Payments for Avoided Deforestation in Brazil: Some Emerging Initiatives

Presentation at the UNFCCC Side Event: The political economy of avoided deforestation (IIASA), 05 Dec 2007

by Jan Börner[1] & Sven Wunder[2]

In spite of recent reductions, Brazil clearly remains the single country in the world with the highest absolute forest loss: In 2006, 1.4 million ha of primary forest equivalent to 218 ±33 million tons of carbon were lost in the Brazilian Amazon. It is thus also one of the countries where Reduced Emissions from Deforestation and Degradation (REDD) initiatives could potentially have the most tangible returns for climate-change mitigation.

Two Brazilian federal states, Mato Grosso and Amazonas, have recently engaged in proposals to introduce REDD type mechanisms for rewarding forest conservation. Both account for vast shares of the Amazon forest, and contemplate payments for avoided deforestation as a means to complement command and control type forest conservation policies. However, they have undergone widely differing development trajectories. Mato Grosso has a large-scale commercial agricultural sector, with expansive livestock and soybean industries. Its location in the 'Arc of Deforestation' implies good access to the developed Brazilian South, and combined with a history of aggressive land-development policies, it has traditionally held the highest deforestation rate (0.3–1.2 million ha/yr; on average 37% of annual Brazilian forest loss) among Brazil's federal states. In the last couple of years, forest loss has been significantly reduced, but controversy remains whether slack commodity prices or improved command-and-control policies are mainly to blame.

Amazonas State, on the other hand, accounts for Brazil's largest remaining natural forest stock (146 million ha). It is remotely located, and its much less dynamic agricultural sector is dominated by small-scale agriculture and forest extractivism. Amazonas has adopted innovative conservation policies, creating numerous protected areas, and recently pioneered conditional payments for environmental services (PES) to smallholders for not deforesting (*Bolsa Floresta*), which are hoped to be upscaled by linking to carbon markets for avoided deforestation. Amazonas State has low deforestation, in absolute and even more so in relative terms. Compared to Mato Grosso, Amazonas thus represents the opposite end of the forest-estate stewardship scale, in terms of discussing the dual yet conflictive function of prospective REDD payments: 'rewarding good forest stewards' vs. 'achieving true additionality'.

This presentation shows results of economic analysis about the spatial distribution of conservation opportunity costs in the private lands of the two states, critically reviewing the approaches both states have taken so far. It highlights the importance of carefully designed baselines in establishing the additionality of avoided deforestation under widely differing local land-use dynamics. Due to highly concentrated land ownership, a large share of the REDD benefits might be captured by large landowners, especially in Mato Grosso, underlining REDD trade-offs between environmental efficiency and equity.

Finally, based on a comparison of the two disparate cases, we conjecture on the scope for wider applicability of REDD measures across the Brazilian Amazon: only about one quarter of the land in the Brazilian Amazon is privately owned, one third is formally protected, while the rest is public land with a variable yet predominantly weak *de facto* protection status. In conflictive areas with active 'land grabbing', private PES payments might create perverse incentives, yet REDD payments at the federal-state or national levels might still be justified to improve command-and-control measures. We discuss the feasibility of these mechanisms, and their likely spatial scope for application.

---

[1] Amazon Initiative & CIAT, Embrapa, Tr. E. Pinheiro s/n, Belém-PA, Brazil, j.boerner@cgiar.org
[2] CIFOR, c/o Embrapa, Tr. E. Pinheiro s/n, Belém-PA, Brazil, s.wunder@cgiar.org