

# Integrated small scale water resources management in Maharashtra

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*Involving local communities in identifying local solutions is the best way to address local water problems. Experience of MITTRA is one such example which depicts communities taking charge of developing water sources and managing them well too.*

Photo: Author



Spring development

**D**omkhadak village located at 19 kms from Peint taluka of Nasik district has an undulating and hilly topography. Traditional crops like paddy, Nagli, Varai and Kulid are grown in Kharif. Despite an annual rainfall of 2500mm, rainfed farming was resulting in lower production of crops resulting in people migrating to Nasik in search of employment.

In the year 2001, MITTRA, an organization promoted by BAIF Maharashtra, initiated tree based farming model (wadi) to enable communities have a sustainable source of food and income. The local tribal families planted 47 acres of area with fruit trees and forestry along the borders. However, due to undulating topography and sloping lands, water became the major constraint in the plant survival. To address this issue, MITTRA organized participatory processes like PRA to help people understand the magnitude of the problem and identify local solutions. Communities enthusiastically mapped their water resources and analysed the water needs of the families. Communities with the guidance of MITTRA developed a strategy for development of the existing as well as new water sources in the village.

A water users group of 7 members was formed to plan, coordinate, implement and manage post project operation. The major responsibilities of water users group included providing support and monitoring implementation activities and maintenance and repairs of the check dams and structures. Wadi takadi members prioritized construction of permanent check dam on nalla and development of two springs.

The group members passed a resolution in gram sabha for construction of check dam. Initially it was decided to test the water storage by constructing a temporary check dam out of sand bags across the stream. Communities on their own, constructed a temporary barrier. This having given good results, people decided to construct a permanent check dam. All committee members and wadi holders have participated in implementation of check dam.

MITTRA has worked with about 95000 families in Maharashtra, promoting supportive irrigation on 62000 acres of land. The main impact is that tribal farmers are now growing crops like wheat, gram, onion and vegetables apart from their traditional crops. It resulted in increase of annual family income by Rs.10000 to 25000.

The water user group developed two spring sites into well like structure. Springs in hilly areas, depending upon their discharge are converted into small wells of 3.0meter diameters or connected to a small tank like structure of 2000 to 3000 liters for drinking water. Sometime springs are located at higher elevation. In that case, spring water is brought down through pipes to irrigate lower land area or for drinking water purpose.

The group also believed that the water saved had to be used efficiently. As a group they planned what crops to grow based on water availability. Also members agreed not to grow high water consuming crops and banned growing crops like sugarcane. As a result today, farmers are able to grow crops like wheat, gram, and vegetables like potato, brinjal, tomato etc. in rabi season.

Around 14 acres of land is brought under irrigation from benefiting 9 wadi holders. There has been an increase in paddy production. With ensured water availability, each wadi family has gained an improved income of Rs.20000 from wadis and additional Rs.8000 from other crops.

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