

Tackling wildfires in Mediterranean forests

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The Mediterranean basin is a global wildfire hotspot and the threat of wildfires to forests and society is expected to increase with climate change. Credit: European Forest Institute

Catastrophic forest fires claimed lives this summer across the world, from California to Portugal and Spain. The Mediterranean basin is a global wildfire hotspot and the threat of wildfires to forests and society

is expected to increase with climate change.

Scientists from the European Forest Institute (EFI) urge a shift in focus on how we tackle this problem, moving beyond the current emphasis on fire suppression. They argue that the bio-economy offers means to activate management and to demonstrate that forests are a valuable resource, as a smart and sustainable strategy to address the problem of wildfires.

In a new paper published in *Forest Policy and Economics*, the researchers consider the opportunities offered by a [forest](#)-based bio-economy alongside an improved recognition of the value of forests. They suggest a strategic policy shift in favour of fire prevention as part of an integrated [forest management](#) strategy, while calling for a shift in mind-set for society to recognise the various ways in which forests provide value.

What makes a wildfire?

"The area covered by forests has increased substantially in recent decades, but they have not been managed much, so a great deal of woody biomass builds up", said Hans Verkerk at EFI, lead author of the publication. "If a fire breaks out under unfavourable climate conditions with a lot of burnable material in the forest, it could become a very intense fire which is quickly extremely difficult to control and extinguish."

"In the past, the focus has been on fire suppression rather than on long-term strategies for fire prevention", added Marc Palahí, Director of EFI. "Now, we need to shift from [wildfire](#) suppression to wildfire prevention through forest management. By managing our forests, they will be better able to withstand the consequences of [climate change](#). A bio-economy that relies on forests for providing resources could stimulate forest

management".

The bio-economy as an opportunity to tackle wildfires

Forests provide important renewable biological resources. New technologies offer unprecedented possibilities in transforming these resources into new bio-based solutions that can replace fossil-based products and non-renewable materials. These new technologies include bio-based construction materials, textiles, chemicals and plastics, which can be developed from compounds found in plants.

The researchers suggest that developing a Mediterranean bioeconomy could help to change the way Mediterranean forests are perceived, valued and managed. This is key as a bioeconomy can support the long-term financing of fire prevention strategies as part of integrated forest management planning to ensure sustainable forest resources.

In addition, forests provide many other benefits to society, for example by removing CO₂ from the atmosphere, providing opportunities for recreation as well as wild forest products. Innovative forest-based business models for wild forest products, such as cork, already exist in the Mediterranean while new initiatives are emerging for resources that could be used to a larger extent, including medicinal plants, honey and mushrooms.

"By managing our forests, we can tackle wildfires, but it is also crucial that people consider forests a valuable resource", commented Dr. Verkerk. "Human actions, whether through negligence or intentional, are the main causes of wildfires. If we can show people how valuable our forests are for providing resources and materials, this could help to reduce the problem of wildfires."

Investments to finance and develop sustainable, integrated forest and fire

management activities will, underline the authors, ensure the resilience of Mediterranean forests – and ultimately society – to confront the problem of climate change and related disturbances such as wildfires.

More information: P.J. Verkerk et al. The bio-economy as an opportunity to tackle wildfires in Mediterranean forest ecosystems, *Forest Policy and Economics* (2017). [DOI: 10.1016/j.forpol.2017.10.016](https://doi.org/10.1016/j.forpol.2017.10.016)

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