

## *Digging for dreams*



2016 has turned out to be one of the hottest year in the history of Gujarat. In May, when the Samerth team decides to visit various water structures that Samerth has supported to build in Rapar(Kutch district), temperatures are as high as 48 degrees. The distance from Ahmedabad to Gagodar town in Rapar is roughly 275 kms. Rapar is a little known block , residing in Kutch district – the current flavor of Gujarat tourism. But Rapar is not a tourist hub. It is a dry, saline, arid zone – also known as the dark zone since the ground water extraction is as high as 90 - 100%. The ground is saline, due to its closeness to the desert. The environmental conditions are extreme from 50 degree Celsius in summer to 2 degree Celsius in winter, water is scarce and therefore no industry or enterprise has flourished.

It is not surprising then, that 30% of the population in Rapar (total population is 2,17,315 (2011 census), 30% (65,194)) is from the marginalized communities – OBCs, SCs and STs (Rabari, Koli, Hairjan etc). Monsoon is erratic and though the average rainfall of Kutch is 377mm – it occurs within a span of few days, and less than 4% of the rainwater can be collected. Last year, it rained in Rapar for three days – yes the entire monsoon fit itself in a two and half day capsule – when it rained 317.5mm. Strictly going by the average, it was good but it caused more harm than good in terms of immediate effects with entire farms, cattle homes, ponds being washed out.

Interestingly, the main livelihood option in Rapar is still agriculture – profitable to the upper caste rich Patels, who have their farms near natural ponds or have been able to dig a deep bore well to extract water from the land. In the past ten years, one can see that the influential ones have taken a direct illegal connection from the Narmada pipeline. The poorer population works as share croppers or laborers in their fields. The OBCs focus on cattle rearing as their main occupation, and on an average each home would have equal number of animals vis a vis humans amidst them. The dry conditions would force them migrate in search of greener pastures (literally) closest being the Banni grasslands (in Kutch – 188 kms from Rapar) and some have stories from faraway lands of Gujarat and Rajasthan, that they walk to. These journeys in search of water take entire families with them, camping for at least four months, till the monsoon arrive.



The SCs and STs – mainly Kolis and Harijans are the most impoverished of the entire population. They live in *vandhs*– settlements carved out of the village in deep desert lands. In an area like Rapar, with high salinity and poor rainfall, traditionally the land closest to water sources almost always belongs to the upper and the more powerful castes. The Kolis and Harijans feature last in the hierarchy and hence have lands in areas with no water source far away from the main

village. Coupled with the ridicule that they face in the village, Kolis since generations were forced to set up their homes near their farmlands. As the family grows, a settlement is formed – and this is called a *vandh*. *Vandhs* are part of the panchayat – for voting purposes only and are more or less neglected by the administration. Most *vandhs* do not have access to piped water, aganwadi or health facilities and are poorly connected to the main village. To fulfill their water needs most *vandh* communities build a coarse dug well that sustains water for 4 – 5 months post monsoon.



That is also the time they can cultivate one rain fed crop in their land. Post these early months of monsoon, women walk for kilometers each day to fetch drinking water and men indulge in making illegal charcoal from the babul trees found in abundance near *vandhs* or work as laborers in the farms of the more affluent Patels. Once the water source closest (at least 3 to 8 kms from the *vandh*) dries, families migrate. They travel to other parts of Gujarat like Gandhidham, Himmatnagar to work as laborers on construction sites, brick kiln

workers or as salt pan workers. All of which is back breaking work, undertaken in hazardous and extremely poor living conditions. Lack of stability also impacts their health; children's education and most importantly would give the local administration an excuse for their neglect – as half the time they are not even there!

Samerth has been working in Rapar since 2001, post the devastating earthquake on health, education, water & sanitation needs of the region. Since 2004, there has been a focused approach to resolving water needs of the community. Rapar Taluka consists of 97 villages and 140 *vandhs*. With support from individual and institutional donors, Samerth works with 70% - roughly 1.3 lakh population – most resource poor of the area. Samerth's work has directly impacted 1,10,437 live stock from these families. Till date, **34 ponds, 3 road works, 4 afforestation works, 72 earthen check dams and 70 dug wells have been constructed in the target area.**

Samerth's journey in participatory ground water management in Rapar, has followed an interesting pattern. Vandhs were the first & obvious choice for intervention initiation and in the first phase from 2004 to early 2007. Several ponds, rain water harvesting structures, individual wells etc were constructed with community contribution. In some cases they contributed through labor while in others raw material investment too. A Paani Samiti or water committee from the beneficiary household was formed for each structure, this ensured maintenance and fair distribution of water from the structure. This initiative could arrest migration to an extent of 40% from the vandhs and immensely improved health and sanitation conditions of the community.

By 2007 the Sardar sarovar project<sup>1</sup> had been implemented and the Narmada pipeline had reached Rapar. In beginning, predictably no pipeline construction was undertaken near any of the vandhs. Even today more than 50% do not have pipeline connection, while the rest receive sporadic water from the pipeline – if at all. Where ever available, the pipeline provided water for drinking and thus other major water intensive activities – agriculture and cattle rearing still remained rain fed. In spite of the uncertainty of piped water, unfortunately, over a period of time it was observed that the onset of tap water brought in a kind of disregard for the traditional water structures. A rapid deterioration of community water structures could be seen. Those who could afford started digging their private bore wells – for agriculture as well as livestock rearing. Rampant extraction of water led to increase in the already high salinity of soil of the area.

During this time MGNREGA <sup>1</sup> was implemented in Kutch. Samerth saw MGNREGA as a great opportunity and actively started facilitating restoration of traditional water structures through it. MGNREGA also arrested the issue of forced migration of Kolis , Dalits & Rabaris and provided them an alternative form of livelihood in their own vicinity. Till date Samerth has been able to leverage Rs. **36,610,255/-** through MGNREGA & 11 crore from the MLA fund. 15314 people have been supported in securing MGNREGA work. Samerth has also supported in obtaining and renewal of job cards to 8508 people. The strategy on the field level was to appoint jaldoots (water messengers) in each village. These were young men/women from local communities who would then be trained under the MGNREG act and would then help people in obtaining job cards and ultimately plan with the villagers and help in execution of crucial water and other asset building projects for the village.

By 2009, an integrated strategy had emerged – working with the villagers and administration, leveraging MGNREGA to build assets for the village & vandhs. This strategy was strengthened by introducing micro planning – where the community along with technical experts are involved in designing and planning any intervention. Micro plans became the basis of an action plan to build any kind of water structure in the village.

<sup>1</sup>: *The Sardar Sarovar Project is a terminal gravity dam built on the Narmada river near Navagam Gujarat. It is one of the largest water resources project of India covering four major states - Maharashtra, Madhya Pradesh, Gujarat and Rajasthan.*

<sup>2</sup> *MGNREGA : Mahatma Gandhi National Rural Employment Guarantee Act 2005 is designed to provide job guarantee for at least 100 days in rural parts of the country. Through this scheme, all the adult members ( at least 18 years of age) of the any family in rural part of the country can avail given non-skilled work.*

The vandh community was also involved in making micro plans – which finally led to water security plans – a comprehensive plan so that enough water is available for cooking , drinking and other domestic needs to the communities at all times. Samerth has already made 97 water security plans – treating Gram Panchayat as a unit, out of which 20 have already been endorsed in the Gram Sabha and are now in its final form of implementation.

The successful implementation of the Water security plans and their endorsement in the Gram Sabhas gave impetus to Samerth's work in the region. The team was recognized not only at the gram panchayat and block level but also at the district head quarters. Samerth now actively participated in advocacy activities for regular water supply and budget allocation for rain water harvesting structures in vandhs and villages. There advocacy successfully led to an increase in one time sanction for pond construction under MGNREGA from Rs.1,00,000/ to 4,92,000/-. In 2012, Samerth went a step further and organized an intensive training on geo-hydrology of the region. Though all of Samerth supported structures were fortified with geohydrological investigations and inputs first, given the unique soil, climatic, surface & ground water situation of the region it was imperative to train the local team, jaldoots and interested villagers in a Geo Hydrology to plan, retain and recharge their water resources better. In the last few years Samerth has focused on capacitating local communities on building their technical knowhow of their region, initiating better participation in gram sabhas, empowering women to conduct women gramsabhas<sup>3</sup> and then getting their decisions endorsed at the panchayat. Five such women gram sabhas have already been held with women leaders preparing the list for basic amenities, sanitation, water and hygiene, development work, and women's participation in decision making.

Samerth's interventions have led to much direct and indirect impact in the lives of the communities of Rapar. Two evident impact are: 1. 57.34% decrease in migration – especially from the Koli, Harijan and Rabari communities. A recent research shows that **from 3200 families in the year 2007 – 2008, only 1835 families migrated in 2014 -2015 from the Samerth intervention areas.** 2. **Increase in water structures has provided water security for animals. This has led to an increase in the animals in the area and establishment of dairies like Sarhad dairy, National dairy and Sagar dairy in Rapar. The data from the last 3 years shows that poorer communities such as Kolis and Harijans have also started rearing animals and thus have been able to diversify their livelihood strategy.**

The following case studies have been selected from a wider number of water structures that Samerth supported to build. All the accompanied photographs have been clicked in May 2016 – during the time of writing this report. That there is water in these structures in the peak of summers, while the others around it have dried is testimony to the success of Samerth's interventions in these areas.

<sup>3</sup> *Women Gramsabhas: There is a Government Resolution (GR) to hold Mahila Sabha in each Gram Panchayats. The GR was passed on 8th November 2013 by the Development Commissioner and the letter to the Zilla Panchayat Kutch was issued on 23rd June 2015.*

## 1. Chitrod Gram Panchayat

Chitrod gram panchayat has a total population of 5820 people out of which 1494 live in the five vandhs around it. The population of the entire panchayat is predominantly Patels, Muslims, Harijans and Kolis. Most Koli families live in the vandhs. The total number of cattle in the village is 4688. Out of the total 1300 families, only 897 have tap connection in their homes. The Narmada water supply is erratic, currently it was once in 7 days in village and 15 days in vandhs. In 2014, Samarth undertook the renovation of its Gam Talav (village pond – to be accessed by everyone) in line with a high demand from the community. It also featured as highest priority in the water security plan. This was renovated with support from a private donor and MGNREGA (Sanction of Rs. 4,92,000/-, 150 people worked for 8 weeks).

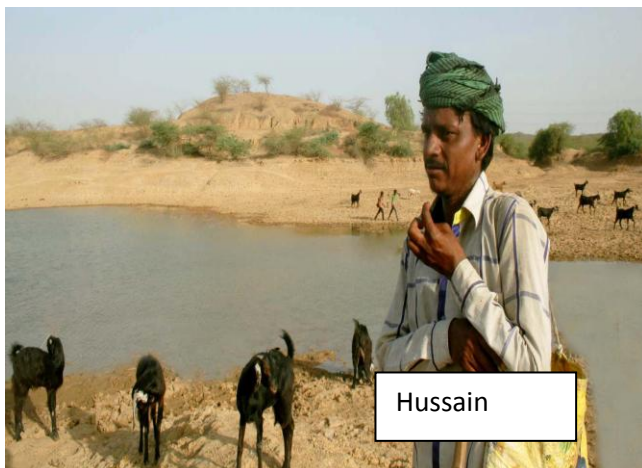


Chitrod pond

We reach Chitrod in the afternoon, and are still wondering if we will have any visitors to the pond braving the heat. And sure enough, within few minutes of our reaching there, we meet 27 year old Hussain and 10 year old Shivang Koli. Hussain looks at us dispassionately, he has a face that says that he has seen it all, and his eyes seldom show any change of emotion.

Between him and Shivang there is a herd of 107 animals of sheep and few goats, all the way from Rava vandh, which is at a distance of 3 kms from the pond. The animals belong to a couple of Vandh families.

Hussain is a cattle rearer and for the past many years would migrate to work as a salt pan worker near



Hussain

Gandhidham. He is illiterate and has never gone to school. Shivang Koli, his 10 year old neighbor has also never gone to an aganwadi or school as traditionally for six months each year, his parents would migrate to work as charcoal or brick kiln workers. For Hussain, there was no school or aganwadi in his vandh when he was growing up. Most vandhs do not have any aganwadis even today. But Hussain is aware that his 2 year old son needs to go to a school if he wants a different life for him. He says this is second year in the row when he and 50 households of his vandh have not had to migrate post monsoon. The water in the Gam

Talav has given them the assurance to stay back and look for other livelihood alternatives in and around

their village. He says he got his job card made only last year, as he realized that there could be an option to stay back in the village. When asked about aganwadi, he says that this year, since most families have stayed back in the village, they are now talking to the panchayat to provide them with an aganwadi- as the nearest one is 4 kms away.



The pond he says, has given him a reason to dream for a different future for his son. And with that we can finally see a flicker of hope reflected in his eyes.

## 2. Kanmer Gram Panchayat



We then travel to Kanmer to see the renovated gam talav and it is nearing sunset. The beauty of the Kanmer pond makes one forget that we are in the middle of a desert region, where water is scarce. But it was always not so. Kanmer is a poor village dominated by Koli, Rajput, Harijan and Muslim communities. 232 of the total 262 Koli families live in six Vandhs surrounding the village. The total population of the village is 3500 and animal count of the village is 1972. When Samerth initially started working here, the village was facing extreme drought, ponds and wells had gone dry leading to heavy migration - to the tune of 50% from the vandhs and villages of Kanmer. Samerth team had a meeting with the villagers, including the sarpanch and other members of local administration and they suggested MGNREGA work for the five ponds of the village. The villagers were enthusiastic but the sarpanch was skeptical. She, like many others, feared the extra workload that would come with MGNREGA work (accounts etc) and refused to initiate it in her village. A personal meeting, followed by enumeration of the impact of the ponds in future, convinced her to take it up. Finally five ponds of Kanmer were restored with Samerth support under MGNREGA. A good monsoon ensured that not only were the ponds full, they could also recharge 50 other wells of the region. This has helped 78 poor families of the area to take up two crops cycle and also farm cumin – a cash crop, bringing the migration down to 10%.



In a while we see a herd of cows coming our way. For a while it seems like they are on their own, but then we see two little boys managing a herd of about 60 cows! The boys are shy to tell us their names but say they are koli boys from the vandh and have walked about an hour to get to the pond. They do not go to school, as they would accompany their parents to Gandhidham – where they would work as laborers on construction sites. They tell us that last year they could buy 3 cows, since now there is a dairy collection point in their village and it is remunerative business. Some of the cows are from the village they tell us, others belong to their vandh. The happy energy of the boys recharges us and we bid adieu to Kanmer.

### 3. Roof rain water harvesting structure at Gagodar Campus



The Samerth campus at Gagodar hosts 70 people on an average; there are 60 students of the residential hostel for children whose parents migrate. Two families of Samerth staff also live here, thus bringing the number to 70.

Though there is a Narmada pipeline connection at the campus, Samerth has four roof rain water harvesting structures that together harvest 65000 litres of water. A well has been built on a natural slope zone that can recharge 60,000 to 65,000 liters of water. The water structures are a boon to the campus and take them

through the hot angry summer months, with erratic water supply. 20 such structures with water tanks have been constructed in vadh areas too, which have no ground water.

### 4. Mewasa Gram Panchayat



Shamjibhai at the Anditimbi pond Mewasa

Mewasa, is a small village with a population of 983 members, predominantly from Patel (50%), Bharward(31%), Koli(10%) and Harijan (5.5%) communities. Total livestock in the village is 1165, major livestock being sheep – 700 of them. The main form of livelihood is agriculture related – either in their own fields, as share croppers or as a laborer. In Mewasa, we visit the Anditimbi talav that was renovated in 2012. The pond was selected on the basis of geo hydrological testing of the soil. The pond is

located close to a cluster of farm lands. The water of the pond is pre dominantly used for drinking – by cattle & humans. There is no water source within 4 km radius of the pond. Earlier a small muddy road led to the pond, which would break every monsoon, making it difficult for people and animals to reach the pond. The talav and the road leading to it were renovated and undertaken under MGNREGA.

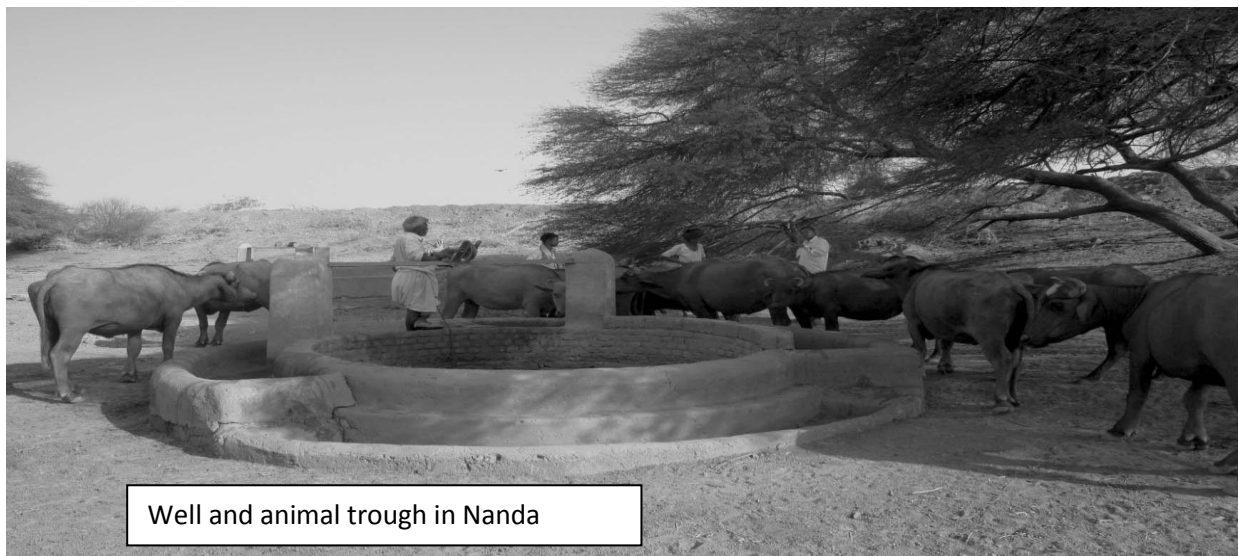




We meet Shamjibhai Patel from Mewasa, with his bull at the pond. He is coming back from Chitrod after selling his farm produce at the market. He remembers the time when they would dread a market visit post the winter months, as there would be no water source on the way back and the bulls would get restless. The pond he says would invariably dry up, and they would be forced to hire tractors in order to move around. Shamjibhai owns 15 cows; all of them are brought to the pond to drink water in the morning and evening. He said he has been able to buy cows only in the last two years, since the pond ensures water through the year.

### **5. Nanda Panchayat**

We now travel to Nanda village, where Samerth supported in renovation of a pond and a well with cattle trough. Nanda is a village of 102 households. 43% belong to the Patel community, 40% are Rabaris and about 16% are Harijans. Nanda is one of the far flung village of Rapar. It rises like an island in the middle of the desert. The entire village is dependent on the pond and four wells for their water needs. The number of cattle in the village is 500 and animal husbandry is one of the main livelihood strategies. After the renovation, though water dries up in the pond in peak summers, there is always water in the well.



We cross the dried pond bed to reach the wells located at the end of the pond. Here we meet Sursang, Hetubhai and Vashabhai who have come with a herd of 35 buffaloes. Hetubhai tells us that regular water supply has led to an increase in the strength of animals in the village by 30%. This has also allowed three dairies to set up their collection centre in the village – leading to substantial increase in the income of most households, especially Kolis. Sursangbhai points out that kolis, who would earlier migrate and were restricted to charcoal, salt pan work or labor have now diversified into animal husbandry too. The three men then proudly show us the five buffaloes that they have now added to their herd. A meditative calmness descends us as the men get involved in taking water from the well for their herd.



Raimalbhai Solanki - Sarpanch

## **6. Sanva Gram Panchayat**

It is almost evening by the time we reach Sanva village. While crossing the market place we meet the Sarpanch of Sanva, Raimalbhai Solanki, who has come to the bank for some personal work. He graciously puts his errands at hold to talk to us and the impact that renovation of two ponds at Sanva has made. He speaks highly of the Samerth staff training the Paani Samiti (water council) of the Panchayat on maintenance of the ponds, ensuring

that no washing up (humans, clothes or animals) happens at the pond reserved for drinking water. He stresses that the samiti is now very strict in ensuring that water from the ponds reserved for drinking is not used for agriculture purposes, this has arrested water contamination to an extent. This has ensured that water is still fit for drinking.



Pethabhai Karabhai, a Sanva resident drinking from the pond

Sanva village pond



A house in Jodhpur vandh

### 7. Jodhpur Vandh (Kanmer Panchayat)

We then decide to visit Jodhpur vandh, one of the first villages of Samerth's intervention. About 100 families from Jodhpur vandh would migrate to far off regions post monsoon. These were Koli families, who owned small patches of land and with no water source. Here we meet with Velejibhai, who was supported by Samerth to build a bore well in his farm.

Earlier he would migrate

every year to other parts of Gujarat, but since the well he has been cultivating vegetables in his small farm, that he sells at the market. He has also been able to buy a pump that helps

him extract water when the levels go down. He proudly tells us that during peak summers, people from around the area use the well water for drinking and mornings are reserved for people coming from far off areas on their bullock carts to fill containers of water. Jodhpur vandh water is yet to have narmada water connection.



Velejibhai in his farm



Velejibhai's well & pump

Velejibhai earns Rs. 5000/- from the patch through which he has been able to sustain his family of three children all of whom go to school, wife and parents in the vandh. He is also involved in MGNREGA work, happening at the nearby pond. He has now been able to buy three cows – previously un thought of and sells their milk at the nearest dairy collection centre.

70 such wells were constructed in vandhs & villages which has led to a significant drop in migration. Velejibhai tells us that 80 out of the 100 families have stopped

migrating and are now involved in agriculture & animal husbandry.

