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A Fire Risk Modelling and Spatialization by GIS

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ABSTRACT

The management of the forest fire risk starts with its assessment. This assessment made the object of several works of research and many models of fire risk have been related. The model that interests us here is that established for Mediterranean forests. This last is conceived according to a sum weighted model integral three factors, where each is affected by a weight, function of his influence on the propagation of the fire. However, this model remains critically and deserves a development and an improvement. For it, and seen the importance and the influence of climatic condition in the departure and in the propagation of fire, we propose, in this paper, to improve this formula by the addition of another climatic factor (marked ICL), and to present it under a product shape while respecting the same definition of the risk. The application of the proposed model, suggested uses the technical geomatics to mapping the degree of the fire risk. In this setting, a SIG has been established and applied on a forest of Bouzareah clump in Algiers. Originality as it will allow the understanding of fire hazard and vulnerability of the environment for a better control of risk.

KEYWORDS

Fire, Hazard, Vulnerability, Wight Somme Model, GIS

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