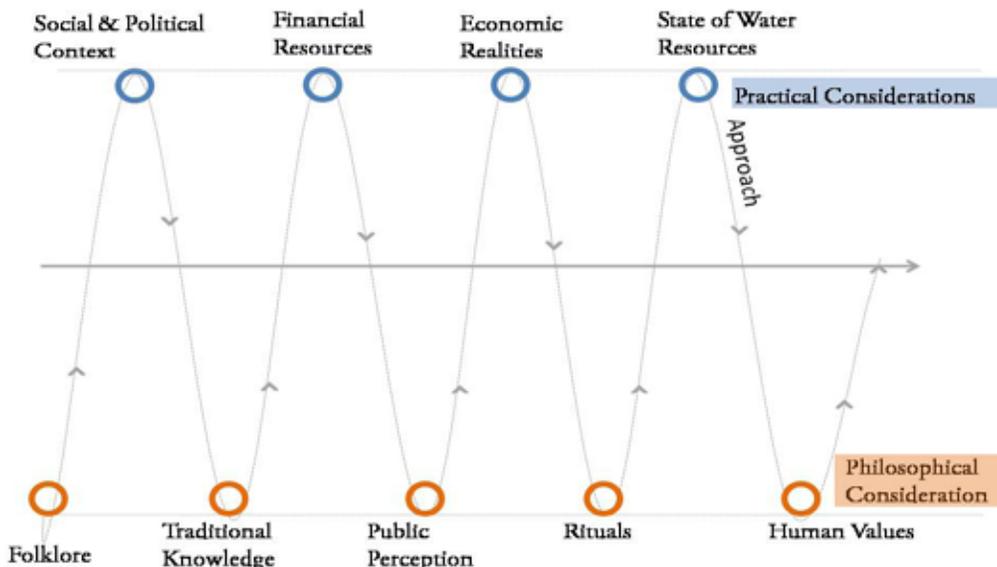


Figure 10: An illustration of duality as a characteristic of Sambhaav's approach.

**Duality in Sambhaav's Approach:** It accounts for both, practical as well as philosophical aspects of the community in its work and switches between the two as and when necessary.

## 3. Sambhaav and Its Approach to Community Development

### 3.1 History

Sambhaav's formally started working in Rajasthan in 1999 when it was registered as a nonprofit, public charitable trust. Until then several efforts were made by its founding team to understand the region, its people and the issues that they face ranging from health to livelihood. Their early efforts in Barmer were supported by Janvikas, another nonprofit organization based in Gujarat. During the period from 1994-1999 the region was extensively explored and interventions were planned to support grass-roots groups and the community. The early work resulted in a plan to support them in area development through interventions in Traditional Water Harvesting Systems, Primary Education and Micro Credit.

As work got underway, the team of people working here grew and it was ensured that local youth were employed so that the resource pool that develops over the years remains with the community and local human resource is built over time.

Today, Sambhaav works across 5 Indian states. Their work in Rajasthan's arid and water stressed regions is particularly remarkable for the innovative process that they have developed to revive traditional water harvesting system and for the tremendous impact that they have helped the people realize by their own efforts. It is noteworthy that the work in these states is led not by Sambhaav's staff but by local leaders who are supported by Sambhaav. The support extended by Sambhaav ranges from financial to facilitation in terms of skills and technical knowhow.

Sambhaav describes its commitment to the society as following:

- a) Work only in rural areas with focus on Western Rajasthan
- b) Work with village communities and nurture various human resources therein

c) Work on basic needs as well as main issues concerning the area, viz. water, health, primary education, livelihood and creation of wealth

d) Foster individual creativity with accountability.

e) Maintain a value system of sensitivity, honesty of purpose and learning

### 3.2 Sambhaav's Approach

One of the objectives of this report is to highlight and discuss Sambhaav's innovative approach to community development. The interventions that it has supported and often led have created visible impact in the community, socially, culturally and economically. Interventions particularly in TWHS revival are actively used and maintained by the people, long after the work has been completed. Unlike the patterns seen in development sector, where a new piece of infrastructure like a hand pump or a bore well is abandoned after a few months or years, here, in places where Sambhaav has revived TWHS with the people all the structures are in use and are maintained by the people. The ownership and integration of the TWHS structure into the village infrastructure is rapid and lasting in all the projects that Sambhaav has undertaken.

This record of high impact work is being noticed by many organizations and a need was felt for documenting the innovative approach that Sambhaav takes in planning and execution of these projects. In this section, Sambhaav's process is described in detail based on the observations and discussions that were made during a visit to western Rajasthan with Sambhaav's staff.

The various steps of the process are first discussed, followed by characteristics of this process. These are a set of practices which Sambhaav ensures to include in their work. This helps in gaining the community's confidence and helps them organize themselves towards addressing their own problems.

For instance, Sambhaav always ensures a flexible timeline

in planning and implementation of their intervention. If in Biprasar revival of beris is to be undertaken, the actual construction and restoration is initiated only when the community collectively feels ready for it and understands the necessity of undertaking such work. It isn't a matter of a fixed monthly target or to say that the work must be completed in a particular duration. This adds significantly towards ensuring community leadership and ownership of such works.

A typical process at Sambhaav is a series of phases wherein the local context is understood, relationships are forged and the problems identified. Upon identifying the problems the community is motivated and urged to plan an intervention on its own with organizational support offered only in matters of technical knowhow, access to resources and capital. The process is not a strictly implemented practice but an intuitive and subjective interaction which gradually moves toward social change. It is illustrated in Figure 8.

## 3.2 1 Understanding

This works in two ways. The organization must understand the present context and setup of the community and at the same time the community must understand why an organization is present in their village and what its interests are.

### 3.2.1.1 Understanding the Community

Before working in any village, Sambhaav's staff invests a great deal of time in understanding the community, its social, economic and environmental background and issues that they face. It should be noted that the dynamics within a village and without are as complex as it is in any urban community.

The practices followed by different groups / castes within a community can be widely different. And the concerns of various groups also differ substantially. For instance, for the bheel community taking care of their basic needs is higher in priority. If they have money the first thing they are likely to do is to ensure there is enough food for all.

In contrast to this for the rajputs it is immaterial if they have enough food or not but they do not want to be perceived as poor within their community, so their priorities

often are about clothes, ornaments and other accessories by which their own people assess their status and wealth. The approach used to get community to think about their resources in the bheels and rajputs should therefore be different.

### 3.2.1.2 Communities Understanding of Sambhaav

In order to work with a community Sambhaav believes that it is equally important that the people know about Sambhaav, its purpose and its interests. This is essential in order to forge a strong relationship with the people. Instead of considering the community as a single entity, it accounts for individuals who comprise the community and that they are likely to have different perspectives and different opinion. And it acknowledges such differences and the fact that they matter for a successful community led project.

## 3.2.2 Engagement

In the course of early interaction when a consensus is reached about the problems of the village, the interaction moves on to a more decisive engagement. This is also a stage when the community starts organizing itself and actively discusses the causes and situations that has led to the problem that they face. This phase is not distinct from the earlier one and the movement from casual interactions to active engagement is often gradual and non evident.

Depending on the response from the community the engagement process could begin as early as within few months of Sambhaav's presence in the village to as long as four years in some cases. In this phase the community sits together and decides on how they will go about their water resources.

## 3.2.3 Implementation

In the entire process, Sambhaav considers this stage of miniscule proportion and relatively easy to execute. This is because by this time the people are already primed and motivated enough to undertake the intervention that they think can address the problem at hand. The intervention that is decided is facilitated and supported by Sambhaav in terms of resources and know how.

As observed in some villages of Ramgad region, the people in fact feel empowered by the discussions and participatory exercises which Sambhaav conducts with them. These discussions are not done in the conventional way of carrying the participants through a definite pre-planned workshop but rather in a manner which is nearer to their cultural practices. For instance, many of these discussions are held in the places where the people generally sit and hold conversations. The time is also chosen in a manner that it coincides with their leisure and not at the cost of their work hours.

Most often, the real work that Sambhaav does is to gently direct such discussions in a direction which provides an opportunity for the people to reflect on their practices, how the earlier generations managed and used resources and often about how they overcame interpersonal differences in the larger interest of the community. This exercise works well with the people because the real issues are not about wasteful use of water or ownership of a resource but about realizing how their practices are affecting the state of their resources.

For instance, the people of Rajasthan already survive in an environment which has a limited availability of potable water. Their traditional practices are organized around the availability of water and accounts for its limited availability. Therefore, judicious use of water isn't an aspect that requires attention.

If the village has a TWHS it is explored if it is functional or not. If it is not then the reasons for its disuse are probed and the real issue is identified. If the TWHS is functional then its adequacy is enquired. By the time such questions are raised it is often seen that the discussion is led forward by the people themselves and the finer details start emerging.

In effect, as Sambhaav believes that the people only need to be reminded of practices that they have seen and followed over generations combined with an urge to look within the community for solutions that already exist and which were used by the earlier generations to address problems that they faced.

Sambhaav believes that it plays the role of a moral support system, to make sure that people do not lose confidence in themselves.

## 3.2.4 Post Implementation

The implementation phase in many cases proceeds swiftly and the structures are revived by pooling in resources and wherever required supported financially by Sambhaav. It should be noted that not all the projects require financial support. Some are small with no capital requirement or at times the community is well positioned to undertake the entire work on its own.

Post implementation scenario is significantly different in Sambhaav's projects in comparison to the conventional development sector projects. It is generally seen that the organizations spend significant effort in monitoring and promoting the work that they have done in the village for the people whereas with Sambhaav the equation is almost the reverse of this.

The community arrives at the issues they face, discuss how to deal with them and then plan the action that they would take to address it. Therefore, when the work is completed there are no issues about community adopting it or making use of it. Participation and ownership in this case was incorporated right at the onset of the entire process. That is the difference that Sambhaav's approach makes!

## 3.3 Characteristics of Sambhaav's Approach

A key purpose of this document is to identify and put together Sambhaav's practices as well as characteristics of their process which makes them successful with the people and in delivering the impact that practitioners in development sector often aspire to have. In the earlier section we have discussed the process that is adopted in planning and execution of a project. This section describes the aspects of this process in detail, to drive clarity and close understanding of 'what does Sambhaav do which makes it so successful in its projects'.

In over several interactions with Sambhaav's team, it was observed that the organization holds people's traditional understanding of water in high regard and believes that role of a organization should be that of a facilitator, which helps people to self-organize and come together to address their problems on their own.

### 3.3.1 The 3 S

Seen as 3S by Sambhaav, these are three ideas that they believe encapsulate their approach in working with the people – **Samaaj (society)**, **Samajh (understanding)** and **Shram (Labour)**. The three words are translated in the nearest english equivalents but in hindi language they have a deeper connotation and which resonates very well with the cultural and moral context of the people. Any work with the people and in their interest must be based on the society's (samaaj) best interest, their own understanding coupled with the organization's close understanding of the people (samajh) and on the community's ability to contribute their labour (or time) towards addressing their problems.

### 3.3.2 Duality

From an extended interaction with Sambhaav and visiting their work in various villages there is a pattern that emerges which we describe here. Though Sambhaav lays a heavy emphasis on 'experiential' understanding of their work, it is often necessary to document the approach and practices in the interest of sharing it with other people and organizations. This sharing as we now know is also necessary so that the best practices are adopted and organizations which face similar problems can learn from Sambhaav. Therefore, this attempt to describe their work based on patterns observed. Here is one organization which is able to accommodate and always keep in active consideration a dual existence. They are as much a community development organization as they are a part of the community sharing and believing in their values to the extent of adopting it as their own in their work.

On one plane, Sambhaav mines through the traditional knowledge and practices that are in active memory of the communities. This tends to be philosophical in nature. It is done in order to revive the long followed practices because these are found to be sustainable, beneficial and time tested. This work is often abstract in its benefits and doesn't have a definite approach. Unearthing lost traditional knowledge and less prevalent practices takes sustained efforts and commitment to the community.

On the other plane, Sambhaav keeps current social setup, political and economic landscape and available resources in sharp focus to implement any intervention that they decide upon with the help of community. This calls for

a pragmatic and practical orientation without obfuscating it with philosophical considerations. This calls for a planned approach yet accounting for long, uncertain timelines which it might involve because the community is neither coaxed nor forced into a project.

Although it may appear that their goal is revival, restoration or at times implementation of traditional water harvesting systems, it usually is a pretext to initiate a larger community revival and development process. They focus on building human resource within the villages where they work. Individuals from the community are encouraged and supported who then work on their own water issues.

With these two planes between which Sambhaav oscillates, it can be seen as an organization which works at the cusp of being an institution working on the philosophical basis of community development and well as on the ground, in building infrastructure (ex: TWHS) which provide valuable service to the community.

A significant amount of time is spent in probing the fundamental reasons behind the water stress in the community. From their experience over the years, Sambhaav has found that issues of water in a community on the face of it are water but the reasons are not related to water directly, they can be interpersonal issues, family discords or at times simple negligence. During this exploration Sambhaav offers moral support and at helps in conflict resolution. This kind of work does not follow definite timeline but is high on impact.

For instance, Sambhaav has spent 5 years in Ramgadh region. There are villages which have responded very well to Sambhaav's engagement efforts and have figured out their problems within a year. Then there are villages which have taken over 5 years to organize themselves and set a conversation going. Sambhaav patiently waits until the community responds.

In effect, they appear to exist in two states (as described above) and show remarkable agility in switching between the two where they carry the philosophical considerations along, as they work on the ground to help them work on their problems. This approach accounts for development and revival of the community on both the aspects- their daily existential issues and qualitative aspects like people's belief in the knowledge that exists within their community, their confidence and taking initiatives without rely-

ing on external help.

### 3.3.3 Timeline

Generally, in development sector a great emphasis is laid on implementation of projects in a set time period. Maintaining time schedule is considered critical for the fact that the projects are effective and useful for community only when commissioned within a time period. Apart from this, performance and fund utilization of organizations is also monitored (and managed) by ensuring that the implementation of work is done according to a planned time schedule. While this is necessary, it is also seen that sometimes timelines put an undue pressure on organizations to deliver or execute a task in a time limit which may not be sufficient for the task at hand. This pressure is either passed on to the community or the organization simply rushes through the work without adequate understanding of the community's context. This makes for poor results, half realized goals or at times a failed project.

At Sambhaav, timelines are not used or even understood in the conventional sense. The organization is not driven by the number of structures they are able to revive or build in a given period of time. They believe that it is important to pay attention to aspects that determine the use, adoption of that structure and its functionality over the long term.

In effect Sambhaav does not keep rigid timelines and is flexible with the duration that it may take to complete a project.

This allows its team members to internalize both social and technical aspects of the project before they begin work. Team members spend from twelve months to few years before they begin working in the field. For instance Chattar Singh and Girdhari spent the first year doing almost nothing on the ground (implementation) but observing patterns, people's lifestyle and closely understanding them.

In Sherawa village it took about five years for the people to understand why they need to work on their khadein again and why they need to revive their beris. In contrast to this people in Girduwala learnt from observing another village and responded readily towards revival of their water structure. This illustrates how the time taken by every community in variable and imposing a timeline on this

may not work because of the fact that community's understating of their own problems is critical to the success of any project that works towards their development.

### 3.3.4 Block grant utilization system

This is an innovative system developed by Sambhaav for utilization of funds that it receives. This provides flexibility in utilizing funds in accordance with priorities of their region and requirement in the villages. Sometimes it may happen that the cost of TWHs revival work in a particular village is offset by the people contributing voluntary labor. The funds allocated towards construction cost is not used and under this system can be allocated to a village where the people have very little financial or physical ability to contribute but have a pressing need for the water system.

The organization insists that the funds granted to them are not guided by strict conditions of its use like allocating fixed percentages for awareness generation, capacity building, implementation etc. The grant allocation for each village is decided by Sambhaav's members based on their assessment of the village and the donor is urged to provide fund for a cluster of villages wherein Sambhaav spends the money according to its own assessment of the village situations.

# <sup>1</sup>4. Cultural Practices that Enables Sambhaav's Work

## 4.1 Lhasipa

Lhasipa is an age-old practice in this region of Rajasthan wherein people voluntarily contribute their time and labour in the larger interest of the community. While this is absolutely voluntary it is highly regarded and followed by the people. Many public utilities in the village like ponds, tanks, community meeting places etc are constructed and maintained by contribution of labour as lhasipa.

This is a social practice which binds the community together and is also a platform which brings together the village elders, men, women, children and the youth. In such a setting skills are shared, passed on to the next generation and in the process knowledge about their water structures, environment and tradition arts are propagated.

A notable aspect of Lhasipa is that it does not have a pre-decided role play or division of work. No one is assigned roles or responsibilities which they might have to follow. Instead people pick up work according to their capacity and capability. If the youngsters do the hard work of cleaning the water body's bed and clearing the bushes, kids clear the rubbles and run errands. Women cook for the group working on the water body. If the site of work is a place where cooking is not possible then people bring food from their homes for those working in the field. Some others tend to the livestock for the entire group. At times elderly people are just there to motivate the people working.

It must be noted that Lhasipa is entirely volunteer led process and there is no monetary compensation for any work.

### 4.1.1 Nimantran lhasipa (Invited Lhasipa)

This is a lhasipa which is scheduled for a particular time and there is an open call for people to join in the work on the indicated day. Nimantran means 'invitation' in hindi and implies that this has been called for (by someone).

For instance, it can be to harvest the field of someone's land where everyone is called to help. Or it is a lhasipa called for a wedding, where people contribute by taking various responsibilities for the preparation. Lhasipa is also used for construction of a house, fixing the roof of a house etc.

### 4.1.2 Hella Lhasipa (Emergency lhasipa)

This lhasipa is called for in emergency situations like a death in the family during crop harvest time or when a farmer is unable to do the harvest himself due to financial reasons or is unavailable for it. The farmer calls out for lhasipa where people pitch in to help him with the harvest. It is also called for when the embankment of a khadein is broken and in need of repair. Food is not offered in this kind of lhasipa because typically this is called for when the person who needs help has no means or too poor to provide food for all the people helping him.

### 4.1.3 Arsi-Barsi Lhasipa

This lhasipa is akin to a barter system where a help is reciprocated by the person who has called for the lhasipa.

### 4.1.4 Himmat Bandhai/ Karvai

This is a minor form of lhasipa where a small group of people help each other in an impromptu call for help rather than a pre organized and large scale nimantran lhasipa. Himmat means 'courage' in hindi and this is offered to the person who has called for it as a means of reinforcing his courage (or strength).

## 4.2 Water in People's Lives

Given the meager amount of rainfall that his region receives people's interaction and relation with water is of a



*Image 8: Women from bheel community at a beri*



*Image 9: Women gathered for lhasipa in a village*

different nature. Water is looked upon with a lot of reverence and the water resources are worshipped by the people. The following instances from their culture highlight the significance of water in their lives.

a) If there is a special occasion in the family then as an act of charity water bodies are revived, renovated or money donated for their maintenance.

b) If a person is sick and on his death bed, prayers are offered for his easy and less painful demise and donation towards maintenance of a beri/talab is promised.

c) When people talk about water harvesting the words they use are not 'storage' or 'harvesting' water. Instead they refer to it as 'ramana' which in hindi means 'to hold back water with love and care' (not just capturing it or preventing it from flowing away). Water is personified as a human being and is treated with great care and love.

d) There exists a deep knowledge of weather, climate and water flows which is passed on through couplets and folk songs. For instance, there are couplets which instruct an individual on how to work on his farm when the weather conditions are optimal and what to do in adverse weather conditions.

e) People observe the wind, air, temperature, clouds and nature with a keen sense. Most of their work is coordinated and associated with the onset of seasons and the change of weather marked by festivals.

f) After using the modern means of water supply and source like tube well, bore well and canals people have a strong feeling that the newer forms of water abstraction are exploitative and break the balance that exist in the nature. Older structures they believe are sustainable and help retain this balance.

### 4.3 Community Ownership of Resources

Resources like pastures and water bodies are owned by the entire community and not by an individual. This is a critical factor in understanding the community in this region because ownership of this sort impacts the dynamics and relationships between the people and their environment. People regard water and all types of TWHs as common property resource.

There exists a social arrangement which regulates the preservation, maintenance and use of these resources. The following are few instances where a certain behaviour which is above self-interest is reflected in the community:

a) Drinking water from the beri is never denied to any one and not even to the livestock, irrespective of which village owns the beri. All those who come to drink water are served.

b) The khadeins too do not belong to a single family. It is owned by the community. It does not imply that every family gets equal share of the produce from that Khadein instead each family is entitled to a share of produce proportional to their contribution during farming.

c) The division of a khadein's fertile land is also done in a manner that everyone receives equal share of it. As the fertility varies radially, from the center the land is divided into sectors (like that of a piece of pie) so that everyone gets a fair share of fertile and not so fertile portion.

# 1

## 5. Case Studies

Much of Sambhaav's work in western Rajasthan's Ramgad district is about the extraordinary effort that they put in community building. Their efforts transcend the conventional limits of participative observation and moves to an altogether different plane where they are involved in all small and big issues and interaction that takes place in the village. The case studies here are chosen from 11 villages that were visited during the visit in October, 2011. The case studies represent various aspects of Sambhaav's unique approach to revival of TWHS. These cases also demonstrate how its work reinforces bonding and spirit of communal unity among the people by the way of water security.

The process typically starts with a long and sustained interaction with the villagers where a definite timeline for engagement is often not the primary consideration. Building trust is the first priority before any intervention is thought about. At times the pace of work could span over 5 years before any intervention is made on the ground, as in the case of Sherawa village.

Such variation in the time taken by the people to cooperate and understand Sambhaav's message is often due to social, economic and cultural backgrounds that vary across the villages. There appears to be an inflection point which Sambhaav attempts to reach with every village, and it is at this inflection point that change on the ground gets visible, although the process might have started much earlier.

### 5.1 Biprasar Talab

**Location:** 10 km south of Ramgad, known for its very old beris which are said to have hardly ever dried up completely.

**Type of TWHS:** Beris

**Number of TWHS revived:** 23 beris

**Population dependent:** 15,000 (of 12 villages)

**Livestock dependent:** 50,000

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**Problem:** 21 of the 24 beris had fallen in disuse. Only 3 beris were functional before Sambhaav started their revival.

**Impact:** Water security in 12 villages

**Financial assistance:** Rs. 2,50,000/- for 24 beris

The labour required for construction and restoration work was provided by the people of all the 12 villages. The people contributed physical labour as a part of their traditional practice of lhasipa which means a voluntary contribution of labour in the larger interest of the community. This is an age old tradition and widely respected practice which everyone in the region follows. Contribution of work under lhasipa made it significantly easier for Sambhaav to support the entire revival work.

**Biprasar's journey to TWHS revival:** Biprasar is legendary for its beris which are known to have abundant freshwater and support a thriving population of people and their livestock. It would not be an exaggeration to term it as one of the most important infrastructure which is life sustaining as well as economically important. A network of about 24 TWHS,

Biprasar beris have been the standard reference to ascertain how severe the drought is in the region, in any given season. As far as the people's active memory goes, the beris at Biprasar have never dried up. There is a saying here about the beris: Biprasar sey koi pyasa nahi guzarta, which translates as those who transit Biprasar never leave the place thirsty.

About 5 years ago (2006), in a conversation with people from another village Chattar Singh (of Sambhaav) heard people talking about the prevailing water shortage in Biprasar. This was noteworthy because Biprasar facing water shortage was a serious situation considering the region's abundant water resources as well as the large population of people and livestock that it supports. This led Sambhaav to further probe the nature and intensity of water crisis in Biprasar and so started Sambhaav's work in this cluster of villages.

Sambhaav spent the first year in engaging the community



*Image 10: A typical scene at Biprasar's cluster of beris*



*Image 11: A herder feeding water to his animals*

in intensive interactions which involved discussions on the problems that the community is facing, state of their resources and about the background of the region. These interactions were also directed towards building trust and forging a relationship with the people. It was also to understand the social context and economic condition of the people. It was necessary that people first acknowledge the existence of a problem, followed by a clear understanding of the reasons that has led to this problem. Driving such clarity about the problem, its nature and its causes has a resultant effect of people feeling capable enough to address it. For instance, during one such series of conversations people talked about how the earlier generation lived and how they managed the resources at hand. This brief historical perspective helped them see their own problems in a better light.

Sambhaav noted that perhaps the very process of a historical stocktaking helped people remind their own selves of the practices that existed, those which the elders saw their parents adopt while they grew up. Such exercises proved tremendously helpful in organizing people around a common cause and bring them together. However, this onset of such self-realization often took its own course and was also unpredictable in terms of time duration.

It should be noted that Biprasar is a place which comprises of a cluster (24) of beris. These beris support 12 villages. The people of these 12 villages belong to different communities and have different occupations. There is a significant heterogeneity among the groups of people across these villages. Understanding this heterogeneity is critical as the cluster of beris belongs to the entire community and therefore its upkeep also depends on the entire community's co-operation. Often this heterogeneity determines the level of co-operation because of the dynamics of interaction between different communities.

By the end of the first year, Sambhaav helped people to revive 4 dysfunctional beris. The pace of actual beri restoration was slow in the first year, as the entire effort was made towards helping the people come together, realize the problem and that the solution too is well within their reach. The first 4 beris served as a proof of concept of all the talks that the people and Sambhaav engaged in over the course of one whole year. These 4 revived beris helped start a more vigorous and rapid process of reviving the remaining beris. The process was entirely led by the people themselves.

Today, all the 24 beris of Biprasar are in use and serve the population of the 12 villages. Biprasar stands as one of the finest examples of community led process of TWHS revival in the region. In course of 5 years the people have moved from reviving the dysfunctional beris to planning new ones and augmenting their water resource.

**Local Heroes:** The revival process was nurtured in the early stages by relentless efforts of individuals who believed in themselves and who felt that Sambhaav's proposal could benefit their people. The early stage of such community led work relies almost entirely on these individuals' energy and therefore they are referred to as heroes, although it must be emphasized that the entire community worked towards the revival of their beris. It is necessary to identify these individuals and explore what brought them to work for the cause at hand.

There are an astonishing number of reasons which have motivated them to lead the cause or at times just work with dedication in a role that they find fits them the best. The motivating factors we have found are strong enough to make them leave their day jobs and work. Sometimes working in construction or earth works of beri revival is likened to an act of virtue, as in the case of Sujan Singh who worked on revival of beris in Biprasar even though he joined in only after he saw some people working on it.

**Major**, is from one of the 12 villages using Biprasar beris. Major is not his real name. He is called so by people from his village. He was a labourer who was living by whatever he earned by doing odd jobs that he could manage. He was one of the earliest workers on the beri revival and has worked on all the beris that were revived in Biprasar. Major has a remarkable ability to organize people and convince them of the merits of the work.

After all the beris were revived, as an expression of gratitude many livestock owners 'left' a goat and helped Major become a herder like themselves. The word 'left' is used to indicate that people here do not consider giving a goat to help a person, as an act of charity or donation. They do not use the conventional equivalent of 'giving' in their language, instead they use the equivalent 'to leave' (as in for someone). Major is a goat herder and rears livestock today. He also owns a flock of camels.

**Sujan Singh**, works in the limestone quarry at Sanu, near Jaisalmer. He watched people working in beri revival when he walked to work every day. One day, curious to

know what was on he asked the people at work about what they were doing. He was told that they were bringing the dysfunctional beris back to life. He didn't need to know further, perhaps he could relate to what they were doing and how it could benefit all of them including him! He joined the people and then came to work at the beris every day there onwards, instead of going to work at the quarry for a living.

He is one of the many people that we know have worked relentlessly to realize a Biprasar with all 24 beris full of water and life. He went to the extent of compromising his work and didn't probably earn any wages for the duration that he stayed away from the quarry work. It is interesting to note that he regarded his work in beri revival as an act of virtue, adding that he has anyway toiled his life earning a living and nothing would change in the future too. He regarded this as an opportunity to do his bit for his people and for his faith.

## 5.2 Ratan Ka Gaon

**Location:** 15 kms from Ramgad

**Type of TWHS revived:** Khadein and Beris

**Number of TWHS revived:** 6 beris, 1 Khadeen (8 Ha area)

**Population dependent:** 50 families

**Livestock dependent:** 3000

**Problem:** Water scarcity and dysfunctional TWHS

**Impact:** Achieved two crops in a year (earlier Rabi season crop was not possible)

**Details of Support:** Rs 70,000/- for revival (Beri- Rs 35,000/- ; Khadin- Rs 35,000/-)

**Development of water resource in Ratan Ka Gaon:** The khadin in this village is owned by 4 families. There are 6 beris on this khadin from which the entire village draws water for all their use. The entire system of khadin and beris fell into disuse with the passing away of one man, who apparently kept the 4 families in good terms with each other and thereby ensured the maintenance and up-

keep of the khadin. This man, Shalu died 15 years back and with that started a discord within one family which led to the gradual deterioration of the khadin and its beris.

Here was a well functioning TWHS system which fell in disuse because of a family dispute and consequently affected the entire village which was drawing water from it. The case is peculiar and of interest because it illustrates how relatively small issues and differences between people lead to a crisis which affects the entire community.

Sambhaav began working in this village in 2008 and started exploring the problem. The family issues were openly discussed with all the members related to it and through much of it Sambhaav played the role of a mediator bringing them to a plane where the differences were understood and worked on. The family was also made aware of the manner in which the state of affairs affected the entire village. With this active mediation the people agreed to restore the khadin which was not used for the past 15 years.

The community revived the khadin through lhasipa and with this followed the revival of 6 beris. The entire community pitched in and with some financial support from Sambhaav revived all of them. As the work progressed and the early results were realized, the other khadins in the village were revived by their owners themselves through lhasipa. The first khadin that was revived with Sambhaav's support has returned profit of Rs. 30,000 in the year 2010 up from Rs. 10,000 in 2008.

## 5.3 Ekalpar & Dablapar

**Location:** These are two adjacent villages 15 kms from Ramgadh.

**Type of TWHS revived:** Khadein and Beris

**Number of TWHS revived:** 6 beris, 40 Ha of Khadeen

**Population dependent:** 40 families

**Livestock dependent:** 600

**Problem:** Water scarcity, No source of water

**Impact:** Sustainable livelihood and water resource devel-

opment

Development of water resource in Ekalpar and Dablapar's: The people of these two villages have an unfortunate history dating back to partition of India and Pakistan. During that turmoil they were displaced from their original villages but they chose to stay in India. The consequence of that displacement was a loss of livelihood and a resultant poverty. They were relocated to the present location and only recently were allotted a large parcel of land by the government, in an effort to help them start farming. People of these two villages belong to the Bhil community. They have not had a reliable or sustainable livelihood for many years. Unreliable work opportunities and poverty has made them migrate to villages and towns nearby and therefore the villages would remain empty for as much as 8 months in a year.

Lack of work also moved many to beg and take alms from people in other villages. In addition to this they also faced water scarcity and had to fetch water from distant Biprasar on donkeys or camel carts or at times purchase tanker water to sustain their livestock.

Sambhaav's work in these two villages over a period of 5 years has motivated the people to work on developing their khadins and beris. The effort has been to support the community in tilling the land allotted to them by the government (which was previously not been farmed) by first developing enough water resource.

The key aspect of Sambhaav's intervention in these two villages is instilling confidence among the people which is then channelized towards building livelihood opportunities. And then, as a part of this effort help them develop their water resource. So although water is an important part of Sambhaav's work in Ekalpar and Dablapar, it is not the end in itself.

The situation in Ekalpar and Dablapar is remarkably different and has been gradually improving over the years. The khadins which were developed by the people have yielded a produce worth Rs. 70,00,000/- this year. Apart from this drinking water is now sufficient for the two villages and the reserve is abundant enough for the next 3-4 years. The two villages are setting example for the other villages in the region and they too are undertaking repair, restoration and construction work of their khandins. Some farmers in the region have reported that the yield from the farming done in khadin is better than the yield

from the plots of land that they received under the IGNP resettlement plan.

## 5.4 Isawal

**Location:** 12 kms from Tanot. The village lies far away from any major town, amidst sand dunes in the desert.

**Type of TWHS revived:** Kua (Well)

**Number of TWHS revived:** 1 kua

**Population dependent:** 21 families

**Livestock dependent:** 12, 000

**Problem:** No local water source, dysfunctional well which is the only one within a distance range of 40 km)

**Impact:** Development of a water source within the village, people resettling after having migrated from the village.

**Details of Support:** Rs 40,000/- (in addition to this, Rs. 30,000 contributed by the people)

**Development of water resource in Isawal:** The people of this village are pastoralists, where wealth is still measured in terms of the number of livestock heads that a man possesses. The village is located in difficult geographical conditions with the difficulties compounded by water scarcity. People here depend on livestock for livelihood and this makes water even more important for them.

The village has one kua whose storage tank as well as the cattle trough was damaged and needed repairs. Sambhaav explored the situation with the people and the engagement process led to identification of this kua which could potentially address the ongoing water crisis of the village. As in other villages, here too the interaction required sustained effort and time as the people here were not permanent residents but migrated to other places often. Sustained efforts led to formation of a village committee and revival of this kua was considered. The people agreed to contribute on the restoration by labour and donation of goats. The labour required for the construction work was contributed as lhasipa. The work also required skilled masonry and labour in this form of kua construction which was financially supported by Sambhaav.



*Image 12: Chattar Singh (L) in conversation with Major (R), a local hero who has worked dedicatedly on his village's TWHS revival*



*Image 13: Men from Sherawa village*

Over the 3 years that it has been in service, visible and significant changes have taken place in Isawal. Most significantly with a permanent and reliable source of water now available within the village many people have considered returning to their village. Water as it is now apparent was one of the key factors which led to migration of people from the village.

## 5.5 Sherawa Tanda

**Location:** 10 kms from Ramgad.

**Type of TWHS revived:** Tanda (a small khadin, with water retention capacity lesser than a beri)

**Number of TWHS revived:** 1 tanda, 20 beris (work ongoing)

**Population dependent:** 6 families on tanda, 25-30 families on beris

**Livestock dependent:** Livestock is not reared in this village

**Problem:** Water scarcity, dysfunctional beris which are located on the tanda

**Impact:** Water resource revival, farmed the land for the first time in 20 years

**TWHS revival in Sherawa tanda:** This village's tanda is owned by 6 families. As in the case of Ratan Ka Gaon, here too the entire TWHS system comprising of a tanda and about 20 beris began deteriorating when a family elder who also supervised the maintenance and upkeep of the tanda passed away. After the death of Abhay Singh's father (Abhay is the head of one of the families which own the tanda) none of the other family members filled up the duties towards the tanda that he had performed over the years. This led to a gradual degradation of the water structures as well as their water holding capacity. This wasn't paid attention to until the scarcity grew in magnitude. Apart from this the families also couldn't ascertain the cause of such a decline in water availability in their village.

Sherawa's case demonstrates how traditional skills and roles are poorly understood by the people. For instance, the role that Abhay Singh's father played over the years was hardly noticed and wasn't even understood when the

water structures fell in disuse.

It must be noted that while the tanda is owned by the 6 families, the beris are used by the people of entire village. The state of affairs related to maintenance of tanda affected other people as well. But the understanding about the role that tanda plays and the importance of TWHS in ensuring the village's water security took a significant effort and time to set in. The mistrust and differences between various groups within the village was a deterrent in bringing people together. Years of mistrust made it difficult for Sambhaav to bring people together and work towards their problems.

Sambhaav's engagement with the community by the way of discussions spanned over 5 long years before the people saw any merit in the action that Sambhaav suggested. Their apprehensions and questions were patiently dealt with and examples of other villages were presented for them to see. The revival process has just begun in the village and at the time of the visit the revival plan was being finalized.

Sherawa is an example of the time that communities can take in understanding the importance of TWHS and the relentless effort that is called for in working with them.



*Image 14: View of Sherawa village's khadein*



*Image 15: A khadein restoration n progress in Sherawa village*

## <sup>1</sup>6. References

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