

## **Water Harvesting and its Utilization at Khajurinala Watershed of Northern Hill Zone of Chhatisgarh**

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### **ABSTRACT**

Khajurinala watershed is situated in south side of Ambikapur block of Surguja district (C.G.), India. It is about 35 km away from RMD College of Agriculture and Research Station Ambikapur. Khajurinala originates as a natural drainage line from Banderkote hills and at the tail end merges in Machhali river. It comprises of five villages i.e. Khajuri, Pampapur, Komharata, Saskalo and Kariya. The soils of the watershed are sandy loam to sandy clay in texture, slightly acidic in reaction, low in available nitrogen and phosphorous and medium in potassium content with about 4.5% average slope. Topography of the project area is undulating and rolling in nature. Rainfall in the region is about 1300-1500 mm, which is more than sufficient for two crops but due to want of proper storage and water saving irrigation methods still rain based farming is being followed. Knowledge of onset and withdrawal of rains, dry spell and its duration is helpful in crop-planning, storage or removal of excess water from the project area. Based on land topography and runoff, six water harvesting tanks in series under upland, midland and low land situation were constructed for testing "Farm Pond Technology" to have a provision of protective and supplemental irrigation, for rearing fish and to protect the fruit and forestry crops during summer season.

The nala adjoining Darima—Mainpat main road was also banded with boulders and earthen bunds with pitching to create basins for impounding water. At four chosen location of nala, gully control structures were constructed with boulder and stone through pitching work. Due to these measures 0.4 hectare wasteland was converted into cultivated land and 1.2 hectare cultivated land was prevented from flooding due to safe disposal of excess rainwater to Machhali River. The water tables of different open wells of the watershed were recorded. The adoptive and innovative research work carried out during 1999-2002 in the Khajurinala watershed has shown lot of impact on soils and water conservation and its utilization for selection of crops and their varieties, growing of cash crops and intercropping.