DETECT LAND COVER CHANGE BY USING NDVI DIFFERENCING AND POST-CLASSIFICATION: A CASE STUDY IN HOA BINH - VIETNAM

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**Astract:** The article presents results of land cover changes especially forest for 15 years in Hoa Binh by integration of NDVI differencing and post-classification technique. Firstly, the images were converted to Reflectance and radiometrically corrected using the dark object subtraction model .Next, these Landsat TM images were georeferenced and geographically corrected using the first order polynomial transformation, and the nearest neighbour method for resampling. The pre-processed Landsat TM images were used to calculate NDVI, and subsequently for NDVI differencing. Finally, a threshold for vegetation modification detection was identified by visual analysis of Landsat TM RGB band composition, visual comparison of digital aerial orthophotos and field observation. To detect land cover conversion, post-classification is applied. As a results, during the examined period, total regional forest cover increased by 248043.6 ha (54%) while barren soils and agricultures decreased 110570.22 ha (24.1%) and 142620.03 ha (31.1%) respectively.