

How flash droughts driven by climate change sparked record wildfires in Spain

By [Jesús Maturana](#) Published on 29/08/2025

These sudden, intense droughts accelerate vegetation drying, increasing wildfire risks across vulnerable regions.

Flash droughts are rapidly becoming one of the most dangerous weather extremes linked to climate change. In a matter of weeks, they can turn lush forests into tinder ready to burn, as demonstrated by the devastating fires in Spain in August 2025.

They are a relatively new climatic phenomenon characterized by the rapid and sudden reduction of soil moisture and vegetation in very short periods of time.

Unlike traditional droughts, which unfold gradually over months or even years due to prolonged lack of rainfall, flash droughts occur much faster. They typically emerge when low precipitation coincides with abnormally high temperatures, often during [heatwaves](#), along with high winds and shifts in solar radiation.

These droughts can develop in as little as a few weeks. A typical flash drought takes between five and 30 days to develop and often has devastating effects, especially for the agricultural sector. Their most dangerous characteristic is this speed: they strike with little warning, leaving communities unprepared and causing long-lasting impacts.

Related

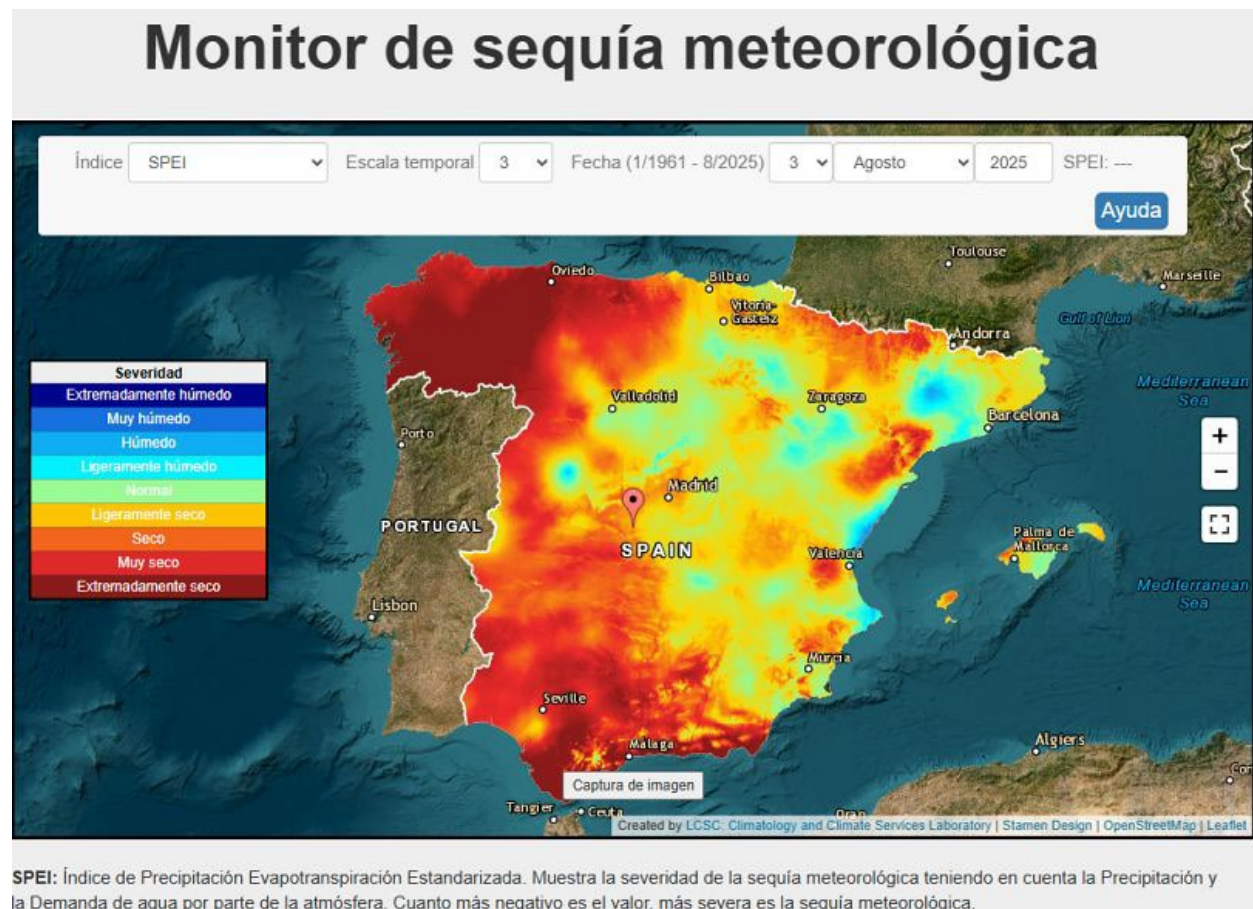
- [Record amount of wildfire destruction marks dark year for Europe](#)
- AA note: 18 million acres have burned this year in Canada, a new record

The physical process behind this phenomenon is accelerated evapotranspiration. When extreme heat is combined with a lack of rainfall, there is a high evaporative demand on the atmosphere. Plants 'sweat' faster through their leaves, losing water that they cannot replenish from the soil. It is like hanging out wet clothes on a hot day: the heat causes them to dry out much faster than under normal conditions.

The role of flash droughts in forest fires

The link between flash droughts and [wildfires](#) is key to understanding the intensity of events like those seen in Spain in August 2025. These rapid-onset droughts create ideal conditions for small blazes to escalate into large-scale megafires.

During that wave of wildfires, Spain's northwestern region was hit by a devastating flash drought. While no long-term drought was detected in inland Galicia or northwestern Castilla y León, short-term drought indices (measured over one to three months) revealed an extreme situation in the Ourense–León–Zamora triangle, with values never before recorded in the available data series.



SPEI data from August 3, 2025 [Monitor de Sequía - AEMET](#)

The severity of the fires was made worse by a phenomenon known as hydroclimate whiplash. Just before the sudden drought, Spain experienced an unusually wet spring in April and May. The rains spurred rapid vegetation growth, but when the flash drought hit in summer, that fresh greenery dried out quickly, turning into ideal fuel for wildfires.

The resulting blazes reached what experts classify as sixth-generation fires, so intense that they become nearly impossible to control and begin creating their own weather systems. Massive pyrocumulus clouds, formed by the heat of the flames, triggered unpredictable winds. In some cases, fire-induced tornadoes were observed swirling within the smoke-charged skies.

The future of flash droughts in a changing climate

Flash droughts, characterized by their rapid onset and intensification, are increasingly occurring as a consequence of climate change and rising temperatures. Heat and changes in precipitation patterns caused by a warming climate are driving these trends.

AA note: This is also happening in the US West.

Article link: <https://www.euronews.com/green/2025/08/29/how-flash-droughts-driven-by-climate-change-sparked-record-wildfires-in-spain>