

Remote Sensing Based Analysis of Land Use / Land Cover Dynamics in Takula Block, Almora District (Uttarakhand)

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ABSTRACT Present study is an attempt to analyse the dynamics of land use / land cover using modern geospatial techniques of Remote Sensing and GIS in Takula Block of District Almora, Uttarakhand, India. The Landsat TM (Thematic Mapper) satellite images for year 1990, Landsat ETM+ (Enhanced Thematic Mapper Plus) images for years 2005 and training data collected through field visit were used to analyse the dynamics of land use / land cover from 1999 to 2005 over a 15 year of period. Maximum Likelihood Algorithm was used for image classification in ERDAS 9.3. Mapping and analysis of land use / land cover classes were performed in ArcGIS 9.1 software. Five classes of land use / land cover (namely: forest, croplands, water bodies, built-up structures and fallow land) were mapped and analysed in the study area. The study reveals that the land use / land cover changes have occurred in forest (- 6.28%), croplands (+7.99%), built-up structures (1.22%) fallow land (-2.97%) and water body (0.04%). The study also highlights the importance of digital change detection techniques in sustainable land use planning and development for Takula Block.