Davos 2023: Here's how WEF is using AI to fight wildfires around the world

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The World Economic Forum (WEF) has said that artificial intelligence (AI) can help in fighting wildfires and containing carbon emissions. The intergovernmental agency said that the average annual global cost of wildfires is around $50 billion, which has gone up massively in the last few years. It also noted that the global wildfires released an estimated 6,450 megatonnes of CO_2 into the atmosphere in 2021 alone.

The WEF noted that the climate crisis continued, with extreme weather causing catastrophic floods, droughts, and wildfires that left millions homeless across the globe. The US has experienced around 1.5 million wildfires since 2000, in Australia, more than 3 billion animals were killed or displaced in the 2019–2020 bushfire season. The World Meteorological Organization predicts that by 2050 there can be an increase in extreme fires globally.

In view of this catastrophe, the WEF launched its FireAId initiative in 2022 to develop the potential of AI and machine learning tools to predict and combat wildfires. In a report, it noted that the system has been successfully piloted by Koç Holding in the South Aegean and West Mediterranean region of Türkiye in 2022. Due to which, the wildfire risk mapping and logistic planning project improved wildfire prediction by combining static and meteorological datasets and reduced both response time and risk to firefighters.

"During this difficult period of growing fire seasons and climate change, we are committed to continuing and strengthening this global engagement. We hope this report will inspire you to join these efforts, which can address the key drivers of catastrophic fires, increase the pace and scale of forest management and improve the resilience of increasingly threatened

communities globally," said Jeremy Jurgens, Managing Director at the WEF.

WEF's Global Risks Report 2023, which was released last week, highlighted that failure to mitigate and adapt to climate change, natural disasters and extreme weather events, and biodiversity loss and environmental degradation are the top risks in long term and it can be a costly affair if not tackled now.

Use of Artificial Intelligence in managing forests and fighting wildfires

The WEF has noted that with AI, sensors with in-built AI can collect acoustic information or operate as smoke detectors in forests and alert authorities within the first hour of a wildfire starting.

Besides, developments in natural language processing (NLP) and natural language generation (NLG) have improved computers' capacity to make predictions.

WEF added that unmanned aerial vehicles (UAVs) can be flown over fires to provide live images and help firefighters plan their response.

Two programmes are under development in the US to provide near-live fire information, it added.

Google also uses geostationary satellites to produce near real-time maps while NASA's Fire Information for Resource Management (FIRMS) uses low-orbit satellites and software developed by the University of Wisconsin-Madison's Space Science and Engineering Center (SSEC) to provide live fire data with a lag of just 60 seconds between earth observation and wildfire detection.

https://www.businesstoday.in/wef-2023/story/davos-2023-heres-how-wef-is-using-ai-to-fight-wildfires-around-the-world-360685-2023-01-17