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Scandal in the voluntary carbon market must not impede tropical forest conservation

Recent media coverage gives the impression that the very idea of tackling climate change by slowing tropical deforestation is a scam – this is not true and the idea could harm forests.

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The BBC recently released an episode of “Panorama”, the world’s longest running magazine news program, called “[Big Brands Green Claims Uncovered](#)”. The focus was the credibility of REDD+ (Reducing Emissions from Deforestation and forest Degradation) carbon credits used by companies to support their net zero claims. The film delved into issues first brought to light by “The Guardian” which claimed that [90% of REDD+ credits are worthless](#).

I am one of the scientists whose work fed into the Guardian article, and I was interviewed for the Panorama film. Both exposés got the science right: they explained how researchers estimate counterfactuals for avoided deforestation remarkably well, and accurately reflected problems with the current use of REDD+ credits. However, I am concerned about unintended consequences for the finance of tropical forest conservation. Given how vital tropical forests are for the future of our planet ([they store 15–20 years of global CO₂ emissions](#) and [actively absorb carbon dioxide, conserve biodiversity](#) and [support hydrological cycles](#)) this worries me.

Many companies plans to achieve net-zero are supported by REDD+ credits traded on the voluntary carbon market. For each credit, a metric tonne of CO₂ equivalent supposedly has not been released, which would otherwise have been. This is difficult to prove as what would have happened to deforestation without a REDD+ project, i.e. the counterfactual, cannot be observed.

The Guardian exposé was based on three empirical papers using different methods and different remote-sensed products to estimate counterfactual deforestation rates for REDD+ projects: pieces in [Science](#) and [PNAS](#) led by Thales West, and a paper in [Conservation Biology](#) led by Alejandro Guizar- Coutiño.

Taken together, the studies show that, while REDD+ projects have on average slowed deforestation, projects have issued more credits than justified due overestimating their risk of deforestation. Industry commentators point to [a pre-print](#) criticising the recent [West et al.](#), study. While this makes some valid points, concerns around the additionality and integrity of many REDD+ credits sold in the voluntary carbon market remain.

The voluntary market is not the only option for REDD+ carbon credits. In fact, some see it as a distraction from efforts towards developing a global carbon market under [Article 6](#) of the Paris Climate Agreement. The vast majority of credits will be used to offset emissions which [experts are clear](#) should only be used as a final step after all possible emission reductions have been made. In both markets there is debate about whether REDD+ credits are legitimate for use as offsets. I argue that they can be.

Those who point out that offsetting emissions by reducing deforestation [cannot get us to global net zero](#) have a point. REDD+ credits are emission reduction credits. Given that some emissions will continue even in a low carbon future, only initiatives that take carbon out of the atmosphere (removal credits) can ultimately offset emissions. However, we are a very long way from global net zero and need to be pragmatic. REDD+ credits are important in the medium term while other approaches such as [carbon capture and storage](#) are scaled up.

Some have argued that a market in REDD+ credits is too risky. As well as the thorny question of whether the avoided deforestation delivered is additional, critics point to challenges concerning leakage of deforestation into other areas, the permanence of emissions reductions, and respect for local people's rights: all highlighted in the Panorama programme. However, [conservative issuing](#) of credits can address issues with [leakage](#) and [impermanence](#). The move to [jurisdictional approaches](#) (with a focus on improved forest governance across whole political units) will also help reduce leakage and reduce the risk of double accounting. There is still work to be done to ensure REDD+ initiatives deliver on [social safeguards](#) and benefit sharing commitments: credits which prevent a genuine threat to forests without harming local people will certainly not be a cheap option but are possible.

Many of the risks (such as [lack of additionality](#), leakage, permanence and social risks) also apply to afforestation and restoration credits which make up the majority of available [removal credits](#). Afforestation projects also face uncertainties around establishing new forests, and often lack the biodiversity benefits of avoiding deforestation. Rather than excluding REDD+ credits from markets because of these concerns, higher standards need to be enforced for all these actions.

Sunlight is the best disinfectant. Recent media investigations have [uncovered murky practices](#) around the flows of money in some REDD+ projects, as well as taking important critiques of REDD+ from the pages of academic journals to new audiences. I hope that the result of this intense media scrutiny is that REDD+ credits are no longer seen as a cheap way to continue business as usual, or as an opportunity for profiteering. VERRA, the largest certifier of REDD+ credits on the market, is [transitioning](#) all projects to new methodologies over the next few years. The effect of this remains to be seen.

Of course, markets in REDD+ offsets are not the only way to fund tropical forest conservation. Countries can, and are, supporting other countries to slow deforestation under [bilateral agreements](#) not linked to their own emissions, and individuals or companies can donate to projects without claiming offsets. The Science Based Target initiative encourages companies with net zero pledges to deliver '[Beyond Value Chain Mitigation](#)' which could include buying quality REDD+ credits.

However, dramatically more finance is urgently needed to stop the ongoing loss of forests and the vital services they provide. REDD+ credits that cover the true cost of reducing deforestation in an effective and equitable way [can help](#) provide that finance. As long as they

are [only used to offset residual emissions](#) after substantial reductions, they could also contribute to the transition to net zero. The bottom line is that failure to conserve our carbon-rich forests and the life they support would be a dramatic and catastrophic failure for humanity.