

Prioritization of Subwatersheds Based on Geomorphological Characteristics of Ag2 Watershed in Krishna River Subcatchment in Karnataka

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ABSTRACT

Quantitative analysis of morphological parameters of 11 subwatersheds of Ag2 watershed was carried out, which are important from hydrological studies point of view. The priority fixation of subwatersheds in Ag2 watershed is needed because it is difficult to implement soil conservation measures in entire subwatersheds at the same time for the shortage of time and manpower. The priority fixation was done using seven morphological parameters viz. form factor, drainage texture, time of concentration, bifurcation ratio, relief ratio, average slope and drainage density of subwatersheds separately. The value of different factors was ranked in descending order. Priority was given based on the rank number (lowest to highest). Finally an overall priority index was preferred which was an average of rating values of all individual parameters so that effect of any particular parameter showing diversion to other normal values, may be diluted. The number of subwatersheds under very high priority, high priority and lower priority were found 4, 6 and 1, respectively.

Key words : Geomorphological Characteristics, Priority, Subwatershed