

MONTCLIMA

NEWSLETTER

September 2020

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www.montclima.eu





Save the date : on October 20th and 21st it will take place Transnational Seminar on Natural Hazards and Climate Change in Mountain Areas MONTCLIMA

August 2020, 20

We are pleased to announce that the **MONTCLIMA SUDOE project seminar** on natural hazards and climate change in mountain areas will take place in Soria from **20 to 21 October 2020!**

This transnational seminar will focus on defining the link between the risks of drought, floods, erosion and forest fires in the SUDOE mountains and the impact of climate change on these four risks. It will also be an opportunity to present the progress of the MONTCLIMA Project and its future objectives, the programme is available in www.montclima.eu.

Registration will take place from the first of September via this registration form. It will be possible to attend the seminar in a completely virtual way.

Don't forget that a call for good practices has been launched to identify projects and concepts put in place to fight against natural risks. If you are part of a project concerned by these issues do not hesitate to participate, all information is available in www.montclima.eu

We look forward to meeting you and discussing these exciting topics with you!

Program, 20th October

- 14:00 - 15:00 LUNCH
- 15:00 - 15:30 INSTITUTIONAL OPENING
Yolanda de Gregorio Pachón (Territorial Delegate of the Administration Council in Soria)
Pablo Sabín (Director of Cesefor)
Jean-Louis Valls (Director of the Working Community of the Pyrenees)
- 15:30 - 16:00 **BLOCK 1: MANAGING THE NATURAL RISKS AND THE CLIMATE CHANGE THROUGH TRANSNATIONAL COOPERATION: THE EXAMPLE OF THE ALPS**
Lucca Cetara (EURAC Research)
- 16:00 - 16:15 **BLOCK 2: PROGRESS ON THE MONTCLIMA PROJECT ACTIONS**
- 16:15 - 16:30 STATE OF THE ART OF RISK MANAGEMENT PRACTICES IN THE SUDOE. KEY ISSUES FOR PROGRESS
Manuel Feliciano (Instituto Politécnico de Bragança-IPB)
- 16:30 - 16:45 TOOLS FOR THE ANALYSIS OF VULNERABILITY TO NATURAL HAZARDS IN MOUNTAIN AREAS
Nacho Campanero (Cesefor)
- 16:45 - 17:00 TECHNICAL AND LEGAL ANALYSIS. FROM NATURAL RISK MANAGEMENT IN THE SUDOE MOUNTAINS
Didier Felt (Center for studies and expertise on risks, environment, mobility and development - CEREMA)
- 17:00 - 17:15 WHY A TRANSNATIONAL FRAMEWORK OF RISK MANAGEMENT AND PREVENTION IN THE SUDOE MOUNTAINS?
Sébastien Chauvin (FORESPIR)
- 17:15 - 17:45 COFFEE BREAK
- 17:45 - 19:15 WORKSHOP: ORIENTATION AND CO-CREATION OF MONTCLIMA ACTIONS
Moderator: Xavier Carbonell (ARC Environmental Mediation)
- 20:30 PARTNERS AND SPEAKERS DINNER

Program, 21th October

- 9:00 - 10:45 CALL FOR GOOD PRACTICES IN TRANSNATIONAL COOPERATION FOR NATURAL RISKS MANAGEMENT IN MOUNTAIN AREAS
Six case studies chosen by the MONTCLIMA selection committee
- 10:45 - 11:00 CONCLUSIONS AND ORIENTATIONS: LESSONS LEARNED
Eva García-Balaguer (CTP - OPCC)
- 11:00 - 13:15 **BLOCK 3: FIELD VISIT**
GUIDED TOUR OF THE PROVINCIAL FOREST FIRE COMMAND CENTER IN SORIA
Guide: José Antonio Lucas (Head of the Territorial Environment Service of the Junta de Castilla y León in Soria)

[Access to Registration Form](#)





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The COVID 19 and the risk of forest fires in the SUDOE territory

September 2020, 7

The number and extent of forest fires varies considerably from year to year, depending on seasonal weather conditions. Moreover, there is a certain multi-year trend in the area burned throughout the Mediterranean basin and particularly in the territories of **south-western Europe**. This has been partly attributed to the cycle of burning and accumulation of dead biomass, typical of the regions that tend to experience forest fires in the summer season, such as southern France, Spain and Portugal. The historical trend in the number of fires in Southwest Europe is difficult to analyse, as the frequency of fires is greatly affected by the significant changes in the statistical reporting systems of the different countries in recent years.

In order to carry out studies on the trend and evolution of both the number of fires and the number of hectares burned, it is essential to have sufficiently long and homogeneous data series to be able to identify trends.

In Europe, we have historical series of fires, which are regularly updated within the framework of the **European Forest Fire Information System (EFFIS)**. The availability of data in EFFIS is not the same for all countries, and time series of more than 25 years are only available for a few countries.

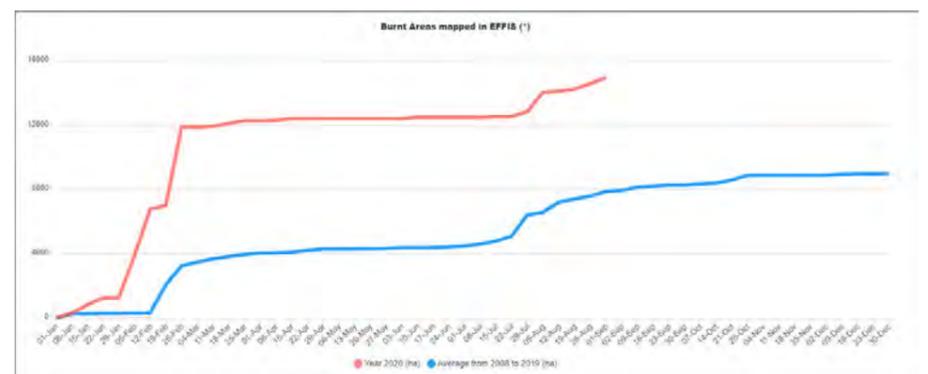
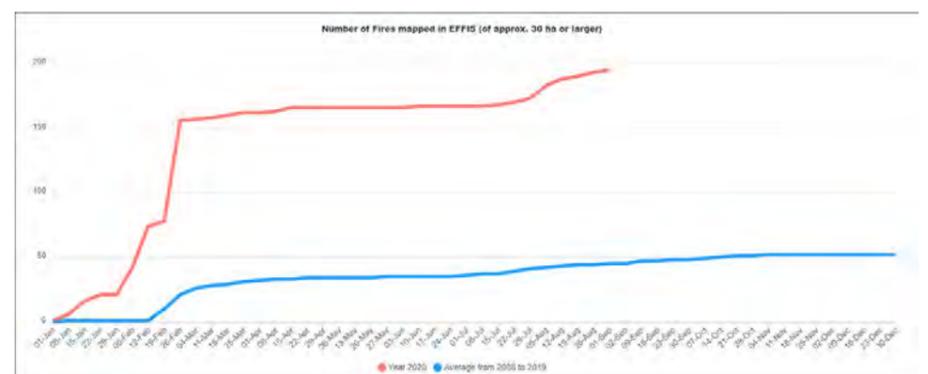
Contrasting the available data on the evolution of forest fires during the reference period, it can be seen that there is a general trend towards a decrease in the number of forest fires across Europe. However, the data also show a trend that these fires, although less numerous, are becoming increasingly devastating and uncontrollable. These fires, which have been called "sixth generation's", are also raging in the SUDOE's forests.

Territory	Burned areas average from 2008 to 2019 (ha) (until 28 August)	Burned areas in 2020 (ha)	Average number of fires from 2008 to 2019 (ha) (fires that have burned more than 30 ha) (until 28 August)	Average number of fires from 2008 to 2019 (ha) (fires that have burned more than 30 ha) (until 28 August)
France	7 886	14 969	45	194
Spain	45 673	30 835	122	330
Portugal	77 500	36 737	158	270
SUDOE Territory	131 059	82 541	325	794

Source: adapted from EFFIS STATISTICS

Comparing the available data for the 2020 fire season with the trend of the last decade, it is clear that something exceptional has happened this year.

FRANCE



Source: EFFIS 2020

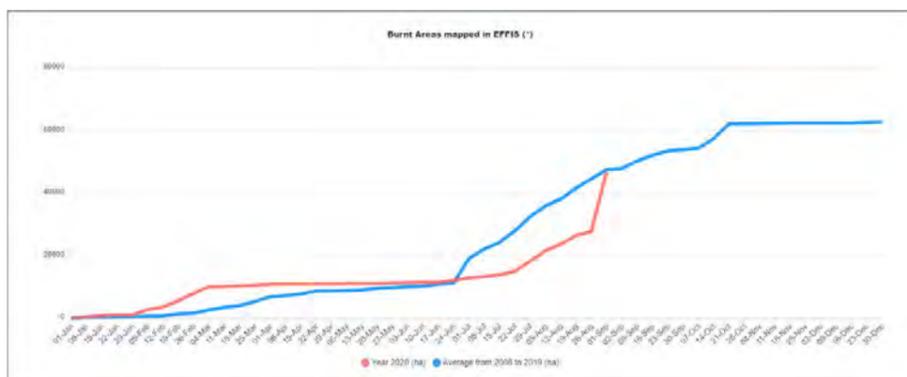
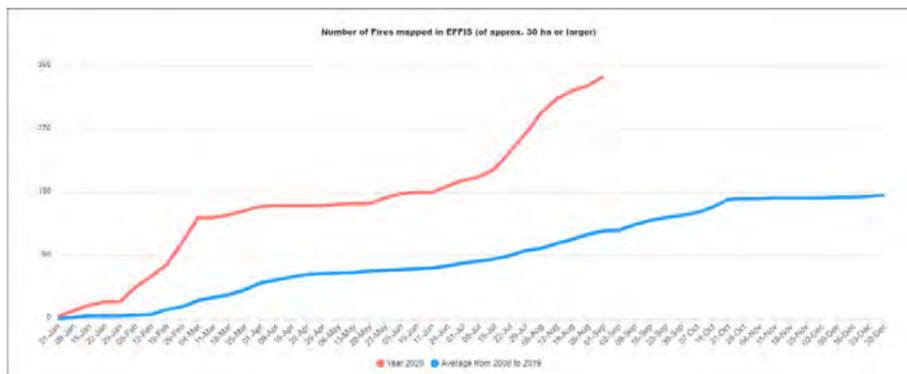
Evolution of the number of fires (top) and hectares burned per year (bottom) in France from June to December 2020 (red) compared to the average for the period 2008-2019 (blue).

The COVID 19 and the risk of forest fires in the SUDOE territory

September 2020, 7



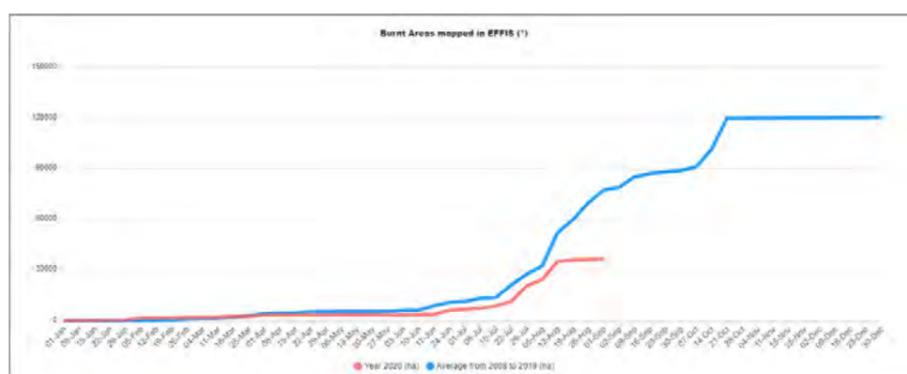
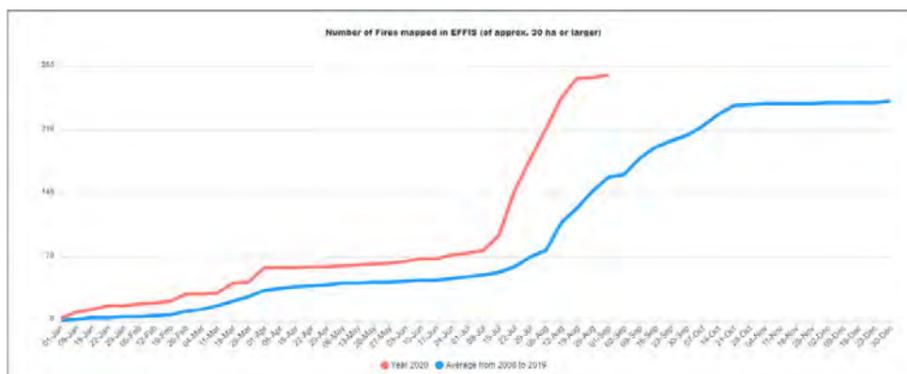
SPAIN



Evolution of the number of fires (top) and hectares burned per year (bottom) in Spain from June to December 2020 (red) with respect to the average for the period 2008-2019 (blue).

Source : EFFI 2020

PORTUGAL



Evolution of the number of fires (top) and hectares burned per year (bottom) in Portugal from June to December 2020 (red) compared to the average for the period 2008-2019 (blue)

Source : EFFI 2020

In **France**, this year, the flames have devastated more than twice the surface area that is usual for this season. The number of fires also seems to have grown exponentially, with a recorded number of fires 400% higher than the average for this season.

In **Spain**, the trend in the number of forest fires has also been upwards, increasing considerably with respect to what is usual for this period (more than double). On the other hand, it is striking that the number of burnt hectares has been lower than the annual average for the last decade, with 35% less surface of burnt areas.

In **Portugal**, the trend has been similar to that of Spain in terms of the number of fires,

with a 170 % increase in 2020 compared to the average of the previous 10 years. However, in terms of burned hectares, to date there is a trend towards a decrease in the number of hectares burned by almost 50% compared to the reference period for the same dates.

What could be happening this year?

Everything seems to indicate that a particularly rainy winter and spring and the covid-19 pandemic have triggered the risk of forest fires in the SUDOE this summer.

On the one hand, the abundant rainfall this spring and, on the other, the extreme temperatures that have characterised this summer's heat waves, have led to a greater number of fires and their further spread. In addition to these meteorological factors, an unexpected factor has been added: the paralysis of the clean-up work in the mountains of many SUDOE territories as a result of the global pandemic.

This has led to a greater accumulation of biomass in highly inflammable areas of our forests, which have also been particularly productive due to the heavy rainfall in spring.

On the other hand, it would seem that the reduction in mobility induced by the health alarm has not produced a lesser incidence of the human factor, an element which triggers most of the onset of these phenomena. However, there has also been the coincidence of lack of control with the summer season and a greater use of natural free spaces far from large human agglomerations. It would therefore be of great interest to have information about the causes of the fires which have occurred and their relationship with human negligence and the situations experienced in this lack of control in the natural environment.

Far from drawing clear conclusions about the dynamics and evolution of fire risk in Southwest Europe, these data once again demonstrate the complexity of this natural risk in which human, meteorological and climatic factors converge. Indeed, the factors that seem to have influenced fire behaviour this year 2020 have been a decrease in prevention efforts due to the health crisis, and a succession of extreme weather events: late and intense rainfall in spring and extremely hot temperatures during the summer.

Underlying all this is the need to better understand the link between climate change adaptation and natural risk reduction, with particular attention to the increased frequency and intensity of extreme weather events. In particular, it is essential to strengthen cooperation between countries in managing risks that do not understand administrative borders. In particular, there is a need for greater harmonisation of policies, as a key point in reducing the impact of extreme weather events, which influence forest fires among other risks. More coherent measures and the use of innovative methods can improve the management of these risks, and this is the reason for the MONTCLIMA project.





In this article we briefly present the testing of different soil management practices in a vineyard in the Rioja Alavesa (DOC Rioja) with a high risk of soil erosion.

It is a plot of the Graciano variety located in the municipality of Elvillar (Álava), with slopes of 10-20%, managed in organic farming mode and belonging to the Maisulan winery.

In this trial they have proposed three different soil managements:

- ⤴ **Regular tilling that is done in the area** (4-5 passes of machinery: rotavator, cultivator, harrow, etc.)
- ⤴ **Spontaneous vegetation cover in the center of the streets** (approximately 1.5 m wide)
- ⤴ **Minimum tillage by the farmer** (1-3 shallow tillage/campaign, in alternate streets)

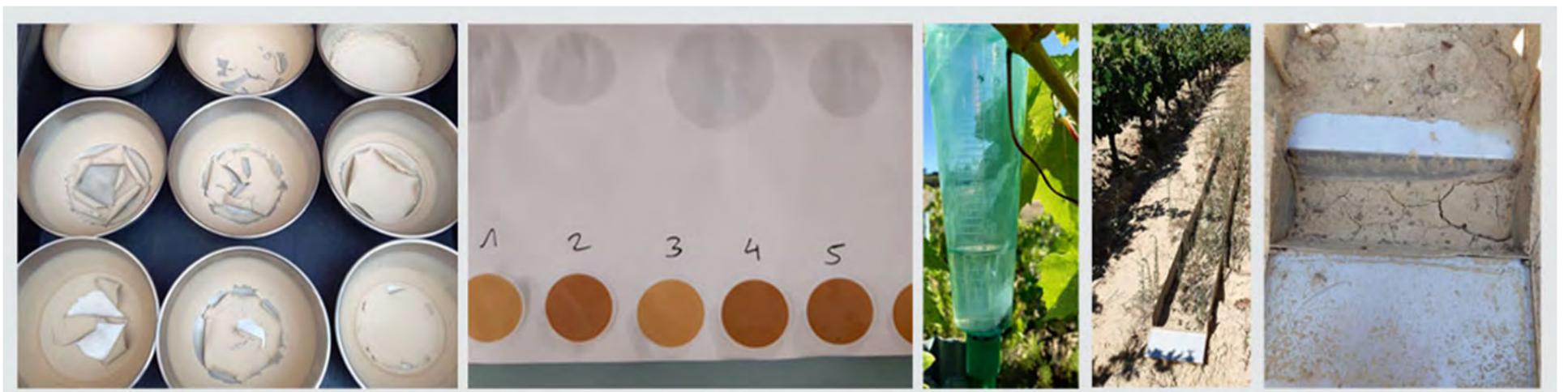
These three approaches have different impacts on the soil. The objective of this essay is to better understand how each type of soil management influences the erosion levels of the vineyards. Based on the results of the experimental tests, recommendations for soil management will be obtained that will help farmers implement conservative soil management measures to protect the soil from erosion, while also promoting greater crop productivity.

To this end, erosion **measures are carried out periodically**, to assess the loss of soil due to weather effects and according to the management practices applied. **Likewise, the effect of different crop management practices on the health of the soil and on agronomic parameters of production and quality of the vineyard is also evaluated.**

3

Summary of the pilot test on the risk of erosion of the MONTCLIMA project

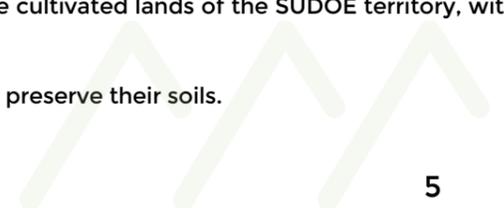
September 2020, 24



The experimental results will allow us to get a more complete picture of how agricultural management practices influence soil erosion levels in agricultural fields.

Thanks to a solid knowledge base, from MONTCLIMA we will propose an action plan for the reduction of erosion risk in the cultivated lands of the SUDOE territory, with a proposal of concrete measures that will help to preserve the soils against this natural risk.

Which will be very useful to update our vision of soils in the field of agriculture with the aim of helping farmers to value and preserve their soils.



Geographical scope of the project

4

Coordination
Committee of the
Sudoe-MONTCLIMA
Project partners

May 2020, 14



On the 6th of April 2020, took place the second Coordination Committee of the **Sudoe-MONTCLIMA Project** partners. This time, and as consequence of the mobility limitations, the meeting was made in a virtual format. Despite the troubles caused by the Covid-19 context, all of the entity partners agents have participated in an active way: CTP-OPCC, CREAM, NEIKER, CESEFOR, CEREMA, FORESPIR, RTM-ONF, CIMO/IPB, COMUNIDADE INTERMUNICIPAL DA REGIÃO DE LEIRIA, CENMA.

The meeting had for purpose to share principal progresses and available information, to impulse in a coordinated way project's products and establish main priorities for the next 6 months in relation with the main actions: **Capitalization, Strategic Framework, Action Plan and pilot experiment, Follow-up and Evaluation**. A time was dedicated to analyze in a joint way the impact on the project of the health crisis that is living Europe and to debate on how to establish a contingency framework that guarantees the project viability.

As meeting results that will allow to adapt the project execution better, it should be stressed : the formation of Work Groups to launch priority actions, share and reduce doubts about the financial management and the clothing compromise of the expense declaration of the year 2019; and finally, the approbation of a baseline document for the organization of Action 4 Seminars (Transferability), established by the CTP and CREAM, and in which is expressed the new Seminars execution calendar more adapted to the actual circumstances (COVID19) including additional 6 months margin for its execution. Consequently, the seminar planned in Soria for May 2020 is rescheduled to October 2020; and the one planned in Leiria is rescheduled to February 2021, meanwhile the ending Seminar in Toulouse is planned for May 2022.



Orden del día / *Ordre du jour* / *Ordem do dia*

1. Bienvenida
2. Ronda de presentaciones
3. Situación aspectos de gestión administrativa GTT1:
Tabla de situación
4. Desarrollo GT4- Seminarios
5. Repaso ejecución por Grupos de trabajo y necesidades.
GT1: Capitalización
GT2: Marco Estratégico
GT3: Planes de Acción y experiencias piloto

Video





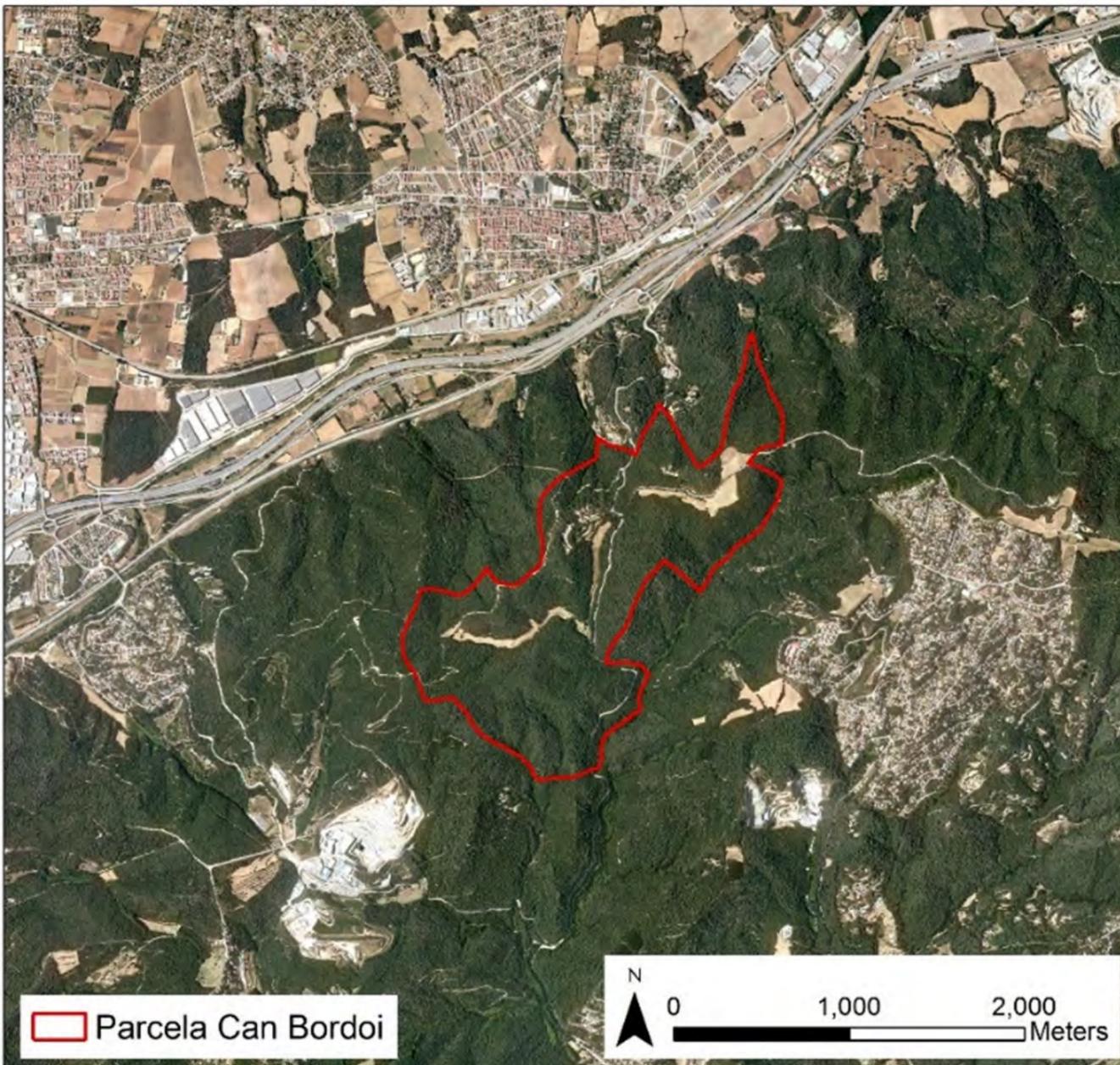
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One of the pilot trials of the SUDOE MONTCLIMA project, led by CREAM, proposes to apply adaptive forest management to reduce the forest's vulnerability to fire risk

April 2020, 27

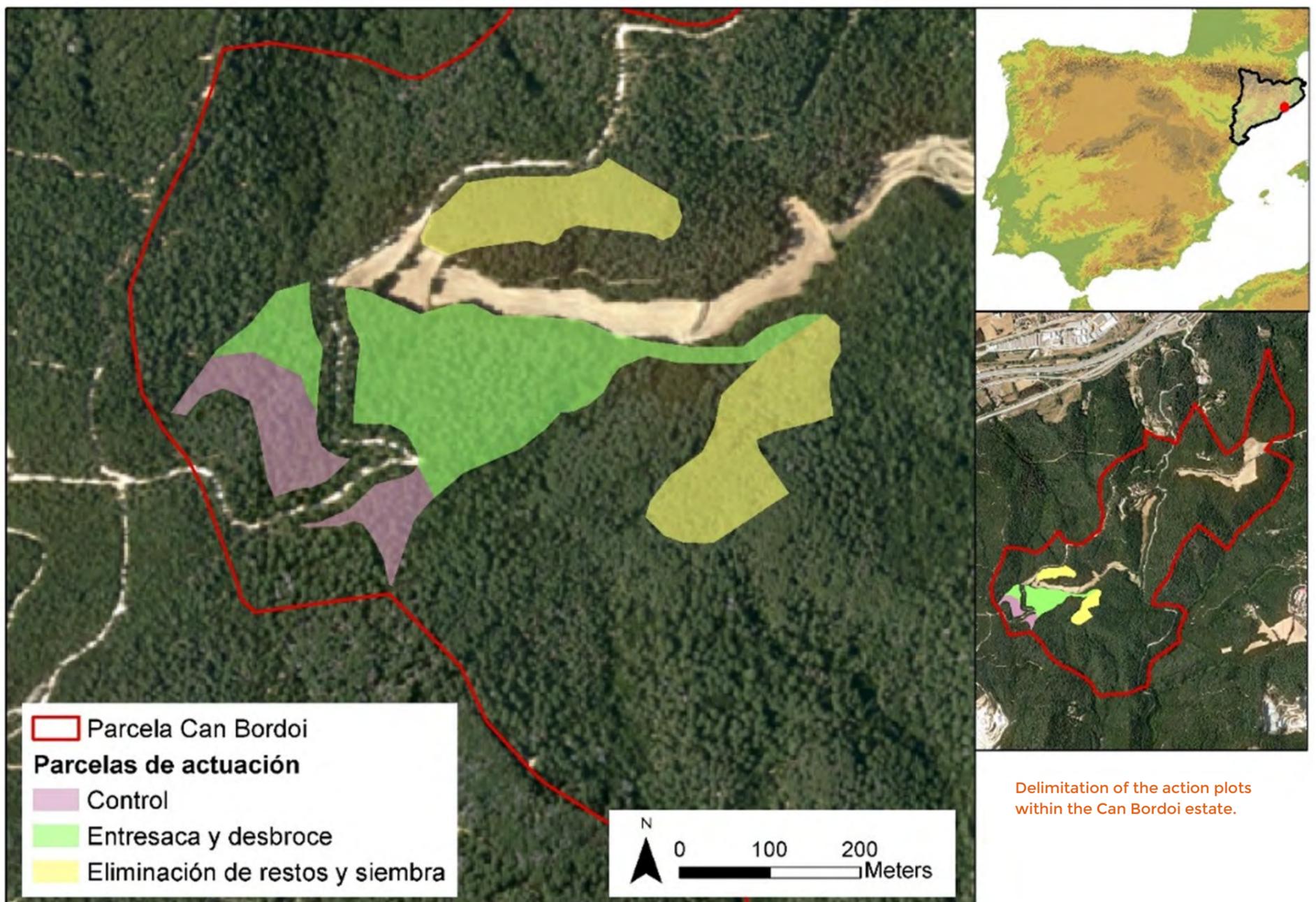
One of the key actions of the **SUDOE MONTCLIMA** project is the design and implementation (testing and development) of common Action Plans for prevention and management of natural hazards, which will be validated and/or improved through pilot trials.

One of these pilot trials, led by CREAM, is being carried out in a Mediterranean oak forest in the Montnegre-Corredor Natural Park (Barcelona, Catalonia) with the aim of reducing the vulnerability of the forest to the fire risk. The pilot trial consists of applying adaptive forest management in a **Strategic Management Point (PEG)** for the control of large forest fires. The **PEGs** are locations in the territory where the modification of the fuel and / or the preparation of infrastructures allow the extinguishing service to carry out safe attack manoeuvres that reduce the progress of a large forest fire. In this sense, they represent spaces that, due to their spatially strategic location, have a key role as protective effect on a relevant surface of the Natural Park.



Location of the Can Bordoi estate, in the municipality of Llinars de Vallès, North of Barcelona.





5

One of the pilot trials of the SUDOE MONTCLIMA project, led by CREA, proposes to apply adaptive forest management to reduce the forest's vulnerability to fire risk

April 2020, 27

The pilot trial is being carried out at the **Can Bordoí** estate, in the municipality of **Llinars del Vallès (Barcelona)**, which covers an area of 214 ha. Within this estate, the trial is performed in the extreme southwest, since in the case of a large forest fire that comes from the west and which would be the most likely in the area, it could lower the intensity of the fire, facilitating the tasks of extinguishing firefighters and preventing the entire massif from burning. Moreover, the applied management helps to strengthen the forest mass to the risk of drought affectation.

Prior to the application of adaptive forest management, a series of forest inventories have been accomplished between January and February 2020. These inventories allow characterizing the forest mass before the management and calculating the weight of the intervention (volume and basimetric area extracted, changes in fuel continuity ...). To do this, monitoring plots are installed in the different managed areas and a series of variables are measured over time.

The pilot trial has consisted of the application of adaptive forest management (selective felling, where the largest holm oaks are left, and scrubland clearing) on a 5.4-hectare plot and of creating open woodlands (elimination of stone pines affected by *Tomicus* and pasture recovery) on a 4.7 ha plot to create an open area that helps improve the fire resistance of the massif. In addition, a control plot of 1.9 ha has been left where no action will be taken and which will serve to compare with the managed area. The action has been carried out between February and March 2020 by the Montnegre-Corredor Forest Owners Association.

At the present time and due to the coronavirus crisis, it has not been possible to continue with the tasks scheduled in this pilot trial, which will be restart as soon as the alert state is over and the location can be visited again. The works that have been pending are:

- **Post-management forest inventories.** Forest inventories will be repeated in order to characterize the management and to establish the starting point for the monitoring campaigns.
- **Monitoring the pilot trial.** From May 2020, the trial monitoring campaign would have to start, which will cover two summers (2020-2021). This campaign consists of recording the evolution over time of a series of variables or indicators that allow us to know if the Holm oak forest is less vulnerable to the risk of fire thanks to the applied adaptive forest management. To do this, these indicators are monitored in the area where management has been applied and in the control plot, and compared. The monitoring indicators proposed are the following: changes in forest structure, fuel continuity, fuel moisture, forest health, soil moisture, temperature and relative humidity.

5

One of the pilot trials of the SUDOE MONTCLIMA project, led by CREAM, proposes to apply adaptive forest management to reduce the forest's vulnerability to fire risk

April 2020, 27



Initial state of the oak forest of Can Bordoï.



Final state of the oak forest of Can Bordoï after the application of adaptive forest



6

Ten entities in the SUDOE territory will establish a joint strategy for the prevention and management of natural risks

January 2020, 3

MONTCLIMA is an Interreg SUDOE project in which ten entities from this southwestern European territory will work together to study how to approach and establish a transnational strategy for the prevention and management of natural risks in mountain areas.

Until December 2021, this project will work to strengthen SUDOE territories through the transnational strategic framework, taking into account previous successful projects of prevention and management of fires, droughts, floods, landslides and erosion. The planned **methodology** envisages four major actions or working groups. Firstly, with the **capitalisation** of successful cases of forms of governance and practical initiatives for the prevention and management of natural risks. Secondly, with the design of a methodology for drawing up a transnational strategic framework for risk prevention and management in mountain areas of the SUDOE territory. Thirdly, by researching the transnational **strategic** framework in pilot territories suitable for these risks. And finally, with the dissemination of the results.

By reinforcing a risk-based approach to climate change, the MONTCLIMA project is aligned with international agreements such as the United Nations Sendai Framework for Disaster Risk Reduction and the Paris Agreement on Climate Change, to which this new project is closely linked, insofar as its promoters understand that mountain territories are very vulnerable to natural risks, and the SUDOE space is one of the areas of the world that suffers and will suffer most from the effects of climate change (IPCC, 2014).

In this sense, MONTCLIMA wants to focus on the fact that mountain areas are among the territories most affected by natural risks that are expected to increase due to the effects of climate change in the form of more severe droughts, higher temperatures, changes in the rainfall regime... These risks know no administrative limits, for example fires that cross borders of continuous forest stands, and need transnational coordination.

The MONTCLIMA project is co-financed by the European Regional Development Fund (ERDF) through the Interreg SUDOE Programme and entities from Spain, France, Portugal and Andorra participate as partners: the Pyrenees Work Community Consortium (CTP), the Centre for Ecological Research and Forestry Applications (CREAF), NEIKER - Basque Institute for Agricultural Research, the Cesefor Foundation, the Bragança Polytechnic Institute (IPB), Office National des Forêts, Geie Forespir, Centre d'Estudes et d'Expertise Sur Les Risques l'Environnement la Mobilisé et l'Aménagement (CEREMA), Instituto de Estudios Andorranos (IEA) and Comunidade Intermunicipal da Região de Leiria (CIMRL).

