

The Use of Remote Sensing in the Study of Vegetation Jebel Boutaleb, Setif, Algeria

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Abstract : Optical remote sensing makes use of visible, near infrared and short-wave infrared sensors to form images of the earth's surface by detecting the solar radiation reflected from targets on the ground. Different materials reflect and absorb differently at different wavelengths. Thus, the targets can be differentiated by their spectral reflectance signatures in the remotely sensed images. In this work, we are interested to study the distribution of vegetation in the massif forest of Boutaleb (North East of Algeria) which suffered between 1998 and 1999 very large fires. In this case, we use remote sensing with Landsat images from two dates (1984 and 2000) to see the results of these fires. Vegetation has a unique spectral signature which enables it to be distinguished readily from other types of land cover in an optical/near-infrared image. Normalized Difference Vegetation Index (NDVI) is calculated with ENVI 4.7 from Band 3 and 4. The results showed a very important floristic diversity in this forest. The comparison of NDVI from the two dates confirms that there is a decrease of the density of vegetation in this area due to repeated fires.

Keywords : remote sensing, boutaleb, diversity, forest

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