



## Local Action Plans for Forest Fire Prevention in Greece: Existing situation and a Proposed Template based on the Collaboration of Academics and Public Policy Makers

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Wildfires are a major hazard in Greece suffering on average 1,509 wildfires and 36,151 burned hectares of forestlands every year. Since 1998 the Greek Fire Service is responsible for wildfires suppression and response, while prevention and mitigation yearly directives are also being released by the General Secretariat of Civil Protection. The 3013/2002 Act introduced a major transfer of responsibilities from the national to local municipal and regional authorities, which are accompanied by supplementary financial support. Significant new features were established such as the operation of local coordination councils, the foundation of municipality civil protection offices, the establishment of the annually prevention planning for forest fires and the development of local action plans.

The University of Athens has developed a Local Action Plan template for municipality administrative levels, integrating scientific techniques and technologies to public government management. The Local Action Plan for Forest Fire Prevention is the main handbook and primary tool of every municipality for reducing the risk of wildfires. Fire prevention and risk analysis are the principal aims of this Plan, which also emphasizes on the important role of the volunteer organizations on forest fire prevention. The 7 chapters of the Action Plan include the legal framework, the risk analysis parameters, the risk analysis using GIS, the prevention planning, the manpower and available equipment of services involved, along with operational planning and evaluation of the previous year's forest fire prevention actions. Multiple information layers, such as vegetation types, road network, power lines and landfills are combined in GIS environment and transformed into qualitative multiparameter as well as quantitative combinational fire hazard maps. These maps are essential in wildfire risk analysis as they display the areas that need the highest attention during the fire season. Moreover, the separate steps of operational planning and the reviewing of precaution, addressing and rehabilitation measures are analyzed. This action plan, risk analysis and maps are of decisive importance not only for prevention and operational planning purposes, but can also prove useful during the crisis and the rehabilitation processes as well.

Additionally, we conducted a large questionnaire survey among the municipalities of Greece to assess the existing situation regarding forest fire prevention. Therefore, a network connecting civil protection departments of municipalities was developed, based on an Internet platform, which acted also as a communication tool. Overall, we had feedback either online or offline from 125 municipalities across the country (representing more than one-third of the total municipalities of Greece). 23% of the municipalities have not compiled an action plan yet despite the fact that the 3013/2002 Act of the Greek National Law requires one. Moreover, existing action plans are predominantly catalogues and tables of information regarding authorised personnel and equipment. They lack important information, present no spatial data and display no prevention measures. Indeed, 85% of the municipalities that have action plans do not use risk maps and spatial data, which are of decisive importance for compiling the plans. 74% of the municipalities do not keep a record of forest fires. The jurisdiction area has been modified after the new administrative plan of Kallikratis in 2010 in 74% of the municipalities, however, local action plans were not adapted accordingly in 61% of these. The daily Fire Risk Map of the General Secretariat of Civil Protection has a key role, since 77% of the municipalities take additional measures in case of increased fire risk. According to the civil protection officials, existing action plans suffer from several major problems which

emerge due to the fact: that there is no assessment on the fire hazard 67%, there is lack of personnel training 65%, new technologies are not incorporated or used 57% and there is a lack of a template for compiling an action plan 53%.

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