

Supplementary Material

Tab. S1 – Comparative analysis of recent fire governance and current management approaches in Southern European countries. As far as Italy is concerned, only the most recent laws and strategies (as of 2015) are reported, and more details are provided in section 2.1. and 2.2.

Country	Institutional Framework	Relevant policy	Strategic priorities
Italy	<p>Civil Protection Department – Coordinates national emergency response activities also providing aerial support with the National Fire Corps aerial firefighting fleet within the Unified Air Operations Center (COAU) framework.</p> <p>National Fire Corp (Corpo Nazionale dei Vigili del Fuoco) - Provides support activities during wildfire events through specific agreements with the Regional administrations. Responsible in WUI fires.</p> <p>State Forestry Police (Carabinieri Forestali) – Responsible for fire causes investigation, sanctions and monitoring across regions.</p> <p>Regional and Local administrative authorities - Responsible for forecasting, preventing and actively fighting wildfires. Regional Forest Services in 5 Autonomous Regions remain operations.</p>	<p>Legislative Decree n° 177/2016 - Incorporates the National Forestry Service into the State Forestry Police and assigned active forest firefighting to the National Fire Corp.</p> <p>Law n° 155/2021 - Improves coordination, forecasting, prevention, and response capabilities allocating resources almost exclusively for wildfire suppression. Tougher administrative fees and amendments.</p> <p>Legislative Decree n° 34/2018 (Consolidated Text on Forests and Forestry Supply Chains) and Decree 23/12/2021 (National Forest Strategy) – Encompasses targeted actions for wildfire management, including enhancing coordination among entities in national and regional fire management systems and improving the accessibility and harmonization of wildfire data.</p>	<p>The new law improves coordination and efficiency in firefighting by promoting unified strategies at both national and regional levels, acknowledging the historically fragmented approaches. It focuses on developing a comprehensive national strategy for wildfire management. However, there remains a predominant tendency to prioritize firefighting efforts over proactive fire prevention and planning. Additionally, there is an ongoing challenge with the integration of fire management plans and forest management practices as prevention tool.</p>
Portugal	<p>ANEPC (Autoridade Nacional de Emergência e Proteção Civil) - National Emergency and Civil Protection Authority under the Ministry of Internal Affairs also covers wildfire</p>	<p>Law Decree n° 12/2018 - Set up of the AGIF to coordinate wildfire management in collaboration with various organizations such as ANEPC, ICNF, and IPMA.</p>	<p>Transition to integrated rural fire management, balancing prevention and suppression, with a focus on protecting rural landscapes and communities.</p>

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	<p>management. “It is responsible for planning, coordinating and executing civil protection policy, namely in the fields of prevention and response to major accidents and disasters, protection and relief of populations and superintendence of fire brigades.” (https://prociv.gov.pt/pt/home/)</p> <p>AGIF (Agência para a Gestão Integrada de Fogos Rurais) – It aims to “accelerate the transition to integrated rural fire management, involving institutions and society, through coordination and strategic evaluation and seeking the sustainability of the system.” (https://www.agif.pt/en/about-agif/mission-purpose-vision-and-values)</p>	<p>Resolution of the Council of Ministers n° 12/2019 - Approves the vision, objectives and implementation measures of the Integrated Rural Fire Management System (SGIFR).</p> <p>Resolution of the Council of Ministers n° 45-A/2020 - Approves the National Plan for the Integrated Management of Rural Fires (PNGIFR), consisting of the 2020-2030 Strategy.</p>	
Spain	<p>MITECO (Ministry of Ecological Transition and the Demographic Challenge) – Coordinates wildfire management at national level. Oversees various entities involved in wildfire management, including the National Forest Fire Information Coordination Center (CCINIF), which coordinates resources for wildfire suppression, and the Committee for the Fight Against Forest Fires (CLIF), that brings together state and regional representatives to focus on both prevention and response efforts.</p> <p>At regional level, 17 autonomous regions with their own legislation and</p>	<p>Law n° 21/2015 – The Forest Fire Prevention and Suppression Law update previous Law n°43/2002 and sets out the principles and measures for preventing and fighting forest fires, establishing responsibilities of different actors involved in wildfire management. It also requires the establishment of fire prevention plans.</p> <p>Law n° 7/2022 on Climate Change and Energy Transition - Incorporating measures to improve forest management and prevent wildfires within the larger framework of climate change mitigation strategies.</p>	<p>Promoting sustainability in rural areas, reducing wildfire risks, and preparing communities. Key components include integrating policies across sectors, adapting firefighting organizations to new challenges, enhancing collaboration among stakeholders, increasing understanding of wildland fires and their ecological impacts, fostering community participation, and incorporating technological solutions for prevention and</p>

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	policies for wildfire management complying with the national legislation.		suppression
France	<p>The Ministry of Agriculture is responsible for the forest defense against wildfire policies (DFCI) delegating operational tasks to the National Forestry Office (ONF).</p> <p>The Ministry of Interior oversees fire-fighting.</p> <p>Authorities at departmental, forest massif, and forest owner association levels are involved in fire prevention</p>	<p>Forest Code - Illustrates the regulations governing forest management, protection, and utilization.</p> <p>Environment Code - Provides local plans to prevent and protect communities from fire risks (PPRIF);</p> <p>General Code of Territorial Authorities (CGCT) - Coordinates civil protection and rescue operations</p> <p>Law n° 580/2023 – Bolsters fire prevention through the establishment of a national strategy for protecting both forests and non-wooded areas, enhancing regulations at the forest-urban interface to decrease fire risks and vulnerabilities, and involving the agricultural sector</p>	The current approach represents a comprehensive balance between prevention and suppression efforts, with a strong emphasis on engagement at local level and especially at WUI.
Greece	<p>Hellenic Fire Corps - Coordinating authority responsible for firefighting efforts across different agencies, now under the Ministry of Civil Protection and Climate Crisis</p> <p>Forest Service – Under Ministry of Environment and Energy, handles forest management and fire prevention.</p> <p>Regional and municipal governments also contribute to fire prevention and first intervention.</p>	<p>Law n° 4069/2021 - Revised existing legislation to strengthen the Hellenic Fire Corps' ability to prevent and respond to wildfires. It also created a new legal framework for developing a national system for forest and land use planning and management.</p> <p>Strategic Forestry Development Plan 2018-2038 (National Forestry Strategy) - outlines principles and objectives for forestry policy aiming to enhance the economic contribution of forest ecosystems sustainably while adapting to climate change. In terms of fire management, the approach highlights preventive measures, rehabilitation efforts, and recognition of the role of grazing and hunting in maintaining healthy ecosystems. By fostering resilience and sustainable practices, this strategy aims to better protect forestry ecosystems from wildfires and other climate-related risks.</p>	The recent laws and strategies underscore the need to (i) enhance coordination among agencies, improve risk assessments, and promote public involvement in preventive measures; and to (ii) align climate change adaptation efforts with disaster risk reduction in light of increasing climate challenges.

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		Law n° 4662 /2020 (National Crisis Management and Risk Management Mechanism), Law n° 4936 2022 (Greec Climate law), Law n° 5075/2023 (Restructuring of Civil Protection) – The laws promote adopting a more integrated and climate-adaptive approach to disaster risk management, including wildfires.	