

Spatial analysis of forest fires by using ALSAT-1 data in forest ecosystem in the north of Algeria

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Abstract

The Forest in the steppe present an ecological diversity, and seen the climatic unfavourable conditions in the zone and the impact of the forest fires; we notes a deterioration of the physical environment particularly the deterioration of the natural forest. This deterioration of the forests provokes an unbalance of the environment who has some serious and serious aftermaths and provokes a process of deterioration advanced in the ultimate stadium is the desertification. By elsewhere, in a middle where the climatic conditions are favourable, the fire is an ecological and acted agent like integral part of evolution of the ecosystems, the specific regeneration of plants are influenced greatly by the regime of fire (season of fire, intensity, interval), who leads to the recuperation of the vegetation of meadow- fire. In this survey we used the pictures ALSAT-1 for the detection of the zones has risk of forest fire and their impact on the naturals forests of the region loud arid semi of the wilaya of Tlemcen. A thematic detailed analysis some forests well attended ecosystems some processing on the picture ALSAT-1, we allowed to identify and of classifying the forests in there opinion components flowers. we identified the ampleness of the fire on this zone also. Some parameters as the slope, the proximity to the road and the forests formations were studied in the goal of determining the zones to risk of forest fire. A crossing of diaper of information in a SIG according to a very determined logic allowed to classify the zones in degree of risk of fire in a middle arid in a forest zone not encouraging the regeneration on the other hand permitting the installation of cash of steppe which encourages the desertification.

Key words: remote sensing, forest fires, ecosystem, degradation

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