

Abstract

Mapping Forest Fire Risk in Mediterranean forests—A Case Study of SUD-Provence-Alpes-Côte d'Azur Region (SE, France) [†]

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Abstract: Forests represent both valuable and vulnerable natural resources because of the various ecosystem services they provide and their sensitivity to climate change and fires. In the Mediterranean region, the depth of transformations in the rural land use, with mass abandonment of traditional activities (farming, livestock raising, and forest utilization) and an acceleration of urban sprawl, has affected the impact of fires on the territory and especially on the wildland–urban interface (WUI). The objective of the present study is to generate maps of forest fire risk in the region of SUD-Provence-Alpes-Côte d'Azur (France), integrating natural factors (vegetation type, topography and meteorology conditions, etc.) and human factors related to the closeness to causative elements that can potentially be the ignition point of fires (transport and power infrastructures, settlements and scattered buildings, etc.). GIS spatial analysis was used to combine single influence factors in risk maps to display the total fire risk map. These maps could be especially helpful in land management and emergency planning to minimize the effects of forest fires.

Keywords: forest fire; risk; GIS; Mediterranean forests; land management

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