

4. **Agarwal, M.C., Katiyar, V.S. and Ram Babu. 1988.** Probability analysis of annual maximum daily rainfall for U.P. Himalayas. *Indian J. Soil Conserv.*, 16(1):34-42.

Probability analysis of one day maximum rainfall data have been done using 60 years' rainfall records of 25 stations comprising six hill districts of U.P. Himalayas (Almora, Chamoli, Dehradun, Garhwal, Pithoragarh and Nainital). The three probability distribution functions, which are widely used in hydrology viz. Gumbel distribution, Log Normal distribution and Log Pearson's type III distribution have been compared with observed data. The Log Pearson's type III distribution gave the closest fit to the observed data. On the basis of Log Pearson type III distribution, one day maximum daily rainfall for various return periods were worked out for all the 25 stations. Isohytel maps for three return periods (10, 20 and 50 years) were prepared which may be utilized in determining one day maximum rainfall for the ungauged sites in the region.