

Wildfires could become a big threat in the UK due to climate change



A firefighter in front of a wildfire on Saddleworth Moor in 2019 - Anthony Devlin/Getty Images

Climate change is projected to drive a very large increase in fire danger across the whole of the UK, leading researchers to warn that planning rules may need to block the building of new homes in fire-prone areas.

Flooding is considered the UK's biggest threat from climate change, but even rare wildfires can cause disruption, from the toxic smoke created by the massive recent fires on Saddleworth Moor near Manchester to large blazes in West Scotland and Cornwall last month. There is evidence warming has already increased the number of fires in the UK in recent years. Now, a new analysis has found that if the world continues with high carbon emissions, the danger of blazes

will hit the south and east of England the hardest.

The number of days with conditions hot and dry enough for serious wildfires in the south of England will climb from 20 a year today to 111 by the 2080s. Even traditionally wet parts of the UK, including Wales, will see big increases in days when fire danger is very high.

“If we don’t think we’ve got a wildfire hazard at the moment, in a few decades we will have a much more obvious and noticeable one, perhaps to the extent that people are familiar with it in the Mediterranean. Awareness needs to go up,” says Nigel Arnell at the University of Reading in the UK.

To model the future risk as the world warms, Arnell and colleagues divided the UK into 12 x 12 kilometre squares, and looked at how temperatures, humidity, and rainfall would change in those areas using a climate model developed by the Met Office. The results were then combined with a weather index of how serious fires could be if they broke out, to project the future number of “high” and “very high” days.

The main reason for greater fire danger was higher temperatures, followed by humidity going down. Reduced rainfall was less important.

Thomas Smith at the London School of Economics in the UK, who was not part of the research, says one important caveat is the indicators of fire danger are still poorly understood in the UK. Those in the study are based on ones developed for Canadian wildfires in large forests, not the heathlands and moorlands that tend to burn in the UK. A new wildfire danger system for the UK is being developed which should give a more accurate picture, he says.

Arnell says the findings should inform emergency planning for wildfires, as today there is no national body looking at the danger, only local agencies. It also has ramifications for where new homes, developments, and critical infrastructure are built – high fire danger could go “into the planning mix”, says Arnell.

A scenario where the world cuts carbon emissions significantly was found to reduce the increase in future fire danger, but not eliminate it.

Source:

<https://www.newscientist.com/article/2272127-wildfires-could-become-a-big-threat-in-the-uk-due-to-climate-change/amp/>

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