

FUME - Forest fires under climate, social and economic changes in Europe, the Mediterranean and other fire-affected areas of the world



Fire regimes result from interactions between climate, land-use and land-cover (LULC), and socioeconomic factors, among other. These changed during the last decades, particularly around the Mediterranean. Our understanding of how they affected fire regime in the past is limited. During this century temperatures, drought and heat waves will very likely increase, and rainfall decrease. These and further socioeconomic change will affect LULC. Additional areas will be abandoned due to being unsuitable for agriculture or other uses. Fire danger and fire hazard are very likely to increase, affecting fire regimes. FUME will learn from the past to understand future impacts. Mod. 1 we will study how LULC and socioeconomics changed and how climate and weather affected fire in dynamically changing landscapes. Fires will be mapped throughout Europe to determine hazard burning functions for LULC types. Since climate has changed, an attempt to attribute (sensu IPCC) fire regime change to climate, differentiating it from socioeconomic change, will be made. Mod. 2 will produce scenarios of change (climate, including extremes, land-use land-cover, socioeconomics, vegetation) for various emissions pathways and three time-slices during this century. With these and results from Mod.1, models and field experiments projected impacts on fire-regime and vegetation vulnerabilities will be calculated, including climate extremes (drought, heat-waves). Mod. 3 will investigate adaptation options in fire- and land-management, including restoration. Fire prevention and fire fighting protocols will be tested/developed under the new conditions to mitigating fire risks. A company managing fire will be a key player. Costs and policy impacts of changes in fire will be studied. Research will focus on old and new fire areas, the rural interface, whole Europe and the Mediterranean, including all Mediterranean countries of the world. Users will be involved in training and other activities.

Research area:	ENV.2009.1.3.1.1 Forest fires under climate, social and economic changes in Europe
Organisation:	UNIVERSIDAD DE CASTILLA - LA MANCHA Calle Altagracia CIUDAD REAL SPAIN
Partners:	31
Start Date:	2010-01-01
Duration:	48 months
Project Cost:	8.23 million euro
Contract Type:	Large-scale integrating project
End Date:	2013-12-31
Project Funding:	6.18 million euro
Project URL:	http://www.fumeproject.eu/