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Morphometric Analysis of WGKD Sub-watershed using Remote Sensing and GIS Techniques

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Abstract

Present work deals with the detailed morphometric analysis of WGKD sub-watershed in Sati watershed, Wainganga catchment of Godavari basin. The study area shows dendritic and radial drainages at some locations with highest stream order of VI. Mean bifurcation ratio is 3.93 indicate negligible structural disturbance and very less distortion in drainage pattern. Elongation ratio reflects that the basin is elongated. Drainage density (2.54) and length of overland flow (1.27) shows low permeability and high runoff. Drainage texture 8.55 with texture ratio 6.47 shows fine to very fine texture. Overall, the basin show moderate slope moderate to low infiltration and high runoff with high erosion activity.

Keywords: Morphometric analysis, WGKD sub-watershed, Sati River, Gadchiroli district, Maharashtra.