

Loss of African woodland may impact on climate, study shows

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Deforestation in parts of Africa could be reversed with changes to land use, a study suggests.

A more strategic approach to managing trees across the continent could have a positive impact on the changing climate, researchers say.

A pioneering study of African savannas by the University of Edinburgh has revealed deforestation in south-central Africa, driven by rising populations in the aftermath of war, and increasing demand for trees for agriculture and fuel.

This loss of forests threatens the ecosystem and the livelihood of populations. Scientists suggest that the situation could be alleviated by using sustainable fuel instead of charcoal, and ending the practice of burning forests to support agriculture and livestock.

Loss of trees could impact on climate change, as forests store carbon in their stems and branches, helping to reduce the amount of harmful [carbon dioxide gas](#) in the atmosphere. Tracking changes in woodland across the continent may help scientists better understand their effect on [weather patterns](#), and improve predictions of [global climate change](#).

The study identified a north-south divide – while most forests and woodlands in the south are losing tree cover, many north of the equator are gaining trees. The worst affected areas are the Democratic Republic of Congo, Angola, Zimbabwe, Zambia and Mozambique.

Increase in [forest](#) cover north of the Congo basin might have been caused by migration to cities, resulting in fewer fires, and more hunting of large mammals, reducing tree destruction.

Researchers analysed studies of tree cover in African savannas, and combined this with a 25 year record from satellite data. The study, supported by the Natural Environment Research Council, was published in *Philosophical Transactions of the Royal Society B*.

Dr Ed Mitchard, of the University of Edinburgh's School of GeoSciences, who led the study, said: "Land use in Africa influences how much its forests can grow – and their capacity for absorbing [carbon emissions](#). If humans reduce burning and cutting forests and savannas these will grow and help to limit the impact of carbon emissions, but instead in many places people are impacting more on woodlands and forests, adding to carbon emissions."

Provided by University of Edinburgh

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