African mountain forests store two-thirds more carbon than previously believed: Study

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A study published Wednesday suggests that mountain forests may store up to two-thirds more carbon than previously thought, underscoring the vital role they can play in combating climate change.

High-altitude forests are typically considered to hold less carbon than lowland forests because the soil and climatic factors affect tree growth and, in turn, the amount of carbon the trees are able to store.

Scientists report in Nature that the average carbon content of Africa's montane forests is 149.4 tons per hectare, roughly equivalent to the average carbon content of African lowlands.

In a striking twist, this is more than two-thirds higher than the Intergovernmental Panel on Climate Change (IPCC) estimate of 89.3 tonnes of carbon per hectare.

To obtain this data, a team of international researchers examined data from 44 highland sites across 12 African countries to more accurately estimate the carbon stored in these so-called montane forests.

They measured the diameter and height of more than 72,000 trees to determine how dense the wood is, then logged the species present in each plot.

From there, they calculated the carbon storage rate per unit of forest area.

In spite of the huge amount of carbon they store, montane forests are threatened by logging, mining, and land conversion.

In Mozambique, for example, it was found that nearly a third of its 18,000 hectares (44,500 acres) of high altitude forests had been destroyed since 2000.

There has been a loss of over half a million hectares of mountain forests in the Democratic Republic of Congo in this century, accounting for much of Africa's 800,000 hectares.

As per the authors, these research findings have a range of policy implications, including the use of "carbon finance", incentives to conserve forests instead of clear-cutting them.

They argue that past underestimations of carbon storage capacity by the IPCC may have led to governments being less inclined to preserve high-altitude forest areas.

Source: https://www.wionews.com/world/african-mountain-forests-store-two-thirds-more-carbon-than-previously-believed-study-408374