Field Visit to Pond Rejuvenation Sites

Ponds have been crucial to India's water systems since ages. Traditionally, several kings of India had built tanks and ponds in the semi-arid and arid regions to harvest the rainwater and recharge the groundwater. However, due to urbanisation, encroachment, and other anthropogenic actions, these water bodies have turned into dumping grounds for detritus from their catchment area. Due to the adverse effect of climate change, India is facing the challenges of colossal water scarcity, and therefore, there is a need to rejuvenate our traditional pond ecosystem.

Rejuvenation and maintenance of the pond ecosystem as a community-led water management practice have proven effective in ensuring water sustainability and ecosystem restoration. It could effectively augment groundwater recharge, drought prevention, flood prevention downstream, meeting drinking water demands, and source of irrigation in rural regions. To address these water scarcity challenges, the Government of India initiated a scheme called Mission Amit Sarovar, where they have commenced pond rejuvenation activities across the country. To contribute towards the government initiative, several organisations, viz., public, private, communities, and NGOs, started these activities across several states of India.

With this happening, it becomes crucial to understand the impact of the interventions with ecosystem services. Furthermore, to measure the impact it become important to do the analysis of sustainability plans of the intervention to assess the success rate. With this purpose in mind, under a project, Development Alternatives is attempting to study and document the best-case studies in strategically selected locations, mainly in the northern part of India, and try to analyse the success factors and evaluate the policy intervention which can contribute to the Government of India's mission on Amit Sarovar.

The study will identify ponds from arid and semi-arid, mountain and hot and semi-humid regions of India in rural, urban, and peri-urban settings. Some of the states we will broadly cover - Haryana, Rajasthan, Delhi-NCR, and the Bundelkhand region of Madhya Pradesh.

Development Alternatives, SRIJAN, Pradan, Action Aid, Green Yatra, Gurujal, and independent experts have implemented the interventions in these regions.

he Development Alternatives team next to an Amrit Sarovar site still under construction in Patharam village

Interaction with the community at the Mudara Village

Conducting a Focused Group Discussion with the members of the Tank Management Committee at the Neemkhera village

Beginning with Niwari district in Madhya Pradesh, the team visited Neemkhera and Mudara Village to check first-hand the pond rejuvenation work undertaken by Self-Reliant Initiatives through Joint Action (SRIJAN). Apart from pond visits, a series of in-depth interviews and focused group interactions were conducted with the community members to understand the impact of the pond rejuvenation work on their lives. The two ponds studied in these locations were found during these interactions to be supporting more than 5000 villagers not only with clean and easily accessible water but also by augmenting their incomes with fisheries, duckery and other livelihood-allied activities.

On second time, Team visited Sohna and Pataudi blocks of Gurugram district in Haryana to document the work done by GuruJal society under the Amrit Sarovar Mission of the Government of India. The covered villages were Maujabad in Pataudi block and Hariahera in Sohna block. A series of in-depth interviews and focused group discussions with implementing agencies and communities revealed that the ponds had been downstream recipients of treated wastewater from the village. The Gurujal Society has installed Sewage treatment plants at both sites that involves filtration using root zone technology, a nature-based solution for small-scale wastewater treatment interventions. The villagers reportedly said that there has been an increase in groundwater levels in nearby areas after the rejuvenation work. The implementing agency has also installed a piezometer (a device that measures the pressure of liquid) to measure the change in groundwater level, and it also shows an increase in groundwater level.

Piezometer installed at pond site in Mojabad

Hariahera pond STP is installed at site that uses root zone technology to treat sewage water

Focused group discussion at Hariahera

The third visit took place at Jodhpur, where the team documented work undertaken by GRAVIS (Gramin Vikas Vigyan Samiti) in Bap block of Jodhpur district, Rajasthan. The two villages covered under the study were Badi Dhani and Malum Sinh ki Sid. As Jodhpur lies in the arid climatic zone, ponds hold a unique value for the water needs of rural communities. The communities mainly use the water for drinking purposes, as inferred during the focused group discussions. In the ponds, water remains throughout the year and approximately 15-20 villages meet their drinking water supply through these ponds. GRAVIS undertook the rejuvenation work with support from MGNREGA and foreign funds. The pond has not only served to sustain the drinking water supply of a severe

drought-prone region but also has been home to flourishing local biodiversity (native flora like khejri, kair, desi babuul, jaal and fauna like Deer, wild boars, cows, buffaloes, fox, several avian and aquatic species).

A taanka or paar, is a traditional rainwater harvesting technique common to the Jodhpur region of Rajasthan, India. It is meant to provide drinking water and water security for a family or a small group of families.

Malum Sinh ki Sid village pond - which was rejuvenated by community members and GRAVIS

Focused Group Discussion with mixed group of men and women