

The 'lungs of the Earth' are burning: 2020 Amazon rainforest fires the worst in a decade

Cait Kelly The NewDaily Oct 4, 2020

As the world struggles with COVID-19 another disaster has been quietly unfolding.

The worst fires in a decade are burning in the Amazon rainforest.

The Amazon fires are already [twice as bad as the devastating 2019 fires](#).

Brazil reported 8373 fires in its portion of the Amazon rainforest in the first week of September 2020 – double the amount [seen last year](#), according to the country's Space research agency.

But it's not just Brazil. [California is also on fire](#), so is the Arctic Circle, and now Australia's bushfire season is underway. Scientists fear that these fires represent a 'new normal'.

The Brazilian data is backed by the Global Fire Emissions Database project run by NASA, which showed that emissions from fires hit a 10 year high in August.

Fires are increasingly spreading into areas of untouched woodland, with 27 per cent of fires in September in virgin forests.

And the Amazon rainforest, often referred to as the 'lungs of the Earth' isn't just burning, it's vanishing in smoke.

Currently, there are 28,892 active fires in the Amazon basin alone.

Despite the evidence, Brazil's President Jair Bolsonaro recently downplayed the severity of the crisis, denying that the Amazon "is going up in flames".

"While President Bolsonaro keeps denying the Amazon is on fire and coming up with marketing stunts, such as deploying the army to combat forest destruction, the forest continues to burn," said Rômulo Batista, Amazon campaigner at Greenpeace Brazil.

"The fires are not only a threat to climate and biodiversity, the smoke from the fires adds another threat to the health of people living in a country already strained by the COVID-19 crisis."

As with last year, researchers have linked these fires to the deforestation that has ramped up across Brazil since Mr Bolsonaro came into power in January 2019.

Under the controversial right-wing leader's administration, ranchers, farmers, and miners have been given much freer rein to clear the rich rainforest for [commercial activity](#), and setting fires is a cheap way to do that.

"The fires in the Amazon are not natural," Mr Batista said.

"They are criminally set by farmers and land-grabbers to tear the forest down in order to expand the agribusiness.

"What we've seen in the field is a consequence of Bolsonaro's anti-environmental agenda. He has been dismantling environmental protections since he took office."

In last week's United States presidential debate, [Joe Biden](#) called for a global effort to stop the Amazon fires, suggesting a \$20 billion payment to the south-American country to stop deforestation or suffer unspecified "economic consequences".

Mr Bolsonaro, a far-right climate-change sceptic, hit back at Mr Biden over Twitter.

"As the head of state who has brought Brazil-US relations closer than ever before, after decades of governments that were unfriendly towards the US, it is really difficult to understand such a disastrous and unnecessary declaration," he wrote on Twitter.

'The other new normal'

Brazil isn't the only country feeling the heat.

In the US, California officials warned last month that the record area of 3.1 million acres burned in the state so far this year is likely to keep growing.

"With no significant precipitation in sight, California remains dry and ripe for wildfires," the California Department of Forestry and Fire Protection said.

Closer to home, on Saturday a bushfire threatened the coastal town of [St Helens in Tasmania](#).

Up north, a "dangerous and uncontrolled" blaze threatened the Queensland town of Cooktown, with residents told to "leave immediately".

Deforestation may not be the central cause in the fires burning in the US, Siberia or Australia, but climate change has primed the landscapes to burn – and burn big.

Over the past two years, the Arctic, which acts as a carbon sink, has had [record fire seasons](#), releasing huge amounts of carbon back into the air.

Former NSW Fire Commissioner Greg Mullins said the world was entering a different kind of 'new normal' when it came to bushfires – fuelled [by climate change](#).

"It's very clear climate change is lengthening the seasons worldwide. Countries like Greenland and Arctic Circle, like Siberia, are burning now," Mr Mullins said.

"And countries like Australia are getting mega-fires we can't control."

A Russian Academy of Sciences researcher [told Nature](#) last month that almost 20,000 fires across 35 million acres of land had burned in Russia this summer.

Both the Arctic and the Amazon are peatlands – carbon-rich sinks of soils that are made by waterlogged plants decaying over hundreds and thousands of years.

When peat burns, it releases huge amounts of carbon to the atmosphere.

Just this year, fires in Serbia emitted a record 244 mega tonnes of carbon dioxide – the equivalent of almost 63 coal-fired power plants running for a year.

Australia is likely to avoid seeing the same level of death and destruction that it witnessed in the 2019-20 fire season, Mr Mullins explained, but that doesn't mean we don't need to prepare for mega-fires.

"Thankfully we're in a La Niña year, which means more regular rain. Already with the rain, we've had it's a totally different moisture profile on the east coast, so we're not expecting what we had last year," he said.

But it only takes a week of dry weather and we could have problems, particularly on grass lines."

For the world to avoid losing its 'lungs' while mega-fires sweep across the east coast of Australia and the Arctic burns, we need to take urgent action to halt climate change, Mr Mullins warned.

"The only way we can mitigate it is to take action on emissions. Nothing else will work."

The Amazon rainforest could soon become the Amazon savanna as a result of climate change

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Nearly half of the Amazon rainforest could be transformed into a much drier ecosystem if rain levels continue to drop as a result of climate change, according to a new study.

As much as 40 per cent of the Amazon risks crossing a tipping point from rainforest to savanna as greenhouse gas emissions reduce the rainfall needed to sustain its unique ecosystem, scientists said Monday.

Forests are particularly sensitive to changes that affect rainfall for extended periods, and trees may die off if areas go too long without rain.

This can have significant knock-on effects on nature - with the loss of tropical habitats - as well as the climate as shrinking forests lose their ability to absorb manmade emissions.

It also increases the risk of fire.

A team of Europe-based scientists used the latest available atmospheric data to simulate how tropical forests might respond to changing rainfall levels.

In particular, they simulated the effect of continued emissions from burning fossil fuels between now and the end of the century.

They found that rainfall in the Amazon is so low already that up to 40 per cent of it risks tipping over into a savanna-like environment, with far fewer trees and far less biodiversity.

Lead author Arie Staal, from the Stockholm Resilience Centre, said that rainforests normally create their own rainfall through water vapour, sustaining tree levels and even extending their reach.

But the inverse is also true: when precipitation levels fall, the forests begin to disappear.

"As forests shrink, we get less rainfall downwind and this causes drying, leading to more fire and forest loss: a vicious cycle," Mr Staal said.

Species 'forever lost'

The study, published in the journal Nature Communications, explored the resilience of tropical rainforests under two additional extreme scenarios.

In the first, researchers looked at how fast the world's forests would grow back if they suddenly disappeared.

The second studied what would happen if rainforests covered all tropical regions on Earth.

They found that many of the world's rainforests would struggle to grow back once lost, leading to a far wider savanna-like mix of woodland and grassland.

In addition to the Amazon loss, the team found that the forest in the Congo basin was at risk of changing to savanna, and that large swathes would not grow back once gone.

"We understand now that rainforests on all continents are very sensitive to global change and can rapidly lose their ability to adapt," said Ingo Fetzer, also from the Stockholm Resilience Centre.

"Once gone, their recovery will take many decades to return to their original state," he said.

"And given that rainforests host the majority of all global species, all this will be forever lost."