

To meet the Paris Agreement, northern leaders should commit to paying for forest protection

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The only way for northern countries to halt deforestation in the South is to make sure land owners are paid more than it costs them to conserve the forest. However, there is a fundamental contradiction in this policy, according to new research published in the Journal of Economic Theory.

Deforestation in the tropics - the South - leads to biodiversity losses and contributes to [global climate change](#). This indirectly affects northern [countries](#), which often pay land owners to stop logging. Through theoretical modelling, the study highlights the problem that the South is willing to conserve forest today if they believe the North will pay in the future, but the North will only pay if forest is being threatened or logged.

"We've reached stalemate," said Professor Bård Harstad from the University of Oslo, the researcher behind the study. "This fundamental contradiction means the market for [conservation](#) is not efficient and that a forest must be logged with some chance or gradually to secure the funding needed to protect it."

More than 30 percent of the planet is forest. An estimated 120,000-150,000 square kilometers of [forest](#) are lost each year through fire, degradation and logging - the equivalent of 48 football fields every minute. According to the World Wildlife Fund (WWF), 1.6 billion people rely on forests directly to live.

Deforestation affects billions more people around the world indirectly, through its impact on [climate change](#), water and nutrient cycling and food availability. Countries in the North can benefit more from conservation efforts in the South than the South receives through logging. As such, the North often funds conservation in the South, either by "buying" the land to conserve with a one-off payment or by "leasing" the land through ongoing payments..

In addition, the North and the South are not single entities; several countries are interested in funding conservation. This compounds the problem, as each country waits to see if the others will pay first.

According to Prof. Harstad, the problem is one of time inconsistency: the North may want to give the impression it will pay for conservation in the future in order to give the South an incentive to conserve today. But when that future arrives, the North wants to postpone payment. The answer, he says, could be for the North to commit to pay in the future through an international treaty.

The Paris Agreement on climate asks countries to protect forests, but there is still debate about whether avoided [deforestation](#) will be incorporated into tradable permit markets. The new research shows it is important to have a credible way to compensate countries that conserve forests. To be "credible," the compensation must be part of a treaty that commits countries to pay into a fund or to satisfy their national obligations. When such funds can be expected, the South will have an incentive to conserve today, in order to be compensated in the future.

"For conservation to work, it is not important that the payment happens today, but the commitment to future compensation must be established already now," explained Prof. Harstad.

More information: Bård Harstad. The market for conservation and

other hostages, *Journal of Economic Theory* (2016). [DOI: 10.1016/j.jet.2016.07.003](https://doi.org/10.1016/j.jet.2016.07.003)

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