

COMMUNITY WELL TO SOLVE WATER WOES BY A TRIBE IN PARTALA

Under the WOTR initiative, 12 families came together and used their traditional knowledge to develop efficient drainage patterns.



By Neha Gupta



The importance of water is not unknown and its role as a life sustaining element is profound. Yet, we humans have managed to remain oblivious to its prominence and its prudent use.

Our race continues to survive buried under misconceptions. One of them revolves around the availability of water. To clear the air - Yes, water resources are renewable, however fresh water resources are finite. And the latest trends reflect the reserves heading toward depletion.

In rural India, water is not only the essence of life but the single most crucial factor determining the quality of life of the people, especially the poor strata of the society. Water scarcity leads to a multitude of problems such as women drudgery of walking kilometers to fetch water for domestic purposes, lack of access to water resources, impediments in agricultural processes, etc. These limit the livelihood opportunities in a rural setup, as agriculture is the main occupation in Indian villages. All of these pose a question mark to the goal of attaining 'water security' in rural spaces. To add on, the climate change and increasing disruptions in the rainfall patterns, temperature

and soil moisture have resulted in a negative impact on the water cycle. This has directly impacted the water availability for drinking, livestock use, agriculture and various other purposes. Also, as the average temperature is rising, the water requirements have also gone up. This has put up more pressure on the already stressed out water resources.

On the above lines, it was observed that the communities in semi-arid regions of Madhya Pradesh are significantly vulnerable to water scarcity. Their livelihoods are centered on water resource availability; hence to enable these communities to have access to water seemed of the utmost importance. This could be achieved by undergoing efficient water resource management to ensure sustainability, adapting, and developing resilience to changes and providing more opportunities to augment present water availability.

Post witnessing the community vulnerability, the need to develop a community based water management approach was realized. Hence, a pilot project was initiated in the village of Partala,

Niwās Block in Mandla district, Madhya Pradesh. The project aimed at providing access to water resources and efficient water management among the community.

The community based approach was selected considering the negative bearing of the individual approach. This hypothesis was based on the fact that the utilization of more number of water resources leads to further land and water resource degradation.

The Study Subject: The Village Of Partala

Partala is a tribal village located in the hilly forest terrain of Mandla district. With a total population of 769, Partala village nurtures 7 castes. Of these, Baiga, Gond, and Panika are the major sub-castes. The village has a total of 185 households, 67% of which are Muslims, 30.8% are Hindus, while 2.2% are Sikh. Majority of them depend on the forest for their livelihood.

Socially backward and economically frail, the villagers of Partala bear a conservative attitude and orthodox mindset. The village reeks of unhealthy habits of smoking and alcoholism. Yet another major roadblock in the village development is lack of education especially for girls.

The major crops grown in Partala are paddy, maize, and pigeon pea, urid in Kharif followed by wheat, peas, mustard, lentil, and gram, in Rabi. The topography of the district is undulating and the soil types found are light soil, medium soil, and heavy soil in 46%, 32%, and 22% respectively.

The Problem, the Solution

Low agricultural productivity, lofty reliance on daily wages, intensified sale of fuel wood and soaring migration are common problems that the area faces due to the lack of access to water. The possibility of drought constantly shuddering over their shoulders just tops the glitch list. With increasing climatic variation in rainfall, Kharif crops are also under constant threat of failure. WOTR identified these issues and initiated a small community based initiative to counter them. Under this initiative, 12 families came together and used their traditional knowledge to develop efficient drainage patterns. Through community participation - 'Shramdaan' a well was constructed





in 2012 with the financial, material, and technical support from WOTR.

The well built with an objective of providing water access to the families now caters to the domestic, agricultural, and other needs of the families pertaining to water.

Along with the construction of the well, WOTR provided them sprinkler sets to ensure groundwater sustainability and efficient water application for irrigation. To optimize and extend the benefits of the system to as many as possible, the villagers adopted the idea of sharing irrigation pipes, adjust sowing, and thus share the system.

Advantages of the Sprinkler Set

The sprinkler sets have several advantages. A few listed as per the farmers of Niwas Block are as follows:

One sprinkler set can irrigate up to 12-15 acres of land, hence any group with their total land less than that can rent it to other farmers and earn from the equipment.

- ▶ Farmers can multitask while irrigating, which was not possible earlier when flood irrigation was adopted. Also, they don't have to stand in the cold while irrigating their fields.
- ▶ Less or negligible soil erosion during irrigation.
- ▶ Less damage to crop when compared to flood irrigation.



- ▶ Water efficient way of irrigation; it is like rainfall to the crop, hence it's very good for the crop.
- ▶ WOTR provided the farmers with a pump along with pipes and sprinkler set. This has made access to water resources easy.

Sprinkler sets have a major advantage over flood irrigation. Flood irrigation is water intensive, causes soil erosion, destroys crop plants, is a subject to constant supervision by farmers across seasons and is time consuming, especially for farmers with large land holding. Though sprinklers discard all these disadvantages, still farmers with marginal land prefer flood irrigation as they believe it takes less time (for small piece of land).

The Impact

With the construction of the well in 2012, the villagers now have an easy access to water. This has led to a significant improvement in their livelihoods and reduced migration among the group.

Initially, owing to scanty rainfall the farmers could not irrigate their crops in the Kharif season. However, now they irrigate their crops irrespective of adequate timely rainfall. An added incentive is that the farmers can now implement crop rotation. With proper access to water they are able to take more than one crop in Rabi. Farmers have started taking multiple crops of Methi in one season as it takes a mere two months for Methi to be ready to sell. So, it is a smart mechanism of high yields in low investments.

An increase in the economic standing of the community households has been observed post the project implementation. The population's annual income has almost doubled. The success of the project can be attributed to active community participation and mutual understanding among the village populace.

With Partala WOTR continues to help communities defeat water scarcity and achieve water security through innovative and interventions as suggested by community with their knowledge.

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About the Author

Neha Gupta is currently working as a Consultant in Watershed Organization Trust (WOTR), Pune. She is M.Sc. in Water Resources Management from TERI University, New Delhi. She has also worked as, Project Engineer at DHI and Deputy Manager of Environment at Development Alternatives. She has more than two years of work experience in the field of hydraulic modeling and hydrological investigations in areas of Madhya Pradesh, Rajasthan, and Maharashtra. She has been awarded with Jaidev Memorial Award from Kirorimal College, Delhi University and received Gold Medal from TERI University.

Watershed Organization Trust (WOTR) was established in 1993. It is an NGO tackling water scarcity, rural poverty, and food insecurity in the dry lands of India today. WOTR has embedded Ecosystem based Watershed Development in its philosophy which reduces risk, mitigates the impact of adverse climate changes through adaptation, and sustainable agriculture which promotes use of indigenous seeds to increase land productivity.

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