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RAINFALL RUNOFF MODELING: A CASE STUDY OF DELHI

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ABSTRACT

Runoff is an essential hydrological parameter for any catchment area, drainage basin or watershed as it gives information about the amount of water available at the outlet of a catchment, storage potential of the area, etc. The Soil Conservation Service Curve Number (SCS-CN) method is extensively used for predicting direct runoff volume for a given rainfall event from ungauged small watersheds. The applicability of the SCS-CN method and the runoff generation mechanism were thoroughly analyzed in an experimental watershed karol Bagh region in Delhi. This method takes into account many factors that affect runoff generation including soil type, land use and treatment, surface condition, and antecedent moisture condition (AMC), incorporating them in a single CN parameter. Moreover, it is the only approach that features readily grasped and reasonably well documented environmental inputs. In this paper, the hypothesis that the observed the calculated CN value and the rainfall depth in a watershed reflects the effect of soils and land cover on its hydrologic response

KEYWORDS: Runoff, SCS-CN Method, CN Parameter, Catchment Area

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Case Study