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Master Thesis

Payment Adjustments and Permanence Implications for REDD(+)

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Abstract

As vast carbon sources and sinks, tropical forests play a vital role in the Earth's climate, and emissions from deforestation have become a major concern in the international endeavor to tackle climate change. Potential carbon savings from slowing down tropical deforestation could contribute substantially to overall emissions reduction. The REDD(+) framework aims at reducing emissions from deforestation and forest degradation by attaching a financial value to the forests' inherent carbon. However, objections exist regarding the permanent effectiveness of such a scheme. Building on a model by Pana and Gheyssens from 2015, I analyze the effects of distinct monetary incentives on REDD(+) permanence. Specifically, I look at the deforestation behavior of a representative forest manager when payments are linked to the remaining forested area or the period of participation. I find that the models rewarding continuous participation perform best with respect to the deforested area. While not tapping the full savings potential, establishing the conventional REDD(+) scheme can also meet the criteria of reasonable permanence for a time horizon of 50 years. Regardless of the payment scheme, permit prices and deforestation limits are the key factors for the success of REDD(+).