



# *milestones*



JAL BHAGIRATHI  
FOUNDATION



## The Italian Development Cooperation

The Italian Development Cooperation's activities in India are handled within the framework of the "Indo-Italian Cooperation Agreement" signed by the two Governments in February 1981. Since then, the Directorate General for Cooperation to Development (DGCS), a Division of the Ministry of Foreign Affairs, has financed several projects in the country.

In 1999, the Italian Parliament reiterated India's status as a "Priority Country" for Italian Cooperation in the Asia-Pacific region. By the end of the same year, the "Development Cooperation Office" was set up as a part of the Italian Embassy in New Delhi to coordinate and strengthen development cooperation activities between the two countries.

The program are executed through bilateral, multilateral and multi-bilateral channels (e.g. financial support to UNDP, UNIDO, WHO, UNODC, UNICEF, ILO). Besides these, funds of the Italian Government are channeled directly to Italian NGOs working with local Indian counterparts. Furthermore, Italian Regions, Municipalities and Provinces have been sponsoring numerous development projects in India through the Decentralised Cooperation Mechanisms. The most active ones in India are: the Region of Lombardy, the Municipality and the Province of Milan, the Autonomous Province of Trento and Bolzano, the Region of Sicily, Sardinia, Liguria and Tuscany.

The Italian Development Cooperation's concern for the water situation in the world and their commitment to addressing more effective water management in the drought stricken regions of the globe is expressed through their support of institutions such as Jal Bhagirathi Foundation to upscale grassroots experiences into models of replication in developing countries. As the present multilateral project with UNDP and JBF "Vulnerability Reduction through Community Empowerment and Control of Water in the Marwar Region" started in 2005 comes to a conclusion this year, UNDP has presented its second phase titled "Water and Livelihood's Security for Vulnerability Reduction in the Marwar Region", for the period 2010 to 2015 to Italian Development Cooperation for their continued partnership.



**UNDP**

UNDP is the UN's Global Development Network, an organisation advocating change and connecting countries to knowledge, experience and resources to help people build a better life. UNDP is on the ground in 166 countries, working with them on their own solutions to global and national development challenges, as they develop local capacity they draw on the people of UNDP and its wide range of partners.

UNDP in partnership with the Jal Bhagirathi Foundation is working on the project- 'Vulnerability Reduction through Community Management and Control of Water in the drought-prone areas of the Marwar Region' which supports social mobilisation efforts and strengthens people's organisations for sustainable natural resource management. It also attempts to ensure women's empowerment and advocates community's rights over common property resources. UNDP has been instrumental in actively supporting the advocacy efforts of Jal Bhagirathi Foundation and partnering to promote water policy reforms.

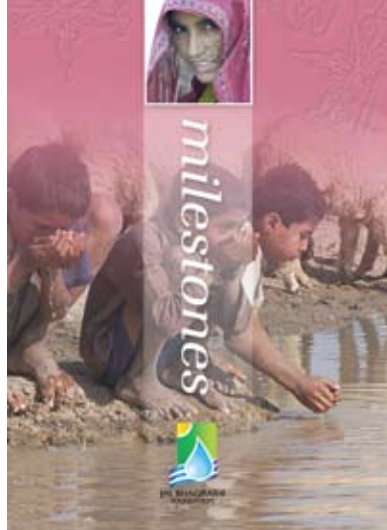
**JBF was established as a Trust on January 15, 2002.**

**The Organisation serves to regenerate community leadership and institutional support to strike a balance between environmental capacities and people's needs, especially in the access of safe drinking water positioning its work and learning at the national level for further replication, thus contributing towards the ongoing debate on pro poor policies.**





# CONTENTS



33-36

5-10



37-40

11-14



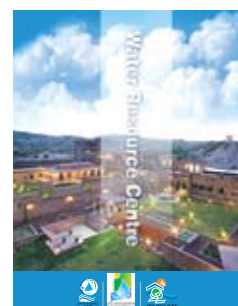
41-46

15-20



47-50

21-26



51-54

27-32







JAL BHAGIRATHI  
FOUNDATION

# Leading Change



# THE JAL BHAGIRATHI FOUNDATION



## Strategic Vision

**The Jal Bhagirathi Foundation is driven by a vision of water security, sustained by responsive governance and inclusive growth leading to sustainable development.**

## Mission

**Jal Bhagirathi Foundation exists to provide an enabling environment in which the desert communities of the Marwar region can access adequate drinking water for humans and animals within the constraints of environmental equilibrium by leveraging traditional knowledge and appropriate technology; facilitating village institutions of collective wisdom and building local capacities for community mobilisation in an atmosphere of transparency, participation and accountability, through a process of networking and advocacy.**





## Core Values

- Organisational thinking and action is rooted in respect for the communities with whom we work and their collective wisdom to promote sustainable levels of human interaction with the environment.
- Be committed to change and inclusive growth, proactively seeking participation of all those affected by our program and facilitating women's access to economic resources.
- Shall uphold the highest standards of integrity in all our professional and organisational actions committing to Total Quality Management, with continuous internal improvement.
- Commitment to unqualified support for People's Rights (including the Right to Water) with the belief that our work will be successful if it eventually contributes to improved public governance.

## Interventions

**Objective 1:** By 2015, create an enabling environment for community action which improves access of communities, especially women and disadvantaged groups, to safe drinking water and sanitation in 400 villages of the Thar Region.

### Output1:

- Improved availability of drinking water for poor households and their livestock through creation of decentralised water harvesting and storage infrastructure.
- Community management systems established under the project to ensure equitable access to water at the village level, especially for women and disadvantaged groups.
- Successful demonstration of community models and technologies for providing safe drinking water.
- Increased adoption of household sanitation systems and hygiene practices by communities.

**Objective 2:** By 2015, increase participation and representation of women and disadvantaged groups in water management and local institutions in 400 villages.

### Output2:

- Gender and inclusion concerns integrated in training resources.
- Increased representation of women and disadvantaged groups in local institutions set up for water management.
- Increased participation of women in planning and management of water and sanitation projects at the village level.
- Enhanced visibility of women in public meetings and local decision making bodies.

### Objective 3:

By 2015, strengthen outreach of the Water Resource Centre for wider extension and replication of community-based approach in water management in the project districts, and at the state and national level.

## Board of Trustees

HH Maharaja Gaj Singh	:	Chairman
Shri Rajendra Singh	:	Vice - Chairman
Shri Prithvi Raj Singh	:	Managing Trustee
Maharani Hemlata Rajye	:	Trustee
Ms. Kanupriya Harish	:	Trustee

## Legal Status

- Jal Bhagirathi Foundation was settled as a Public Trust on January 15, 2002 and Registered on May 14, 2002, Registration Number: 06/2002/Jodhpur
- FCRA Number:125610038, dated January 6, 2003
- Registered under section 12A of Income Tax Act 1961
- Donations exempted under section 80G of Income Tax Act 1961





**J**al Bhagirathi's flagship project “Vulnerability Reduction through Community Management and Control of Water” supported by UNDP and the Italian Development Cooperation has made a significant impact on reducing water distress and poverty to ensure better quality of life

#### **Output3:**

- Public recognition of the Water Resource Centre as a centre of excellence for training and knowledge in the water sector, with a focus on the poor.
- Capacity building of community based organisations, Non-Government Organisations (NGOs), Panchayati Raj Institutions (PRIs) and government officials through participation in trainings, workshops, orientation and exposure at the Water Resource Centre.
- Enhanced visibility of project results and best practices at the state, national and international levels.
- Strengthened institutional capacity for influencing community centered and rights based approach in policies and program.

**Objective 4:** By 2015, improve access of local communities to sustainable livelihood strategies and improved options.

#### **Output4:**

- At least six models of community managed enterprises for improving quality and supply of safe drinking water successfully demonstrated.
- Promotion of community managed rural tourism sites linked to establish tourist networks.

### **Projects**

#### **Vulnerability Reduction through Community Empowerment and Control of Water**

This is a flagship project supported by UNDP and the Italian Development Cooperation has been implemented in villages of Jodhpur, Pali and Barmer Districts. JBF has mobilised communities and created an institutional framework of Water User Associations for construction of over 291 water harvesting structures in more than 200 villages. External Evaluations reveal that more than 95 percent

of households in the project area have benefited from improvements in accessibility and prolonged availability of water.

#### **Replicable Village Model of Participatory Water and Sanitation Management**

The project is being implemented with the support of “Wells for India”, and envisages to develop six villages in the panchayat of Janadesar in Jodhpur district as model villages to showcase judicious water management practices. A comprehensive village action strategy is being implemented so that the villages can be evolved and developed as model villages. Besides water management, these villages will be developed as model sanitation villages showcasing best practices in waste water and solid waste management.





### **“Community Media Unit” for development and social change in Jodhpur, Pali and Barmer districts of Western Rajasthan**

This project is implemented in collaboration with Video Volunteers and is supported by the Irish Aid. The Community Media Unit set up under this project is an effective tool for highlighting developmental issues to advocate policy reforms and draw the attention of opinion makers to grass roots issues of concern. All

videos of the Community Media Unit (CMU) project the message that local people need to take lead in their own development, and culminate in an ‘action point,’ which is something concrete and locally do-able. The videos inspire audiences with ‘success stories’ of local people who are making a difference, and the screenings and discussions provide otherwise absent platforms for the community to come together to discuss constructive steps.

### **Organisational Structure**

**Physical Infrastructure:** The main offices of the Foundation are located at the “Water Resource Centre”, at Jodhpur which has been developed as a spacious and well planned complex with training rooms, conference facility for 400 persons, discussion rooms, meetings rooms, classrooms and residential facilities for the participants.

JBF has a coordinating office in Jaipur, the State capital and four block-offices in the field area.

**T**he JBF organisational structure is a unique amalgam of village-level volunteers and a professional resource base



**Human resources:** JBF’s organisational structure is a unique amalgam of village-level volunteers and a professional resource base. The 18000 village-level volunteers are being assisted by 100 members of a professional and technical workforce in effectively adopting a rights-based approach by mobilising communities, planning, implementing and monitoring of development interventions. This partnership aims at building capacities of the volunteers to enable them to deal with micro-level development works independently. The professional workforce is also involved in generating socially sound technical innovations, facilitating policy advocacy and networking.

milestones



**Management Systems:** JBF has adopted international management standards of operations and has been awarded an ISO 9001-2000 for its management systems and procedures. The objectives mandated by the organisation are realised by instituting a transparent and accountable work-culture which

provides quality management for optimising efficient utilisation of resources in program implementation and establishes a sensitive and responsive organisation which effectively responds to the requirements and concerns of the beneficiary communities.

**JBF** has adopted international management standards of operations and been awarded an ISO 9001-2000 for its management systems and procedures

## Addresses

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JAL BHAGIRATHI  
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# Marwar

THE THAR DESERT

# THE PROJECT AREA

## The Region Is The Most Densely Populated Arid Zone In The World

### Background

The term 'Marwar' is derived from the Sanskrit word of 'Maruwat', which means 'Land of Death'. The region is the most densely populated arid zone in the world. Its economy has traditionally revolved around animal husbandry and subsistence agriculture. The region's primary ecological resources are water bodies, pastures, grazing lands and sacred groves.

Marwar is characterised by high temperatures, low and erratic rainfall, saline groundwater and sparse vegetation. Droughts of varying intensities are a recurring phenomenon. The already stressed water sector is also a victim of climate change. Rajasthan has been identified as one of the most vulnerable states in India that is being adversely affected by global warming. These impacts are exacerbated by increasing population

growth and consumption and have resulted in severe ecological degradation and increasing desertification.

Although people in this area have developed a variety of coping mechanisms for centuries, it has been observed that the resilience of the community, particularly that of the poor, to adverse climatic conditions has declined considerably due to various social and political reasons.

The region needs development through a bottom up approach that acknowledges various coping mechanisms developed through centuries. Such an approach will help people adapt to the present climate variability based on past experiences and develop strategies to initiate responses to future climate variability.

### Key Facts

- The Marwar region is the most densely populated desert in the world. While most deserts have 3 to 4 inhabitants per square kilometer, Marwar has 84 to 90.
- Marwar constitutes nearly 40 percent of the total geographical area of the state of Rajasthan, 22 percent of its population and 34 percent of its livestock.
- Rajasthan shares only 1.15 percent of total water resources in the country though it covers 10.5 percent of the India's geographical area.
- Most villages in the project area do not have a single source of safe drinking water within a radius of 1.6 km.
- In some regions, groundwater extraction stands at 168 percent.
- The water table is declining at the rate of 1 - 2 meters per year, with some pockets registering a decline of 2 - 5 metres.
- The TDS of groundwater is in the range of 10,000 parts per million.
- Per capita annual water supply in the region is only 840 cum (a region is considered as water scarce if per capita annual availability is less than 1000 cum).







## Context

The drinking water crisis in Marwar has worsened due to centralisation of its supply, resulting in poor coverage, inadequate supply and poor quality of water. If drinking water supply in Marwar has to be made sustainable, equitable and community based, traditional systems must be rejuvenated and developed along with the modern systems. Therefore, JBF supports desert communities so that they can build traditional systems of water management which use low cost, user-friendly techniques and can be sustained by local communities. Such traditional community-based structures have been known to contribute to social cohesion and self-reliance.

In Marwar, effects of water insecurity are felt in every aspect of people's lives, including health, finance, personal and social well-being. Therefore, water insecurity can be linked to a deteriorating quality of life and chronic psychological stress. JBF aims to address this by ensuring water security for people that will directly reduce their vulnerability and impoverishment.

Sanitation needs to be addressed at both individual and household levels. This can be achieved with the help of health and hygiene education, by designing appropriate communication strategies that encourage awareness on hygiene and hand-washing and educate people on how these practices can eradicate or reduce instances of diseases. JBF

has built a communication strategy to impart information on hygiene behaviour, sanitation practices, water conservation and purification.

Traditional gender biases and caste discrimination have led to the social exclusion of women and people from the lower castes from decision-making forums on water resource management. Low literacy rate further hinders their ability to participate in the development processes. It is common for women and the marginalised communities to be unaware of their basic rights. Public awareness campaigns, workshops and trainings conducted by JBF constitute an empowering process which educates people on their rights so that they can rightfully claim services they are entitled to.

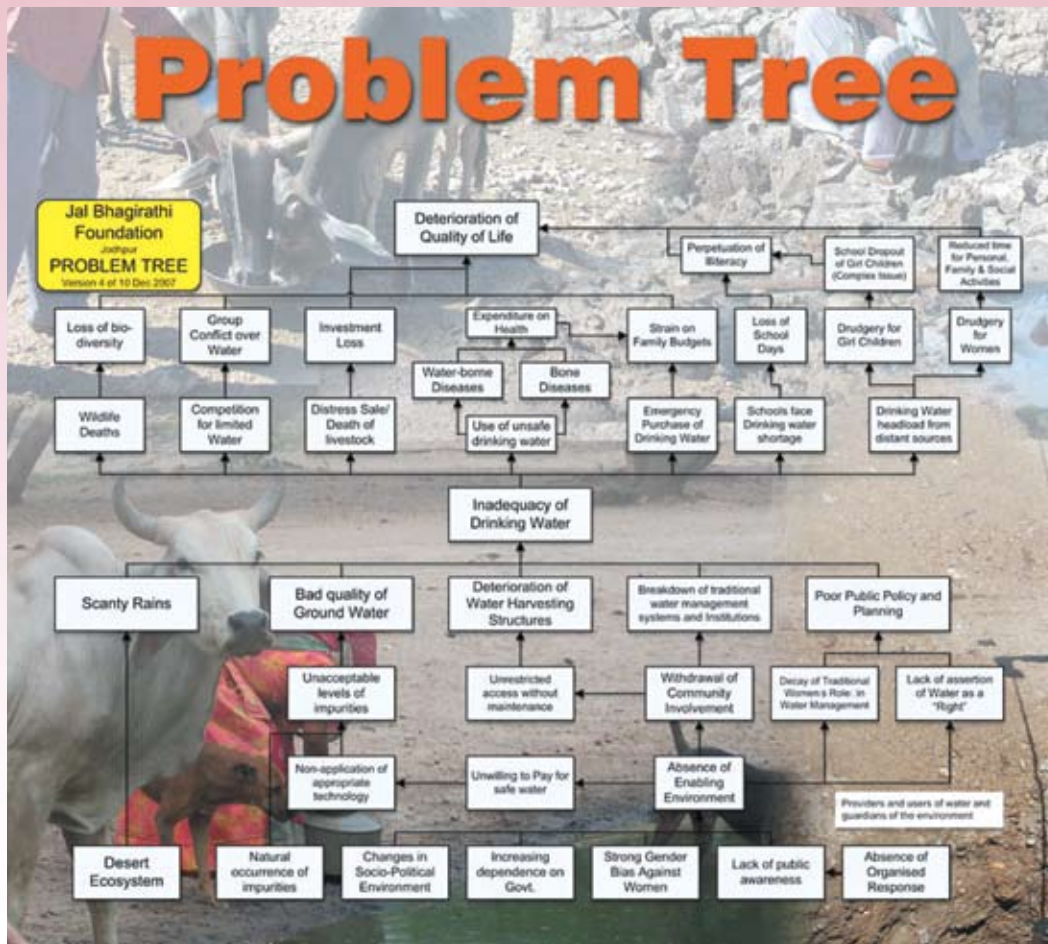
Availability of water and local hygiene have a strong impact on the educational profile of the people of Marwar. Scarcity of water affects schooling pattern of girls, as it is usually they who have to walk long distances to fetch water. If it takes them longer to fetch water, they are left with lesser time for other chores, thus leading to irregular school attendance and eventual drop-outs. Further, the scarcity of water affects hygiene behaviour. Most people in

the water-scarce Marwar are able to bathe only once or twice a week. Moreover, the poor quality of water has an adverse impact on the health of children which in turn affects their school participation. JBF sees schools as institutions that have tremendous potential to impart awareness on water, health and sanitation. Therefore, JBF aspires to make schools and villages self sufficient in drinking water to ensure improvement in enrolment and attendance rates.

Marwar is an agrarian region with about 80 percent of the work force deriving its sustenance from agriculture and livestock. Due to its low water endowment and frequent failures of monsoon, agrarian livelihood is perilous, leading to economic hardships in the drought periods and increased vulnerability to the impacts of climate change. Moreover, a lack of alternate livelihood options worsens their financial struggle. These conditions have worsened over time and a lack of choices has limited the scope of action that communities can take. JBF seeks to provide an enabling environment in which communities are empowered and can take decisions that will reduce their vulnerability to these conditions and hence improve their quality of life.

**W**ater insecurity can be linked to a deteriorating quality of life and chronic psychological stress

milestones



## Problem Tree

As a strategy to address the issues of water resource management in its project area, JBF has identified the problem areas that have resulted in inadequate drinking water for the people of Marwar leading to a deterioration in quality of life.

## Objective Tree

After having identified the problem areas, JBF devised an objective tree that aims to tackle each problem area. The Foundation has laid down its aims and objectives that will provide the much needed support to create an enabling environment for the people of the project area, thus ensuring that availability of drinking water for them is improved. Such an achievement will have its positive effects on health and hygiene and will ultimately result in improved quality of life for the people of Marwar.







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# Climate Change



# TRADITIONAL WATER WISDOM

## Water Related Adaptation Is Vital Due To Diminishing Fresh Water Supply

### Context

Despite its vulnerable ecosystem and a rather inhospitable terrain, Marwar is the world's most densely populated desert. For centuries, its population managed its scarce water resources by attaching sanctity and value to the core principles of conservation, equity and controlled utilisation of resources. Traditional water management was embedded in a holistic and ecologically prudent matrix of *Agor* (catchment area), *Gauchar* (pastureland), and *Oran* (sacred groves-biodiversity repository) - the AGO. The *Agor* was well protected so that it could sustain village water bodies, while a separate common pastureland was preserved to provide a support

system for the livestock economy. The *Oran*, often associated with a water body, was and remains the most effective way to protect biodiversity and improve water retention and quality.

The AGO matrix was developed and controlled by people's institutions which worked towards sustaining the local economy, catalysing benefits from natural resources and most importantly, institutionalising an equitable pattern of resource accessibility and utilisation. This tradition helped people adapt to the adverse climatic conditions of the region.

The AGO matrix, however, has deteriorated due to a growing population and transfer of common

property resources to centralised governance. This has led to desertification of the area resulting in water scarcity. Moreover, the situation has been predicted to worsen due to the adverse impacts of climate change. According to the Intergovernmental Panel on Climate Change, the global phenomenon of climate change is unequivocal and accelerating. Evidence of long-term geophysical and biological changes is already apparent in the region which is experiencing an increase in the number of drought years and a change in monsoon patterns. Since a significant change in climate is inevitable even with the optimal mitigation response, adaptation to climate change is extremely

**F**or centuries, the population managed its scarce water resources by attaching sanctity and value to the core principles of conservation, equity and controlled utilization of resources







important to reduce vulnerability of the population. Invariably, water related adaptation is vital, since diminishing fresh water supply could be the most challenging issue concerning vulnerability as it affects not only availability of drinking water but also other sectors such as livestock, sanitation and health.

### Key Facts

- On an average the region witnesses 6 droughts in a decade
- Average rainfall in the project area varies between 200 mm to 400 mm
- 51 percent of the total rural habitations in the region are not covered by the government's water supply system
- More than 75 percent of villages in the area have groundwater problems associated with high TDS, nitrate and fluoride content.
- There is a wide consensus that the surface temperature would increase at least by 2 °C in this century, and Rajasthan has been identified as one of the most vulnerable states in India that will be adversely impacted.
- Climate change would result in a 5 to 25 percent decline in monsoon precipitation in northern and eastern India.
- Climate change is expected to heighten incidences of diseases such as diarrhoea, cholera and malaria.

### Interventions

The adverse impacts of climate change can be addressed through an adaptive strategy that improves coping capacities of the population. Jal Bhagirathi Foundation believes that a bottom up approach that acknowledges various coping mechanisms developed through a traditional iterative learning process is most suited for its project area. Based on this concept, JBF works on reviving the rich tradition of the AGO matrix alongside experimenting with modern technologies that are suitable for sustainable water management. JBF encourages village level institutions to undertake micro projects to revive or create traditional water harvesting systems. Village volunteers are encouraged to plant native trees in order to help conserve landscape and retain more water, thus preserving the AGO. Furthermore, JBF facilitates communities' experimentation with modern technologies like Reverse Osmosis plants through private-public community partnerships.

This initiative is a part of a long-term strategy corresponding to long-term needs of the region.

A "Community Led Water Management System" has been evolved, which taps run off from the catchment area (*Agor*, *Gauchar* or *Oran*) through water or feeder channels to a surface water harvesting structure (*talab*, *nadi* or *nada*) located at the outskirts of the village and from water harvesting structure to community water harvesting *tankas* (underground rain water harvesting tanks) in the vicinity of the village. This decreases evaporation and seepage losses which occur in surface water harvesting bodies and reduces the distance women have to travel to fetch water leaving more time for them.

Sustainability of these projects is ensured through a three-pronged strategy. Firstly, social capital is created through strengthening of community based institutions from village level to project level. Secondly, financial sustainability and community ownership is ensured through a transparent system of *Jal Kosh* (Development Fund), in which people deposit at least 30 percent of the project cost and nominal water charges for development and maintenance of the micro project. Thirdly, the Foundation focuses on capacity building of the rural community for development and proper management of ecological resources.



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### Achievements

- 365 water harvesting structures in around 300 villages have been created/revived
- Communities contribute up to 50 percent of the cost of the water harvesting systems
- 350,000 people and 900,000 livestock have benefited from these initiatives
- Additional storage capacity of more than 3 billion litres has been created
- In JBF project villages, on an average water availability has increased from four months to 8-10 months in a year
- Rainwater harvesting structures and storage facilities eliminate the need to purchase water during most of the year. Expenditure on water has been reduced by 140 percent for the average household
- Rainwater harvesting tanks provide villagers with a sanitary water storage facility
- The project area is spread across 2500 sq. km.
- JBF has created volunteer base of approximately 18,000 people
- Norms for maintenance of water harvesting structures have been formalized. A *Jal Kosh* or village development fund has been set up that raises resources through a nominal tariff charged for use of the water
- Due to increased water availability, there is a reduction in water conflicts
- 90 percent of community tanks have been facilitated for backward and marginalised communities, thereby following a policy of positive discrimination
- Paniharan Pariyojana, is an innovative program to develop sustainable small water technology enterprise which provides safe drinking water to communities and generate livelihood opportunities for women. The first model of this program was developed in Pachpadra village in Barmer. Through skill enhancement programs the *Jal Sabha* has been capacitated to manage and operate the water purification plant. A comprehensive model has been developed where water from the plant is sold at an economical price which is used for the maintenance of the plant. A distribution network with safe water kiosks has been set up, which are managed by community entrepreneurs, especially women who are able to earn a livelihood from the sale of water
- In a UNDP documentary on climate change, Titled-'Today's choices Tomorrow's future-lasting solutions to development challenges' rainwater harvesting structures promoted through community institutions by JBF in the Marwar region were highlighted to be an effective means to cope with the changing climate







**Evaluation of activities  
by Institute of Development  
Studies, Jaipur ( percent sample  
households (hhs) reporting on  
project's impact)**

- 95 percent hhs: reported increase in availability of drinking water
- 98 percent hhs: individually benefited
- 68 percent hhs: reported reduction in distance for fetching drinking water
- 80 percent hhs: reported increase in drinking water availability for livestock
- 80 percent hhs: participated in decision making

**T**his amalgamation of modern technology alongside traditional water harvesting structures, both managed by the same communities is an effective adaptation strategy to climate change

**Success Story**

**- Gawai Talab at Mandali:  
Collective will for water**

The village of Mandali receives erratic rainfall and the situation has worsened over the years due to changing climate. The village pond called Gawai *Talab* had a limited capacity and was unable to harvest the full potential of its catchment area. As a result, water harvested in it lasted for only four months each year, forcing residents to buy water for the remaining eight months. People of the village

however believed that the rain provided them with enough water for most of the year, if only they were able to retain it.

People of Mandali, with help from JBF, got together and formed their own *Jal Sabha* (village water users association). The members undertook a participatory planning exercise and decided to increase the capacity of the pond. They raised 30 percent of the project cost and deposited it in the *Jal Kosh* (development fund). The pond was



milestones



worked upon and its capacity was increased. Upon completion, people of Mandali were happy to discover that the pond harvested enough water to last for up to 10 months in a year. Volunteers from within the village offered to clean the catchment area of the pond to improve its water quality. They even made water channels in the catchment and planted trees to improve water inflow.

## **S**ocial capital is created through strengthening of community based institutions from village level to project level.

The pond now provides water for the neighbouring 8 to 10 villages. The village people contribute for its upkeep and have set up a system of equitable distribution. Each individual is allowed to take one tanker of water

in a month. A user charge of Rs. 100 per tanker has been fixed for people from outside villages. Money collected through sale of this water is deposited in the *Jal Kosh* and is used for maintenance of the pond.

People of Mandali are dedicated to maintaining and improving their water resources. Through their combined efforts, they have successfully set up an example of social cohesion addressing the adverse effects of climate change through a process of sustainable water management.







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# Social Capital

FOR COLLECTIVE CHANGE



# ENABLING ENVIRONMENT

## Facilitating An Enabling Environment For Community Action

### Context

Common property resource management traditionally practiced by communities of the Thar region has been an inseparable part of the cultural heritage of the desert and played an important role in maintaining livestock and preserving

the local bio-diversity. The community based institutional framework for management of the commons through collective wisdom has broken down due to centralised control resulting in absence of community sense of ownership and increased dependence on the Government. This has led to a poor usage of the

institutionalised support system and democratic processes. The socio-political apparatus has held back conducive civil society response towards sustainable empowerment. As a result, even after government spending of billions of dollars in the past 60 years, drought and water scarcity continues to be a recurring phenomenon in Rajasthan.

A centralised system tends to be oriented more towards capital accumulation and leads to unsustainable development. Building social capital is, therefore, crucial to establish an effective system of water resource management. The process involves building social norms and networks that develop people's ability to work together on common endeavours, leading to collective action.

### Interventions

Facilitating an enabling environment for community action is the most critical aspect of the Jal Bhagirathi Foundation's philosophy and its core strategy seeks to nurture and promote social capital for community action and decision-making which has been translated in the field as a four-tier institutional arrangement for water management.

**T**he community based institutional framework for management of the commons through collective wisdom has broken down due to centralised control







Through mobilisation, trainings, workshops, orientation and capacity building, the Foundation enhances community's capacity to work collectively to address its common needs, thus fostering greater inclusion and cohesion, increasing transparency and accountability. Networks and relationships that exist within and between community-led bodies allow people to voice their concerns at the village-level and impact the water resource management in their region. As such, a four-tier water governance structure has emerged to ensure active participation of the beneficiary community, thereby institutionalising social capital.

The base tier consists of *Jal Sabhas* (village water users association), the decision-making bodies for water resource development at the village level. They are responsible for management of existing and future water harvesting structures. Its functioning is based on the principles of democratic governance and participatory management, which inculcates accountability from the grassroots levels. JBF works to ensure that all participants of the *Jal Sabha* have an active and equal voice when making decisions.

*Jal Samitis* (water development groups) exist in the tier above the *Jal Sabhas*. Covering a much larger area or 'block', these forums comprise of members from *Jal Sabhas* and key community leaders from the area. *Jal Sabha* members are specifically chosen for their local knowledge, leadership qualities and integrity. *Jal Samitis* meet on a periodic basis to review proposals received from *Jal Sabhas* and forward the selected ones to the tier above for consideration and approval. They develop strategies to solve prevailing water issues and build equitable systems for disbursement of financial resources within the block.

*Jal Parishad* (water forum) is a project-level institution comprising of people's representatives and experts from reputed water institutions. They decide on approval of grants to projects throughout the region, endorsing projects that adhere to water development strategies prepared at the local level. This

way, it is able to balance macro level expertise with a focus on local needs.

Finally, the *Jal Sansad* (stakeholders' forum) represents the entire Marwar region, meeting annually to review the progress made by JBF. An annual work plan is prepared by them on the basis of the previous year's progress. It acts as a platform for stakeholders to participate in the creation of JBF's annual strategic planning document, thereby affecting change at the highest possible level.

This four tier water governance structure has provided stakeholders with a formal network through which they can seek solutions to their water concerns. Regular interaction between the tiers has enhanced their ability to collaborate on natural resource development in the region. Most importantly, the institutionalised social capital has enabled local people to revive a forgotten tradition of self-governance at the village level.

**The foundation enhances community's capacity to work collectively to address its common needs, thus fostering greater inclusion and cohesion; increasing transparency and accountability**





### Achievements

- 18,000 village-level volunteers are mobilising communities and building social capital through network creation and development.
- *Jal Sabhas* have been formed in 300 villages/hamlets. These have been trained on managing present water harvesting systems and developing new ones. Many *Jal Sabhas* now demonstrate a high degree of autonomy, often moving beyond one micro-project to improve water resource development in their locality.
- Four block-level *Jal Samitis* and one project-level *Jal Parishad* have been established.
- 130 training program have equipped community representatives and village volunteers with skills for planning, community mobilisation and technical assistance for water harvesting structures.
- Villages with 'model' community-led systems have helped other settlements to create sustainable water management systems of their own.
- Communities now contribute up to 30-50 percent of the project cost, formalized by opening of bank accounts, in the form of *Jal Kosh*.
- Financial sustainability of projects has been made possible by community contributions to the *Jal Kosh* (development fund)







## Case Study

The village of Sarwadi in the Barmer district of Rajasthan could barely meet the day to day water requirements of its 400 households. Due to its location at the end of a water pipe line, the village received water only once a month. As a result, villagers were forced to purchase water from over 70 km away.

To address this grave situation, the village community decided to excavate their own village *nadi* (pond) known as *Ghoda Nadi*. In consultation with JBF, the village formed a *Jal Sabha*. Putting aside their prejudices on caste, all sections of the village community participated in a number of

planning exercises organised by the *Jal Sabha*. Together they managed to increase the *nadi's* capacity and harvest more water from its catchment area. The *nadi* was completed and 30 percent of its cost was raised by the community and deposited in the *Jal Kosh* (development fund). Maintenance of this *nadi* required that the community contributed for its upkeep as well. The idea of charging money for this met some local resistance but the community took a collective decision to charge Rs. 20 per tanker through a token system. Money from this fund was eventually used to appoint a watchman to safeguard the *nadi* from animal and human misuse, thus

ensuring availability of quality drinking water for everyone.

Enthused with the success of the village *nadi*, the community expanded the scope of its work and has succeeded in raising funds for revival of yet another village *talab* (pond) called Gawai *Talab* and construction of a school *tanka* (underground roof top rain water harvesting tank) called Saraswati Jal Kund, fondly named after the Goddess of Knowledge, Saraswati. In this way, the village of Sarwadi has started a process of building social capital, by encouraging community participation at all levels and taking over the control of its land and water management.



## BUILDING SOCIAL CAPITAL



### Social Capital created through public awareness campaigns, mobilisation camps and village meetings

Five different types of public awareness campaigns are organised

- *Jal Shiksha Abhiyan* (Water Literacy Campaign)
- *Jal Chetna Yatra* (Water Awareness and Mobilisation Campaigns)
- *Vatavarn Nirman Yatra* (environment building campaign) for mobilisation of communities for construction of water harvesting structures. *Vatavarn Nirman Yatra* is carried out in each village before a water harvesting system is revived.
- *Jal Chetna Shivir* (Mass Mobilisation and Training Camp)
- *Jal Chetna Samvad* (Water Awareness Dialogue)

20 project level and 74 block level and 310 village level campaigns were organised resulting in creation of a cohesive social capital involved in water resource management.



### Impact of Public Awareness Campaigns\*

- Right to Drinking Water as a community asset established
- Due to demonstration effect, demand for similar work generated from neighbouring villages
- People have now begun to realise the need for self-help rather than dependence on government.

\* UNDP evaluation, Dr. Astad Pastakia 2008





JAL BHAGIRATHI  
FOUNDATION

# Gender

## MAINSTREAMING

# EMPOWERING WOMEN

## Women's Central Role As Users Of Water Resources Is Well Known

### Context

One aspect that finds little space in discussions of water management is the role of women in evolving, controlling and administering water systems. Women's central role as users of water resources is well known - they are responsible not only for meeting household water needs, but also for irrigation, usually for subsistence farming but increasingly for cultivation on family lands. However, as in other spheres of their lives, women's involvement in water use and provisioning has been on inequitable terms. Their social subordination, the invisibility of their productive roles and inability to claim their entitlements over natural resources has contributed to their exclusion from decision-making. Further, the policies and strategies in the water sector have seldom challenged these biases.

**O**ne aspect that finds little space in discussions of water management is the role of women

### Key facts

- Women spend ¼ of every day to fetch water.
- Women walk an average of 4-5 km to fetch 20 litres of water.
- Drought conditions contribute to a high infant and maternal mortality rate. Infant mortality rate in the region is above 70 per thousand whereas national average is 50.
- High fluoride levels in sources of drinking water endanger pregnant women and their unborn children, sometimes resulting in severe stunting and defects at birth.
- Water contamination is a major reason for the high mortality rate and persistent ill-health among women.
- Pregnant mothers and young infants are the most vulnerable to water-borne diseases such as diarrhea, dysentery and typhoid.
- Women are excluded from decision making on water issues due to a large male dominance in local governments.
- The rural female literacy rate is less than 30 percent in the region.
- The role of women as users and managers of water systems is inadequately recognised.







## Interventions

Jal Bhagirathi Foundation is involved in ensuring that water availability also has a significant impact in terms of women's empowerment. Experience shows that while regenerating the resource base may be a technical issue, management and administration of water resources is an issue of governance. Equitable access and distribution depends on the existence of participatory and democratic decision-making bodies with the competence, credibility and authority to intervene in the private as well as public spheres in defence of these principles. Efforts have primarily focused on the creation of

institutional space, allowing women to pursue development goals for the betterment of herself, her family and her community.

These institutions have taken two forms, namely *Jal Sabhas* or Village Water User Associations and *Jal Mandals* or Self-Help Groups.

JBF has taken a participatory approach to Gender and Water Management by enabling inclusive governance in the *Jal Sabhas*, facilitating equal participation of men and women in the decision making process. At least one woman is encouraged to occupy a leading position in the *Jal Sabhas*, thus ensuring women representation and their voice is heard in the community

decision making process. As a result of this initiative, women's access to and control over natural resources has improved, thus substantially reducing the time and effort required for water collection. The impact on the community, in terms of equitable water provisioning as well as in the larger framework of social and gender equity have been significant.

With a view to promote women empowerment and ensure that they are involved in the process of development, they are encouraged to form *Jal Mandals* or self-help groups. These groups typically consist of 10-15 women who come together for the common purpose

**W**omen's access to and control over natural resources has improved, thus, substantially reducing the time and effort required for water collection



milestones



## GENDER AND WATER MANAGEMENT



of encouraging savings and credit activities. These groups are involved in monthly savings and undertake small income generation activities. The Foundation assists these groups in establishing links with banks and leverage loans.

The Foundation carries out training and capacity building program for the self-help groups for developing and enhancing their skills. Vocational training for members of these groups is designed to develop and enhance marketable skills and link them

with formal credit institutions. Together, these enable group members to augment family incomes through micro-enterprise activities.

After the self help groups have matured, they are encouraged to take up other development issues, like water management, sanitation, health and hygiene. In many villages, women have come together to solve their drinking water problems and have taken up the initiative of reviving their traditional water management systems.

**W**omen are encouraged to occupy leading positions in the *jal sabha's* to ensure that their voice is heard in community decision making





## Jal Bhagirathi Foundation is involved in ensuring that water availability also has a significant impact in terms of women empowerment

### Achievements

- There has been a significant improvement in women's access to and control over natural resources in 300 villages.
- A recently concluded evaluation by UNDP showed that the distance women now walk to fetch water has been reduced by 2.6 km on an average.
- An evaluation of JBF's project area by the Institute of Development Studies (Jaipur, Rajasthan) showed that in 85 percent of sampled households, the burden on women traversing long distances to water sources had substantially decreased.
- All-women *Jal Sabhas* (village water users association) are formed to ensure female



participation and control over water resources.

- There is an average of 34 percent female participation in single-caste *Jal Sabhas*.
- More than 20 percent female participation ensured in the *Jal Sabhas*, which is a remarkable achievement considering the patriarchal nature of rural Rajasthani society
- JBF now works with 1650 rural women through the Self-Help Group program, facilitating their access to economic resources.
- Around 25 percent of the Self-Help Groups are engaging in micro-enterprise activities, empowering them to claim rights on natural and economic resources.



## Success story

*“I have been a slave to this idani\* all my life.....*

*I promise to rid my daughters of the same fate”*

Situated at a distance of 40 kilometers from Jodhpur, the village of Rampura is scattered in *dhanis* or hamlets. The only water source, the village pond, is located at a distance of three kilometers from the village. Women had to fetch water from this pond everyday and their drudgery was further increased by the fact that they did not have storage facilities at home. Moreover, during summer months when the village pond dried up, they would have to walk to six kilometers to collect water.

To address these day to day problems, ten women from the village got together and formed the

*Jogmaya Jal Mandal* (women's SHG). The group initiated a practice of savings. They opened a bank account and even started inter-loaning to meet their needs. Further, the group decided to solve their problem of drinking water. Hence, they approached JBF and after a number of discussions with the Foundation, the women opted to build individual rain water harvesting tanks in their homes.

However, lack of financial capital was a major impediment to this plan. But the women were determined and so applied for formal credit from a bank and carried out systematic and timely savings. They pursued their dream for over 12 months.

Finally, the day came when they could begin making the tanks. They approached JBF for technical assistance and cost estimations, identified construction workers in

the village and applied to the bank for loan. Unfortunately, the bank manager who was to sanction the loan was transferred to another branch, leaving the women's dreams in a state of despair. However, true to their nature, they visited the new bank manager to ask for loan. Eventually their perseverance paid off and their water *tanka* (water harvesting tank) project is now underway.

These women have set an extraordinary example for other women of rural Marwar. Through sheer determination and perseverance, they have ensured that their daughters are freed from the burden of *idanis*.

*\*An idani is a small ring used to stabilise a large urn of water on a woman's head*





JAL BHAGIRATHI  
FOUNDATION

# Water & Schools



# NURSING EDUCATION IN THE DESERT

## School Attendance Is Strongly Linked To Availability Of Drinking Water

### Context

Walk into any school located in the Thar during summer, and chances are that you would not find a single student there. In this dry desert region, attendance and enrolment rates in schools are strongly linked to availability of drinking water. In the dry months, the region experiences a severe shortage of water, due to which most schools in the area are forced to close for prolonged “water breaks”. Additionally, lack of storage facilities prevents them from

transporting water from elsewhere to avoid school closure during such times.

Water shortages at home also affect school attendance when children (especially girls) must help their mothers fetch water for the family. School children in the Thar desert spend more time fetching water than receiving education. The current educational profile and future development of the region is dependent on the availability of potable water in schools.



### Key Facts

- Less than five percent of primary schools have water and sanitation facilities.
- The enrolment rate for girls is 45 percent in primary education and 36 percent in secondary education.
- The drop out rate across Rajasthan is 16 percent.
- Only 60 percent of the children who enrol in Class 1 reach Class 8.
- Over 70 percent of the health problems of children in primary schools arise from inadequate water and sanitation facilities.
- Children, especially girls, spend more time fetching drinking water than attending school.

**W**ater shortages at home also affect school attendance when children (especially girls) must help their mothers fetch water for the family





## JBF helps in establishing children's groups to oversee the management and maintenance of school water harvesting *tankas*

### Interventions

JBF has responded to these challenges through direct and indirect engagement.

Direct engagement involves assisting the village communities in construction and maintenance of roof-top rainwater harvesting *tankas* or tanks in schools so that drinking water is available for children throughout the year. These structures collect rainwater falling on the roof of a school building and direct it through a series of pipes that lead to a storage facility (*tanka*). The *tanka* is built underground and the water inside is accessed through a hand pump, thus ensuring that the water remains clean. These *tankas* harvest rainwater and also act

as storage tanks to be refilled by tankers from close by village ponds. This ensures that schools do not close down due to water shortage.

On the other hand, indirect engagement involves work with the community as a whole aiming to alleviate water shortages in villages through construction or revival of rainwater harvesting systems. This liberates children from their domestic water fetching responsibilities and hence increases their school enrolment and attendance.

Furthermore, JBF helps in establishing children's groups to oversee the management and maintenance of school water harvesting *tankas*. The *tankas* are cared for by a *Jal Dal*, a group of students chosen on the basis of their enthusiasm and inclination for

community work. These students are made responsible for cleaning the school tank before the onset of rainy season, thus ensuring the quality of water harvested and stored. This practice is passed on to the younger batches so that the structure's maintenance is sustainable. The *Jal Dals* provide excellent examples of volunteerism and community service, allowing children to learn about their environment in a practical manner while exposing them to local traditions of water management. In many schools the *Jal Dals* have started addressing larger Natural Resource Management (NRM) issues by planting trees on the school premises and by promoting best practices through school wall paintings.



## Achievements

- *Tankas* have been built in 80 schools of the project area and a storage capacity of 3.4 million litres has been created.
- Schools have formed their own *Jal Dals*, comprising of students who are responsible for maintenance of the structures.
- 24,960 children have benefited from the project.
- Schools now remain open in dry season and attendance rates have improved significantly.

The village decided to construct a tank in the school connected to its roof-top, such that its water intake was maximised. This plan was implemented with community members contributing up to 30 percent of the construction cost (Rs 54,395). The new tank was constructed with a capacity of 40 kilolitres.

Finally, the community decided that maintenance of the newly constructed tank was vital for ensuring its sustainability. Thus a *Jal Dal*, constituting of a group of students, was formed to assist in its maintenance work. The school teachers also took up the responsibility to educate students about water distress and encourage them

to get involved in conservation plans around their village.

Inspired by the success of the school tank, students have now started a “piggy bank” in which every student contributes a rupee per month. This money is deposited into the *Jal Kosh* (village development fund) and is used for maintenance of the tank and for purchasing water in times of distress.

In this way, the Upper High School with its water tank, named *Saraswati Kund*, has become a splendid example of how village people, school administration and students can work together to ensure that every child gets his/her right to education without worrying over availability of drinking water.

## Case Study

The Upper High School of Godawas village used to experience extremely poor enrolment and attendance rates. Non availability of drinking water in school premises led to zero attendance, especially during the summer months. Children, who had to spend a lot of time helping their mothers fetch water for household needs, were forced to let go of their basic right to education for prolonged periods of water distress.

In search for a sustainable solution to this problem, people from this village together with the help of JBF constituted a *Jal Sabha*, a village level body which plans and executes solutions to water related problems.



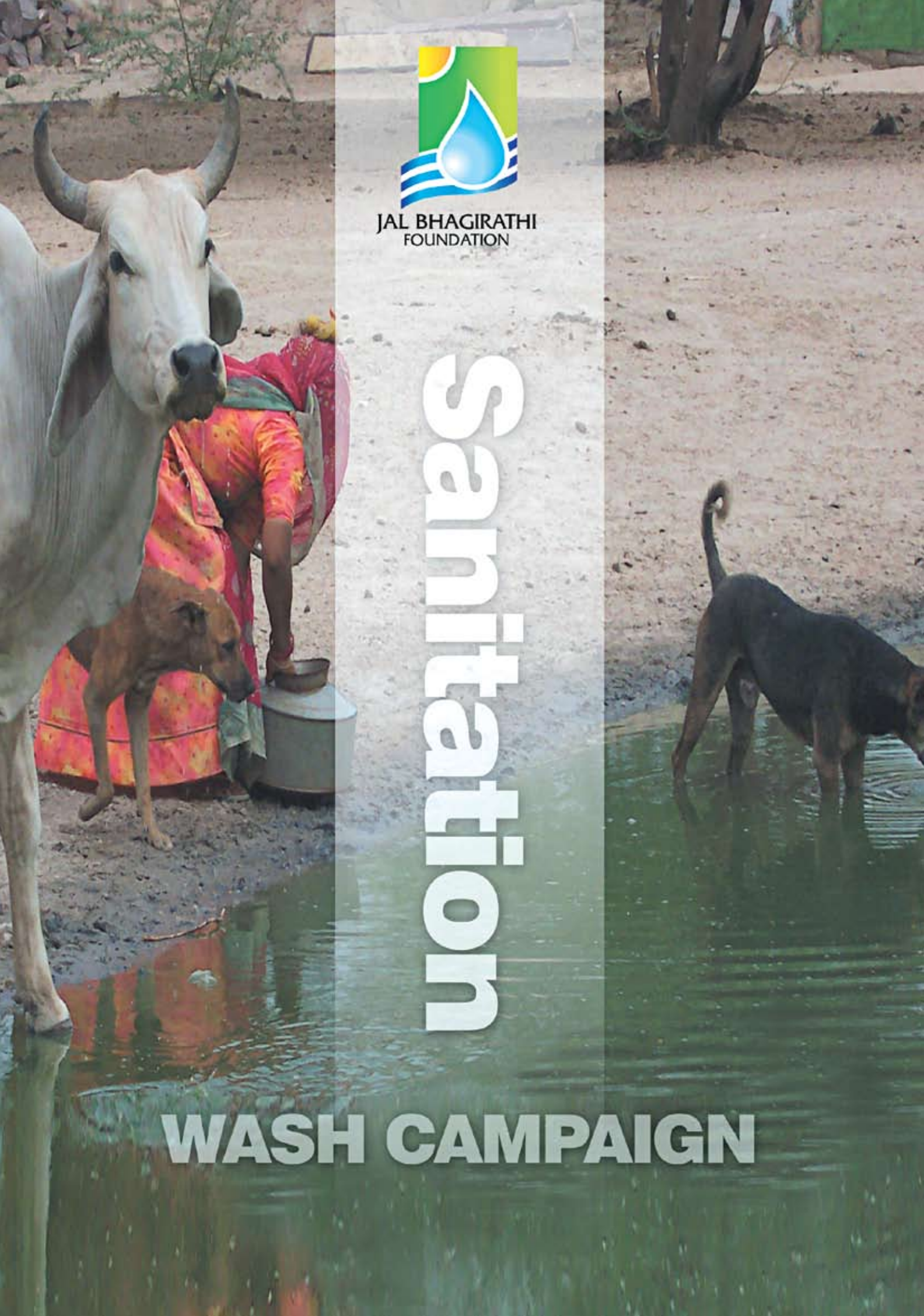




JAL BHAGIRATHI  
FOUNDATION

# Sanitation

## WASH CAMPAIGN



# SECURING LIFE, HEALTH & DIGNITY

## Water Security And Access To Sanitation Have A Mutual Impact On Each Other

### Context

Water security and access to sanitation have a mutual impact on each other: improper sanitation undermines the availability of safe drinking water while shortage of water leads to serious sanitation issues. Indisputably, water and sanitation facilities need to be developed in rural areas as it is



central to poverty reduction. There is a global consensus that hygiene promotion is vital to development as it reduces the burden of diseases. Recently, the Water Supply and Sanitation Collaborative Council has spearheaded a global campaign known as WASH to specifically address these issues.

The Millennium Development Goals (MDGs) aim to halve the proportion of people without access to clean water and basic sanitation by 2015. Human development is more closely linked to access to safe water and sanitation than any other development indicator. Therefore, achieving this target is important to ensure that other MDGs are also met.

In the Marwar region poor hygiene practices, open defecation and minimal environmental sanitation are taking a major toll on health. Such customary practices entrenched over time have led to deep-seated behaviour which is hard to change. With increased population, these practices have become a major cause of health

hazards, while new issues like liquid and solid waste management have also emerged. There is an urgent need for a holistic approach to enable access to sanitation facilities, promote hygiene practices and enhancing water security.

### Key Facts

- Rajasthan has a sanitation coverage of 34 percent
- The average person in the region spends 12 percent of his/her annual income on treatment of water-borne diseases
- Over 70 percent of the health problems of children in primary schools are due to inadequate water and sanitation facilities
- Sanitation and hygiene coverage in the rural areas stands at a dismal 14% as per the 2001 census





## Interventions

Inspired by the WASH campaign, JBF has adopted a multi pronged strategy: creating supportive arrangements for households to make decisions, promoting demand for sanitation, initiating behaviour change, and stimulating systems of local supply and management which provide better facilities for waste disposal at the household level.

Initially, a pilot project supported by the “Wells of India”, was implemented in a village cluster in the Jodhpur district. This project mobilised local communities and provided a momentum for further expansion of the WASH program, which has now been up-scaled to cover seven more villages with the support of WFI and PC. The project has three inter-related activities: revival and construction of traditional rainwater harvesting systems to ensure availability of water, construction of sanitation facilities, and promotion of improved hygiene practices.

Community institutions formed in the nine *dhanis* (hamlets) across the village area were empowered from the project’s decentralised planning and implementation processes. These

institutions, called *Jal Sabhas*, have been capacitated to develop water management systems, construct sanitation facilities and operate systems for solid and liquid waste management. Individuals residing in a *dhani* approach their *Jal Sabha* for construction of a toilet and contribute 50 percent of the total cost in the form of cash and/or labour. Individual contributions serve to inculcate a sense of ownership and value, ensuring maintenance of the facility and thereby enhancing the project’s sustainability. Moreover, decentralised community-led institutions facilitate a bottom-up approach to sanitation, thereby bringing a behavioural and attitudinal change.

A campaign has also been initiated to boost awareness of sanitation, health and hygiene. Through various community initiatives such as wall paintings, nukkad natak or street plays, films, slogan writing and footwalks, the people have become aware that the issues of water, health and sanitation are often inter-connected; solving one will indeed have positive impacts on the others. The project has enabled a large portion of the communities to construct sanitary facilities, that leads

to improved personal hygiene and waste disposal in the area. Through the ongoing awareness campaign, many others have learnt about the problems of poor sanitation and hygiene as well as how to address them.

## Achievements

- 40 percent of the households in the project village constructed sanitary facilities within six months after JBF mobilised the village.
- Each toilet has been built with 50 percent household contribution.
- 35 percent of the households are conducting solid and liquid waste management in an environmentally responsible manner.
- Widespread use of these toilets demonstrates a significant change in deep-seated behavioural patterns.
- 1200 people in the project villages have been trained in water, sanitation and hygiene practices.



## Case Study

Munni Devi's son had been suffering from diarrhoea and missing school for the past three months. According to local beliefs, an evil spirit had engulfed the child's body and so the family was advised to make offerings to the local deity to save the child. However, when the illness didn't get any better after months, Munni Devi began feeling helpless.

Then one day, she heard of a film screening in her village organised by "Marwar Media", the community media unit of JBF. Curious to know more, she attended the screening with her three children. The film was an eye opener for Munni Devi and she was surprised to discover that her son had been suffering from diarrhoea which was an illness caused by consumption of contaminated water. She also learnt that contamination of water bodies is preventable if people in the village began using toilets. This would also save them from walking long distances to answer nature's call and will ensure their privacy.

Later, she heard that a newly formed *Jal Sabha* in her *dhani*, *Sarano Ki Dhani* had begun taking applications for

construction of household toilets. Munni Devi realised that this would solve her problem to a great extent but she also knew that she would have to face substantial resistance from family members.

For Munni Devi, the battle to build a household toilet began at home. Initially, her husband was resistant to the idea because he believed it would pollute the house. Some persistence and artful persuasion, however, soon convinced him of the benefits for the entire family. Together they made an application to the *Jal Sabha* for construction of a toilet in their home and contributed 50 percent of the cost. Munni Devi keenly monitored the construction and within one month, the household toilet was ready.

Munni Devi and her family are now proud owners of a household toilet in the village. She is now encouraging other women in the area to come forward to construct toilets and follow healthy sanitation practices.

*Munni Devi (in pink) standing proudly with her family and their new toilet.*



## Wells for India

Wells for India is a UK registered Development Organisation that has been working with the poorest communities in Rajasthan since 1987. WFI was founded by Dr. Nicholas Grey and his wife Dr. Mary Grey in 1987 with an aim to help the poor and disadvantaged groups in the rural areas of Rajasthan.

Wells for India's work focuses on rainwater harvesting and wide social and economic benefits it brings to the poor communities with the belief that water provision is an essential foundation for all other forms of development. Their work in Rajasthan for the last 21 years has illustrated how availability of safe potable water not only improves health and releases time and energy of women, but also improves poor people's income, education, as well as social and cultural well-being. The communities are carrying out many activities themselves, enabling to take next step towards better sustainable future. Wells for India has collaborated with Jal Bhagirathi Foundation to create model villages in the Thar desert which not only showcase best practices in water harvesting but also bring dignity to the poor communities and healthier life styles through sanitation and hygiene.



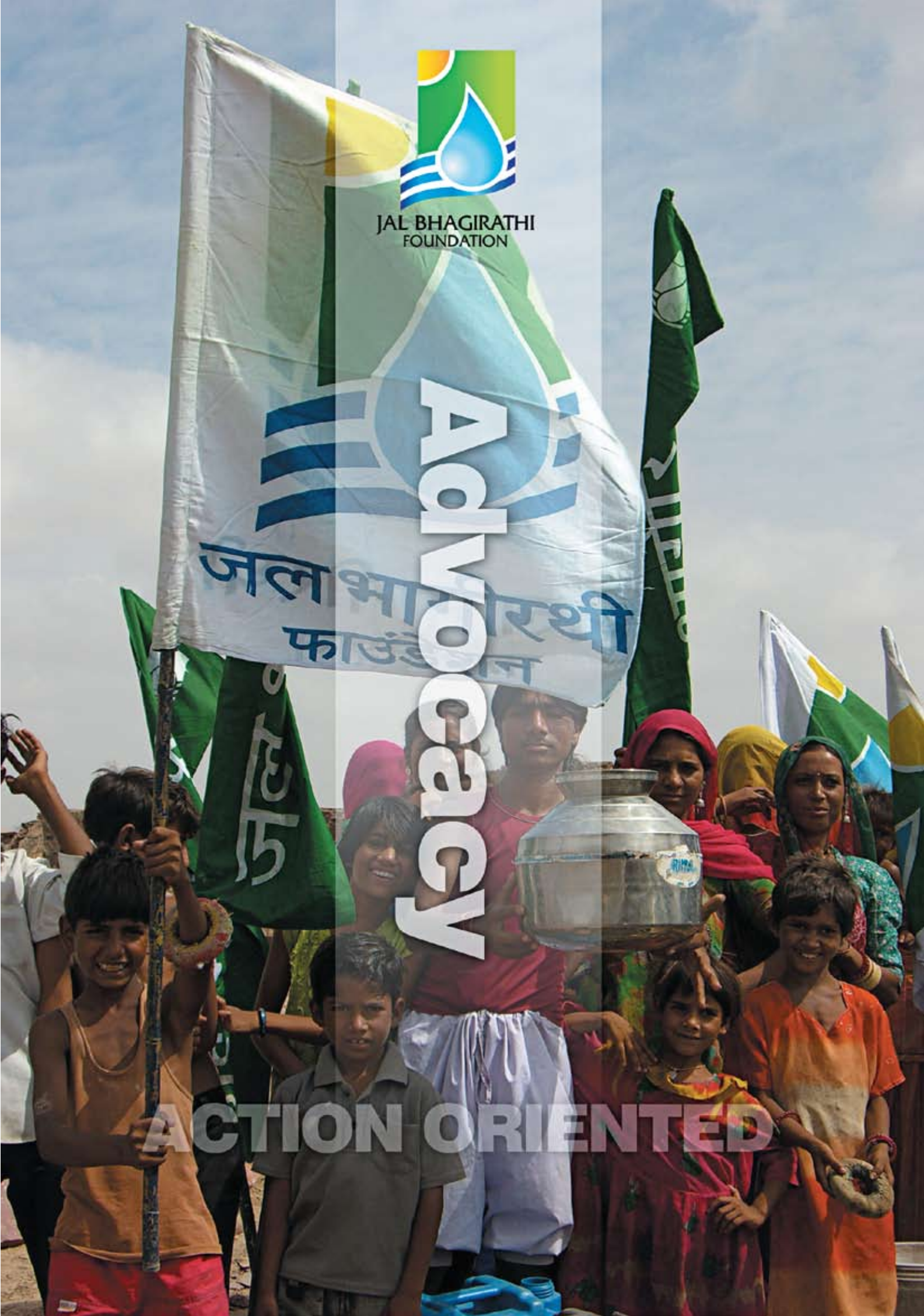


JAL BHAGIRATHI  
FOUNDATION

# Advocacy

जल भारती फाउंडेशन

ACTION ORIENTED



# STRATEGIC ALLIANCES

## Water Crisis Is Essentially A Crisis Of Governance

### Context

Water is the basic requirement for life and has a direct bearing on all socio-economic development. Availability of water is essential for development of any human society as it is directly linked to sanitation and health. According to the Stockholm Environment Institute, the percentage of world's population living in countries of significant water stress shall increase from 34 percent in 1995 to 63 percent in 2025; those living in poorer countries in Asia and Africa with low and unreliable rainfall and high levels of utilisation, will be at a greater risk of water scarcity having severe impacts on their lives and livelihood. It is anticipated that large

parts of India, especially the drought prone areas, with poor social and economic indicators, will face a severe water crisis in near future, which will be even worse than the present situation.

The water crisis is essentially a crisis of governance. Weakness in governance systems has greatly impeded progress towards sustainable development and balancing of socio-economic needs with ecological sustainability. The conflicting interests and lack of cooperation between those sharing precious water resources is leading to a deterioration of living standards, degradation of the local environment and political and economic instability. In the present scenario, water issues could

even become a catalyst for conflicts. Inadequacy of water institutions, fragmented institutional structures (sector by sector management approach and overlapping or conflicting decision making structures), and diversion of public resources for private gain are some serious problems pertaining to the water sector.

Although there is no agreed definition for water governance, it is generally agreed that the basic principles of effective governance include participation of all stakeholders, transparency, equity, accountability and responsiveness. Sound water governance requires certain reforms in policy and institutions and effective enforcement of laws and regulations that are essential for sustainable water resource management.

Moreover, participation of people is vital for the success of any policy on water governance. There is a need for NGOs and CBOs to work together to strengthen the civil society's participation in water policy formulation, knowledge sharing, linking stakeholders, raising awareness, organising meetings and building consensus on water laws and governance.







## Key Facts

- **Water Policy Status:** The State of Rajasthan is the most severely water distressed State in India and it has adopted a Water Policy for the State, for the first time in April' 10.

- **Water Governance Status:** In spite of a Water Resource Department, five other departments deal with water resources, which are: Public Health Engineering Department (PHED), Agriculture Department, Watershed and Soil Conservation Department, State Groundwater Department, and Central Ground Water Board without coordination with each other.

- **Agricultural Policy Status:** More than 75 percent of the State's population resides in rural areas and is dependent on agriculture. The state suffers from chronic water scarcity as the quantity and duration of rainfall is uncertain, with the frequency of droughts over the past 102 years so high that there were only 9 years when none of the districts and villages were affected by drought but even in the face of such daunting circumstances, the State Agriculture Policy never took cognizance of the scarce water resources while formulating crop targets and cropping patterns.

- **Drinking Water Policy Status:** The main objective of the PHED

policy is "Universal access to safe drinking water covering all villages and habitations". But it is unable to provide either universal access, or safe drinking water. Piped water supply in both urban and rural areas is badly contaminated and known to be unsafe for drinking. The State has differential norms for providing safe drinking water to the rural and urban population which vary between 40 lpcd (litres per capita per day) in rural areas to 125 lpcd in urban areas.

- **Ground Water Policy:** Policy of subsidising power for irrigation has led to a situation where ground water withdrawal is 104 percent of water available, which has led to over exploitation of 122 blocks and 63 blocks are critical of the total 236 blocks in the State. Unsustainable extraction of ground water is leading to serious deterioration of water quality, with greater concentrations of fluoride and salinity, causing irreparable damage to the ground water aquifer. Since 90 percent of drinking water, and 60 percent of irrigation water, come from ground water sources, sustainable management of the ground water resources therefore is a key priority for the State.

- **Gender Issues:** Role of women in water management is missing in any policy document. Even the present policy of decentralising management of irrigation

systems by handing over systems to Water Users Associations (WUAs) does not mention women representatives on the associations.

- **Health Sector Policy:** While there is no single health sector policy document for the State, the World Health Organisation (WHO) estimates that 80 percent of all sickness and disease can be attributed to non-potable water and inadequate sanitation. A study in Jodhpur found that about 70 percent of the sample population was suffering from at least one type of water-borne disease. High levels of water contamination- including dissolved solids, bacteriological and chemical contaminants are found all over Rajasthan. Moreover, fluorosis is emerging as a major public health crisis for Rajasthan, with about 25 percent of settlements already endemic and affected to varying degrees. There are indications that if an adequate response is not developed soon, it could well have devastating consequences for the state.

- **Education Policy:** Rajasthan does not have a clearly articulated policy document without which there is an absence of a common negotiated vision to integrate formal education with the rich traditional Water Resource Management which has been the key to the survival of the people in this desert state.



## Interventions

An integrated approach to water resources management is critical to the survival of the State of Rajasthan in which 70 percent of its population depends on agriculture for their livelihood of which water is a key input. This can be possible by building capacity for more efficient management of water resources, in terms of policy framework as well as promoting best practices in water management based on traditional technologies as well modern innovations.

Jal Bhagirathi Foundation has initiated an action oriented advocacy campaign which demands a multifarious strategy that will address issues of concern and advocate rights issues at local, regional, state and national levels. A strong advocacy component has been built in the organisational process to enable villagers, community leaders and development workers to gain access and voice in decision making, to

influence public attitudes and to pressurise public policies which will help in attaining an equitable, just and sustainable paradigm of water governance.

JBF has developed a comprehensive advocacy strategy that focuses in creating awareness, generating constructive responses, eliciting partnerships, developing conscientious citizens at local, regional, state and national levels.

At the local level, the strategy focuses at developing an effective network of villagers to become a pressure group for institutionalising right-based governance. At the regional level and state level, JBF has concentrated in developing partnerships and interacted with opinion makers and politicians to sensitize them of dominant issues along with plausible solutions to overcome the problems. National level advocacy plan of JBF entails efforts through conventions, conferences and workshops to bring the government, local

bodies, voluntary and community organisations working on the issue on common platforms to discuss and debate the national level policies.

Similarly, to generate viewpoints, create pressure groups and demand for effective functional strategies, JBF has developed linkages with government machinery, academia, research institutions, voluntary agencies, donor agencies, media and individuals. JBF's "Water Resource Centre", has an important role in strengthening the advocacy component of the organisation. It is an appropriate hub to showcase experiences and disseminate knowledge to people and generate positive and effective responses.

## Achievements

### Major Conferences and Consultations:

- i. JBF is the first NGO in Rajasthan that advocates legal reforms through effective groundwater legislation. In February 2005, a National Consultation "Looking to the Future", was organised on the theme of ground water management in Rajasthan. The conference discussed water policy in Rajasthan with particular focus on groundwater management and triggered a statewide debate on institutional and legal reforms required to regulate and manage ground water. The Rajasthan

**A strong advocacy component has been built in the organisational processes to enable villagers, community leaders and development workers to gain access and voice in decision making to influence public attitudes**





Chief Minister Mrs. Vasundhara Rajye, Dr. Maxine Olson UN Resident Representative in India, Political Leaders, Senior Bureaucrats from the Central and State Governments, well known Water Resource Management Experts from India and abroad, prominent civil society members and officials from UNDP, UNICEF, Italian Embassy, European Union, Aus Aid, USAID and other donor organisations attended the conference.

- ii. As a follow up to the recommendations of the Expert Committee for Integrated Development of the Water Resources of Rajasthan, JBF organised a workshop titled “*Marudhar Main Jal Niyojan*” in October, 2005 in Jodhpur to debate on a comprehensive “Water Policy” for Rajasthan. It was presided by Governor H.E. Mrs. Pratibha Patil (Presently, the President of India). The Leader of the Opposition Mr. Ashok Gehlot (Presently, Rajasthan Chief Minister), Members of Parliament, Members from the Legislative Assembly, *Panchayat* Leaders and Senior Politicians across party lines participated in the discussions.
- iii. An Asia-Pacific Regional Conference titled “Towards a Sustainable Water Future” to discuss water conflicts and strategies for their resolution was organised in March, 2006 with support from the Italian Development Cooperation, UNDP, UNICEF and SIDA. The objective of this conference was to share regional experiences

from India, Pakistan, Sri Lanka, and Bangladesh and understand the nature of competing water claims and discuss mechanisms to manage them. The conference was inaugurated by H.R.H. The Prince of Wales, and had a very wide participation of Experts from the Indian sub-continent, Israel, Afghanistan, Dubai, State and Central Government and from a wide range of international organisations like Italian Embassy, UNDP, UNICEF, SIDA, DFID, World Bank, European Union and others.

- iv. A national consultation “A Right to a drink for Life” was organised at the Water Resource Centre in September 2008, to discuss issues relating to the availability of portable drinking water and the citizens right to safe drinking water. Participants included the Italian Embassy, UNDP, UNICEF, State Government, Experts in Water, Law and Development.
- v. A national consultation titled *Ganga Awahan* (the call to save the Ganga) was organised at the Water Resource Centre in Jodhpur in January, 2009. The delegates from across the country debated the environmental impacts of the successive dams that are under construction on the river and its increasing pollution. The meeting ended with a ‘call to action’ and further meetings at Delhi which finally resulted in intervention by the Government of India and ordinance were passed in February 2009 to redress the issues raised at the conference.

## Networking

- I. JBF is the Founder member of the “*Jal Biradar*” a national network of more than 1000 NGOs working on advocacy of water issues and which has branches in every state of India. The organisation has conducted 621 state-wide campaigns and 117 Nationwide campaigns on issues related to water.
- II. JBF has founded the ‘*Marwar Lok Vikas Jal Manchi*’, a network of 125 NGOs of the Jodhpur division. This platform has been created to address common issues of development and to promote sustainable management of natural resources. It has campaigned against the pollution of the Luni River (the only river in western Rajasthan and indisputably the most polluted river in India). As a result of the campaign, the Government sanctioned USD 150 million for cleaning and taking preventive measures to stop further pollution of the river.
- III. JBF is a member of the International Union for Conservation of Nature (IUCN), the largest conservation network in the world.
- IV. On the invitation by Mr. Bill Clinton, Ex-President of America, Jal Bhagirathi Foundation joined as member of the Clinton Global Initiative and participated at the Asia Regional Meeting in Hong Kong (2008) where it made a joint commitment to action.

## Highlights

- I. JBF is member of the Steering Committee of the European Commission-Rajasthan Government State Partnership Program which supports water governance reforms with the formulation and implementation of a very progressive Water Policy, water related legal framework, and institutional reforms.
- II. JBF has been appointed as the Nodal NGO for Jodhpur division by Government of Rajasthan with the intention to work closely in partnership with the Foundation and be able to upscale the best practices identified in JBF projects as well as share the leanings with the public in joint awareness campaigns or water literacy drives.
- III. JBF was appointed as a member of the “Expert Committee for Integrated Development of Water Resources”, constituted by the Government of Rajasthan to frame and recommend a ‘Water Policy’ for the State.
- IV. JBF is a member of the Rajasthan Community Business Alliance on Water, a committee set up by the Government of Rajasthan under the auspices of the “World Economic Forum”, to identify areas for improving the quality of water and waste water services through public-private-community partnerships.
- V. Mr. Rajendra Singh, the Vice Chairman of JBF, is a member of the Prime Minister’s Advisory Committee on Ground Water Management.
- VI. Indian Postal department released a Special Cover on World Environment Day (June 5, 2005) on the activities of the Jal Bhagirathi Foundation.



## International Networking

- I. Participation in the World Water Week in Stockholm
- II. Participation in the 13th UN commission for sustainable development in New York
- III. Participation with an Exhibition Stall in the Water Fair at the World Water Forum in Mexico in 2006.
- IV. Participated in the Regional Conservation Forum organised by the IUCN in 2007 in Nepal
- V. Participated in the World Conservation Congress organised by the IUCN in 2008 in Barcelona
- VI. Participation by hosting side events and with an Exhibition Stall in the Water Fair in at the World Water Forum in Istanbul in 2009





# Water Resource Centre



# MAHARAJA GAJ SINGH JAL SANSTHAN

## Water Costs Nothing For Those With Everything, And Everything For Those With Nothing

### Context

Marwar region has been reeling under severe water stress and repeated droughts are as much a man made calamity as a natural disaster. Breakdown of traditional water systems and structures, erosion of catchments areas and excessive use of groundwater resources is resulting in further depletion of the scarce water reserves. The key to solve this problem lies in efficient management of natural resources especially water.

Water costs nothing for those with everything, and everything for those

with nothing. The poor pay huge sums for small amounts of water. To procure water, they walk great distances, wait hours, and compete with other equally desperate people for the precious resource. Overcoming inequality is more than making sure that all people receive 20 litres of water everyday - those 20 litres must be clean and affordable - and free for the poor.

The burden women and girls bear is far more than their fair share of the costs of the water and sanitation crisis. Traditionally women and girls

take care of the household; so it is their responsibility to find and fetch water for their families. For girls, the lack of clean water and sanitation facilities close to home turns into lost opportunities to go to school, learn marketable skills, and fully participate in their communities. When women and girls have to collect and carry water, or walk long distances to find somewhere to go to the bathroom, they lose time that could be spent going to school. Many parents, concerned about the lack of hygiene, safety and privacy in school latrines,

**T**he burden women and girls bear is far more than their fair share of the costs of the water and sanitation crisis







withdraw their daughters once they reach puberty.

Gradual emission of greenhouse gases is making the world warmer and warmer. Our immediate global priority must be to create strategies to ease the threats to human development. The effects of climate change - rising sea levels, droughts and deluges, and erratic temperatures, will affect the health, security and livelihoods of millions of people worldwide. No matter what we do now, in the next one hundred years the world will change dramatically as a result of the greenhouse gases that we have already pumped into our atmosphere. Higher air temperatures will increase evaporation from the oceans and will speed evaporation of water from land. Rainfall patterns will change - dry areas will get drier and wet areas will get wetter. Climate change will also bring more extreme weather events in the years to come leading to severe water crisis which is a looming threat to the survival of humanity. Such extreme situation requires immediate action.

Water is not a commodity - it is a necessity for life. Collective Action is the need of the hour.

Jal Bhagirathi Foundation has followed this approach of collective action and has been successful in mobilising communities to come together and rejuvenate dormant water harvesting traditions on a large

scale. It has been involved in reviving traditional water harvesting systems and synchronizing them with health, education and overall livelihood activities.

Creating awareness and building capacities of user communities to manage their natural resources will enable them to become self reliant.

The Foundation therefore established a "Water Resource Centre" for collective action through training, capacity building and information dissemination activities.

### Intervention

Jal Bhagirathi Foundation has established a "Water Resource Centre", as an institution that is a conclave to exchange ideas and experiences by civil society groups from all over India and abroad. The Water Resource Centre promotes an active and enlightened rural community by training and capacitating rural volunteer groups by accomplished social workers

to mobilise communities in water resource management.

This institution disseminates 'best practice' in community management and control of natural resources and strengthens existing civil society networks to promote community participation in adaptive strategies to climate change and environmental regeneration.

The Water Resource Centre focuses on innovation in natural resource development and social engineering. It is the venue of national and regional conferences, conventions, workshops and symposiums to support the objectives of the Foundation. This is also the venue for networking to create public awareness and optimise social cohesion and emotive bonding among communities by providing a platform of continued interaction.

As community members from across the state and even the country collect at the Water Resource Centre it shall foster partnerships for experience sharing, and policy advocacy.

**J**al Bhagirathi Foundation has established a "Water Resource Centre", as an institution that is a conclave to exchange ideas and experiences by civil society groups from all over India and abroad

milestones



## Activities

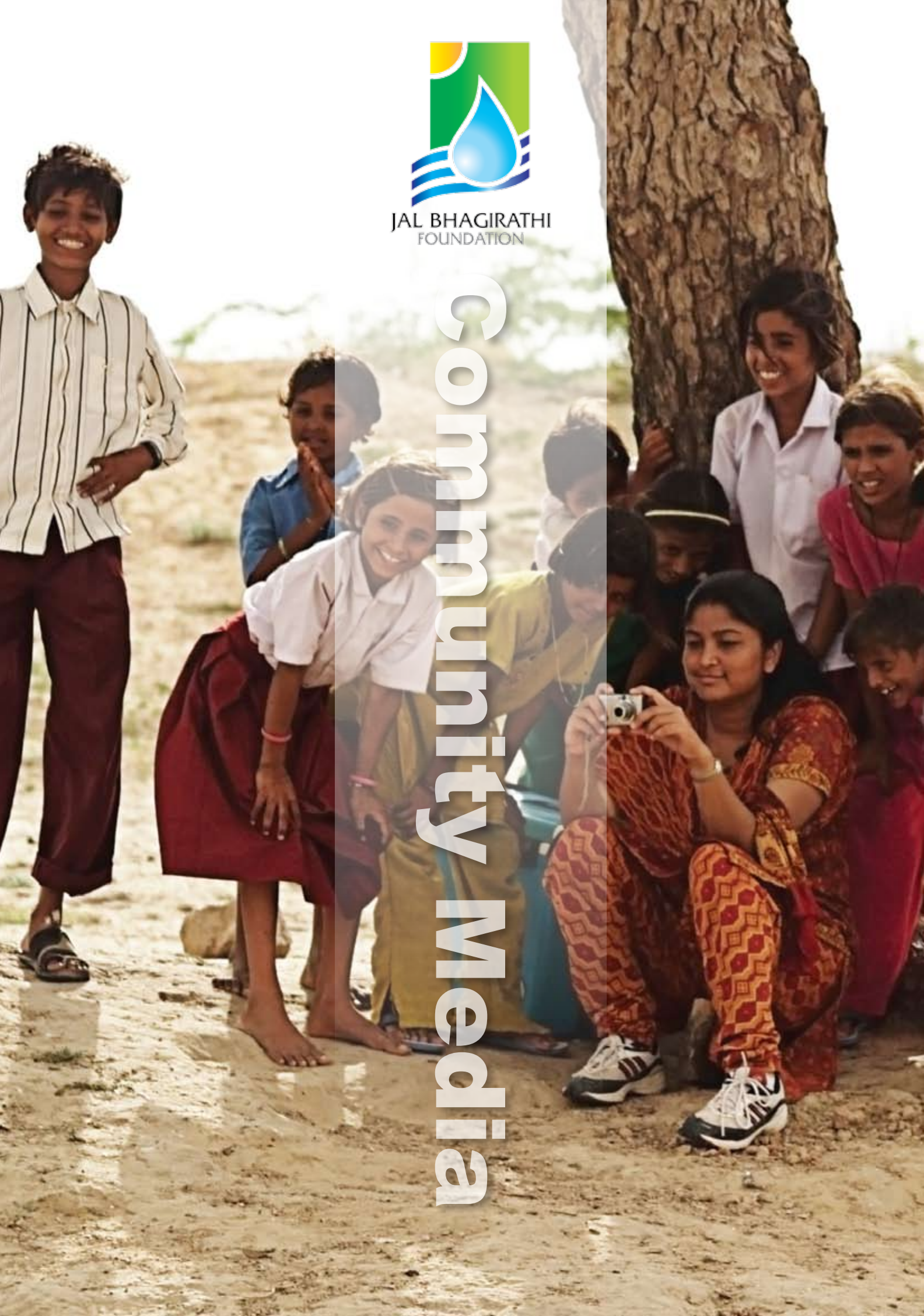
- Water Resource Centre with its effective outreach to all seven districts of Marwar region and to a range of stakeholders - communities, Panchayati Raj Institution (PRI) members, block and district government officials and NGO workers from within and outside Marwar, including other states of India and other countries has hosted regular networking.
- The Water Resource Centre is a repository of knowledge, best practices, useful data and information related to water quality and availability.
- The Centre proactively engages with the state and local governments to mainstream schemes and programmes so that communities are able to voice their views and influence policy.
- The Water Resource Centre establishes partnerships with national, international resource centres and explores collaborations.
- The Water Resource Centre has emerged as a centre of excellence in imparting training and knowledge on community based natural resource management in the Marwar region as well as state wide and nationally.
- The Water Resource Centre has established institutional capacities and systems for developing and regularly updating its repository of local, national and international best practices as well as manuals and guidelines on community based approaches
- Water Resource Centre as a conclave for networking and policy advocacy has partnerships with national and international resource centres, technical agencies, experts, knowledge networks and through participation in major water related events such as the World Water Week, IUCN, World Water Forum that provide exposure and serve as a channel for flow of knowledge and experience.
- Workshops, conferences and knowledge sharing forums are organised at the Water Resource Centre to bring in national and international experience on water policy and practice, to engage on policy issues and to discuss common areas of concern.
- Fellowships and opportunities for internship are granted at the Water Resource Centre to encourage action research and policy work on water.





JAL BHAGIRATHI  
FOUNDATION

# Community Media



# MARWAR COMMUNITY MEDIA

Media plays a vital role in ensuring a democratic functioning of any society

## Challenges

Media plays a vital role in ensuring a democratic functioning of any society. It acts as a watchdog for the society and provides a channel through which people are connected to the governments. However, mainstream media often tends to ignore some of the core challenges faced by marginalised sections of the society. Evidence suggests that there is minimal coverage of news relating to the people of rural Marwar in the

mainstream newspapers and news channels. As a result, people of this region do not have a channel to voice their grievances and bring them to the forefront to initiate change in policy.

The concept of community media has been developed especially to provide a voice to those sections of society whose problems are rarely heard. Community media can play an important role in community empowerment. The power of community media lies in the fact

that it can initiate positive social change and provide a real voice to disadvantaged communities. Participation of people at grassroots level ensures a sense of ownership, pride and involvement which is critical to introducing change.

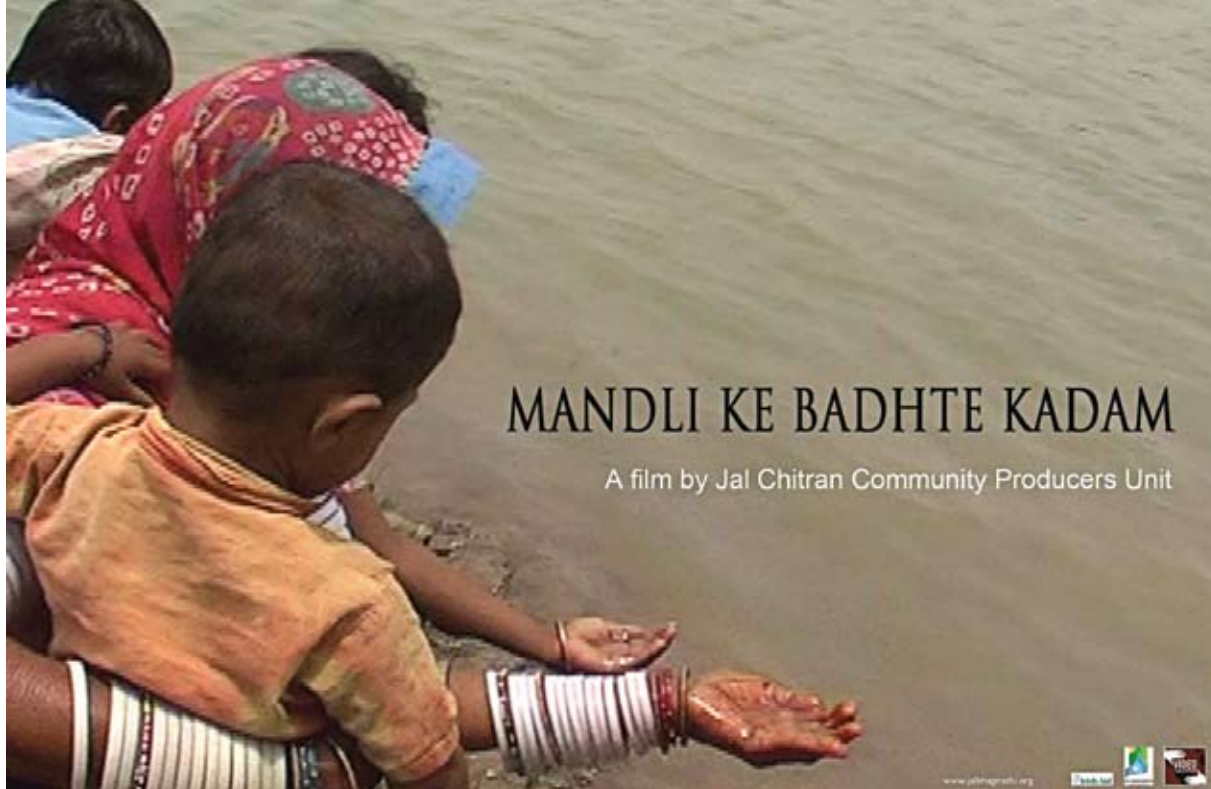
In a region where only 60 percent of the population is literate, visual communication is perhaps the best channel that can be used for communication, as video not only captures the attention of the community but also have a lasting impact on them. Thus they empower people to take greater action and encourage government to make reforms.

## Interventions

In order to provide a real voice to the marginalised people of the Marwar region, with the support of Irish Aid, Jal Bhagirathi Foundation in collaboration with Video Volunteers, an international non-profit organisation, has set up a Community Media Unit (CMU) called Jal Chitran. The Unit has been functional since March 2008 and comprises of a team of highly motivated young people. The team was handpicked from the rural belt and empowered through extensive training sessions.







The program operates by setting up a Community Media Unit (CMU), which is a local production unit run by seven to ten full-time community members trained by Video Volunteers in all aspects of video production. Jal Bhagirathi Foundation supports the CMU till it becomes self sustainable. The CMU produces and screens regular video magazines, focusing on critical issues in the villages. These films are an effective way of accelerating social as well as policy change by engaging large numbers of deprived people.

JBF aims to move towards community ownership and sustainability with the help of the CMU. It provides a platform wherein the community video producers carry out the various tasks involved in production - research, scriptwriting, shooting, editing and screening. This enables young men and women to take active interest in their communities and transforms them into socially conscious youth.

The aim of this effort is to create ripples at the grassroots level that will eventually press for change at the macro policy level. At the micro level, the films and videos made by the CMU promote awareness and availability of information within the community. It is a remarkably

powerful and cost-effective way to reach large numbers of people.

Each film of the CMU has a dual focus. Firstly, the films disseminate the message that local people must take the lead in their own development.

Secondly, the videos inspire audiences with 'success stories' of local people who are making a difference. The coming together of the entire village to watch and engage with these films also encourages social cohesion.

### Achievements

**The Community Media Unit of JBF is called the Jal Chitran. The unit has overcome the barrier of illiteracy and communicated to people in a visual medium that they find compelling. Far-flung communities have had the opportunity to share knowledge and to advocate in their own words with authority. The videos themselves provide critical information that had never before been shared in these media-poor communities. They also allow NGOs to expand their program by sharing best practices and successes and encouraging greater participation.**

**In addition to these films, Jal Chitran has produced more than 10 films on issues that JBF works on. The films have been screened across the project villages in the districts of Barmer and Jodhpur. So far, it has received an overwhelming response, with around 10,000 people having attended the screening. A Jal Chitran Film named 'Mandli Ke Badhte Kadam' has won 'The Best Film Award, Rajasthan' at Jaipur International Film Festival 2010.**

### The CMU produces impact at four main levels

1. It expands the scale and reach of social program
2. It encourages local people to take action
3. It transforms the producers into leaders and activists
4. It encourages government to take action



## About-Irish Aid

Irish Aid is the Government of Ireland's program of assistance to developing countries. Ireland's aid philosophy is rooted in their foreign policy, in particular its objectives of peace and justice. Though India is not a bilateral program country for Irish Aid - the Irish Government's official development cooperation program-it is still a significant focus of the program with some €5million being spent in India each year. While substantial proportion of the funding is channeled through some of the large Irish NGOs, funds are also granted to Irish Aid In-Country Micro Projects Scheme which is designed to provide support to local non-governmental organisations working in a selected number of developing countries where Irish Aid does not have a Bilateral Aid Program. Jal Bhagirathi Foundation has been supported under this program for the project- "Community Media Unit for development and social change in Jodhpur, Pali and Barmer districts of Western Rajasthan", which started in 2008.

### Training provided by Video Volunteers to the CMU

- Camera operations and video editing on computers;
- Research methods and interview techniques;
- Effective storytelling;
- Human rights orientation on gender, caste, minority rights etc.;
- Public speaking and activism;
- Sustaining a CMU—including financing and operations;
- Screening, distribution and generating community ownership;
- Monitoring and Evaluation of the CMU; and
- Expanding the CMU into other media like radio, web etc.

**“.....We have understood how crucial toilets are for women in the villages. We shall take this forward and ensure that every household has a toilet in our village...”** Response from a group of women in Mandli after viewing the video magazine on sanitation.



**“....The role of women in managing the cleanliness of the surroundings is so evident in the film....along with my friends, I also will take responsibility to maintain cleanliness.....”**

Response from a group of teenage girls in village Raniya Desipura/Barmer after viewing the video magazine on Sanitation









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