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Using Geographic Information System and Analytic Hierarchy Process for Detecting Forest Degradation in Benslimane Forest, Morocco

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Abstract : Green spaces is an essential element, they contribute to improving the quality of lives of the towns around them. They are a place of relaxation, walk and rest a playground for sport and youths. According to United Nations Organization Forests cover 31% of the land. In Morocco in 2013 that cover 12.65 % of the total land area, still, a small proportion compared to the natural needs of forests as a green lung of our planet. The Benslimane Forest is a large green area It belongs to Chaouia-Ouardigha Region and Greater Casablanca Region, it is located geographically between Casablanca is considered the economic and business Capital of Morocco and Rabat the national political capital, with an area of 12261.80 Hectares. The essential problem usually encountered in suburban forests, is visitation and tourism pressure it is anthropogenic actions, as well as other ecological and environmental factors. In recent decades, Morocco has experienced a drought year that has influenced the forest with increasing human pressure and every day it suffers heavy losses, as well as over-exploitation. The Moroccan forest ecosystems are weak with intense ecological variation, domanial and imposed usage rights granted to the population; forests are experiencing a significant deterioration due to forgetfulness and immoderate use of forest resources which can influence the destruction of animal habitats, vegetation, water cycle and climate. The purpose of this study is to make a model of the degree of degradation of the forest and know the causes for prevention by using remote sensing and geographic information systems by introducing climate and ancillary data. Analytic hierarchy process was used to find out the degree of influence and the weight of each parameter, in this case, it is found that anthropogenic activities have a fairly significant impact has thus influenced the climate.

Keywords : analytic hierarchy process, degradation, forest, geographic information system
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