



Morphometric Analysis Based Prioritization of Sub-Watersheds of WRJ-1 Watershed of Narkhed Taluka, Nagpur District, Maharashtra Using Geospatial Techniques

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Abstract

The area under study consists of catchments of the Wardha River tributaries like Madar River, as the principal drainage system covering Narkhed Taluka of the Nagpur district. The elevation variation in the catchment lies in around 544 m to 304 m. The stratum of the Northern, Western is part mainly comprised of the Deccan traps with slightly-moderately dissected plateaus. The Southern part of the Narkhed Taluka constitutes gravelly-sandy loam to sandy-clay loam *i.e.* alluvium. Gondwana sandstone mostly occurs in the eastern part of the study area. The whole catchment is divided into nine smaller units known as sub-watersheds *viz.* W-1, W-2, M-1, M-2, M-3, M-4, C-1, J-1 and J-2. It is proposed that these sub-watersheds may be taken up for the development and management plans to conserve natural resource on sustainable basis with immediate effects. The present work will ultimately lead to formulate soil and water conservation ideas for the future management plans. On the basis of priority needs, the sub watersheds have been grouped into three categories: high priority, medium priority and low priority.

Keywords: WRJ-1 Watershed, Madar River, Morphometric analysis, Prioritization, Nagpur district
