## When it Rains on the Sand Dunes

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A desert journey, from a pool where both humans and camels drank, to a bavadi then to a water tap in Khaba village has some valuable lessons about the ground realities of the social forces around water.

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The scene was straight out of a different century. We lounged around a campfire among the moonlit dunes of the Rajasthan desert while graceful *Kalbeliya* dancers swirled around in their black mirror-worked skirts. The *Manganiyars*, the traditional singers of Rajasthan sang of the rain of tears that poured from eyes of a lovelorn beloved.

It is very easy to be conscious of the absence of water in a desert. It is equally easy to be wary of its presence in the desert. I asked the lead singer in his colourful yellow turban to sing for me of the rain that pours from the sky. My request was turned down politely. The *Manganiyars* had decided not to sing *Megh Malhar* (a classical *Raag* that is supposed to bring rain) this year because of the floods in the desert.

Recent floods had turned the desert areas of Rajasthan green. The lines of a popular bhajan keeping repeating themselves in my head- "Yug-yug se pyaasi maru bhoomi may jaisa sawan ka sandesh aaya!" which means - like the message of the monsoon to the desert lands that were thirsting for aeons. I had read newspaper reports and watched the television news account of recent floods in one of the driest areas of my country and was curious to know if people actually thought abundance of water in a desert was not a fortunate event.

It is said of the old well in the fort of Jaiselmer that it was built on the place where Lord Krishna shot an arrow into the hill and a spring emerged to quench Arjuna's thirst. The recent floods in Jaiselmer had turned the dusty hillocks around this city into shrub regions and grasslands. The grazing animals looked fatter and there were many lakes in the hollows between sandy dunes. The destruction due to floods had not actually affected Jaiselmer town so much. The only problem was that the roads had very small drains and large amounts of water actually had flowed on the narrow Haveli lined streets instead of in the drains.

In the rural areas surrounding the fort-town, I expected the farmers to be glad. I spoke to the headman of Khaba village. The headman was not the sarpanch of the village. He was a stocky man with a beautiful red and yellow turban in Bandhej, the tie and dye fabric of Rajasthan. The style and the colour indicated that he was from an upper caste. He also was the headmaster and teacher of the village school. He was upset with the water that had collected in low-lying areas near his house. "It has to be drained out before we plant the wheat crop. Machines cannot pump out this water. We cannot plant our crops this season."

"The women are happy," he added, "They don't have to go very far to wash the clothes."

Water has multiple uses and each requires different levels of purity and standards of salt content. While water used for drinking needs to be purest, other uses such as bathing or washing may not require such stringent standards. Studies by international agencies claim that most of India has no access to pure and safe water for drinking.

In the haze of the afternoon sun I saw a long brown wall marking off what seemed to be a lake. A *khadin*, also called a *dhora*, is an ingenious construction designed to harvest surface runoff water for agriculture. Its main feature is a very long (100-300 m) earthen embankment built across the lower hill slopes below gravelly uplands. Sluices and spillways allow excess water to drain off. The *khadin* system is based on the principle of harvesting rainwater on farmland and subsequent use of this water-saturated land for crop production.

First designed by the *Paliwal* Brahmins of Jaiselmer, in the 15th century, this system has great similarity with the irrigation methods of the people of Ur (present Iraq) around 4500 BC and later of the Nabateans in the Middle East. A similar system was practiced 4,000 years ago in the Negev desert, and in southwestern Colorado 500 years ago.

In the distance I could see the earthen embankments but the water had collected over a larger area beyond its usual embarkments, encroaching the lands surrounding the houses of the caste village. The traditional practices of using dry tank beds for farming had worked so far but now the farmers had more water than what they

normally dealt with and they didn't know what to do. While the organization Tarun Bharat Sangh in Alwar is world famous for water conservation projects, the headman at Khabha village, Jaiselmer, in the same state was unaware of the neighboring district's water conservation initiatives.

Of all the planet's renewable resources, fresh water may be the most difficult to renew. This is because it is difficult to purify, expensive to transport and impossible to substitute. Water is essential to food production, to economic development and to life itself. Its importance to human health and well-being is emphasized when in mid-1993 the United Nations' new Commission on Sustainable Development gave first priority to technology that improves water quality to be transferred from wealthy countries to poorer ones.

Not many people pay for water at the source. People may pay minimally for water to be brought to them but so far in India there is hardly any payment required for water used from bore wells or no appropriate charge for any industry on a riverbank for using water as a coolant. Any payment is usually for water to be bottled or transported. The largest use of water is for irrigation followed next by domestic and industrial usages. As water supports other economically beneficial activities, increasingly it is considered an economic commodity and global water pundits say the next wars would be fought over water.

In pursuance of the National Water Policy 1987 (and also 2002) farmers are to be involved progressively in various aspects of management of irrigation systems, particularly in water distribution and collection of water charges. The Ministry of Water Resources, while issuing guidelines in April 1987, specifically emphasized that states consider representation of women in the Water Users' Association (WUAs) at all levels. As a consequence, many states have amended their Irrigation Acts or come out with specific acts on Participatory Irrigation Management. Some of the State Governments have taken some initiative and have made specific provisions for women.

The Water Users Association in any state is not a government body; it is parastatal so it is not under the control of the local government. It has been set up as a regulatory unit to manage water. Water Users Associations ignore the diversity of the end users of water and assume that when water is supplied to an area, all people in the communities around have equal access Many initiatives of policy have been created such as the National Water Policy, (MoWR, 1987, 2002) which recognizes the provision of adequate safe drinking water facilities in rural areas as one of the priority areas for action. The Water User Associations in reality however prioritize irrigation based water usage over the domestic sector as it may in due course prove to be economically profitable. There is also the suspicion that such water user associations may be under direct or indirect control of global financial institutions such as the World Bank. While on paper it does seem heartening to read about the acres of land irrigated or cusecs of water available in storage, the social issues surrounding water or the meanings that water has for any community is completely ignored.

However, access to water has been based on social status for a long time. Culture, tradition, religion and legal frameworks define rights, roles and responsibilities in relation to water. With regard to gender roles too, the simplistic assumption that women are the universal domestic water managers with men's concern being only 'productive' use of water is now no longer applicable.

Yet the current system of water policy mostly targets women as end users or transporters of water. Women are seen as end users of household water distribution and also sometimes use water for production. At the same time is it a false picture of empowerment, the truth being that most of the time women lack representation at decision making levels or lack control of water resources.

The grand palace hotel I stayed in once served as the dance entertainment palace for the royal family of Jaiselmer. The contrast of the kings and the common folk, the modern bathtub and a shower tucked away in my traditional haveli bedroom and water and the desert was very stark.

My favorite informant and friend in Jaiselmer, Mr. B loved to tell me stories about the desert and water. "There was a very strong camel driver of the Maharaja" said Mr. B, inspired by the long line of water bottles. "One day an Englishman who was the guest of the maharaja was smoking on the balcony as he watched a camel driver load heavy sacks on to the cart the whole morning. After his work, the simple man pulled

out his roll of twenty rotis and a pot of buttermilk. He put ten rotis on a plate and mashed them up in buttermilk and finished his meal. Then he drank a whole pot of water and salaamed the Sahibs. The gentleman was amazed and wishing to give him some free advice, told him that it was bad to drink so much water after a heavy meal. It would decrease his digestive powers. The maharajah translated and the man nodded his understanding. He quickly went back and fetched his plate loaded the remaining ten rotis and again ate them with relish. He saluted the sahibs and told his master- "Now the water is not at the end if my meal, it is in the middle." See, our water is the best in India" concluded Mr. B.

When I visited Khaba, the Rajput women in purdah did not come out to meet me. I really wanted to speak to the women of the village. When I asked the headman, he said "Please go to the next village the women will talk to you there." I insisted. "I want to speak to the Khaba village women" I said. Very patiently, like explaining to one of his very stupid students he said, "Behenji (sister) that is also Khaba. There are four villages in Khaba. That's the Bhil community village. Understood?" I did understand and gratefully thanked him in typical Indian style by giving him a box of sweets. "This is a small token of my affection for your family and children," I said. I took my airconditioned taxi down the dusty track towards the next settlements.

There is increasing representation of women in panchayats due to their election as panchayat members. Yet does the power over water actually translate into action? How much access does a village woman have to any water resource?

The Ministry of Water Resources annual report in 2003-2004 covers the role of women in water resource management in the last but one chapter. In a two page write up, squeezed in before the report on progressive use of Hindi in the department offices, the representation of women in Water Users Association in some states has been discussed. In a very typical government style a photograph and report of one awareness program held for women concludes this write up.

"... one day mass awareness programme for women on 'Fresh Water' to create a resource pool of women for conducting further mass awareness programs on water related issues was organized on 12th December 2003."

A horde of women and children crowded around me and without much ado I was led into the best house in the settlement. There was a TV, a fridge and in a special place of display —a poster of Amala the south Indian Tamil actress resplendent in a southern Kanchivaram silk sari. "She looks like Goddess Lakshmi," explained my hostess deftly handling a crying child with one hand as she poured hot steamy chai into a tall steel glass for me. I remarked that the women here were bolder than the earlier Thakur (Rajput) village. One young girl of nineteen said, "Well, we are. Your hostess is the previous sarpanch and I am a teacher for the adult literacy program."

This positive picture of empowerment for women hides a harsher ground reality- the answer to the question, "Who actually owns and who uses the water?" From the story of a Shakuntala of Kalidasa watering trees in the ashram to the picture of a woman in Chennai with her plastic pots in front of a water lorry, women form the central context of water usage in India.

Over chai, the woman sarpanch said that her priority on being elected was to get piped water for the village. She proudly showed me the modest tank which was filled with the rainwater. "We have enough," she said. But what about the water filled fields? She said "Well, we will have more tanks and use the water on other fields, once the admi- log (men) approve."

It is not surprising to find that it is men who take the lead in management decisions about water supplies within panchayat bodies, while women's participation tends to be only officially reckoned. Many of the women members from different tiers report that decision-making about water management in public primarily constitute men's arena of work, where women's needs and opinion carry weightage but are to be conveyed indirectly.

"Who brings water in your village?" She asked me. "The pipe does or my husband switches the motor and the tank fills up with sarkari pani (government water)," I replied. She is intrigued and asks me if the tap never runs dry. "It does sometimes. Some of my neighbors get up at four or five in the morning to fill water for the family" I added. "Then then! That's always a woman's job, village or city," she said.

As domestic water managers, women are further seen as 'burdened' with the task of fetching water and government initiatives in water management typically tackle

only this aspect of the issue. This involves recognition of women as domestic water managers to be facilitated through provision of new, improved, reliable and safe water sources close to home, most commonly the hand pump or water tank.

The National Policy on Empowerment of Women (DWCD, 2001) warrants special attention to the needs of women in the provision of safe drinking water within the accessible reach of households, especially in rural areas. Despite these schemes women and those who need the water still have no access to it.

A study indicates that domestic water management is a complex process with several elements like decision-making about quantity and quality of water with respect to different purposes, procurement of water as a physical activity, and finally usage of water in specified quantities for pre-determined purposes. Women have to arrange water for cooking, cleaning or washing. Sometimes for some purposes water is brought home but at other times women go to the water. Most women consider the addition of a hand pump only as an additional source of water for drinking or cooking in the rural areas. Washing, bathing and other activities take place in a local tank, tap or riverbanks.

I was taken to visit the bavadi (traditional well) next to the village closer to the caste village. It was situated next to a small temple for Lord Krishna. There was water in the bavadi and some children were splashing around close to the steps. "We don't need this water now" the women told me. "But in case we have pooja we come here and take water. Anyone can get water here. But not the Musselmans or tribal Kalbeliyas. They don't drink this water; they have their own bavadi closer to their houses."

"They eat dog meat," she added in a conspiratorial whisper.

Traditional step wells are called vav or vavadi in Gujarat, or baolis or bavadis in Rajasthan and northern India. Built by the nobility usually for strategic and as well as philanthropic reasons, they were secular structures from which everyone could draw water. Most of them are defunct today as water sources. Only tourists click photographs of the elaborate steps and peer curiously into the murky waters.

The construction of step wells date from four periods: Pre-Solanki period (8th to 11th century CE); Solanki period (11th to 12th century CE); Vaghela period (mid-13th to end-14th century CE); and the Sultanate period (mid-13th to end-15th century CE).

Sculptures and inscriptions in step wells demonstrate their importance to the traditional social and cultural lives of people. Step well locations often suggested the way in which they would be used. When a step well was located within or at the edge of a village, it was mainly used for utilitarian purposes and as a cool place for social gatherings. When step wells were located outside the village, on trade routes, they were often frequented as resting places. Many important step wells are located on the major military and trade routes from Patan in the north to the sea coast of Saurashtra. The Khaba well was on route to the trade caravans from west into India, an important watering point before Jaiselmer. When step wells were used exclusively for irrigation, a sluice was constructed at the rim to receive the lifted water and lead it to a trough or pond, from where it ran through a drainage system and was channelled into the fields. A major reason for the breakdown of this traditional system is the pressure of centralization and agricultural intensification.

The water bodies are therefore not just sources of water; they also serve other social and traditional functions. The kind of water required for activities may be source dependent. For example, the ritually pure water needed for ritual baths may not be substituted by water from a tap.

The existing initiatives, though proposing a concern gender issues, actually tend to view women in isolation. The gender inequalities are reinforced and these in turn determine who has access to the use of water. They ignore social realities of the local communities. I was on a camel safari when we stopped at the village of the camel drivers. Most of them were from a minority community and lived in small mud huts. Their turbans were white and tied to look flatter. There was no tap or no well close by. There was only a small lake filled by the rainwater. "Do not bathe here." Said the attendant who was leading my camel. "This is the drinking water for the village."

The government initiatives also treat women as a homogenous mass, a group that is not divided by socio-economic barriers. For example in some high caste homes in the Khaba village, men fetch the water in carts; women hardly go out of the house. It was then that I understood that perhaps piped water that the woman sarpanch showed me in her village was easily implemented as the men thought it important to maintain the rigid purdah in the house. The villagers confirmed my guess. "Why should our

women wander around shamelessly for water?" said an elder from Khaba Rajput village.

"We have never been involved in constructing or designing water systems here in the village. That is men's work. We do not know about rights to water. We just wash cook and clean vessels. Land belongs to men. We do not know if we can say that a water point belongs to us. Decision making in public is men's task. That has never been our work, how can we go and talk about water with our elder males?" This was what the Bhil women of Khaba village told me when I asked them if they could make the other villagers store the excess water.

As I took leave, I stopped at another house. The older woman in the house had a face marked with dune like wrinkles. She was most worried if my husband would not take another wife in my place when I was in Rajasthan. "Keep him in tight reins." She advised. Her grand daughter who was following me around the village thought I was very interested in taps and water. So she dragged me to their tap in the house and opened it fully. The water gushed out and sprayed her face with droplets and she smiled through the water happily at me. I washed my face in the cool water and I was thinking "water —water in a desert!" "Nice water," I said to the older lady.

With a smile, she said "what is nice? First (Earlier) the water was given by God. Now the Sarkar (government) puts it into pipes and collects tax for it. God does not get this tax so why will he give us water any more, the Government has to do God's work and we have to pay them."

In my trip around Jaiselmer I did not see hand pumps. The water table was too deep to have underground wells. In other parts of Rajasthan however hand pumps are operational. The other initiative is also to make women technically proficient in maintaining hand pumps. Along with many initiatives from NGOs and outreach programs like Barefoot, many women were trained as hand pump mechanics. These program initiatives aimed at increasing the involvement of women in water supply activities through measures such as their training as hand pump mechanics under the "Training of rural youth for self-employment (TRYSEM)" scheme. Again because the end users would be women, they would be better equipped to ensure continuity of

supply in case of breakdowns of the pumps. While women are allowed freedom to manage resources at home, going around repairing pumps is still considered socially unacceptable.

The idea, that women have free time to participate in water projects, and that they would sustain long term involvement due to benefit from income generating activities, is highly questionable. Would a hand pump repaired by a socially backward woman be used by the entire village?

Water on the one hand purifies yet it is more capable of being socially polluted at the source. In the Khaba village I visited, the headmaster and the leader was a Soda Rajput while the community of women I spoke to belonged to the Bhils and the weavers. The piped water from the tank first supplied the Rajput households and then was allowed to flow to the next neighbourhood. In a village where the traditional notions of purity and pollution still exist, water, even from a hand pump or a tank is not viewed as a common source.

My desert journey from a pool where both humans and camels drank to a bavadi then to a water tap in Khaba village taught me some valuable lessons about the ground realities of the social forces around water. But like all journeys I have to end where I began—my own home, the city of Bengalooru.

Over the last few months the Lake development authority has been leasing out lakes to private companies for development. Each of these companies is erecting walls that block the view of the lake from the roads and are denying the access to surrounding poorer residents who once used the water for cattle, washing or bathing. At the same time larger industries are free to pour untreated effluents or dump rubble to build on tank beds.

On my television screen, Mowgli perches in the forest as the village girl sings her song coyly in *Jungle book* cartoon movie about her fetching water till she has a daughter who will then fetch the water. In front of my house, at construction site in Bangalore, a girl child was carrying water to her little one room shed. Mother and father shared in the labour work, while the daughters, some of them as young as nine years fetched water from a nearby public tap. In villages too, women work alongside

men in the fields or spend time gathering firewood or threshing the crops, the girl child carries the water. How can the policies and the facts and figures continue to ignore the social and political aspects of the way water is used?

As urban areas turn to water privatization, the urban poor have no means to pay for their water and once again women are the worst impacted. With pressure from the aid agencies to implement the "water for all" programs, the water privatization will put the water resources even more out of reach of women or allow for any sustainable, equity based process of distribution. On one hand water policy treats water as an economic commodity and on the other hand enforces programs for 'women's empowerment' and 'water for all'.

In Khaba village, though the sarpanch was a woman and the women literacy program is under full swing, participation of women in local bodies has not had any effect in the socio-economically backward communities. The participation does not warrant participation in the decision-making. Income generating schemes for women also seem to fail as the final control of expenditure vests with male members. The control of water sources, household income or the social laws governing the use of water still are in the hands of men or the higher castes. Policies that have different agendas only succeed in confusing implementation further. Supply of water is given priority over gendered approaches to water management. People who are charged with grass root level work often have no decision-making role in processes and finance. Even inside of the organizations set up to implement water management, hierarchical processes of decision making prevail.

As long as the issue of water management is treated as a technical issue as opposed to a social issue, successful implementation of gender based water management is not possible.

Agencies and policy makers cannot be passive participants of any program. This means that they have to confront the various social issues surrounding water. Detailed study of local technologies, social structure and dynamics has to be carried out before implementation of a water program. Long-term social sensitization may be needed along with grass root level local participation from the people in any project.

In one village without the piped water, against the backdrop of windmills of a global corporation-Suzlon generating power, I observed women at the local tank gossiping and exchanging small talk free from the usual reserve and strict purdah. Heads uncovered and teasing each other, they looked so free. "How this will change if they all had water taps?" I thought to myself. I don't know, but I believe firmly that the process of handing over water management to women must be done with the support and sensitization of men.

In Chennai the street fights in between women in queue break out near a public tap and are popularly known by the Tamil name of *Kozhai* sandai— a tap fight, a fight for their turn to fill up from the trickle of water. When nations and states fight over water rights too it seems to me but a tap fight of larger proportions.

In popular tour guidebooks, the custom of Pani-dhari is praised as a cultural event. Every day a group of Rajasthani women lift pots on their head and waist and walk to a water source in the desert, singing songs. As they disappear into the sunny haze of the desert, it evokes a very romantic picture of water and womanhood. As I saw the veiled woman lift up two brass pots on to her head and tuck a third plastic pot on her hips, I remembered the line of plastic pots lined up in front of a public water tap in Chennai. The next time the people sing the Raag Megh Malhar, there must be some rain for the women too.

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