



Use of GIS For Hypsometric (Area-Elevation) Analysis of Gagas Watershed (Uttarakhand)

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Abstract: The hypsometric curve (HC) and integral (HI) of 13 sub-watersheds (SW) of Gagas watershed located in upper Ramganga River basin, India, was done using digital elevation model (DEM) of Advanced Space-borne Thermal Emission and Reflection Radiometer (ASTER) and geographical information system (GIS). The HI value of 13 sub-watersheds varied from 0.324 to 0.495, which indicates that 32.4 to 49.5 per cent of the original rock masses still exist in these sub-watersheds. The two geological stages of erosion cycle i.e. monadnock and mature were identified in the study area. The study could be useful for planning and constructing soil and water conservation structures at appropriate locations in the sub-watersheds of Gagas watershed.

Keywords: Hypsometric curve, Hypsometric integral, Naula watershed, GIS, Uttarakhand
