

2015



# Project Monthly Report

Rainwater Harvesting Project



## Project summary

District Tharparkar- in Sindh province of Pakistan, is mostly comprised on desert, with some of the extended parts to agricultural planes and some to hilly areas. The district has around 1.3 million human population having livelihood dependence on rain-dependent agro-pastoral economy. The poverty rate is near 70% double than other districts of the country. A WFP survey conducted in early 2000 indicates that district is the most food insecure district of the country. The limited ground water is ultimate source of water for people in Tharparkar. The quality of ground water is saline to brackish with high concentration of various salts and minerals, which are dangerous for human as well as livestock health. Hence, it could be said that water is one of the massive issues of the area

Attempting to solve the water problem in Tharparkar the people have been striving on their own with different manners. Conventionally, the dug-well is believed- and so far practically it is- only sustainable source of groundwater. Although the tube-wells, hand pumps and wind mills also introduced in Tharparkar by different agencies but such schemes are not yet proved fully successful and most of these schemes are not functional due to various reasons. In a normal day, villagers averagely spend around 3-4 hours to fetch water from water supply pipe line on distance of four KMs away from the village. However the social life of villagers is also restricted due to lack of adequate water. This specially affects the women much, who are responsible for carrying water. Women could not leave their households even for social functions due to pre occupation in fetching water. They remain unable to entertain friends and relations due to water insecurity. At times, both the young boys and girls had to postpone their carrier development activities due to the responsibility of fetching water. Whenever they go out of the village, they had to fetch water to compensate for their time of absence. Besides being a pre occupation for women, fetching water effects children's education too during dry seasons. Often children also remain necessary part of the water collection, sometimes stretching into the night hours too due to the water supply timing. In such event children have to sacrifice daily studies, for which they were reprimanded by their teachers. On other hand if it is looked into environmental context it finds that the ground water table in Tharparkar is depleting gradually which results in reduction of soil moistures that contributes to vanishing of desert vegetation leading to deforestation.

Working in water sector NGO Sukaar Foundation Tharparkar it has been explored that rainwater harvesting has a greater potential to cope with the water problem of Tharparkar. In this connection, SF has approached Association for the Development of Pakistan- ADP to address the water related issues of the area to select different localities of Tharparkar in order to introduce viable rainwater harvesting methods and practices to address the water issues further to influence the policies and practices to scale up the good practices within and beyond the targeted population.

Association for Development of Pakistan (ADP) financed Rain Water Harvesting project, which was implemented by Sukaar Foundation in village Phul Ji Wandh, district Tharparkar. The

implemented structures are considered as one of the most effective, indigenous and demand-driven in context of Thar Desert. The project includes construction of 126 household level ponds. The household-level pond has a storage capacity of 8,000 liters. The purpose of this project was to provide a clean and nearby source of drinking water for the villagers and the construction of ponds will commence right away so that villagers can start using them during the 2015 summer monsoon season. Sukaar Foundation and Association for the Development of Pakistan- ADP have initiated a project on rainwater harvesting initiatives in order to support people of Tharparkar to have them access to drinking water. In this project SF and ADP have planned to introduce rainwater harvesting models using both indigenous and innovative technologies

### **Hygiene awareness sessions in community**

SF has learnt that vast majority of people are not aware of health/hygiene education/practices in its program area which invites various preventable diseases. In this regard Hygiene sessions were organized in village for raising awareness on best WASH practices at local level considering the convenience of the community. In these hygiene promotions session's male and female participated. In these hygiene sessions hygiene promoters share the best practices global wise and the practices which is followed in towns and metropolitan



cities. In this regard community becomes aware that 500,000 children die every year from diarrhea caused by unsafe water and poor sanitation. That's over 1,400 children a day. 2.5 billion People don't have access to adequate sanitation, one in three of the world's population. There have no any national level WASH policy to overcome this issue. During sessions communities are oriented for the reforms through control of WASH and improve various socio-economic conditions; as poor are living in poor conditions of sanitation which is miserable. Only limited communities of urban areas use toilet facilities and it is worse condition and leave impact on health.

WASH (Water, Sanitation & Hygiene) in communities depicts that 90% rural schools in District Thar do not have access to safe drinking water, causing school children fetch water from dug wells (having contaminated water). Tragically, 90% of the underground water of the district is brackish and contaminated It is condemnable that one in twenty households is doing any treatment such as boiling (11.4 %), filtration with cloth & sand (5%), exposure to sunlight (3.4%). Various diseases including fluorides', hepatitis and kidney failure are caused by availability of heavy TDS in drinking water in Thar.

These hygiene sessions were focused on key hygiene practices especially hand washing practice after defecation and before eating. Similarly, the women, being the care takers of the children, sensitized about the hygiene/ sanitation of cooking place/ kitchen and toilet. In these sessions social

mobilization team also focusing on the use of safe and uncontaminated water. Communities also learnt the local water treatment methods further to avoid the drinking unclean water. Project social organizers will continue to conduct the hygiene promotion sessions in villages till next of month.

### **Construction of Household level Nadi Pond**

During reporting period construction of village level structure, small household level Nadi pond cisterns (underground tanks) are constructed to harvest rainwater. The internal shape of the Nadi pond allows it to be constructed using a very thin lining of cement and sand mortar. These Nadi ponds catch the monsoon rains via a small saucer shaped concrete catchment around the cistern and provide enough drinking water for families in the dry season.



During reporting period 126 household level pairs of Nadi pond have been constructed. These household level Nadi ponds are benefitting the beneficiaries of village Phul Ji Wandh. It is also worth mention here that community of Phul Ji Wandh actively use bio sand filter for the purification of water as biological contamination removed from water that is the cause of unhealthy environment. Communities are trained for the operation and maintenance on local level of the Bio Sand Filters

### **Training for Village Development Organization-VDO**

The Village Development Organization (VDO) is the major forum of the village that regularly meets on the every month and takes over all the operational and maintenance activities. Project team trained the VDOs and made them responsible for the operation and maintenance of water reservoirs. SF organized training of VDO in the reporting month to build up their capacity on operation and maintenance as well as their water distribution mechanism. It was a participatory training and all the participants actively participated. In this training community also oriented on the saving and given them the examples of successful VDOs and development sectors.



Beneficiaries made bound for the operation and maintenance and sustainable process of the structure. During training communities shared their miseries and sufferings that before the interventions they lost their beloved children in road accidents for fetching water and they are grateful of Sukaar Foundation and Association for the Development of Pakistan that water and sanitation covered in their respective village. On the account of the training they shared that they will follow the instructions and guidelines which are learnt in training.

## Theater in Community

Sukaar Foundation organized Theater on WASH initiative in the village and objective of this program empowering the community and students to enable them endeavoring to bring the desired changes in their lives. Communities delivered speeches on the WASH related topics. Drama was performed by Mr. Mashooque Umrani's team on unhygienic environment and due to this health problems raised and children shared the reasons of sickness and parents worried for their treatment. In this drama socio economic conditions of the Thar also highlighted that people of Thar passing miserable life in this current era where there is no subsidy except inflation and the different diseases opened their mouths due to carelessness. After the drama participants expressed their views that such event play a vital role in the society for promoting hygiene education and we are very much pleased. SF and ADP is playing an important role in promoting hygiene education in the communities to augment the abilities of the male, female and children to endorse

health/hygiene education in communities to bring changes in their lives to reduce/mitigate the poverty cycle. They admired SF cooperation and support in arranging such program initiated. In theater water and sanitation focused and in theater proper message communicated to community that through proper use of nadi sand filter can get rid from water born disease and proper practices of hygiene can get rid of unhygienic environment. In this regard children, youngsters, old community members enjoyed and learn a lot.



### **Construction of Demo Latrines**

Sanitation is a critical issue in Tharparkar. Sanitation issues & challenges are highlighted through different activities to realize and sensitize the communities, SF and ADP aims at effectively supporting and influencing the relevant integration of WASH in their programmes and priorities. In order to achieve this aim the communities of Tharparkar will be supported to be proactively engaged with relevant government & civil society forums.

On the behalf Demo latrines constructed in village Phul Ji Wandh. In these sanitation activities communities benefited and SF team oriented the communities to use demo latrines on regular basis. Keeping in view poor hygiene situation, Wash Committees formed which actively perform in village and WASH committee members promotes WASH practices in village through meetings and sensitization. In this regard continuous awareness sessions and the process of sensitization hold in schools with children, SMC members, teachers, and community members on regular basis. Community oriented on the behalf of sanitation conditions and the reaction open defecation on human health and environment. Community ensured regular use of toilets and WASH groups also actively participated in these sessions and demonstration. For the orientation and demonstration different tools were used and community realized that these behavioral practices should be changed and developed action plan.



### **Training for Community Activists on Rainwater Harvesting**

Community Activists trained on harvesting the rainwater on the context of Tharparkar and history of droughts. In this regard community oriented that Tharparkar district receives 100mm to 300 mm rain every year, which is a sufficient for human need and also for flora and fauna. But there is lack of proper planning of rain water harvesting that is way the large quantity of water is wasted in Tharparkar. Rain water recharged ground water wells, raised water table in deep wells and filled household tanks. But, after four months, the Tharis, Dhahos, Tobhos & Sar were without sufficient water even for drinking, and many had to walk miles to fetch water. Herdsmen had to take their livestock to barrage areas to avoid mortality among them due to water shortage. When it rained heavily, it



turned our dusty and arid villages in the district into an oasis with lush green foliage and plenty of water to drink and take bath. It also turned our dried-up rangeland into green meadows and pastures for our cattle. But the accumulated rainwater evaporated within a few months and we had to walk for 4-5 miles thrice a week to fetch water from deep wells. Thar normally experiences drought every third year and famine after each decade, triggering mass migration of peasants to irrigated areas in lower and central Sindh in search of fodder, labor and water. A large number of cattle also die during such laborious journeys. According to a study of the Pakistan Council for Research on Water Resources (PCRWR), the entire Thar Desert receives around one trillion litres of rain annually “it will be sufficient, if stored, Even if 0.25 per cent of the rainwater is conserved or harvested, it can meet the domestic water needs of the entire human population and livestock of the area,” said water conservation experts of the PCRWR. The method is used to transfer new knowledge, skills, and attitudes to participants through various activities e.g. Group Discussion (GDs), buzz sections and brainstorming. The various local supporting materials used in the course of training models and etc.

## **Water Quality Tests**

On the account of safe drinking water, samples collected from the village from existing sources like dug well, collected stored water and processed from bio sand filter. After the collection of water samples experiment of water quality test hold in front of communities and oriented them regarding water born disease which can affect human health. This experiment process hold by WASH specialist keeping in view health related issues which were shared by community members. After the sharing of results community realized that major health problems comes from water and sanitation practices. On the account of treatment for safe drinking water community came to know that bio sand filter is local, feasible and sustainable solution for good health which is affordable for everyone.