

Hydrogeological Studies of Mendhwan Watershed Ahmadnagar District Maharashtra

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In hard rock region like Deccan basalt of Maharashtra state, India if not much attention is paid to soil erosion during, watershed management work the area is bound to become barren. The Mendhwan watershed area is a part of chronic drought prone region of Ahmadnagar district Maharashtra state is an example to this effect. Due to scanty, uncertain and untimely rainfall the environmental conditions in Mendhwan area are very much deteriorated. Only a few farmers, whose lands are located on the adjoining plain area towards north and northeast along the major streams, could hardly take any crop.

In order to enhance groundwater availability and to demarcate the area of high groundwater potential, Geoforum, Parbhani Chapter has carried out Geohydrological investigation of this watershed area. Geologically, the study area belongs to the Deccan trap basalts of late Cretaceous to early Eocene period. The entire study area consists of thin irregular vesicular-amygdaloidal basalt flows also known as compound flows. The area is traversed by two prominent dykes, which are almost perpendicular to each other.

In most of the southern part of the area amygdaloidal basalt is exposed at the surface. The fresh amygdaloidal basalt flow is free from joints and occurs as homogeneous watertight mass. As dykes are jointed they provide favorable conditions for percolation and ground water potential of this area is found to be satisfactory.

It was observed that, in Mendhwan area large number of water conservation structures has been constructed across the streams. Incidentally groundwater potential shows noticeable increase only in those localities where the structures had been constructed on the dyke rock. The result of the study is found to be very much beneficial to the rural populace of this draught prone area so as to plan the optimum utilization of this precious natural resource.