

**Fire scenarios in the Central Mountains Range (Spain): a multi-scale concept for integrated fire management in the context of global change**

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Fire scenarios are a management tool to achieve balanced fire hazard reduction and land management by assessing the interactions of fire and people. A fire scenario refers to the contextual factors of a fire regime, i.e., the environmental, socio-economic and policy drivers of wildfire initiation and propagation on different spatial and temporal scales. This is basically a landscape concept linking territorial dynamics (related to ecosystem evolution and settlement patterns) with a fire regime.

Fire scenarios, as multi-scale planning units for a fire regime, may be demarcated on the various territorial scales with different management applications. It implies to determine a particular casuistry for each of the possible fire scenarios that may arise, as each of them will need its particular fire management strategy.

The aim of this presentation is to show the application of a GIS-based methodology to perform a spatial analysis and to identify the various fire scenarios at the national, regional and local scale in the inner mountain area of Spain. The main variables considered are land use/land cover, fuel load and recent fire history.

The results are a cartography set of areas of homogeneous fire spread patterns that can be associated to territorial evolution stages based on a model of the ecosystem and spatial dynamics. We have obtained 4 national fire scenarios and 98 regional fire scenarios. The local fire scenarios are defined within a selection of case studies, representatives of the landscape diversity in this large area which covers a total surface of 2082752,8631 ha.