

897. **Jayakumar, M., Padmanabhan, M.V., Jeevarathnam, K. and Lakshmanan, V. 1980.** Prediction of instantaneous peak flows from 12 sub-watersheds in Nilgiris for soil and water conservation. Abst. 20, National Symp. on "Soil Conservation and Water Management in 1980's", Dehradun, March 12-13, 1980: 13.

Instantaneous peak discharges from 12 sub-watersheds in Nilgiris for a period of 20 years have been collected and analysed for the probability of occurrence of maximum flows using the Log Pearson Type III analytical method. Possible extreme events for return periods of 2, 5, 10, 25, 50 and 100 years are predicted using the frequency lines which can be used for design of soil and water conservation structures. Using the twelve station data possibilities of regionalisation of maximum instantaneous peak flows are explored. A multiple regression model has been developed correlating catchment parameters like watershed area, cultivated area, time of concentration, distance to centre of gravity from gauging site and mean elevation to the peak discharges. This can be used as a tool for predicting peak flows from ungauged watersheds in the region for various design purposes.