



## Direction

**Aitor Onaindia Bereziartua**

**BASOA FUNDAZIOA**

Technical director

Descending from a Basque family of farmers, he has been involved in the practice of agricultural, livestock and forestry management since he was a child. After several years studying and working as a forestry engineer in foreign universities and organisations (France and Chile), he has spent the last 19 years immersed in the development of sustainable forest management in the Basque Country.

Since he joined BASOA FUNDAZIOA 10 years ago, now in his role as technical director, he promotes the dissemination of forest science and implements various projects aimed at promoting and compensating the multiple ecosystem services that forests offer to society.



**Leire Salaberria Isasi**

**USSE**

Managing director

Leire Salaberria, although trained as an international commercial lawyer, belongs to a family with a forestry tradition, and since 2014, she is the Managing Director of the Union of South European Foresters (USSE), an international organisation of private forest owners whose main activity is to contribute to the definition of European and international forestry policy, through position-taking, representation and inter-sectoral dialogue, in relevant international forums, contributing the perspective and demands of Southern European forests in decision-making forums - European Union, FOREST EUROPE, United Nations, COFO-FAO - as well as through dialogue and cooperation with other organisations in the sector.

Registration : [www.uik.eus](http://www.uik.eus)

More information

**UDA IKASTAROAK / CURSOS DE VERANO / SUMMER COURSES**

Miramar Jauregia - Mirakontxa Pasealekua - 4820007 Donostia /San Sebastián  
T.: 943 219511 - [info@uik.es](mailto:info@uik.es) - [www.uik.es](http://www.uik.es)

**Antolakuntza Batzordea / Comité Organizador / Organising Committee**

Fundación  
**BBVA**



## Lecturers

**Paulo Fernandes**

Lecturer

In the university of Trás-os-Montes e Alto Douro (UTAD)

**Rosa María Canals**

Senior Lecturer

Public University of Navarra (UPNA)

**Alba Márquez Torres**

PhD researcher on forest ecosystem servicesBC3 Research

**Celso Coco Megía**

Technical Forestry Engineer of the Junta de Castilla y León and member of the Copernicus Academy.

**Asier Larrañaga Otxoa de Egileor**

Sub-inspector of the Fire

Department of the Generalitat de Catalunya

Reinforcement Group of Forest

Actions (GRAF) of the Fire Brigade of the Generalitat de Catalunya (Catalan Government)

**Ferran Dalmau Rovira**

Director

Medi XXI GSA

**Victor Resco de Dios**

Lecturer of Forestry Engineering University of Lleida (UdL)

**Cristina Montiel Molina**

Professor of Geography at the Complutense University of Madrid. Pau Costa Foundation



# FOREST FIRES: How to deal with them?

10 – 11 July



Cód.: **Z10-23**

Type of activity: **Summer Course**

Cicle: **Ciencia y tecnología / Sociedad**

Location: **Palacio Miramar**

language: **Spanish, Translation into English and French**

Academic validity : **20 hours**

**Otros colaboradores:**

**EUSKO JAURLARITZA**



**GOBIERNO VASCO**

EKONOMIAREN GARAPEN,  
JASANGARRITASUN  
ETA INGURUMEN SAILA

DEPARTAMENTO DE DESARROLLO  
ECONÓMICO, SOSTENIBILIDAD  
Y MEDIO AMBIENTE

## Description

*This Summer Course will be face-to-face. However, it is possible to attend and participate in the course via online.*

*Fire has historically been a well-known element for human beings. It has accompanied us, and we have encouraged it, in order to make the necessary use of it and to develop endless benefits for our societies. It is not something specific and local, but something that has extended throughout our history, throughout the world and throughout all human societies.*

*In the same way, the fires that fire can produce have been common in natural terrestrial ecosystems. Everything made up of plants can be in a position to burn, especially in forest ecosystems, as they involve a high concentration of fuel material. Therefore, the landscape that surrounds us, regardless of the plant formation it is made up of, but especially if it is made up of forests, can become a source of flames, which means that forest fires are a determining element in the shaping and development of both the landscape and natural systems.*

*But the effect of fire, and the effect of fires, goes beyond mere landscape or ecosystem composition. They can seriously affect our infrastructures, our buildings, our recreational areas, our sources of supply... the life and development of our societies can be truncated and aggravated by this element and these events. Fire, and fires, can both condition our development and tragically disrupt it.*

*The trend of recent years does not bode well. The world in general, and southern Europe in particular, suffers every year from devastating forest fires that are becoming increasingly virulent and less and less controllable. In the past year alone, fires in south-western Europe have quadrupled the average annual area burned. Moreover, the virulence of the fires was extreme, both because of the aridity of the fuel and the weather associated with the fire activity itself. The Basque Country, which had been a small island in this discouraging scenario, may in the future come to fear similar situations to those experienced by its neighbouring regions.*

*However, our societies, which are increasingly urban, are unaware of the ancestral use of fire and are generally oblivious to forest fires. It is an issue that comes to them when they become large and uncontrolled. When it is too late and there is hardly any way out.*

*That is why we want to take a closer look at these two aspects: fire, as a natural element, and forest fires, as a dangerous consequence of that fire.*

*What do we know about fire, how does it behave, how is it analysed?*

*And what do we know about fires? How can they be extinguished? How can they be prevented?*

*We are going to analyse different areas of scientific and technical knowledge in order to explore in depth this very old, but at the same time, very topical subject. We will count on top-level scientists and managers who will enliven our knowledge and provide us with burning concepts for analysis and debate.*

## Objectives

To analyse different areas of knowledge of the element of fire that will give us a better understanding of its nature.

To analyse certain aspects of forest fires to help us understand both their impact and how to deal with them.

## Programme

### DAY 1 / 10 july

09:00 - 09:15

Institutional opening  
*Juan Ramon Murua*  
 President of Basoa Fundazioa

09:15 - 10:00

**Fire ecology:** Fire in the landscape: mechanisms and roles.  
*Paulo Fernandes*  
 UTAD

10:00 - 10:45

**Human use of fire:** Recovering natural disturbance regimes to create resilient landscapes. Reflections on fire and herbivory in landscape creation.  
*Rosa María Canals*  
 UPNA

10:45 - 11:15

Break

11:15 - 12:00

**Fire modelling:** From monolithic models to integrated models through semantics.  
*Alba Márquez Torres*  
 BC3 Research

12:00 - 12:45

**Fire monitoring:** Satellite detection of forest fires and analysis with Sentinel-2 images from the European Earth Observation Programme - Copernicus.  
*Celso Coco Megía*  
 Junta de Castilla y León and Copernicus Academy

12:45 - 13:50

**Knowing fire**  
 Round table discussion between the previous speakers

13:50 - 14:00

Summary of the day

### DAY 2 / 11 de July

09:15 - 10:00

**Fire fighting:** A dead-end road?  
*Asier Larrañaga Otxoa de Egileor*  
 GRAF

10:00 - 10:45

**Fire prevention:** Prevention of large forest fires as a civil protection emergency What do we do now?  
*Ferran Dalmau Rovira*  
 Medi XXI GSA

11:00 - 11:30

Break

11:15 - 12:00

**Adaptation to climate change:** The age of fires we can't extinguish. megafires in the Anthropocene.  
*Victor Resco de Dios*  
 UdL

12:00 - 12:45

**Fire risk awareness:** Has risk awareness changed?  
*Cristina Montiel Molina*  
 UCM

12:45 - 13:50

**Dealing with fires**  
 Round table discussion between the previous speakers

13:50 - 14:00

Summary of the day