

## **New report underlines multiple benefits but also new challenges to biodiversity-rich sites**

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An agreement in Copenhagen to fund reduced emissions from deforestation may generate multiple environmental and economic benefits if investments simultaneously target sites that are both carbon and biodiversity-rich.

But the new report, published today in the journal [Conservation Letters](#), also warns of challenges in countries such as Brazil and parts of East Africa unless safeguards are followed.

This is because funding Reduced Emissions from Deforestation and [forest Degradation](#) (REDD) might also displace and intensify activities such as agriculture in lower carbon but equally biodiversity-rich locales. Such areas include parts of East Africa and Brazil.

The study has involved a wide range of organizations and institutions including: the Centre for Social and Economic Research on the Global Environment at the University of East Anglia (UEA); the UN Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC) in Cambridge; the Institute for Global and Applied Environmental Analysis (GAEA) in Rio de Janeiro; and Stanford University, California.

It is claimed to be the first map-based analysis of the distribution of carbon and biodiversity and indicates that governments face a series of choices on how best to maximize the benefits and minimize the challenges presented by a possible REDD deal at the UN climate

convention this week.

The colour maps allow the identification of areas where these double benefits could be highest, which include many of the global biodiversity hotspots.

For example the maps show that the [Amazon](#) hosts very high concentrations of both carbon and overall species richness whereas Sumatra and Borneo represent an opportunity to conserve carbon while conserving a high level of threatened species.

If the aim is to conserve high quantities of carbon while also conserving species found nowhere else in the world—so called endemic species—then the island of [New Guinea](#) would be one of the top priorities.

The study also identified areas where carbon funding would not solve the problem by itself, but could provide crucial complementary financing to biodiversity initiatives.

Finally it highlights areas that have high value for biodiversity conservation, but are poor or less rich in carbon and could thus be under increased threat if REDD is implemented including the Brazilian Cerrado or the savannahs of the Rift Valley in East Africa.

Bernardo Strassburg of UEA and GAEA and lead author of the study, said: "Overall REDD would have a very positive effect for biodiversity conservation, which makes it a very powerful tool that simultaneously addresses two of the greatest global environmental crises of our age.

"But as these synergies are unevenly distributed, it is crucial on the one hand that they are maximized by taking biodiversity distribution into account when planning and implementing REDD and, on the other, that

conservation planning adapts to a post-REDD world where opportunities and challenges would be relocated."

The research supports the collaborative work by the United Nations and the World Bank and others on preparing countries for a possible REDD regime and then scaling up investments in tropically-forested countries.

UNEP, along with the UN Development Programme and the Food and Agricultural Organization are working in over nine countries including Bolivia, Paraguay, the Democratic Republic of the Congo, Tanzania, Papua New Guinea and Vietnam. The work compliments that of the World Bank under its Forest Carbon Partnership Facility.

UNEP, with funding from the Global Environment Facility and in partnership with a range of organizations and scientists, is also assessing the potential to 'farm' carbon into landscapes and soils.

The work, initially focusing on western Kenya, Niger, Nigeria and China, aims to generate a universal standard so that investors can know how much carbon is being stored under different farming and land management systems.

This may lead to farmers and landowners being paid for the carbon they store improving the economic value of sustainably farmed and managed land and reducing the risks to biodiversity in landscapes that store lower levels of carbon including those identified in the new report.

News of the study comes as the UN climate convention marks its half way point with Forest Day. Lera Miles, a co-author on the study from UNEP-WCMC, said: "This week's UN climate convention talks will decide how quickly resources will be provided to help developing countries to tackle tropical deforestation. Reducing the loss of natural forest is good for many reasons - it helps to slow global warming by

reducing carbon emissions, can conserve threatened species and retain the economically-important ecosystem services upon which forest-dependent people as well as whole economies depend."

Provided by University of East Anglia

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