

# Could the peatlands of Congo be a carbon bomb?

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Tropical peatlands are at threat from land clearance, draining and forest burning, which releases heat-trapping carbon gas locked in the soil

Gruelling talks are unfolding in Bonn for implementing the UN's Paris Agreement on climate change, but many kilometres (miles) away, there are fears that any progress may be wiped out by a lurking carbon threat.

Scientists and green campaigners say central Africa's peatlands hold

gigatonnes of carbon—a stockpile that poses a grave threat to hopes of limiting global warming to two degrees Celsius (3.6 degrees Fahrenheit).

The product of vegetation decay that occurred aeons ago, the carbon has been safely locked in the soil for thousands of years, but risks being unstopped by farming, they say.

Released into the air, the gas could add dramatically to greenhouse-gas emissions caused by [fossil fuels](#).

"We have a map of the central Congo peatland we published for the first time this year, which shows that they cover around 145,000 square kilometres (56,000 square miles), an area a bit bigger than the size of England," said Simon Lewis, a scientist from Britain's University of Leeds, on a soil-sampling mission to remote northwest DR Congo.

"We think it stores about 30 billion tonnes of carbon. That's as much carbon as the emissions from fossil fuels, all the emissions from humanity globally for three years."

## **Vicious circle**

For nearly two decades, climate scientists have warned of the threat of so-called positive feedbacks—a vicious circle of [global warming](#).

Fears have focused primarily on the [potent greenhouse gas](#) methane seeping from thawing Arctic permafrost.

These emissions would add significantly to warming, which would thaw more permafrost—and which in turn would release more greenhouse gas to stoke global temperatures, and so on.

But the dark, swampy peatlands of the tropics are now also a major area

of concern.

This has made draining the soil for farming and slash-and-burn agriculture big climate threats.

In 2015, the World Resources Institute (WRI) calculated that fires in Southeast Asia, where much land has been converted for palm oil and other products, spewed more greenhouse gases into the air than all US economic activity in 26 out of 44 monitored days.

The fires are also to blame for choking smoke, shrouding parts of Malaysia, Singapore and Indonesia.

The Congo basin is exceptionally rich in peat—about two metres (6.5 feet) thick, according to a study published in the science journal Nature in January by Lewis and colleagues.



Fires by farmers on tropical peatland in Southeast Asia have caused widespread environmental damage and also pose a serious health hazard

So far, the peat remains largely undisturbed. Campaign groups are desperate for it to remain so, and for the forests which suck carbon dioxide from the air to be preserved.

"The Congo basin rainforest is the second largest in the world," said Matt Daggett, Greenpeace's global campaign leader.

"We have known for many years that it is critical for the biodiversity of animals and plants. With this discovery we have also learnt that it is critical for the climate."

## **The people question**

But then the question arises: what should be done for people who live there?

Campaign groups say there is absolutely no question of expelling forest people—in fact, people who live in the forest and depend on it are likely to be keener to conserve it, they argue.

That thinking makes sense to villagers in remote Lokolama, who live from hunting, fishing and subsistence farming.

But, says Valentin Ingubo, a man in his fifties who represents the native peoples of Lokolama, they are also trapped in extreme poverty, and this "puts pressure on the forest".

"Instead of creating activities which generate income and give the forest

a bit of a rest, we destroy the forest to get the things we need to survive," he said in Lingala, one of DR Congo's four national languages.

Last month, researchers reporting in the peer-reviewed US journal Proceedings of the National Academy of Sciences said smarter land use could help to meet the target of two degrees Celsius.

Planting more trees, farming more sustainably and conserving wetlands and peatlands could slash [carbon dioxide emissions](#) by more than a third—37 percent—the researchers estimated.

Money, though, is the key.

Congolese officials seized on the Greenpeace trip and the Bonn talks to appeal for funds for sustainable conservation which would limit [forest](#) loss.

"DRC's efforts to protect the forests are not being sufficiently rewarded by international solidarity," said Joseph Katenga, an advisor at the environment ministry.

"The state does not have the means."

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