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.