

**Establishment of SCS Runoff Curve Number for Batane Sub-Basin of  
Punpun Basin Using IRS-1A Liss II Data Base**

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**ABSTRACT**

Much hydrologic research has been directed at understanding the hydrologic processes involved with a gauged watershed and applying this knowledge to predict the runoff values needed for efficient water resources development, and management. Mathematical models are commonly used to estimate runoff values. A widely used hydrological model for calculating storm runoff, developed by the USDA Soil Conservation Service (SCS) uses storm rainfall and curve number. The Soil Conservation Service runoff curve number (CN) is a quantitative descriptor of the land use/ land cover/soil complex characteristics of a watershed and is commonly assigned based on information acquired from field surveys and/or interpretations of aerial photographs. For the establishment of the curve number of a basin the information on hydrologic soil group, hydrologic condition, treatment or practices, and land use/ cover are utilized.

The conventional techniques used in the land use mapping are expensive and time consuming particularly for large watersheds. The relatively new technique of satellite remote sensing provides a real time and reasonably accurate information at a faster and less tedious way. In present study various land use classes has been interpreted in the Punpun basin and estimate runoff by establishing the SCS runoff curve number, using IRS-1A, LISS II, FCC prints.

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