

Nomination of the Jal Bhagirathi Foundation for the King Hassan II Great World Water Prize, 2012

"Till taught by pain, Men really know not what good water's worth; If you had been in Turkey or in Spain, Or in the desert heard the camel's bell, You'd wish yourself where Truth is-in a well." Author unknown

The Marwar region, located within the Thar Desert of Rajasthan, India, is hot, deeply and deadly hot. It has been called the land of "incessant thirst". Marwar, literally translated is "Land of Death". As one of the driest pieces of ground on earth, where rainfall is scathingly low and unpredictable and where droughts are a way of life, the region of Marwar is the most densely populated desert in the world. It has been said the women of this desert, during their life, will walk the earth three times round in their search for water.

Rajasthan shares only 1.15 percent of total water resources in the country though it covers over 10 percent of India's land mass. Nearly 64% of the people in the Marwar region do not have access to safe drinking water. Most villages in this area do not have a single, safe source of drinking water within a radius of 1.6km from their homes. Rainfall is less than 200 mm per year. Water table levels are declining to dangerously low levels and the groundwater that is available continues to be extracted at a rate impossible to replace with a saline content so high as to render it unfit for human consumption. The challenge of water management in the Marwar region is enormous. One might say it would take a god (or goddess) to help.

Thus India lore... tells a story of the mythological prince, Bhagirathi, who, to gain release of his 60,000 great uncles from the curse of saint Kapila, bought the goddess Ganga in the form of a river Ganges to earth. The Jal Bhagirathi Foundation (JBF), created by the immense efforts of three men, HH Maharaja Gaj Singh of Jodhpur, Shri Rajendra Singh and Shri Prithvi Raj Singh, bought its own Ganga to the Marwar region of Rajasthan, India. On 15, January, 2002, JBF, located in the Thar Desert, was formally established as a non-profit organization. Its commitment, to support the basic human right that all people are entitled to safe drinking water. Its mission, to provide water to desert villages through the revival of traditional water harvesting methods. Its goal, to harness age old knowledge from the villages thus releasing them from the curse of inconceivable water shortage.

Great effort, partnered with enormous vision, irrefutable and quantifiable successes justifies the nomination of JBF as a candidate for the King Hassan II Great World Water Prize. Combining strategic cooperative practices, traditional water harvesting knowledge,

local technology and superior management with the cooperation of the desert villages, JBF has achieved ground breaking, fundamental and lasting accomplishments within the social, cultural, economic and environmental areas impacting hundreds of villages throughout the Marwar region. The intent of this document is to illuminate the achievements of JBF and to recognize the vocation of an organization who undertook the unimaginable task of harvesting water when there was no water to harvest.

The cornerstone of JBF's foundation lies in the fundamental philosophy that successful water management starts with the building of social capital within a village. The fabric of this process involves establishing social norms and networks which develop and restore people's ability to work together, leading them again to the age old use of collective wisdom for community based action. From this center of community empowerment arises the framework from which the Phoenix of JBF's purpose arises. It is within this framework where the achievements of JBF are rooted.

The remarkable achievements for social change begin with the formation of what is known as the Jal Sabhas, or water user associations. Each village in the project areas, through a complex process of consensus and common welfare interest establish their own associations. These grass root groups are the decision making bodies for water resource development at the village level and are responsible for existing and future water harvesting structures. Not only are they guided by the principles of democratic governance, but equitable access to these groups is tentatively becoming a cultural norm. With the strong support of JBF, all sectors of a village are encouraged to participate in the Jal Sabhas. This has led to the inclusion of women (20-34% in some associations) as well as the participation of marginalized groups as members. Given the long standing history of patriarchal governance coupled with lack of representation for certain sectors in this region, inclusion of certain groups within the Jal Sabhas is exceptional in its opportunity for eliciting social change.

The Jal Sabha comprises only the first tier of the JBF's comprehensive management approach and water governance structure. Because this document is limited in scope, only a brief but important accounting of these other groups will be offered. They are, along with the Jal Sabha, the backbone of JBF's mission and project management structure. They are as followed; Jal Samitis (water development groups). These forums, considered a tier above, are comprised of a representation of key members from blocks of Jal Sabhas and community leaders. Their work is to review proposal for Jal Parishad approval, develop water strategies and disbursement of funds. The next tier is the Jal Parishad (water forum), a project-level institution made up of peoples representatives and water experts. This forum approves grants, and endorses projects which adhere to the water development strategies of that locale. They apply macro level expertise with a focus on

local need. Lastly, the Jal Sansad (stockholder's forum) represents the entire Marwar region. The Jal Sansad acts as a platform for stakeholders to participate in the creation of JBF's annual strategic planning document, affecting change at the highest possible level. Collaboration between these tiers has forged and increased the currency of social capital, supporting and reviving the forgotten tradition of self-governance and the invaluable contribution of collective wisdom at the village level.

With the encouragement of JBF, villages, applying this wisdom, are now reviving long standing practices of traditional water management. For centuries village methodology operated from a prudent but highly effective system of water management through the matrix of Agors (catchment areas), Gauchars (pastureland) and Orans (sacred groves-biodiversity repositories)-the AGO. The revival of this approach, referred to as the "Community Led Water System" when partnered with appropriate present day technology continues to sustain the highest level of water and natural resource management available to the area. The results have been remarkable. With the work of over 300 Jal Sabhas , 365 water harvesting structure have been revived and constructed. The impact of this work has benefited over 350,000 people and 900,000 head of livestock. Additional storage capacity of more than 3 billion litres has been created greatly reducing the time women spend searching for water, some project areas reporting a decrease from 6km daily to 2.6km. Within JBF project villages, average water availability has increased from 4 months of water to 8-10 months, reducing the average households must pay for additional water by 140%. Given that the majority of the people of this area earn only 3000-4000 Rupees a month (\$69.00 to \$93.00USD) generating monies for food, clothing and medicines is paramount. Harvesting tanks now provide villagers with protected, sanitary environments for water storage. Ninety percent of these community tanks have been facilitated for the poorest and least represented communities, implementing societal shifts for allowing equal access to water regardless of a persons "position" in the social structure.

Conflicts between different castes, primarily based on water shortages, have been dramatically reduced. Ninety-eight percent of households (hhs) in project areas reported benefits from the work of JBF, 95 percent reported greater availability of water, 80 percent of (hhs) reported greater access for water for their livestock. A documentary by the United Nations Development Program, titled-"Today's Choices Tomorrow's Future-found the work of JBF and the villages to be highly effective in addressing not only today's concerns but future issues and the impact of climate change in project areas as well.

The achievements of JBF on paper do not do it justice. Imagine the vision and desire for the revival of water practices centuries old, in an area of rainfall which experiences less

that 200 mm yearly, dependent on community collaboration, where caste and gender have influenced daily life for hundreds of years. Where implementation of these projects require that the villagers themselves must first contribute at least 30% of the cost of the project when the average household earns less than 45000 rupees a year (\$975.00USD). These issues, coupled with literacy rates as low as 30%, devastating health concerns, grossly poor diets, caring for chronically sick children when one may not be well themselves, back breaking work in the fields in brutal heat and the mind numbing burden of keeping your livestock alive who may be your only source of income, when fully examined, can only portray the truly Herculean effort and success of JBF.

Continued accomplishments of JBF in the areas of water systems sustainability and replication have been insured through the continued cooperation of villagers. With the formation of the Jal Kosh (village development fund), people are required to secure funding for the maintenance of existing projects and contributions towards future projects. The mobilization of over 18,000 volunteers to assist with over 130 community training programs is in place. A Community Media Unit designed and implemented by JBF called the Jal Chitran has been developed for the sole purpose of disseminating visual information to communities where the literacy rate is low. Videos and artwork on water, hygiene and health provide critical information in a format that is accessible for villagers unable to read. In addition, model communities have committed themselves in assisting other settlements with reviving sustainable water management systems of their own. As successful water management is only achieved through the care and maintenance of the surrounding land, environmental conservancy is part of the effort to sustain and replicate water management systems and is strongly advocated through dialogue and sound land management practices.

The push to educate villages and to assist them in realizing the relationship between water and bio-diversity has been effective and promising. Communities, often with the help of Jal Chitran, are shown how the development and restoration of existing talabs (ponds), engender support for the surrounding ecosystems creating an environment for local flora and fauna to grow while providing critical water and shade for animals that inhabit the area.

With additional support from JBF, communities are reviving long standing practices of common land management. The implementation for tree planting programs is just part of the effort to revitalize the Marwar region. As the region has experienced devastating tree loss due to harvesting of firewood for cooking, new tree growth is vital and necessary for restoring eco-balance to this area. "Pitcher" plantations systems are being revitalized,

whereby a single pot is recessed into the ground, acting as a micro-water harvesting unit. One drop at a time it sustains new growth. While techniques such as these, may appear elementary and overly simplified, it is this very approach, at the heart of JBF, which has ensured cooperation, success and adherence within the villages. And like the small clay pot, JBF is accomplishing, one drop of water at a time, lasting and profound changes in the very fabric of water management in the Marwar region.

Availability of water is essential for the development of any human society. JBF, as it moves forward in vision and scope, continues to align its future works with compassion and strategic alliance building. Efforts for highest management practices with the focus on cooperation, will be rooted in the desire for partnerships with all sectors of society and all levels of government. Through the generous award of the King Hassan II Great World Water Prize, like Bhagirathi of Indian lore, the men and women of JBF will go on to bring a river of clear, safe water to the people and animals of Marwar and beyond.