



Tackling wildfires in the Mediterranean: Towards an integrated fire management

Zaragoza (Spain) • 11-16 May 2026



CTFC



Photo: Bombers, GENCAT

Objective

Fire has always been and will continue to be a natural disturbance of Mediterranean ecosystems. However, the fire regime is undergoing profound transformation, driven by climate change and shifts in land use. The widespread abandonment of traditional agricultural and livestock practices has increased landscape continuity and fuel accumulation, making them more susceptible to burning. As a result, we are witnessing a transition from frequent, low-intensity fires to less frequent but far more severe and destructive events, often escalating into Extreme Wildfire Events (EWEs).

In the past decade, wildfires across the Mediterranean are having an alarming impact. Notable examples include catastrophic fire seasons in Greece (2018, 2021, 2023), Turkey (2021), Spain (2022, 2024 and 2025), and Algeria (2021 and 2023), among others.

These fires have serious environmental consequences, but they also have heavy economic and social costs, since in many Mediterranean countries, forests play a key role in the livelihoods of rural communities. Moreover, wildfires become even more dangerous when they occur in the wildland-urban interface, where protecting lives and property becomes the top priority.

This critical situation is expected to become worse in the coming years, making preparedness indispensable. Effective fire management should be dealt with from multiple perspectives, including prevention, early detection, rapid response, post-fire restoration, and adaptation measures. Innovative solutions are needed to move towards an Integrated Fire Management model that can better address wildfires, recognising fire not only as a threat but also as a potential tool for creating resilient landscapes and communities.

By the end of the course, participants will:

- gain a clear understanding of the role of fire in ecosystems and its application as a management tool.
- become familiar with diverse types of forest fire, including extreme wildfire events, and learn how to interpret fire behaviour.

- examine the latest strategies for addressing forest fires within the framework of integrated fire management.
- develop a general vision of forest fire management tools to enhance territorial preparedness and to create and maintain fire-resistant and resilient forest landscapes.
- acquire key knowledge of the critical factors to consider when developing extinction strategies, including examples of the wildland urban interface.
- be able to address forest policies relevant to the prevention and management of wildfires.
- understand the potential of effective management strategies implemented in different countries with mediterranean climates.
- acquire practical experience in the development of integrated fire management proposals in Mediterranean countries.

Organisation

The course is jointly organised by the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM), through the Mediterranean Agronomic Institute of Zaragoza (CIHEAM Zaragoza), the Forest Science and Technology Centre of Catalonia (CTFC), the Pau Costa Foundation (PCF), with the collaboration of the EU FIRE-RES project, and the Spanish Agency for International Development Cooperation (AECID).

The course will be held at CIHEAM Zaragoza over a period of 1 week, from 11 to 16 May 2026, in morning and afternoon sessions face-to-face and online. The programme will be delivered by well-qualified lecturers from universities, research centres, foundations, and emergency services across several Mediterranean and international institutions.

The course requires personal work and interaction among participants and with lecturers. The international characteristics of the course favour the exchange of experiences and points of view.

The programme has an applied approach. Lectures are complemented by applied examples, case studies and practical exercises.

Programme

1. Opening session and presentation of the course (1 h)
2. Fire ecology and global change in the Mediterranean ecosystems (4 h)
 - 2.1. Fire across history
 - 2.2. Fire regimes: processes at different scales
 - 2.3. Fire traits and strategies in Mediterranean plants
 - 2.4. Fire, climatic and socioeconomic changes
 - 2.5. Putting the global wildfire problem into context
3. Fire behaviour, risk analysis and fuel management at the landscape and stand scale (6 h)
 - 3.1. Fire behaviour analysis
 - 3.1.1. Characterisation of wildfires associated with a specific territory: fire generations (from 1st to 6th generation fires)
 - 3.1.2. Fire analysis: wildfire patterns, forest fire potential polygons methodology, definition of strategical management points (PEGs)
 - 3.2. Risk analysis and planning at landscape scale: integration of fire generations in landscape planning, wildfire risk analysis and preventive infrastructure planning
 - 3.3. Fuel management techniques at stand scale
 - 3.3.1. Pyro-silviculture and fire use: silvicultural treatments and forest management guidelines to reduce the vulnerability to crown fires and use of prescribed fire as a tool to prevent large forest fires
 - 3.3.2. Prescribed grazing: domestic and wild mammals
4. Integrated approaches for resilient landscapes and societies (8 h)
 - 4.1. Integrated Fire Management: a multi-actor approach across the disaster risk management phases
 - 4.2. Different integrated fire management approaches and lessons learned from climatic Mediterranean areas e.g., southern France, California, Australia
 - 4.3. Socio-economic tools for resilient landscapes: definition of resilient landscapes from the FIRE-RES project and socio-economic instruments
 - 4.4. Building fire resilient societies: risk culture, awareness and firewise communities
 - 4.5. Postfire restoration for resilient landscapes
 - 4.6. Policy challenges, governance and legal framework adaptation for a successful Integrated Fire Management
 - 4.6.1. Limitations, challenges and opportunities to legislate integrated fire management
 - 4.6.2. Integration of EU policies affecting fire management
5. Case studies to deal with integrated landscape management to mitigate fire impact (7 h)
 - 5.1. Case study: social dimensions of a catastrophic wildfire
 - 5.2. The implementation of public policies for wildfire risk reduction at regional level, the case of Extremadura, Spain
 - 5.3. Integrated fire management experiences in South Africa. Community based fire management
 - 5.4. Fire Wine, vineyards for fire resilient landscapes
 - 5.5. Preparedness and planification of wildland urban interface (WUI) operations for fire risk reduction: Pont de Vilomara case study
 - 5.6. Prescribed fires and fire use: Innovative plan for sustainable fire regime management in the Vall d'Aran
6. Practical exercise (6 h)
 - 6.1. Proposal for Integrated fire management in the Mediterranean
 - 6.1.1. Session 1: diagnosis and contextualisation of wildfires
 - 6.1.2. Session 2: identification of the fire generations and challenges
 - 6.1.3. Session 3: framework description and design of proposals. Presentation and discussion by groups
7. Closing session and take-home messages (1 h)
8. Technical visit: Fire prevention planning and silvopastoralism as a tool (Muntanyes de Prades, Tarragona)

Guest lecturers

Castañares, Francisco – Fundación Felipe González, Madrid (Spain)
Castellnou, Marc – Bombers GRAF, Generalitat de Catalunya, Cerdanyola del Vallés (Spain)
Charlton, Valerie – Landworks, Cape Town (South Africa)
Dalmau, Ferran – Medi XXI-GSA, Valencia (Spain)
Eriksen, Christine – ETH Zürich (Switzerland)
Fernandes, Paulo A. Martins – Univ. Trás-os-Montes e Alto Douro, Vila Real (Portugal)
Górriz, Elena – CTFC – Forest Science and Technology Centre of Catalonia, Solsona (Spain)
Larrañaga, Asier – Bombers GRAF, Generalitat de Catalunya, Cerdanyola del Vallés (Spain)
Martínez, Merlès – Pau Costa Foundation, Taradell (Spain)
Oliveres, Jordi – Bombers GRAF, Generalitat de Catalunya, Tremp (Spain)
Pausas, Juli – CIDE-CSIC, Valencia (Spain)
Piqué, Míriam – CTFC – Forest Science and Technology Centre of Catalonia, Solsona (Spain)
Prat-Guitart, Núria – Pau Costa Foundation, Taradell (Spain)
Lara Steil – Forestry Division, FAO, Rome (Italy)
Vallejo, Ramón – Univ. Barcelona & Fundación, CEAM, Valencia (Spain)

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Admission

The course is designed for 25 face-to-face participants and 30 online participants with a university degree. The course is aimed at professionals, researchers, and decision-makers involved in the prevention and management of wildfires and in the sustainable management of Mediterranean forest ecosystems. Candidates should ideally come from: Public administrations responsible for forestry, environment, civil protection, or rural development, fire and emergency services particularly those engaged in forest fire operations, planning, or risk assessment; Research and academic institutions working on fire ecology, forest management, climate change adaptation, or landscape resilience; international organisations, NGOs, and foundations; promoting integrated fire management, rural development, or ecosystem restoration; private sector entities (consultancies, forest management companies, or technology providers) developing solutions for early detection, monitoring, and prevention.

The course will be delivered in English.

Registration

- Candidates may apply online at the following address: <http://www.admission.iamz.ciheam.org/en/>
- Applications must include a curriculum vitae and a copy of the supporting documents most related to the course subject.
- The deadline for the submission of applications is 30 January 2026. If free places are available, the deadline may be extended for candidates not applying for a scholarship.
- Applications from candidates requiring authorisation to attend the course may be accepted provisionally.
- Registration fees for the course amount to 500 euro for face-to-face participation and 350 euro for online attendance.

Scholarships

Candidates from CIHEAM member countries (Albania, Algeria, Egypt, France, Greece, Italy, Lebanon, Malta, Morocco, Portugal, Spain, Tunisia and Türkiye) may apply for scholarships covering registration fees, and for scholarships covering the cost of travel and full board accommodation.

Candidates from other countries who require financial support should apply directly to national or international institutions.

All applications are subject to a selection process based on the profiles submitted.

Insurance

It is compulsory for participants attending the course in person to have medical insurance valid for Spain. Proof of insurance cover must be given at the beginning of the course. Those who so wish may participate in a collective insurance policy taken out by the Organisation, upon payment of the stipulated sum.

With the collaboration of:



FIRE-RES



Contact:

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<https://www.iamz.ciheam.org/education/advanced-courses/>

