IWRM Action Hub

CASE STUDY

Pakistan: IWRM Practices to Alleviate Poverty – A Model of Desert Development in Tharparkar

Floods are a recurrent natural calamity in Pakistan, followed by earthquakes, cyclones and drought. However, drought is more damaging than floods in terms of food insecurity. Evidence of chronic water shortages have been painfully evident in some parts of Pakistan in recent years, due to low rainfall and extreme variations in temperature.

Background

The Tharparkar District is the largest (by land area) of twenty-nine districts of the Sindh province in Pakistan. An extension of the Thar Desert in Rajasthan, India, the Tharparkar district is situated to the west of India. 15% of the Thar Desert is located in Pakistan over Punjab and Sindh, starting from the Tharparkar District up towards the Cholistan Desert: this part of the desert is referred to as Tharparkar Desert. Divided into 7 tehsils, an administrative division used in various South Asian countries, the Tharparkar District is headquartered at Mithi. Thar has the only fertile desert in the world, and the livelihood of Thari people depends on rainfall agriculture and livestock rearing, which is critical to household food security. If a family requires cash for essential commodities or services, they trade-in or sell their animals to fulfil their requirements. The veterinary epidemic that wiped out most of the region’s livestock and negatively affected people’s ability to sustain their livelihoods was caused by chronic drought. The mounting challenges posed by drought are focus areas for Pakistan Water Partnership’s (PWP/GWP-Pakistan) work, particularly in desert areas, which have received minimal attention in the past. PWP’s Desert Development model puts emphasis on livelihood creation, water security, hygiene, and environmental sustainability as a means of improving the quality of life of desert dwellers and their livestock. Drought is an overwhelming concern and Pakistan faces this stress in all three of its deserts, namely Tharparkar, Cholistan and Thal.

Actions taken

As part of WACREP funded PWP intervention, a wide range of activities were carried out under Desert Development, targeting two major desert regions of Pakistan: the Greater and Lesser Cholistan Desert and the Tharparkar Desert from September 2014 to November 2015 (14 months). Both of these areas are geographically an extension of the Great Indian Thar Desert in Pakistan. Given the severity of the crisis, three priority sectors were identified by PWP/GWP-Pakistan for immediate and long-term improvements in the lives of Thari people, which are Water, Sanitation and Hygiene (WASH), Health and Hygiene and Nutrition.
The Desert Development approach consisted of a wide range of activities, carried out in 45 villages of the Tharparkar District housing more than 128,000 people. By improving access

to potable water, distributing food and medicines for people and livestock, building capacity in traditional soap-making techniques, and the operation of bio sand filters, entire communities were benefited in various ways. Local village leaders were trained in soap-making and provided bio sand filters. Their increased capacity in these realms allowed them to educate the rest of the community members.
PWP demonstrated the use of BSFs in isolated areas of the Tharparkar district, covering 29 villages across the districts of Mithi, Chahro, and Diplo over 14 months. These target areas were chosen on the basis of advice provided by the local government; they highlighted the areas that were most affected by drought, suffered from the most notable water issues, and represented the most economically backward sections of Tharparkar.

Outcomes

The PWP introduced the Integrated Water Resources Management concept in the Tharparkar district of Sindh, Pakistan, in the hopes of mobilising community action to tackle the negative effects of chronic drought. Major contributions of this project were:

1. WASH: bio sand filters were demonstrated and distributed in 29 villages; ponds were created in 17 villages.
2. Health and Hygiene: soap making techniques were demonstrated in 25 villages; medicines were distributed to villages; seeds and mineral mix were distributed to 23 villages.
3. Nutrition: food packets were distributed in 7 villages; medicines were handed out in 21 villages; village nurseries were set up in 21 villages.

Lessons Learned

In order to ensure water security in drought-affected areas, widespread support by governmental/local agencies should be provided to communities.

Large scale and widespread capacity building in livestock, forestry, fodder, women rights, and health is needed on a fast-track basis for self-reliance and sustainable development. Focusing on home garden and village plant nurseries can augment food security and health of community.

Training sessions will help reduce exploitation and ensure that dwellers receive fair prices for their products in the market. Introducing small-scale, portable solar units to convert brackish water to sweet water can provide an alternative source of potable water preventing diseases.

Local donkeys could be revived as they are a source of power and can thrive very well on scant vegetation. Hence a small equine research centre could be created to further research on improvement of this species.

The government should commission water interventions like RWH systems, emergency ponds, and small dams to provide safe drinking water. It could further facilitate a focused response from NGOs working in THAR and conduct M&E, so activities can be scaled up.

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Related IWRM Tools
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Community-based water supply and management organisations
Civil Society Organisations
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