

**Geomorphological and Land Use Planning for Danda Watershed,
Tehri-Garhwal District, UP.**

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ABSTRACT

An integrated approach where remote sensing and GIS techniques have been utilised for evaluation of catchment characteristics such as geomorphology, landuse, soil, slope etc. Quantitative analysis of geomorphological parameters of this watershed was carried out and various geomorphological parameters which are important from the hydrological studies point of view have been evaluated. The linking of the geomorphological parameters with the hydrological characteristics of the basin provides a simple way to understand the hydrologic behaviour of the different basins.

Various thematic maps generated above were overlaid to arrive at an action plan (a set of suggested landuse activities) for sustainable development of the area using Geographic Information System (GIS). A database, chiefly derived from remote sensing, on natural resources such as present landuse, land capability) slope, soils, hydro-geomorphology etc. were organised in different layers using Integrated Land and Water Information System (ILWIS) software. An integrated layer of Composite Land Development Units (CLDU) was created by intersecting the resources layers. A set of decision rules were applied on CLUDs to generate action plan map, showing location specific recommendations in the watershed. The comparison between the existing landuse and proposed action plan gives considerable amount of growth in vegetative cover.