

# Europe fires to worsen even if climate goals met: study

October 2 2018, by Patrick Galey

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Even reaching the most optimistic goals in the Paris climate treaty will still increase the area of southern Europe devastated by forest fires each

year by at least 40 percent, researchers warned Tuesday.

Following two years of often deadly blazes across Portugal, Spain, southern France and Greece, scientists at the University of Barcelona said more woodland areas could be lost to the flames if the targets laid out in the 2015 [climate deal](#) were missed.

The agreement aims to limit global temperature increases to "well below" 2.0 degrees Celsius—and to 1.5C if at all possible.

In the first study of its kind, the team tested computer models of how much worse fires would get if global temperatures were to rise 1.5C, 2C, or 3C by the end of the century.

"It's relevant because there are a lot of fires in this area, for instance, in Greece this year or last summer in Portugal," Marco Turco, from the university's Department of Applied Physics and lead study author told AFP. "These are examples of things to come in the future."

Turco and the team found that the area of southern Europe lost each year to fire would increase between 40-54 percent, even if temperature rises were limited to 1.5C—the most ambitious goal in all [climate change mitigation](#) efforts.

"1.5C is really ambitious... but it's not physically impossible," said Turco.

Were temperatures to climb 2C above the preindustrial benchmark, the area destroyed by fire was projected to increase between 62-87 percent, and for 3C it could grow by as much as 187 percent as climate change-induced droughts produce more combustible material.

Southern Europe currently loses around 4,500 square kilometres—three

times the area of Greater London—each year to fire.

## Deadliest blazes

In July, nearly 100 people perished in blazes at coastal resorts near Athens, the country's worst fire in modern history.

The government of Prime Minister Alexis Tsipras came in for thunderous criticism after a combination of tactical errors by emergency responders and poor infrastructure trapped hundreds of holidaymakers in the path of the flames.

In August 2017, 64 people burned to death in Portugal's worst ever fires.

Scientists have consistently predicted that [extreme weather events](#) such as wildfires, drought, superstorms and flooding will become more frequent and severe as our planet heats up.

Turco said his study highlighted the importance of trying to stick to 1.5C rises—something some studies already suggest may be beyond reach.

Ultimately, in seaside regions where holiday homes predominate, people may wish to reconsider buying a property that could become increasingly prey to [fire](#) as the century progresses.

"In these areas the [climate](#) has meant that people have to be really careful considering these future scenarios," Turco said.

**More information:** Marco Turco et al. Exacerbated fires in Mediterranean Europe due to anthropogenic warming projected with non-stationary climate-fire models, *Nature Communications* (2018). [DOI: 10.1038/s41467-018-06358-z](https://doi.org/10.1038/s41467-018-06358-z)

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