International Journal of the Commons Vol. 9, no 2 xxxx 2015, pp. xxx–xxx

Publisher: Uopen Journals

URL:http://www.thecommonsjournal.org

URN:NBN:NL:UI:10-1-xxxxxx

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ISSN: 1875-0281

Multilevel governance challenges in transitioning towards a national approach for REDD+: evidence from 23 subnational REDD+ initiatives

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Abstract: Although REDD+ was conceived as a national approach to reducing emissions from deforestation and forest degradation, many of the early advances have been at the subnational level. It is critical to link these subnational efforts to emerging national REDD+ frameworks, including with respect to finance and benefit distribution, setting reference levels, measurement, reporting and verification (MRV), land policy and safeguards. We use evidence from interviews with proponents from 23 subnational REDD+ initiatives in six countries to characterize the multilevel governance challenges for REDD+. We analyse the differences in perceived challenges between subnational jurisdictional programs

and project-based initiatives, and then analyse proponents' perceptions of the relationship between government policies at multiple levels and these REDD+ initiatives. We find important multilevel governance challenges related to vertical coordination and information sharing and horizontal and inter-sectoral tensions, as well as concerns over accountability, equity and justice. Though the shift to a nested, jurisdictional or national REDD+ is sometimes approached as a technical design issue, this must be accompanied by an understanding of the interests and power relations among actors at different levels. We outline challenges and suggest priority areas for future research and policy, as countries move towards a national REDD+ system.

Keywords: Benefit sharing, land use, MRV, multi-level governance, REDD+

Acknowledgement: This research is part of the Global Comparative Study of REDD+ of the Center for International Forestry Research (CIFOR) (http://www.cifor.org/gcs). Funding for CIFOR's research was provided by the Norwegian Agency for Development Cooperation, the Australian Agency for International Development, the UK Department for International Development, the European Commission, and the US Agency for International Development. This research forms part of the CGIAR Research Programme on Forests, Trees, and Agroforestry (FTA). With gratitude, we recognise the review and comments on drafts of this paper by Kaisa Korhonen-Kurki and Cecilia Luttrell, as well as two anonymous reviewers.

1. Introduction – moving towards a national approach

Countries preparing for REDD+ are in various stages, starting from readiness, moving to advanced readiness, and finally to implementation and full UNFCCC compliance (Wertz-Kanounnikoff and Angelsen 2009). The creation of a national REDD+ architecture is one of the key challenges, and of increasing importance as countries progress through these stages. In many countries, this involves harmonizing the efforts of subnational REDD+ initiatives into national frameworks. These architectures, or governance structures, involve the types of actors and institutions, or rules, that will both enable and constrain the process and outcomes of REDD+ (Vatn and Vedeld 2011). The chosen architecture in each country will shape the official way in which decisions should be made and by whom. A national REDD+ architecture will guide important features such as REDD+ finance, benefit sharing, carbon measurement, establishment of reference levels, accounting of carbon emissions credits, monitoring for compliance, and the design and implementation of social safeguards (Wertz-Kanounnikoff and Angelsen 2009).

Early REDD+ initiatives began in many countries with parallel processes of pilot project implementation and national level readiness activities, though in some countries the projects emerged before readiness-oriented efforts had

advanced (Sills et al. 2009; Wertz-Kanounnikoff and Angelsen 2009). The original idea was to build capacity and infrastructure in a phased approach that would lead to 'nested accounting' systems initially and finally to a national approach, which may or may not continue to provide direct crediting to subnational initiatives (Wertz-Kanounnikoff and Angelsen 2009).

The idea of shifting gradually toward a national and nested system is attractive to many REDD+ advocates. In theory, it allows crediting and payments both at the national and subnational level, supports private investment and permits scaling up as the capacity to do so is built (Pedroni et al. 2009). A national, nested system is seen as having "the potential to address many of the drawbacks of pure national or pure subnational approaches" (Cortez et al. 2010). Further, it serves to harmonize disparate subnational approaches under a single, consistent national system.

Nevertheless, the development of a national REDD+ approach is challenging not only due to resistance from some subnational actors, but also because there is a lack of agreement on how such national and nested systems ought to be designed. One possibility is a 'jurisdictional and nested REDD+' approach, which is being widely promoted by the Verified Carbon Standard (VCS) but is also being used to refer to the construction of the REDD+ architecture more generally. VCS defines its terms clearly: in the interest of creating efficient and robust national accounting networks, *nested* refers to the integration of project level carbon credits into broader-scale (jurisdictional) accounting mechanisms. *Jurisdictional* means that carbon monitoring will occur over an entire political administrative region, which could be subnational or national in scale (VCS 2013).

Most of the literature regarding nesting and jurisdictions is emerging from discussions over the *technical* challenges of setting reference levels and carbon accounting. Yet these issues of REDD+ architecture also have social and political dimensions. Sikor et al. (2010) argue for "nested climate governance" to emphasize the importance of decision making at multiple levels. They refer to *nesting* as a system wherein local actors have concrete arenas for decision-making shaped by national and global guidelines. For others, the *sub-national jurisdictional* approach is interpreted as guaranteeing a central role for subnational governments (interviews, 2013 – see Methods below for details). This discussion about jurisdictions raises a point that has been ignored in much of the REDD+ literature previously: the distinction between subnational jurisdictional programs, and project-based initiatives (Larson and Ribot 2009).

In practice, however, these terms have much more generic meanings: nesting a project within a political jurisdiction says little about where the decisions are actually made (Forsyth 2009). The term *jurisdictional* suggests the involvement of subnational governments, but does not guarantee it because not all jurisdictions are sub-national and national governments also comprise jurisdictions. *Nested* implies that there are multiple levels of governance, but does not clarify what levels have which decision-making powers. In this way, neither term makes it clear which subnational actors will, or ought to be, engaged with REDD+, or what their influence will be in the transition toward a national approach.

These decisions, which are being shaped primarily around technical questions such as MRV methods, are fundamentally political, and must be accompanied by an understanding of the interests and power relations among actors at different levels. Emerson et al. (2012) define multilevel governance broadly as the "processes and structures of public policy, decision-making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished." We adopt this definition for this paper because it encompasses extra-governmental stakeholders, such as project proponents and others that play a role in the governance of REDD+. We also emphasize "negotiation", which Marks (1993) uses to demonstrate that multilevel governance arrangements are constantly changing as a product of interaction among actors.

This article uses data from 23 subnational REDD+ initiatives to understand their relationship with national and sub-national government policies. We primarily draw on the perspectives of the proponents of these initiatives to assess progress, opportunities and challenges associated with multilevel REDD+ governance. The data analysis focuses on two questions: (1) how do the challenges identified by proponents of subnational jurisdictional programs differ when compared with those of project-based initiatives?, and (2) how do proponents of sub-national REDD+ initiatives characterise the multi-level governance challenges that emerge? Reflections from other actors, such as community leaders, NGOs and government, are included, when relevant, to enrich the discussion.

The rest of the paper is structured as follows. We first present the methods. We then analyse the challenges perceived by proponents of the 23 initiatives, contrasting sub-national jurisdictional programs with project-based initiatives. We then use qualitative data to explore the relationships between different levels of governance to elucidate areas of tension and opportunity. Finally, we discuss the findings in the context of transitioning towards a national approach to REDD+.

2. Methods

The analysis in this paper includes data from 23 subnational REDD+ initiatives in Brazil, Peru, Indonesia, Tanzania, and Cameroon, and Vietnam (see Table 1; adapted from Sunderlin et al. 2014). The data is based on interviews with the proponents of these initiatives, collected from December 2012 to May 2013 under the component of CIFOR's Global Comparative Study (GCS) that focuses on subnational REDD+ initiatives. This data is supplemented with field researchers' notes and observations from discussions with multiple actors involved in the initiatives.

The initiatives were selected on the basis of (1) an aim to reduce net carbon emissions by reducing deforestation/degradation or implementing forest conservation/restoration/management; (2) intention of activities carried out in a quantifiable manner, with the aim of measuring, reporting, and/or transacting reductions in forest carbon emissions or increases in carbon stock; (3) the existence

Table 1: Description of selected sites.

Brazil Ac Brazil Cc Brazil Su Brazil Gr	Acre State System of Incentives for Environmental Services (SISA)	name			(km^2)
		Acre	Government	Jurisdictional (state)	152,581
	Cotriguaçu Forever Green	Cotriguaçu	Private non-profit -	Jurisdictional	9123
			government	(municipality)	
	Sustainable Settlements in the Amazon: the challenge of transition from family production on the frontier to a low carbon economy	Transamazon	Private non-profit	Project	2299
	Green Development in the Amazon Region (São Félix do Xingu)	SFX	Private non-profit –	Jurisdictional	84,212
			government	(municipality)	
Brazil Bo	Bolsa Floresta Program	Bolsa Floresta	Private non-profit	Project	100,000
Brazil Jar	Jari/Amapá REDD+ Project	Jari/Amapá	Private for-profit	Project	099
Peru RI	REDD Project in Brazil Nut Concessions in Madre de Dios	BAM	Private for-profit	Project	2907
Peru Va	Valuation of Environmental Services in Managed Forests of 7 Native	AIDER	Private non-profit	Project	206
රි	Communities in Ucayali				
Cameroon Pa	Payment for Ecosystem Services (PES) project in Cameroon South and East	CED	Private for-profit	Project	30
Re	Region				
Cameroon Mt	Cameroon Mt. Cameroon REDD Project	Mt. Cameroon	Mt. Cameroon Public bi-lateral	Project	580
Tanzania Co	Community Based REDD Mechanisms for Sustainable Forest Management	TaTEDO	Private non-profit	Project	38
in	in Semi-Arid Areas				
Fanzania Ma	Making REDD work for Communities and Forest Conservation in Tanzania	TFCG-Lindi	Private non-profit	Project	640
Fanzania Ma	Making REDD work for Communities and Forest Conservation in Tanzania	TFCG-Kilosa	Private non-profit	Project	500
Tanzania Bu	Building REDD Readiness in the Masito Ugalla Ecosystem Pilot Area in	JGI	Private non-profit	Project	277
Su	Support of Tanzania's National REDD Strategy				
Tanzania HI	HIMA - Piloting REDD in Zanzibar through Community Forest Management CARE	CARE	Private non-profit	Project	700
Tanzania Mp	Mpingo Conservation Project	Mpingo	Private non-profit	Project	300
Indonesia Re	Reducing Carbon Emissions from Deforestation in the Ulu Masen Ecosystem	Ulu Masen	Government	Jurisdictional (multi-district)	7500
Indonesia RE	Indonesia REDD Pilot Project Development, Community Carbon Pools	KCCP	Private non-profit	Project	460

Table 1: (continued)

Country	Country Initiative name	Abbreviated name	Abbreviated Type of proponent Approach name	Approach	Area of initiative (km²)
Indonesia	ndonesia Kalimantan Forests and Carbon Partnership (KFCP)	KFCP	Government	Project	1200
			to government partnership		
Indonesia	Indonesia The Rimba Raya Biodiversity Reserve Project	RRC	Private for-profit	Project	912
Indonesia	Indonesia Katingan Conservation Area: A Global Peatland Capstone Project	Katingan	Private for-profit	Project	2273
Indonesia	Indonesia Berau Forest Carbon Program	Beran	Private non-profit	Jurisdictional	22,000
				(district)	
Vietnam	SNV Site, Cat Tien, Lam Dong District (VNM1)	SNV	Private non-profit	Jurisdictional	554
				(district)	

Source: Sunderlin et al. (2014).

of or plan for defined site boundaries and villages to be targeted by the intervention before the beginning of our field research; (4) incentives not scheduled to begin until after initial field work, assuring a risk-free period in which to collect the 'before' data; and (5) incentives having a reasonable chance of being implemented and maintained in the subsequent 1.5 years (Sunderlin et al. 2014). Of the 23 initiatives, six can be considered jurisdictional programs because they target state/ provincial or municipal/district areas and involve subnational governments.

The first analysis is a comparison of challenges in six jurisdictional and 17 project sites. It is based on respondent ratings of the level of difficulty posed by different factors including policies from multiple levels of government on a Likert scale: 1=none, 2=minor, 3=moderate, 4=large and 5=overwhelming. Responses from proponents of subnational jurisdictional programs were compared to those of project proponents. We expected proponents of jurisdictional programs to rate sub-national policies as less challenging; we tested this hypothesis using analysis of variance treating the data as interval data, an assumption that has been found to be highly robust (Carifio and Perla 2007).

The second analysis focuses on perceptions of the relationship between national and sub-national government policies and REDD+ initiatives. Previous research identified multilevel governance issues related to establishing MRV systems, addressing leakage and permanence, realizing co-benefits, developing financial systems and benefit sharing arrangements, as well as ensuring the participation and rights of indigenous people and local communities (Korhonen-Kurki et al. 2013). We adjusted these categories to the findings of this study, coding proponent survey responses in QSR's Nvivo 10 qualitative analysis software package as follows: benefit sharing and finance, MRV and reference levels, land use planning and tenure, and safeguards. We also coded the level (national, subnational) and direction of influence, and whether this influence was perceived positively, negatively, or ambivalently.

We used secondary data and literature to characterize multilevel governance across the study countries. We include data collected from interviews with governments, NGOs and community representatives at the sub-national level between in 2013 and 2014 in Peru and Indonesia as part of GCS work explicitly focused on multilevel governance of REDD+ to enrich the analysis in these two countries.

3. Perspectives on multilevel governance challenges

Project proponents were asked to rank the difficulties posed by a series of subnational policies. We compared responses between proponents from the two types of subnational REDD+ initiatives – jurisdictional programs and project-based initiatives. A jurisdictional approach is expected to allow for effective local planning that harmonizes multiple levels of policy-making with the aims of REDD+. Hence we hypothestized that proponents from these jurisdictions would therefore find subnational policies less challenging than those from project initiatives.

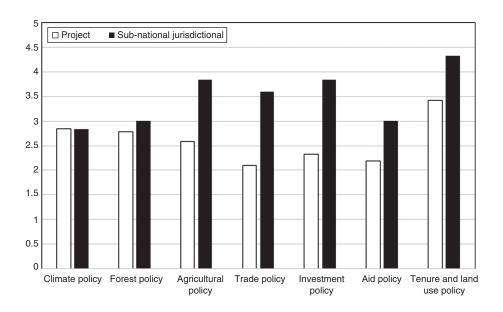


Figure 1: How much of a challenge do sub-national policies present?

Our results suggest that this is not the case. In fact, the findings suggest the opposite: proponents from jurisdictional programs perceived several types of sub-national policies to be substantially more challenging than did project-based initiative proponents (Figure 1).

Sub-national agriculture, trade, investment, tenure, and land use policies were perceived as significantly more challenging by the six respondents linked to jurisdictional REDD+ programs. While it is impossible to derive causal inferences from responses from just six jurisdictional programs, the results are striking. If jurisdictional programs were aligned with sub-national policies from the same jurisdictions that support them, one would expect a strong signal indicating that these proponents were not challenged by sub-national policies, or at least that they were no more challenged than subnational projects.

This is an important finding in the context of broader discussions about jurisdictional REDD+. It is thought that subnational jurisdictional initiatives would orient regional or local government policies to support REDD+, and that the required cross-sectoral coordination would be easier than at national scales (Gallemore et al. 2015). It is notable, for example, that in two subnational policy arenas – forests and climate – the level of challenge was similar between the two groups. Subnational forest and climate policies are in fact the ones most

¹ For the case of sub-national policy: investment, only five responses from jurisdictional programs were collected.

likely to be emerging from the same offices and personnel as REDD+ policies. These findings suggest that even at subnational scales, business as usual sectoral planning prevails and is very difficult to overcome.

But why would these arenas – investment, agriculture, tenure, and so on – be seen by these proponents as even more challenging than for project-based proponents? There are several possible reasons for this. One is that while projects target smaller areas with a more uniform set of stakeholders, jurisdictional approaches encompass a wider range of complex land management issues in which challenges are more difficult to avoid. State actors may also be more aware of the complexities because they are more embedded in the systems in which the challenges exist. Thus, the state actors (jurisdictional program implementers) understand better and experience more closely the policy complexity and contradictions than non-state actors (project implementers).

Respondents were also asked to discuss international and national policies, but in this case there was no difference in the perceived magnitude of challenge between the two types of respondents. Both jurisdictional program and project respondents rated these policies as moderately challenging across the board.

4. Influences between policies and initiatives

Our second set of questions is aimed at understanding multilevel governance challenges on the ground in relation to the four arenas identified earlier: benefit sharing and finance, MRV and reference levels, land use planning and tenure, and safeguards. Each section introduces the topic then considers, in turn, interview results on policy opportunities and positive influences, challenges and risks and, finally, the influence of subnational REDD+ initiatives on policy. Additional detail on issues raised by proponents, and sometimes by other informants, is added from country level research and literature.

4.1. Benefit sharing and finance

Developing a robust benefit sharing system is a multilevel governance coordination challenge. It requires clear definition of what benefits are, who has rights to them, how they will be allocated and distributed, and who makes the decisions. It also requires clear definitions of powers and responsibilities among different government ministries and departments from the local to national level. The results presented below confirm findings from the literature that benefit sharing systems have so far been created in a mostly ad-hoc fashion and are in need of further development (Corbera and Estrada 2009; Peskett 2011). To date, no country in the sample has developed a comprehensive benefit sharing system that is harmonized across levels of government. Respondents suggested that benefit sharing may require more coordination from national authorities, but at the same time, this must be done carefully to ensure that good systems already developed on the ground are not discarded and replaced by systems that are more amenable to elite capture and losses due to corruption.

4.1.1. Opportunities and positive influences

Respondents suggested several opportunities for productive benefit sharing policy engagement by national and subnational governments. In Brazil, proponents said that a well-defined benefit sharing system at the national level would be very helpful, but that no such system exists. On the one hand, the Amazon Fund provides some capacity for benefit sharing, and could be viewed as a useful instrument for deploying readiness funding to the states. On the other hand, the sub-national jurisdictional approach lends some flexibility to how benefit sharing systems may be developed. One such program intends to develop its own benefit-sharing mechanism with participatory decision-making. In this case, the initiative has set up its own fund, but the national government could also support such benefit sharing arrangements through centralized instruments like the Amazon Fund.

The Vietnamese government has implemented multiple policies that have influenced benefit sharing. Decree 99 established Payments for Forest Environmental Services (PFES) beginning in 2012. Similarly, Program 661 authorized substantial reforestation efforts. The REDD+ Action Plan has also provided a roadmap for multiple aspects of REDD+ including benefit sharing (Luttrell et al. 2013). The PFES scheme involves national and sub-national governments (To et al. 2012). Respondents from the SNV project in Vietnam suggest that such policies are potentially useful, but require harmonization with provincial plans.

4.1.2. Challenges and risks

Peru has not yet developed a national benefit sharing system. While a new PES law lays some groundwork for delivering benefit streams to actors who sequester carbon in forests, it does not address conflicting land claims.

In Indonesia, respondents reported coordination challenges, such as in the process of defining benefits. After the Ministry of Forestry passed decree P.36/ Menhut-II/2009, which defined carbon revenue benefits, the Ministry of Finance immediately challenged it, rendering it inoperable. These divergent positions are exacerbated by lack of legal clarity over which authorities would ultimately be responsible for elaborating a benefit sharing strategy and who should control the distribution of benefits. There have been efforts to resolve this. The Indonesian UKP4 (President's Delivery Unit for Development Monitoring and Oversight) REDD+ Task Force, which reported directly to the President, was created to facilitate coordination between agencies such as the National Planning Agency (BAPPENAS), and the Ministries of Forestry, Finance and Environment. In 2013, the REDD+ agency was created by presidential decree in part to facilitate coordination among the multiple ministries and sub-national agencies involved in REDD+. However, according to respondents, coordination has been slow and these complications have made progress on REDD+, including benefit sharing, difficult.

Responses from Tanzania illustrate risks associated with moving towards a national approach to benefit sharing. Some respondents questioned the wisdom of

pursuing such an approach at all. The National REDD+ Strategy calls for payments into a national trust fund, which would then disseminate funds to projects and local actors. In contrast, the Readiness Preparation Proposal along with REDD+ project proponents advocate for a system that allows international payments to be directed to projects without government intermediation. One proponent suggested that further national control over benefit sharing could lead to losses to corruption and hijack by government elites. Another suggested that "No national benefit sharing system [exists yet], but [if one is developed] then we will be rather distrustful of it. The question is whether the government is a trustworthy partner." This reflects tensions between projects and the national government.

4.1.3. Initiative influences on policy

Overall, many proponents reported that they had an influence on policies. The influence on benefit sharing policy has occurred mainly through discussions with government, and by presenting examples of how benefit sharing might function. In Vietnam, respondents suggest that innovations in Lam Dong province have served as an example that the government can use to inform broader benefit sharing policies. In Tanzania, proponents are advocating that the National REDD+ Strategy permit locally designed approaches managed by village governments, since many REDD+ projects operate in village forests.

Across countries, however, the extent to which inputs from subnational REDD+ initiatives will actually shape the national system is not yet clear. One initial proposal outlines stock-flow benefit sharing estimates that depend on 50% of revenue allocations to the Brazilian Amazonian states (Moutinho et al. 2011). Another more recent proposal from the Brazilian members of the Governors Climate and Forests Task Force calls for an allocation of 80% of benefits to these states (GCF 2014). The national REDD+ framework, however, will likely allocate a much smaller portion. In Peru, some Regional Environmental Authorities, such as the one from San Martin, have started creating their regional benefit sharing strategies. The Peruvian regions are coordinating to varying degrees with the Ministry of Environment.

4.2. MRV and reference levels

MRV and reference levels must be harmonized nationally through effective multilevel governance. Capable, inter-connected bodies at all levels are needed, with the explicit mandate, power and budget to collect and share information from various sectors to estimate carbon emissions from land use change (To et al. 2012). Korhonen-Kurki et al. (2012, 2013) have described in detail the multilevel governance challenges and opportunities related to REDD+ MRV based on national data from CIFOR's GCS-REDD. This section complements their analysis with data from proponent interviews.

The proponent responses suggest, across initiative types, that vertical integration or nesting of MRV systems is important, but has been elusive.

Overwhelmingly, there were more challenges than success stories. At the same time, some suggest that support from the national level could ultimately be useful for harmonized multilevel MRV systems.

4.2.1. Opportunities and positive influences

While no respondent lauded national MRV or reference level policies categorically, there were some initiatives that were perceived positively. One Brazilian project respondent spoke positively about the fact that IBAMA (the Brazilian Institute of Environment and National Resources, part of the Federal Ministry of Environment) had increased its monitoring activities through helicopter flyovers, though such monitoring predated REDD+. Another respondent from Brazil emphasized the importance of subnational governments in MRV, suggesting that the government of the state where their project is located needed to move forward with a state baseline in order to facilitate nesting the project within the state system.

In Cameroon, a respondent noted that government monitoring of the Mt. Cameroon national park – a REDD+ project site – was a key mechanism for MRV. Another reported that the government's satellite data on forest cover provides an important value-add to the project's MRV. Likewise, an Indonesian respondent lauded the government's UKP4 (President's Unit for Development Control and Monitoring) decision to share spatial data online, since it could increase data transparency and help harmonize land use maps across provinces and sectors. These experiences suggest that some actions taken by the national government can support subnational MRV and reference level needs. Moreover, they suggest that policies that focus on forest and land use monitoring beyond carbon can be relevant for REDD+ MRV strategies.

4.2.2. Challenges and risks

Respondents reported coordination issues within and between levels of government as key challenges for MRV and reference levels. Korhonen-Kurki et al. (2013) reported that the main challenge in both Indonesia and Vietnam for a national MRV system has been conflicts of interest between levels and ministries leading to scattered data, different maps that are not aligned with each other and widespread duplication of efforts. This analysis is corroborated by proponents of subnational REDD+ initiatives. One Indonesian respondent said that "the main problem in establishing a national MRV system is the lack of reliable, harmonized and centralized spatial data on land uses…", though they noted that efforts were being made to resolve this. Similar issues with coordination and fragmented data exist in Vietnam, with access to national data by local governments presenting additional challenges.

Multilevel coordination issues related to reference levels and MRV have also been problematic in Peru. While one respondent reported progress in developing reference levels by both the national and regional governments, others suggested that these two efforts were not well coordinated. This has been a source of tension

as the national government has pushed for the adoption of its forest cover maps across regions, while some regional governments have argued that their own maps provide more accurate and higher resolution data. In addition, different offices within the Ministry of Environment, which oversees REDD+, are still using different maps. As of April 2015, these inconsistencies had still not been resolved.

In Tanzania, one respondent expressed frustration over poor coordination between the Departments of Forestry and Environment, which have recently been split into two separate entities and which has made communication difficult. At the same time, the lack of a coherent national MRV policy has limited the influence that these cross-ministry tensions can have on projects. Another respondent expressed doubts as to whether or not the government was itself capable of carrying out effective MRV in the future, suggesting that the job would be better left to a qualified consultant.

4.2.3. Initiative influences on policy

Many proponents perceived their influence on national and subnational MRV policies positively. Respondents from SNV in Lam Dong, Vietnam, reported that they were working with the national government to support advances in MRV policy. A respondent from Aceh, Indonesia stated that project level actors participate in jurisdictional planning activities related to MRV at multiple levels. Because the national REDD+ architecture is still in development, the degree to which these consultations will influence Indonesia's REDD+ design remains unclear. However, the extent of the consultation, both in supporting vertical integration to the district level and horizontal integration of a wide range of state and non-state actors, is seen as promising.

One proponent organization in Tanzania reported that it was called upon to help develop the national carbon monitoring centre based at Sokoine University. Another respondent had a more mixed perspective on the ability to influence the national context, reporting that, "[one of our staff] attended the MRV workshops in the past. Some we have not managed to attend. There is actually poor organization; we get invitations late most of the time. These are the avenues where we get to contribute to the policy issues at national level but there are not that many opportunities." In Peru, regions with well-developed maps and systems for developing reference levels have been disappointed that their efforts were superseded by national decisions.

4.3. Land use, planning, and tenure

Land use, planning, and tenure may present the greatest multilevel governance challenges, with actors from different levels, sectors, and ministries often having highly divergent interests (see Larson 2011; Larson et al. 2013). Responses suggest that, whereas the multilevel governance challenges for MRV and reference levels are largely vertical, related to harmonizing systems across levels and scales,

challenges on land use, planning, and tenure are often horizontal, as different government ministries and directorates pursue different agendas. Some of these agendas coincide with the aims and activities of subnational REDD+ initiatives, while others contradict them.

4.3.1. Opportunities and positive influences

In Brazil, at least some national policies that influence subnational activities were perceived positively by respondents. A REDD+ project proponent in Brazil reported on the importance of the Ministry of Environment's 2007 blacklist of 36 high-deforesting priority municipalities, followed by 14 more in 2009 and 2011, which could then be subject to more rigorous command-and-control regulations. This law enforcement was complemented by local government actions, including credit restrictions and support for sustainable supply chains, and the policy as a whole has been linked to avoiding deforestation on 11,359 km² of Amazonian land (Assunção and Rocha 2014). Other related policies were cited by respondents in Pará, Brazil as having had a positive influence, including the State Plan for Prevention, Control and Alternatives for Deforestation in Pará (PPCAD-PA), Pará's Green Municipalities Program, and the Rural Environmental Registry (CAR).

In Indonesia, there is considerable variation in how land use, planning, and tenure policies from the national government are perceived. The moratorium on new logging concessions that was put in place in association with a 2010 Letter of Intent (LoI) between Norway and Indonesia was itself controversial among respondents, though one proponent in Central Kalimantan believed that, "The LoI of Indonesia-Norway potentially provides incentives for emission reduction, so it may affect the project positively." Another respondent from a jurisdictional program agreed that provincial government policies establishing a moratorium on mining, forest and estate crop licensing would be beneficial. In addition, the Forest Protection Initiative launched by the Berau provincial government was reported to be a critical step.

In Cameroon, the establishment of Mt. Cameroon national park was cited by respondents as the most important policy change related to REDD+. One respondent reported that the local administrator was effective in securing the permits necessary for the project's operations, but there were still issues with *de facto* land use planning at the project level due to conflicting tenure claims between Bantu and Baka peoples. Nevertheless, the recognition of local peoples' rights by the government was perceived positively by the respondent.

The Vietnamese government's Program 661 was fairly successful in achieving large scale reforestation of over 441,000 hectares between 1998 and 2012 (Korhonen-Kurki et al. 2012). These policies have been particularly influential in shaping incentives for different land uses in Vietnam. Respondents from the project expressed concern that the program was ending, and suggested that its replacement program would aim to utilize REDD+ funding to advance similar activities.

4.3.2. Challenges and risks

In spite of some beneficial policies, Brazilian respondents also perceived that other policies may work against subnational initiative goals. Subsidies for agriculture persist, and one respondent reported that the new Brazilian Forest Code has weakened environmental compliance, making REDD+ program work more difficult. A respondent from a jurisdictional program suggested that the Forest Code's provisions for environmental services may provide further legal basis for low carbon emissions land uses, but that it also incentivizes deforestation in other ways. The recent change in the Forest Code may therefore have mixed implications for REDD+ projects and programs.

There were also mixed perspectives on the moratorium in Indonesia, in spite of its ostensible aim of reducing deforestation. Respondents from both NGO- and private sector-led project suggested that the moratorium has actually produced "uncertainties" for REDD+ because it is not clear what activities would be allowed on peatland, and it is less clear whether or not emissions reductions due to the project are additional compared to reductions from the moratorium. Apart from the moratorium, other national policies were perceived negatively or viewed with scepticism by project actors. For example, the national development plan, according to a respondent from a jurisdictional program, ignores natural capital and consequently creates high incentives for deforestation.

In Tanzania, one proponent mentioned coordination problems with the national government. According to the proponent, an agreement was signed with local villages that was predicated on the existence of local land-use plans. However, no such plans exist, and the national government has not made any progress in developing them, even though the National Land Use and Planning Task Force has a legal mandate to do so. Another project proponent in Tanzania expressed frustration at the national government's failure both to enforce existing laws related to illegal logging, and to proactively pursue useful legislation such as regulations on charcoal production.

In Indonesia, land is subject to two overlapping tenure systems: customary and legal. While there is some legal basis for recognizing customary land claims, secure tenure for customary communities has been elusive in practice. Getting government approval for community and village forests is time consuming and costly and only grants the right to use land for a limited time and within government regulations. Issues over lack of land tenure clarity, and related issues of overlapping claims, have been problematic for REDD+. A respondent from a West Kalimantan project suggested that the transaction costs associated with the process of tenure clarification have compromised the effectiveness of the project, which depends fundamentally on clear and secure tenure.

In Peru, there are cross-sectoral coordination problems. Important policies, such as classifying land use vocation and issuing titles are housed in the agricultural sector, including the national Ministry of Agriculture and Irrigation (MINAGRI) and the regional directorates of agriculture. By classifying lands as having a "forestry vocation", for example, MINAGRI can render them ineligible

for private ownership. Lands with other classifications can be opened to sale and private ownership for extraction; forests with an "agricultural vocation" can be legally converted to other uses. In addition, the regional offices of agriculture have the power to issue titles and permits over agricultural lands, directly determining which actors control lands. These powers are often used to promote investment activities, such as commercial oil palm plantations. Meanwhile, the Ministry of Environment and regional environmental authorities have worked towards conservation policies and strategies for REDD+. In this way, multiple sectors of government are working at cross purposes. Respondents characterized this as problematic for a national approach to REDD+.

The issue of land tenure is particularly important to other respondents who are not proponents of REDD+ initiatives. This includes key informants from the government, NGOs, and smallholder communities interviewed in related research in the Amazon region of Ucayali, Peru, where there is widespread conversion of forests to oil palm (EIA 2015). One respondent from the regional government explained that smallholders have a difficult time securing land rights, as the regional directorate of agriculture leverages its authority to issue agricultural titles and permits to support oil palm expansion. In this context, it may be very difficult for REDD+ initiatives to channel conservation funds to poorer farmers who do not have formal titles.

In Indonesia, in some cases REDD+ initiatives rely on granting use rights to local people, while respondents from some communities would prefer to have full recognition of their customary claims. Moreover, according to a respondent from an NGO that works on customary land rights, there are risks that accepting use and management rights – such as village or community forests – may compromise communities' prospects for gaining full land tenure in the future, as once such permits expire the land is eligible for sale to private owners. Others, however, including proponents, argue that use and management rights can be stepping stones to full tenure, underscoring the debate around this topic (see also Myers, et al. forthcoming)

4.3.3. Initiative influences on policy

In Brazil, one respondent from a subnational, jurisdictional program reported having had influence at both the state and national level: "This [program] has directly influenced the state norms for the Forest Code in relation to forest restoration, the implementation of the rural environmental cadastre and the market for environmental reserve quotas (CRA). We also developed a financial and benefit distribution mechanism that is being accompanied by the Green Municipalities Program as a potential instrument for public policy execution for the development of a green economy in the state."

In Indonesia, a respondent reported that the project had promoted discussions to clarify the role of REDD+ in development plans and permitting. These discussions were not occurring prior to the project's involvement. This same proponent also said that conversations about tenure, and especially the

implications of unclear tenure, had been made more salient by the project. Another proponent suggested that the government takes the establishment of village forests more seriously now, in part because of the influence of the project. At the same time, the impact of these discussions on policy is not clear.

4.4. Safeguards

The design and implementation of REDD+ safeguards require input from diverse stakeholders, including local communities, project implementers, and multiple levels of government. The UNFCCC Cancun Safeguards focus on governance, rights, participation, consent, environmental and social co-benefits, permanence and leakage (UNFCCC 2011) Safeguards can help ensure that REDD+ does not harm local people or the environment, and verify that new REDD+ institutions complement existing environment and development policies. National and subnational policies play an important role in determining how safeguards are implemented. While some national policies can enable meaningful safeguards, others can work against them, and there is great variation in considerations of safeguards at different levels and among different actors (McDermott et al. 2012). Because safeguards are ultimately implemented on the ground, input and involvement of local actors is critical. Notably, safeguards were not mentioned as often by proponents as the previous three topics in this particular set of interview questions, though they are integral to REDD+ initiatives and of central interest to many stakeholders.

4.4.1. Opportunities and positive influences

There has been some important progress in the institutionalization of REDD+ safeguards at our study sites and within the study countries. In Brazil and Indonesia, decentralized REDD+ implementation has resulted in considerable progress on safeguards-related issues at the subnational level (Jagger et al. 2014). Acre is the first state in the Brazilian Amazon to design a safeguard information system as part of its State System of Incentives for Environmental Services (SISA; Duchelle et al. 2014). The Indonesian provinces of Central and East Kalimantan have also advanced in their safeguard information systems, and there have been advances on free, prior and informed consent policies and processes at national and sub-national levels (Jagger et al. 2014). In Peru, the department of San Martin has developed a safeguard information system, which serves as a pilot for development of Peru's national system and has received global attention (Kowler, et al. forthcoming). The proponents of the studied REDD+ initiatives in Brazil, Indonesia and Tanzania also consistently integrate aspects of FPIC, participation, tenure and carbon rights into their activities (Jagger et al. 2014). In Tanzania, one proponent stressed that developing environmental and social safeguards for REDD+ was a priority for the project, including pioneering ways to strengthen rights to land and benefits from carbon. Another reported that the project had emphasized the rights of women in the REDD+ discourse, and encouraged actors to incorporate safeguards in considerations of corporate social responsibility.

4.4.2. Challenges and risks

Despite important advances, one of the main challenges and risks to safeguards implementation is genuinely involving local people in REDD+ design and implementation. Research from interviews with 1243 households at nine of the studied REDD+ sites showed relatively low levels of knowledge about REDD+ or the local REDD+ initiative, with REDD+ proponents as the principal or exclusive source of information (Resosudarmo et al. 2012). Moreover, findings from 77 focus group meetings at 20 of the sites showed that women were even less aware of REDD+ activities than their male counterparts (Larson et al. 2014). Similar findings were noted at one of the Peruvian sites, where representatives from project communities reported that they were not always informed about issues, including how benefits would be shared; conversations with community leaders and elites seemed to substitute for meaningful and broad consultation processes (Kowler et al. forthcoming). Cromberg et al. 2014 make an important distinction between passive consultation, which has been the dominant mode of information dissemination and obtaining consent for many initiatives, and more active engagement with local people in REDD+ design and implementation. Additionally, to avoid perpetuating gender imbalances through REDD+, genderresponsive analyses that go beyond simple measures of 'participation' are needed (Larson et al. 2014). The disconnect between local people and proponents of subnational REDD+ initiatives is a multilevel challenge that must be resolved for effective safeguards implementation.

4.4.3. Initiative influences on policy

Proponents generally perceived that they had a positive influence on the development and implementation of national safeguards policy. In Brazil, one project actor expressed having "woken the national government up" to the importance of recognizing people who live in protected areas and demonstrated that it is possible to work in a completely participatory way. In fact, several of the civil society proponent organizations in the sample were involved in the development of the Brazilian Principles and Criteria for REDD+ (Gomes et al. 2010), which were used to inform the Ministry of Environment's development of nine safeguards for consideration in the national framework. Importantly, the extent to which national safeguard information systems and state/provincial-level safeguard information systems in Brazil, Indonesia and Peru will be compatible is not yet clear, and will depend on coordination between levels going forward.

5. Discussion and conclusion

The perspectives of proponents on the relationships between subnational REDD+ initiatives and national governments have several implications as countries move towards a national approach to REDD+, and raise important questions for research. Our findings show that key elements of REDD+ – benefit sharing and finance, MRV and reference levels, land use planning and tenure, and safeguards – present

multiple opportunities and challenges. Our analysis suggests that implementing REDD+ at the sub-national jurisdictional level does not necessarily ease these challenges. Rather, horizontal cross-sectoral challenges – identified as one of the central challenges to REDD+ at the national level (Brockhaus et al. 2014)– persist at the subnational level.

The qualitative analysis sheds light on the technical and political nature of challenges related to different elements of REDD+. Benefit sharing presents both opportunities and risks related to multilevel governance. So far, in all countries, subnational initiatives have taken an *ad-hoc* approach to benefit sharing arrangements, with little direction from national governments. There are some examples of benefit sharing guidance and support, but in other cases the lack of coordinated benefit sharing policies is not always seen as a problem. At best, there are national instruments like the Amazon Fund in Brazil that may be brought to bear on national approaches to benefit sharing; at worst, project proponents can be distrustful of national approaches to benefit sharing due to fears of corruption, as was found in Tanzania.

Several respondents said that they had presented their experiences with benefit sharing at sub-national and national levels, but it is not clear that this input has shaped policy meaningfully. Countries that are moving towards a national approach should prioritize discussions to develop coherent national benefit sharing systems that draw lessons from all available sources, including existing project and jurisdictional systems. Best practices that facilitate support for and legitimacy of benefit sharing systems remain poorly understood, and there are varied principles that might guide discussion (Mather 2010; To et al. 2012). Further research should also explore more rigorous comparisons of benefit sharing approaches to elaborate guidelines.

With respect to MRV and reference levels, proponent respondents generally suggested that coordinated systems that work across scales and involve government support are important but have so far been elusive. Finding ways to make disparate systems compatible remains a challenge, as shown in Peru and Indonesia. Coordination issues related to scattered and non-transparent data sharing are complicated by divergent political interests in particular MRV strategies. Efforts to improve such coordination are in place in Indonesia, Peru, Vietnam, and Brazil to varying degrees, but they remain insufficient. Our analysis suggests that improved information sharing in the elaboration of coordinated MRV and reference level systems is essential, and that failure to coordinate decision making across levels can generate conflict in the future and compromise the success of a national approach to REDD+.

Land use, planning, and tenure policy can support REDD+ activities or motivate deforestation and compromise its success. A mix of such policies exists in each of the study countries, with respondents highlighting lack of coordination between ministries as a persistent issue. There is evidence that some subnational initiatives have helped shape REDD+ planning, the development of forestry laws and land use planning (especially tenure), but the extent to which they have influenced national and sub-national land use policy appears quite limited.

It is important to consider these results in context. While issues like land tenure are often cast in terms of project effectiveness by proponents of sub-national initiatives, they are fundamentally about equity and justice to other stakeholders. The same is true for critical issues like safeguards. Though many proponents have integrated safeguards concerns into their own policies and even report that they have influenced national safeguard policies, interviews with other stakeholders, especially communities, demonstrate limitations in terms of information flows, meaningful participation, informed consent and attention to gender.

Thus, the challenges perceived by the proponents interviewed as part of this research are just one component of a broader picture of multi-level governance challenges. The legitimacy of land use decisions requires inclusive, transparent, and accountable processes. To the extent that the perspectives of people on the ground, including indigenous and non-indigenous smallholders, are not incorporated into decision processes, legitimacy may continue to be a problem. At the same time, the results presented above suggest that proponents believe that they are in a position to elevate concerns of local people that they work with to higher level policy discussions. While this presents an opportunity, it is important to involve local people and civil society stakeholders in decision-making directly, and their perspectives on how effectively proponents of REDD+ initiatives can represent them must be taken into account.

The evidence thus suggests that the challenges associated with transitioning towards a national REDD+ system are myriad, although proponents have some levers to influence the development of multilevel governance institutions. Lessons from the past tell us that multilevel challenges will arise from conflicts over interests and power (Stubbs 2005) hence it is not surprising that a technical approach to the design of a REDD+ architecture aimed at nesting jurisdictions is clearly insufficient. The difficulties are likely to be greater precisely to the extent that REDD+ challenges business as usual control over land and resources. In fact, this may be why subnational jurisdictional initiatives – those embedded in the broader institutional structure of government – identify conflict with policy offices outside forest and climate more acutely.

Consideration of the multilevel governance dimensions of these elements of REDD+ is essential as governments move towards a national approach. The evidence from proponents presented in this paper clarifies the nature of these challenges and suggests priority areas for research and policy, if effective, equitable, and efficient REDD+ is to be implemented through multilevel governance institutions. While Brazil has advanced furthest toward sub-national jurisdictional REDD+, the evidence from this study shows strongly that multilevel governance challenges are not automatically resolved by adopting such strategies. Instead, the context-specific multilevel politics around REDD+ may determine the extent to which different approaches, including sub-national jurisdictional programs, achieve desirable outcomes. Further research would be welcomed on what mechanisms could facilitate not only coordination among multiple levels of governance actors, but also a deeper understanding of the politics and multilevel governance issues that shape these processes.

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