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Wealth and the distribution of benefits from tropical forests: Implications for REDD+

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ABSTRACT

Interventions to strengthen forest conservation in tropical biomes face multiple challenges. Insecure land tenure and unequal benefit sharing within forest user groups are two of the most important. Using original household-level survey data from 130 villages in six countries, we assess how current wealth inequality relates to tenure security and benefit flows from forest use. We find that villages with higher wealth inequality report lower tenure security and more unequal flows from forest income and externally sourced income. Furthermore, we find that wealthier individuals within villages capture a disproportionately larger share of the total amount of forest benefits available to each village, while external income often benefits poorer individuals more. These findings suggest that unless future forest conservation interventions actively work to mitigate inequalities linked to existing forest benefit flows, there is a risk that these interventions—including those associated with REDD+ activities—reproduce or even aggravate pre-existing socioeconomic inequalities within user groups, potentially undermining both their conservation and economic objectives.

1. Introduction

Research on local forest governance suggests that in the absence of institutional arrangements that regulate the distribution of forest benefits, community-based forestry activities are susceptible to elite capture. Elite capture is a process that enables the richer members of user groups to receive a disproportionately large share from a stream of benefits, and this process can exacerbate economic inequalities within these groups (Iversen et al., 2006; Persha and Andersson, 2014; Torpey-Saboe et al., 2015). The sustainability of community-based forestry depends on reducing economic inequalities among forest users, and particularly helping economically disadvantaged users to improve their wellbeing (Brown et al., 2008).

The objectives of REDD+, the international initiative to Reduce Emissions from Deforestation and forest Degradation and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks (hereafter REDD+), include safeguarding local livelihoods, alleviating poverty, and improving tenure security for rural people in developing countries (Sunderlin, 2014). Here, we examine the distribution of household wealth and income in villages located in and around sites selected for REDD+ interventions. Our sample reflects a wide range of forest use and users across the tropics. We provide empirical evidence on the conditions necessary for local forest governance to promote equal benefit sharing and the extent to which the benefits disproportionately reward the rich and powerful.

We use baseline data from an ongoing study of subnational REDD+ initiatives to examine the joint distribution of household wealth, tenure security, forest income, and income from external sources such as government programs. Important policy issues are at stake. If the current distribution of forest benefits predicts the future distribution of forest benefits, broadly conceived, then policy makers can use this knowledge to intervene to promote more equal benefit flows (Larson et al., 2015b).

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The first step is to understand the association of wealth inequality and benefit distribution patterns in a large number of forest-dependent villages. Does forest use contribute to more or less socioeconomic inequality within user groups? How can future community-based forestry interventions be designed so that benefits are shared equitably, and help those users who are in greatest need?

To address these questions, we analyze data collected through interviews with 3929 households in 130 villages at 17 subnational REDD + sites in six countries: Brazil (n = 37 villages), Cameroon (n = 13), Indonesia (n = 41), Peru (n = 16), Tanzania (n = 15), and Vietnam (n = 8), as described in Sills et al. (2014).[1] The Center for International Forestry Research collected the data for their Global Comparative Study (GCS) on REDD+ (www.cifor.org/gcs). In each village, researchers collected information through multiple approaches, including a survey of 30 randomly selected households. The households and villages represent the wide variety of situations and contexts in which community-based forest conservation initiatives intervene to try to conserve tropical forests.

Overall, we find that existing wealth inequalities within villages, both in terms of land and non-land assets, are associated with skewed distributions of (a) perceived tenure security, (b) benefits from forests, and (c) benefits from external sources. Within villages, households with higher levels of economic endowments (wealth) are often those that garner higher forest income streams. In contrast, we see some evidence that existing external sources of income can defray some inequalities. Our findings imply that future REDD+ funds could either exacerbate or subdue existing inequalities depending on whether compensation follows existing distributions of forest benefits or the existing externally sourced income. If REDD+ programs are serious about reducing poverty and wealth inequality, our results indicate they should conscientiously create mechanisms to avoid the perpetuation of existing forest–benefit flows, and ensure that funds flow also to the households whose members' wellbeing stand to benefit the most from such support.[2]

2. Benefit sharing and elite capture

The concept of elite capture connotes domination and control of decision-making arenas, monopolization of shared benefits and resources, and a combination of both (Lund and Saito-Jensen, 2013). In the literature on local governance, elite capture is generally portrayed as a pernicious problem for community-based initiatives and programs (Platteau, 2004; Persha and Andersson, 2014), yet some scholars caution that certain forms of elite capture may also benefit the wider community (Dasgupta and Beard, 2007; Fritzen, 2007).

In some rural settings, the village authorities—typically led by the head of the village—may be the only bridge of communication between the village and external interventions (Andersson, 2013). The leadership position of the local village authorities gives these individuals tremendous influence and power (Larson et al., 2015a). The power of access and information allows the local leadership and elites to exert a great deal of influence over the local decision-making process (Beard and Phakphian, 2012). This power is often perpetuated through landholdings, family networks, wealth, knowledge of political protocols, political and religious affiliations, personal history, and personality (Lund and Saito-Jensen, 2013; Dasgupta and Beard, 2007; Platteau, 2004). As such, interventions to produce community-based natural resource management may succeed in changing the formal and visible institutional forms but not necessarily the subtler power relations or deeper socio-political differentiations within local groups (Wilshusen, 2009; Wong, 2010; Sneddon and Fox, 2007).

Payment for Environmental Services (PES) programs are similarly prone to elite capture. Corbera et al. (2007) finds that political inequalities are so widespread and deeply engrained in most Mesoamerican societies that PES schemes in this context are likely to reinforce the existing power structures and deepen existing inequalities in both decision making and in gaining access to resources. In Vietnam's national PES program, neither community members nor civil society is represented on any of the local PES program committees, and local corruption and nepotism are common. Pham et al. (2014) find that trust between communities and local leaders in Vietnam is a key factor affecting compliance to PES contracts and local perceptions of equity. Elite capture and corruption does not only occur at the local level—it is also identified as one of the major constraints to the implementation of equitable REDD+ benefit sharing mechanisms at all levels of governance, particularly where land tenure systems and institutions are weak and participation in decision-making processes constrained (Assembe-Mvondo, 2015; Pham et al., 2014; Alston et al., 2013).

Much of the existing evidence suggests that elite capture is common in community-based forest governance, and that a careful characterization and evaluation of the forms and outcomes of elite capture is needed to understand the underlying drivers of skewed distributions of power and resources (Lund and Saito-Jenson, 2013). There is also some evidence that when external interventions actively promote democratic accountability of village leaders, these interventions can reduce the likelihood of elite capture (Persha and Andersson, 2014).

What does this mean for REDD+ interventions? REDD+ represents both risks and opportunities for dealing with problems of elite capture. On the one hand, if REDD+ implementers ignore the skewed distribution patterns that potentially exist in selected intervention sites, the introduced incentives that may form part of the interventions risk exacerbating elite capture. On the other hand, REDD+ interventions could also help address elite capture if implementers not only recognize that such inequalities exist but also proactively design institutions to ensure a more equitable distribution of REDD+ benefits.

At many REDD+ sites, the aim has been to introduce conditional, performance-based "carrots" to forest users if they have fulfilled REDD + requirements of "verifiable emission reductions". To date, however, this approach to REDD+ has barely gotten underway (Sills et al., 2014; Turnhout et al., 2017; Angelsen, 2017). In principle, REDD+ implementers recognize that protecting and increasing local incomes (whether non-forest or sustainable forest incomes) is an instrumental means to achieving forest protection goals. Moreover, implementers recognize that income protection and enhancement must be widely dispersed across the local population for maximum forest-protection effect, implying (at least implicitly) a degree of determination to attain equitable outcomes. However, on-the-ground realities introduce a wide range of obstacles to achieving this goal. Given the limited sample of REDD+ initiatives with actual conditional incentives in place, lessons for how these can work has to be derived from experiences gained in other sectors and from other types of benefits and income streams. Studies on benefit sharing in PES schemes (Loft et al., 2017), community development projects, and participatory forest initiatives can all provide useful insights into how existing inequalities in wealth create vulnerability to elite capture and thus affect the governance outcomes, including forest income distribution.

3. Theory and hypotheses

We propose that policy interventions that offer conditional incentives to motivate local users to conserve natural resources run the risk of deepening economic inequalities within such user communities. The basis for this argument is that previous studies have found that many rural communities are very heterogeneous when it comes to the households' material assets (Agrawal and Gibson, 1999) and that this wealth inequality may affect the household members' ability to generate income from forests (Adhikari, 2005; Fisher, 2004; Rayamajhi

[1] Roughly, half the households are inside REDD+ initiative boundaries.

[2] See Alston and Andersson (2011) for an overview of the potential perverse incentive effects from REDD+ programs.