



# THE ABCs

to protect yourself from  
forest fires



Between April and June, Mexico experiences its driest season of the year, making it easier for wildfires to occur and leading to the loss of flora and fauna. Learn about high-risk zones, the impact of human activity, and what to do in case of a wildfire.

#### CECILIA BALDERAS

**D**uring the dry season, when rivers reach their lowest flow levels due to the lack of rain, typically between April and June, the likelihood of forest fires increases significantly, along with the resulting loss of biodiversity in affected ecosystems.

Have you ever wondered what elements contribute to the ignition and spread of wildfires? According to Master of Science Germán Raúl Vera Alejandre, professor and researcher at the Centro Interdisciplinario de Investigaciones y Estudios sobre Medio Ambiente y Desarrollo (CIIEMAD) of the Instituto Politécnico Nacional (IPN), there are three essential components always present in a fire: oxygen, combustible material, and a heat source.

A forest fire, specifically, occurs in areas rich in vegetation, under low humidity conditions, drought, or water stress. Its spread is directly linked to atmospheric factors, most notably wind presence and speed. In some northern regions of the country, such as Chihuahua and Coahuila, vast grasslands are particularly prone to fire, especially because this type of vegetation allows flames to spread quickly.

However, these are not the only high-priority areas. Attention must also be paid to regions within the Sierra Madre Oriental, Sierra Madre Occidental, and even the Sierra Madre del Sur, where densely forested zones often face frequent fires, even in places with entirely different vegetation.

#### HUMAN INTERVENTION: A MAJOR FACTOR

Professor Vera Alejandre emphasizes that wildfires are natural events that have existed for millennia. Natural environmental factors such as lightning storms and cold fronts, which can ignite fires, are beyond human control.

"Not all fires are harmful; they are part of natural cycles that help renew vegetation. Some species need high temperatures for their seeds to germinate. Fires also help eliminate pests like bark beetles. When infested trees are cut down to prevent their spread, controlled burning of the remains is often recommended," he explained.

However, human activity can significantly increase the frequency and severity of fires. "For example, in agriculture, it has long been a tradition to burn fields before planting to clear weeds. This practice, often done carelessly and under poor weather conditions, such as when it's windy, is a major cause of wildfires," the researcher added.



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Smoke from forest fires affects the eyes, irritates the respiratory system and aggravates chronic heart and lung diseases.

INTERESTING FACT

From January 1 to April 10, 2025, 2,553 forest fires have been recorded.  
Source: National Forestry Commission





*Germán Raúl Vera Alejandro, professor and researcher at CIEMAD*

## DAMAGE AND LOSSES

In populated areas, the most immediate consequence of a wildfire is air pollution—smoke and particulates that negatively impact human health, especially the respiratory system, to a risk of burns and other injuries.

This may also mean that people's material assets, such as houses, livestock, and more, may be affected. These consequences are more likely to occur in geographically isolated areas, where communication is also complicated and the response time of support brigades may be delayed.

In environmental terms, fires cause habitat loss to the detriment of human settlements, flora, and fauna. In the medium term, and taking into account that fires consume the forest cover, they can cause erosion processes during the rainy season, since in the absence of a vegetation cover that allows the retention of liquid, rainfall can cause what experts call “mass removal processes”, better known as landslides.

Therefore, in the long term, fires can result in the loss of ecosystems that, due to their complexity, are very difficult to recover.

### What to Do in Case of a Fire?

Professor Germán Raúl Vera Alejandro is clear: “Do not try to be a hero—notify the authorities immediately.”

“We often make the mistake of trying to put out fires ourselves, but this is extremely dangerous. Even if we think we have the skills, we don't know where the fire might spread next, and we could end up in a life-threatening situation,” he warned.

So, what should we do? Report it. Do not risk your life trying to take action without the necessary training or equipment. More important than controlling fires is preventing them altogether. If we truly want to protect our ecosystems, we must first ensure our safety. 