

ID485

PP107 - WILDFIRE ADAPTIVE MANAGEMENT TO REDUCE WILDFIRE RISK IN PORTUGAL: BENEFITS, OPPORTUNITIES, CHALLENGES, AND BARRIERS

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In a rapidly changing and challenging wildfire environment the capacity of any society and system to learn and change is paramount to coexist with fire and enhance resilience. Adaptive management by engaging in a continual learning and adjusting process supported by GIS tools, seems more adequate than the normative and top-down model that has been used in Portugal. The purpose of this research is to: i) identify the social, cultural, institutional, and political factors affecting the adoption of a model of adaptive management in Portugal; and ii) to understand how to facilitate and plan the shift.

The data collection was obtained by the implementation of the Delphi method in two rounds. For that, a panel of thirty people with several years of experience in managing wildfires from local governments, and regional and national institutions. The initial Delphi questionnaire contained an explanation of the scientific concept of adaptive management before the open-ended questions.

The adoption of adaptive management is recognized as important as its focus is on the integration of wildfire risk reduction in the sustainable development process, contributing to enhancing knowledge and having more effective practices. However, difficulties at several scales and sectors were identified as well as different ways to potentially overcome them. It is stated that the support of GIS tools facilitates the implementation and monitoring of adaptive management practices and outcomes.

The adoption of wildfire adaptive management requires a shift in the current governance model and closer interaction between science and local knowledge.

ID501

PO114 - MAPPING THE ECONOMIC LOSS OF ECOSYSTEM SERVICES CAUSED BY THE FOREST FIRES IN LIGURIA, ITALY

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Wildfires are a worldwide threat to biodiversity, especially in Mediterranean countries. Through their impact on the structure and functioning of forests, they also affect ecosystem services. Therefore, forest fires can have profound socio-economic effects. In the Liguria region (Italy), the forest ecosystem services are not exploited due to the lack of a proper framework for ecosystem services valuation. While environmental damage is evident in the region, effective management strategies are still lacking due to this reason. This study links the ecological and economic effects of forest fires to the economy of Liguria by estimating the ecosystem service losses due to fire damages in monetary value. We assessed the economic value of main ecosystem services, such as tourism, non-use value, local cultural and recreational value etc., to a study area in Liguria and estimated the loss of these values under different scenarios related to different severity of wildfire. The baseline scenario, corresponding to the present situation, will then be compared with other scenarios to estimate the loss of ecosystem services values and identify the areas with the largest losses. As the next step, these areas should be prioritized for management, and the known potential gain per area enables the choice of strategy based on cost-benefit considerations. This will highlight the need for an immediate management strategy to reduce further economic loss by forest fires.