

# **Water Production Efficiency of Groundwater in Hirekere Watershed in Raichur District in Karnataka**

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## **ABSTRACT**

The present study was taken up in Hirekere watershed which is draining to Krishna river through Nallavagu stream and is located near Singanodi and Mandalgeri villages in Raichur district of Karnataka. The physiography is gently sloping. The normal rainfall of the study area is 632 mm. The mean maximum temperature varies from 30.3°C in December to 40.6°C in May while the minimum temperature ranges from 15.7 °C in December to 25.3 °C in May. The soil is covered by *Alfisols* of red sandy loam. From the study of water production efficiency of groundwater usage farmers it was found that the farmers' practice of water application was 1.30 times more than the actual water required. It was also revealed that there is a need for better management of irrigation scheduling and operation such that excessive irrigation is to be minimized. The depth of application during each irrigation needs to be measured with suitable devices like H-flumes, Parshall flumes, V-notches etc which will minimize the excessive irrigation.

**Key words :** Groundwater, Water Production Efficiency, Watershed.