

A jurisdictional approach will not solve the most serious REDD+ problems

As a professor and geographer (PhD, UC Berkeley) specializing in international environmental policy and sustainable development, I have done research and written peer-reviewed publications on trade in environmental services, REDD+, and the results of proto-REDD+ programs and payments for environmental services (PES) projects in Latin America. I have taken part in numerous conference sessions and read dozens of research reports, peer-reviewed case studies, and review articles about carbon sequestration services in the tropics and about the designs and results of proto-REDD+ programs. I have read the ROW recommendations and the ARB White Paper and have observed presentations at the October and April public workshops on the proposed AB32 sectoral offset policy.

It seems that the ARB is largely unaware of the extensive, peer-reviewed academic literature on the implementation and actual results of PES and REDD-type programs in Latin America and other regions. I am also struck by the ROW/ARB's limited and selective interpretation of the dynamics of land-use change and the drivers of deforestation in Amazonia.

The academic literature, as well as in depth studies by the Center for International Forestry Research and other agencies, point to serious problems that are not addressed or are not addressed adequately in the White Paper and ARB presentations. Many of the problems that trouble one-off PES and proto-REDD+ projects are likely to plague jurisdictional REDD+ systems as well. For example, one well-documented problem is that of inequity: the tendency of market-oriented REDD+ and PES implementation to favor larger-scale landholders at the expense of smallholders, a pattern that is very widespread in PES and proto-REDD+ programs and that has been detected in PES projects in Acre.

One of the more dubious suggestions put forward by the ARB is that leakage of forest-destroying activities, both within and beyond the targeted REDD+ jurisdiction, can be prevented or at least can be measured and accounted for. The ARB further proposes that any such leakage can be managed by means of discounting and reserving a small share of credits within a partner jurisdiction. However, even if we assume that most such leakage within a jurisdiction can be detected – an assumption that is not justified, in my view – it is impossible in principle to measure, much less prevent, deforestation leakage *beyond* that jurisdiction because the area beyond the jurisdiction is unbounded. It is also impossible in principle to determine whether avoided deforestation within and beyond the jurisdiction is permanent or not, since the future cannot be predicted.

The jurisdictional approach *per se* most certainly does not eliminate the high risks of impermanence and of leakage into Amazonas state, Bolivia, and Peru. Even within a jurisdiction such as Acre, the revenues from CA offset credit sales cannot compete with the opportunity values of many non-forest land-use options if land values continue to rise. Rising agricultural land values and commodity prices are a very possible outcome of growing global land and food scarcity and could easily swamp regulatory efforts, such as

the proposed sectoral offsets plan for AB32, that depend on markets in greenhouse-gas offsets.

In such a context, the responses to the permanence and leakage problems offered in the ARB white paper are entirely inadequate. A buffer pool of credits would effectively reduce total revenues from credit sales and could quickly become insufficient in the event of land-use changes related to commodity-price increases in soy, beef, timber, wood pulp, palm oil, biofuels, etc. The ARB-proposed risk insurance could also become insufficient in the context of natural events, economic trends, and political factors, as has happened in the case of the OPIC-insured Oddar Meanchey REDD+ project in Cambodia that the ARB white paper cites as a precedent for this approach.

Deforestation also might well accelerate as a result of changes in government in Brazil. Just yesterday the interim president appointed as Minister of Agriculture a “soy tycoon” and notorious deforester of the Amazon [*New York Times* May 10, 2016]. Brazil may soon see some combination of changes in state policies for land use, soy and other agricultural subsidies, increased export incentives in the context of the current economic recession, or changes in enforcement practices.

The ARB also suggests that leakage can be monitored and minimized by encouraging agricultural intensification and by assessing the results in terms of the production of animal products and crops. The ARB reasoning here is partial and faulty, since data showing increased productivity of beef, fodder, or other commodities in the targeted area would not prove that leakage is not also occurring, especially leakage beyond the jurisdiction.

But this is more than a matter of poor logic or hypothetical scenarios. There is evidence, corroborated by several recent studies, that when agricultural land use in the tropics is intensified in the context of tightened regulation of deforestation and agronomic practices, the result is not “land sparing” for conservation but rather the *expansion* of the land area where the targeted crops are grown or animals raised, including expansion based on forest clearing in jurisdictions neighboring the regulated areas. This trend has been documented in the Brazilian Amazonian and cerrado zones and in neighboring states. Profits from intensified farming and ranching have been reinvested in ranching and large-scale soy production has been shifted to less effectively regulated regions.

UCLA professor Susanna Hecht, one of the world’s foremost experts on deforestation in tropical South America, and Gustavo de I. T. Oliveira, who studies land-use change and agriculture in Brazil, summarize some of these findings in an important article published this year.* They write:

“Common to all analyses is the evidence that intensification of profitable land uses tends to enhance its spread rather than to confine it spatially, regardless of the mix of drivers (Hecht 2005; Morton et al. 2008; Rudel et al. 2009; DeFries, Rudel, and Hansen 2010).” [p 267].

They continue,

“...there is evidence that the tight environmental regulations, cadastral requirements,

better monitoring and enforcement in the Amazonian fringe have triggered ‘leakage’ into other woodland systems elsewhere in Brazil, Bolivia, Paraguay and Argentina, operational dynamics that are obvious to cross-continent farm management companies and migration choices of small- and medium-scale soy farmers (Hecht 2005; Pfaff and Walker 2010; Richards 2011). [p 270]

In this light, the ARB propositions that intensification of production should be promoted, and that production increases in ranching and related production will indicate lack of deforestation leakage, is badly misguided. It is also odd that intensification techniques such as N-fixing cover crops and paddock rotation, which have been recognized and studied since at least the 18th century, are portrayed as innovations that ranchers will quickly adopt. More worrisome, and ironic, is that this approach would provide backing from California, in the name of conservation, for intensification of ranching and the meat/fodder/feedgrain complex, which is by far the most efficient way of producing food calories wherever it is practiced.

Finally, the US and Canada together comprise the world’s largest source greenhouse-gas emissions both absolutely and *per capita*. It seems arbitrary and somewhat opportunistic to argue that California has a special responsibility to try to shape forest policy in Acre (or anywhere else), while we continue to enable continued emissions from our own state and make emissions even easier by adding more offset options in the name of “reducing compliance costs”. Californians who feel that there is a particular reason to support conservation in tropical Latin America can do so through many other organizations. The state of Acre has other means of limiting deforestation should it choose to employ them. Both Brazil and the US have made commitments under that Paris climate agreement to make significant reductions in their climate-warming emissions. The appropriate place for California to show leadership in meeting this commitment is right here in our own state.

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* Gustavo Oliveira & Susanna Hecht (2016) Sacred groves, sacrifice zones and soy production: globalization, intensification and neo-nature in South America, *The Journal of Peasant Studies*, 43:2, 251-285, DOI: 10.1080/03066150.2016.1146705.