

GIS BASED SCS-CN RUNOFF MODEL OF NAGPUR URBAN AREA

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Abstract:

Fast development is the need of the developing country. Urbanization and Industrialization are the factors which come along with development. In India, accurate information on runoff is scarce and only available in a few selected sites. The process of change in land use and land cover has a considerable hydrological impact on runoff and other hydrological characteristics. Based on RS data and GIS, and using soil conservation service curve number (SCS-CN) method developed by Ogrosky & Mockus, runoff depth, weighted curve number and volume of runoff in different watershed in Nagpur area are estimated. The SCS-CN method has been validated for urban area. Management, development and prioritization of watershed for ground water recharge conditions can be considered for solving the water problems in an urban area. However, with the help of RS & GIS tools the entire hydrological process can be simulated with higher precision and hence more accurate results can be obtained.

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