

The CILIFO project (Ref. 0753_CILIFO_5_E) is a project of the Interreg V-A Spain-Portugal Cross-Border Cooperation Programme (POCTEP 2014-2020).

CILIFO's objectives

1. To strengthen and unite cooperation, working procedures and training among the forest fire prevention and extinguishing mechanisms in the cooperation area of the Euroregion Alentejo-Algarve-Andalusia.
2. To promote the creation of lasting and quality employment in the area, as well as to reduce the economic cost of the fires by creating a rural economy linked to the landscape.
3. To improve the response capacity to forest fires of the administrations and authorities involved in the fight against forest fires.

General information



24,6 M€.



36 months (2019-2021)



www.cilifo.eu



Financed at 75% by the FEDER funds



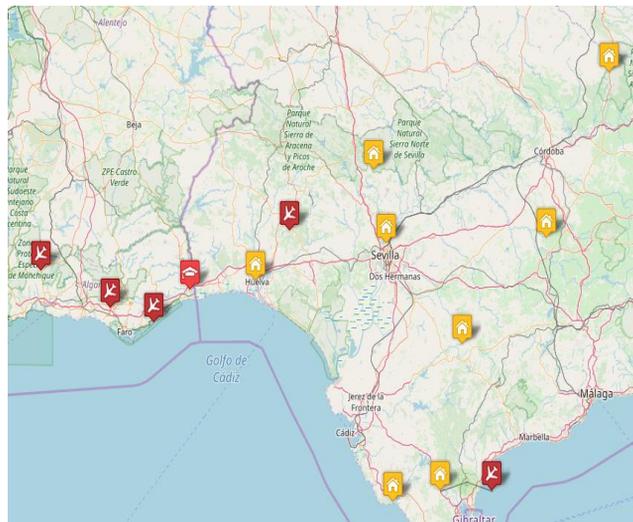
Fifteen public and private beneficiary entities participate in CILIFO, which is led by the Andalusian Regional Government through the Ministry of Agriculture, Livestock, Fisheries and Sustainable Development. The CILIFO consortium is shown below:



OUTSTANDING MILESTONES AND ACHIEVEMENTS TO DATE

INFRASTRUCTURE

CILIFO is a clear example of collaboration between the cross-border regions of Spain and Portugal. Thanks to this, joint protocols for action, knowledge and exchange of good practices are being established, which are being translated into the implementation of infrastructures for the extinction and prevention of forest fires. During this first year of the project (2019), tender documents have been drawn up for works in several Portuguese municipalities. Technical field visits have also been made to study plans and logistics.



TRAINING

Creation of a Working Group for the development of common shared training materials for professionals and operational managers. During the years 2020 and 20201 training actions will be implemented on both sides of the border.

AWARENESS

Creation of a working group for the creation of joint protocols on accessibility and eviction of people with reduced mobility and disabilities, in natural areas, in the event of natural risks due to fire.

Establishment of a working group for the elaboration of informative materials focused on educational work in schools in Spain and Portugal.





Ground/space, passive/active remote sensing observations coupled with particle dispersion modelling to understand the inter-continental transport of wildfire smoke plumes

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ABSTRACT

During the 2017 record-breaking fire season in Canada/United States, intense wild fires raged during the first week of September in the Pacific northwestern region (British Columbia, Alberta, Washington, Oregon, Idaho, Montana and northern California) burning steadily throughout consecutive months. The heavy loads of smoke particles emitted in the atmosphere reached the Eastern Pyrenees (EP) a few days later on 7 and 8 September. Satellite imagery allows to identify two main smoke clouds emitted during two different periods that were tracked and transported in the atmosphere at several altitude levels. Columnar properties on 7 and 8 September at two Aerosol Robotic Network (AERONET) and additional background sites in northern and southern Spain are: aerosol optical depth (AOD) at 480 nm up to 0.62, Angström exponent of 1.8–1.7, large dominance of small particles (fine mode fraction > 0.80), low absorption AOD at 480 nm (< 0.006) and large single scattering albedo at 480 nm (> 0.98). Profiles from the Cloud-Aerosol Lidar with Orthogonal Polarization (CALOP) show the presence of smoke particles in the stratosphere during the transport, whereas the smoke is only observed in the troposphere at its arrival over the EP. Portuguese and Spanish ground laser stations from the European Aerosol Research Lidar Network (ERANET), Cloud, and Trace gases Research Infrastructure Network (SCALEXNET) and the Micro-Pulse Lidar Network (MPLNET) reveal smoke plumes with different properties: particle depolarization ratio and color ratio, respectively, of 0.05 and 2.5 in the mid troposphere (3–9 km) and of 0.10 and 2.0 in the upper troposphere (10–13 km). In the mid troposphere the particle depolarization ratio shows an weak time-dependent during the transport whereas the color ratio seems to increase (large particles enrichment). To analyze the horizontal and vertical transport of the smoke from its origin to the EP, particle dispersion modelling is performed with the Hybrid Single Particle Lagrangian Integrated Trajectory Model (HYSPLIT) parameterized with satellite-derived biomass burning emission estimates from the Global Fire Assimilation System (GFAS) of the Copernicus Atmospheric Monitoring Service (CAMS). Three compounds are simulated: carbon monoxide, black carbon and organic carbon. The results show that the fire smoke plume

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RESEARCH

Creation of working groups for the exchange of knowledge and experiences between researchers and technical personnel from Spain and Portugal, and the establishment of joint protocols for the design and implementation of joint research projects and the attraction of Community funds.

COMMUNICATION

- International presentation of the project and the future CILIFO Centre in international and EU forums.
- CILIFO was invited, in December 2019, to participate as a collaborating entity of the COP25 - United Nations Conference on Climate Change for the presentation as cases of good practices at international level.
- CILIFO was presented at European Union forums, such as its direct participation in working groups and presentations at the European Week of Regions and Cities, organised by the Committee of the Regions, in October 2019.
- CILIFO participated in the organisation of a seminar in Brussels as part of the European Week for Waste Prevention, organised by the European Commission, in November 2019.

