

Hydro - geomorphological investigation of Kharun Catchment in Chhattisgarh

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Received : 30.07.2013; Revised : 26.10.2013; Accepted : 27.11.2013

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■ **ABSTRACT :** Knowledge of behavior of basin is prerequisite for taking rainfall – runoff modeling studies. This study aims to understand the hydrological and geomorphological behaviour of the catchment of river Kharun. Geomorphological parameters of Kharun catchment were generated by using the combination of the survey of India toposheets No. 64-G and 64-H on 1:250,000 scale. The river network has been ordered using Strahler's ordering scheme and it was found to be as fifth order basin having bifurcation ratio, stream length ratio and stream area ratio as 3.87, 1.1 and 4.56, respectively. 20 years of rainfall – runoff records of Kharun basin was analysed. The catchment behaviour to infiltration and other losses is not constant. The linear best fit of runoff - rainfall ratio values for past 20 years showed a declining trend. The average runoff – rainfall ratio in the reported years (1990 to 2009) was found to be 0.3444.

■ **KEY WORDS :** Hydrological, Geomorphological, Kharun, Catchment, Rainfall, Runoff

■ **HOW TO CITE THIS PAPER :** Sinha, Jitendra (2013). Hydro - geomorphological investigation of Kharun Catchment in Chhattisgarh. *Internat. J. Agric. Engg.*, **6**(2) : 537-540.