

Development of a decision support system for simulation of runoff and available soil moisture at field scale land holdings of watershed

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■ **ABSTRACT** : A decision support system (DSS) is useful in generating alternate decision scenario for management of natural resources in an interactive and holistic way. The developed decision support system on runoff and soil moisture availability as a part of hydrological planning based on SCS curve number method uses the measured information on land use, soil type and rainfall. These conceptual decision and flow logic was formulated to link information through SCS curve number method and has transformed into a computer model using visual basic (VB) programming language. The output format provides daily rainfall and runoff and soil moisture status of the soil continuously for a given period of daily data. The DSS was validated for field scale land holdings of micro-watershed data and proposed for utilization by farmers and technocrats of line departments.

■ **KEY WORDS** : Decision support system, Runoff, Soil conservation service, Watershed, Visual basic

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