

Rejuvenating Lives

Chronicles of agricultural transformation on the fields of small and marginal farmers

Stop Dams – Channeling the Vital Resource of Water to the Fields of Small Farmers

Introduction

A large portion of the land of eastern Madhya Pradesh and adjoining state of Chhattisgarh is marked by alternating basin-and-gorge topography, where a majority of the working population belongs to the tribal communities and depend on agriculture for their livelihood. The paucity of water for irrigation poses a major challenge for the optimal farming of the small landholders in the region. In this backdrop, Action for Social Advancement (ASA) is working on implementing the stop dams for harnessing rainwater and providing need-based irrigation to the small landholders in the area.

The Specifics





Large parts of eastern Madhya Pradesh and Chhattisgarh alternate between up-hills and recesses. The majority of the rural working population is dependent on agriculture for its living in the region. These cultivators are majorly small landholders, who experience a lack of water for irrigation that contributes to the poor agricultural scenario in the region. Although the region receives a decent amount of annual rainfall, little of it is harnessed in the irrigation-poor villages.

Under these circumstances, ASA works on providing irrigation to a group of farmers through the small but effective technology of stops dams. As is the practice with any community asset developed by ASA, it forms a user water users' group made up of the benefiting farmers and trains them on the management of the structure. They are responsible for the upkeep and management of the structure. The members of the user group are involved from the very beginning starting from site selection, construction and finally management after the handover of the structure to them. ASA funds 85 to 90 percent of the cost of the structure and the remaining amount if contributed by the users of the stop dam to ensure they have a larger stake and ownership. The beneficiary contribution is mainly in the form of labor and kind. ASA records and annually updated the status of each dam constructed or restored by it and provides any technical input required for the upkeep of the structure.

A stop dam is a masonry barrier built across the direction of water flow on shallow rivers and streams for the purpose of water harvesting for irrigation as well as for domestic and animal use. The stop dam helps in enhancing the water table in the area since the water behind the structure exerts downward pressure on the ground and permeates into it. This helps farmers with the wells since the water is available at a higher level due to the enhanced water table. Stop dams also assist in augmenting the water levels in nearby groundwater reserves.

Benefits

Impacts of the stop dam

-  Increase in the cultivable area due to the presence of irrigation during Rabi season
-  Assured crops in Rabi (Winter) seasons with the availability of irrigation
-  Irrigation benefits accrued through the sub-surface and groundwater recharge to the dug wells and bore wells in the downstream
-  Increase in incomes and food security along with a decrease in seasonal migration

Figures at a Glance

*As on 31st March 2020



284 Stop dams constructed



3683 hectares irrigated



4551 farmers benefitted



Stop Dams – Arresting the water flow for farmers’ needs

Stop Dam Brings Cheers in the Lives of Bakchheradona Farmers

Located around 18 km from the Mandla town in the small village of Bakchheradona in Mandla district, ASA from the very inception of its work observed the low level of irrigation in the village and made it its top priority to lift many small farmers trapped in the fetters of subsistence agriculture, distress migration and back-breaking local labor on the field of big farmers. One of the earliest intervention by ASA in the area was the development of a stop dam in 2012 on a small stream for a group of 20 farmers with around 15 hectares of land unable to irrigate their lands and missing an opportunity of earning a decent livelihood out of farming. Each farmer was able to make around INR 20,000/- to INR 25,000/- through single-crop farming in the months of seasons rains before the construction of the stop dam while earning money through other alternatives mentioned earlier in the remaining part of the year. The presence of the stop dam has ensured farmers operating their fields in all the agricultural seasons growing cereal crops along with vegetables. The average income has shot up to INR 70,000/- to INR 80,000/- post the intervention, which provides them a decent level of living. The farmers in the vicinity are also happy with the effort as they benefit through the groundwater table recharge and higher moisture availability.

Stop Dam Benefits Extended to Villages of Sarguja District in Chhattisgarh

Capitalizing on its experience of building stop dams in the past, ASA quickly identified the need and potential of a bigger water harvesting structure in Bilaspur village of Batauli block of Sarguja district in Chhattisgarh. A large section of farmers belonging to Baiga and Gond communities were frustrated with the absence of irrigation to enable them to practice agriculture productively and practiced single-season farming during the rainy period. ASA proposed the construction of the big stop dam to the villagers on the condition of them contributing 10 percent cost through labor and local material to which the farmers agreed. The construction of the stop dam started in 2018 and was completed in March 2019 through the active involvement of the local farmers. The stop dam built at a cost of INR 26,00,000/- covers 140 hectares of land of 170 farmers from Bilaspur village and the adjoining village of Paprenga. The paddy production has seen a good increase from 8 to 10 quintals per acre to 15-18 quintals per acre. A lot of farmers have started growing vegetables during the summer season, thus earning income from their sale. Another important outcome of the stop dam is that 20 hectares of wasteland have directly come under irrigation. Many farmers are now getting ready to prepare the fields for farming in the winter season as they would be cultivating in the season for the first time and hope that the irrigation from the stop dam will make a perceptible impact on their earnings. ASA has provided them good quality wheat seeds from a local producer company formed by it, which is called Sarguja Mahila Farmer Producer Company Limited. A user group called Dhata Water User Group of the benefiting farmers has been put in place for the operation and maintenance of the dam. For the users, the stop dam holds a big promise and offers a path to their aspirations.

Stop Dams – Channeling the Vital Resource of Water to the Fields of Small Farmers