

CANADA WILDFIRES: AN EFFECT OF CLIMATE CHANGE

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"The numbers are literally off the charts, with at least three more months left in the active wildfire season," from Michael Norton of the Canadian Ministry of Natural Resources.

Wildfires and Climate Change

As wildfires become more frequent, air quality across the country has worsened and continues to affect the world. About 20 million acres have already been burned down making it the country's most intense wildfire season. The number of wildfires is increasing as a result of the earth's temperatures rising due to climate change. As the haze from the wildfires is exposed to

areas around the world, it serves as a wake-up call of the severity of climate change and its effect on the world.

Vapor pressure deficit (VPD), which measures how much moisture the atmosphere can evaporate from plants, is one important factor that raises the risk of wildfires. Since the deficit is rising, trees and plants are becoming more at risk of being caught on fire. Temperatures in the Northwest Territories of Canada have reached as high as 37.4°C or 99.3°F, the hottest recorded temperature in North Canada. In the first nine days of July of 2023, Northwest Canada has had 17 occasions of temperature suppression. Last year, July had 18 suppressions. Additionally, in June of 2023, there have been 28 occasions of temperature suppression which is significantly higher when compared to the 4 suppressions in June of 2022. As stated by Hoffman, a former firefighter, "Fire is coming, and it's going to get worse. We need to be better prepared for it."

Effects of the Wildfires

When it seems like the air quality has gotten better after a wildfire has been suppressed, another one occurs. The intensity of these fires can even be caught on NASA satellites, showing just how severe the damage is.

The wildfires create harmful particulates in the air and increase carbon dioxide emissions, further adding to air pollution. This has harmful effects on one's health and is especially hazardous to those with heart disease, asthma, or chronic obstructive pulmonary disease (COPD). As a result, there is more of a possibility for people to have asthma attacks, heart attacks, strokes, or even lead to death. The particles are tiny and this makes it more possible for them to travel through the body and past the natural defense. They attack the lungs, the system that exchanges oxygen, and can even enter the blood, raising the risk of harmful health outcomes.

Around 3 million people a year have been killed by air pollution and that number will only continue to rise. Those who are most affected, but not limited to, involve delivery people, landscapers, and construction workers. As the temperature of the air continues to rise, it is a factor that increases the production of ozone. The ozone leads to more smog in the air as well as irritates the lungs and the cells inside. This can lead to further harmful health consequences and makes it harder to breathe in the air. The wildfires, which are caused by climate change, will only continue unless further solutions are found or until actions are taken to protect the Earth from more harm. From Rober Gray, a Canadian ecologist in Chilliwack, British Columbia, "Welcome to climate change."

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