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■ research article

Beyond REDD + readiness: land-use governance to reduce deforestation in Peru

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Peru contains the fourth largest area of tropical forest in the world, yet faces a worsening net deforestation rate. In 2008, to address this threat, the national government announced its ambition to reduce deforestation to zero by 2021. Via literature review and key informant interviews, this study assess two years of REDD + readiness preparations according to six readiness functions. A mixed pattern of outcomes emerge. Although significant advances were made by various local-level initiatives, national-level efforts continue to struggle. Three crucial challenges persist: (1) greater involvement and coordination of ministries and government agencies associated with REDD + planning, (2) better understanding of deforestation agents and drivers, and (3) integration of REDD + policies into national and regional plans, which includes clarification of safeguard procedures and design of incentive mechanisms. Integrated land use planning is presented as a platform to foster dialogue that helps to reconcile divergent stakeholder perspectives, coordinate changes to land use, and resolve overlapping land rights.

Policy relevance

This article presents the outcomes of a multi-dimensional assessment of the REDD + readiness process in Peru. The six key functions in the analytical framework provide the opportunity to evaluate the process in an integrated and systematic manner and highlights the persistence of complex, transversal governance challenges across diverse economic sectors and government agencies. Research findings also reveal a need for policy change and continued investment to ensure success of the national process in Peru. Strong leadership is needed to generate consensus in cross-sectoral negotiations and to establish coordinated land governance and monitoring mechanisms.

Keywords: deforestation; governance; land-use planning; Peru; REDD +

1. Introduction

Since 2005, Reduced Emissions from Deforestation and Forest Degradation (REDD +) (a mechanism that aims to provide incentives to tropical countries to reduce CO₂ emissions from deforestation and forest degradation) has been emerging as a central component of global climate change mitigation efforts coordinated by the United Nations Framework Convention on Climate Change (UNFCCC). Five types of emission reduction intervention are possible: (1) reducing emissions from deforestation; (2) reducing emissions from forest degradation; (3) conservation of forest carbon stocks; (4) sustainable management of forests; and (5) enhancement of forest carbon stocks (UNFCCC, 2011, para. 70 decision

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1/16). To participate in REDD + , countries are expected to address drivers of deforestation and forest degradation, land tenure issues, and forest governance issues, and also respect a series of safeguards including the assurance of full and effective participation of relevant stakeholders, including indigenous peoples and local communities. The process of developing technical and institutional capacity to undertake the actions required are referred to as REDD + readiness.

More than 75 developing countries have started the readiness process, with direct and indirect support from the Forest Carbon Partnership Facility (FCPF) of the World Bank and/or of the UN-REDD + readiness programmes. This article focuses on the REDD + readiness process in Peru, a forest-rich, low-deforestation-rate country increasingly engaged in the definition and development of a national climate change policy, which includes land-based mitigation actions that are to achieve a 'zero net deforestation rate' by 2021.

Peru is expected to become the fifth largest emitter of CO₂ from land in the world, according to forecast scenarios (Strassburg, Turner, Fisher, Schaeffer, & Lovett, 2009). Given that nearly 50% of national GHG emissions originate from converting forests into agriculture and pasture lands within the Amazon region (MINAM, 2011), REDD + will require a new mix of policies to address longstanding problems related to unplanned settlement, expansion of agricultural areas, uncoordinated road and energy infrastructure development, chronic institutional weaknesses, non-transparent land and forest governance, and a pervasiveness of illegal activity (Environmental Investigation Agency, 2012). To assess readiness progress in Peru, this article applies a framework developed by Minang et al. (2014), which emphasizes six key functions required for REDD + readiness: (1) planning and coordination; (2) policies, laws, and institutions; (3) monitoring, reporting, and audit; (4) financing and investment; (5) benefit sharing; and (6) demonstrations and pilots. Details of each function are summarized in the Section 3 of this article.

2. Background: Peru as a REDD + country

With 68 million hectares of forest (Food and Agriculture Organization of the United Nations, 2010) covering the western part of the Amazon Basin, Peru contains the fourth largest area of tropical forest in the world. Although the deforestation rate has been low, the rate has increased over the last decade, from 0.14% between 2000 and 2005 to 0.22% between 2005 and 2010 (Food and Agriculture Organization of the United Nations, 2010). This forest loss, equivalent to about 122,000 ha annually, has many causes, including small-scale farmers practising shifting cultivation and cattle ranching in the Amazon region, as well as illegal crop cultivation. Meanwhile, substantial logging activities, both illegal and legal, have degraded much of the natural forests (Asner et al., 2010; Environmental Investigation Agency, 2012).

Given a lack of arable land in the Coastal and Andean regions of Peru, the Amazon has long been seen as a panacea to national food security concerns (Aguiar, Rosenfeld, Stevens, Thanasombat, & Masud, 2007; Arambarú, 1984). Settlers fleeing conditions of poverty, social unrest, and insecurity in the Andean and Upper-Selva regions (Castillo, 2011) were attracted to the region by the possibility of easily acquiring land (White et al., 2005). With the rapid economic growth of Peru in the last decade, threats to the conservation of forest in the Amazon region have worsened. The development of commodity crops and large-scale agriculture (e.g. oil palm; Gutiérrez-Vélez et al., 2011), multi-national

investments in hydro-carbon extraction and mining, and new roads enhancing national and cross-continental integration are having major impacts on forest fragmentation and loss (Dourojeanni, Barandiarán, & Dourojeanni, 2009; Perz et al., 2013).

In 2008, Peru began its official involvement in REDD at the 14th Conference of the Parties (COP 14) in Poznan. The newly created Ministry of Environment (MINAM) committed the country to climate change mitigation efforts by fixing an ambitious target of ‘zero net deforestation rate’ to be achieved by 2021. Changes in national policies soon followed. For example, the National Forest Conservation Program for the Mitigation of Climate Change (PNCBMCC, D.S. no. 008–2010) aimed to conserve about 54 Mha of titled forest land via multiple mitigation initiatives over 10 years. In addition, a new Forestry and Wildlife code (Ley 29673) in 2011 advanced significant changes to government institutions and regulations.

At the time of writing this article, the transfer of US\$3.6 million of the FCPF preparation grant was pending, bound to an updated version of the Readiness Preparation Proposal (R-PP) to assure enhanced participation of civil society and indigenous peoples and to integrate their views regarding drivers, monitoring, reporting and verification (MRV), and land-tenure issues.

2.1. Governing readiness in Peru

The governance of the REDD + readiness process is officially in the hands of MINAM, which serves as focal point for the UNFCCC, FCPF, and the Forest Investment Program (FIP). Within MINAM, REDD + is officially coordinated by the General Directorate of Climate Change, Desertification and Natural Resources (DGCCRH), which is also responsible for the development of the R-PP. Other MINAM agencies associated with forests include the National Service of Protected Areas (SERNANP, based on the Spanish name), which is in charge of approximately 16.8 Mha of protected areas, and the National Forest Conservation Program for Climate Change Mitigation (PNCBMCC), an umbrella programme aiming to conserve 54 Mha of forests and that hosts the REDD + programme. Other government ministries based in the national capital and departments have important roles. For example, wildlife and forestry resources of production forests, which cover approximately 18 Mha, are administered by the General Directorate of Forestry and Wildlife (DGFFS) of the Ministry of Agriculture (MINAG),¹ in coordination with forest authorities in subnational departments and districts.

As well as government agencies, the REDD + readiness process is shaped by multiple dialogue and working groups that offer opportunities for stakeholders to shape the debate around REDD + policy. Consultation processes, together with technical and policy discussions, are coordinated by the Technical Working Group for REDD (Grupo REDD) at the National Climate Change Committee (CNCC), which includes the DGCCRH and a series of public-sector agencies with representatives of civil society and of the national Mesa REDD (REDD Roundtable). The national Mesa REDD includes some 70 members from government, civil society organizations, international and national NGOs, private companies, and research institutions.

At the subnational level, a patchwork of local initiatives brings together national and international NGOs, private companies, indigenous communities, other associations from civil society, and departmental governments (MINAM, 2011). Similarly to what occurs at the national level, to facilitate wide participation of local actors, departmental Mesas REDD were established, beginning in 2009. At the time of writing, four regional roundtables are officially recognized. These are in

charge of organizing information transfer, capacity building, and the development and validation of regional readiness initiatives.

In addition to the national government and Mesas REDD, other organizations representing indigenous people are involved in the REDD + process. Indigenous communities have long had claims to approximately 40% of the Amazon forest (Espinoza & Feather, 2012), but only have legal title for approximately 12 Mha. National and regional indigenous group organizations established Mesa REDD Indígena (Indigenous REDD Roundtable) with the aim of promoting their vision about forest and land management, which opposes REDD + and the use of carbon market mechanisms. As an alternative, REDD Indígena promotes an approach based on principles of territorial and human rights, autonomy in decision making, a holistic valuing of forests, and global obligations from developed emitting countries (Espinoza & Feather, 2012). Indigenous groups also participate in the regional roundtables.

3. Methods

The readiness assessment framework by Minang et al. (2014) applied to the Peru context includes six REDD + functions: (1) planning and coordination; (2) policies, laws, and institutions; (3) monitoring, reporting, and audit; (4) financing and investment; (5) benefit sharing; and (6) demonstrations and pilots. Each function is further split into subfunctions. For clarity and comparability across countries, a set of 29 corresponding readiness indicators is used to assess and rank readiness progress (see Figure 1).

A mixed methods approach was implemented for data collection in Peru. First, a review was conducted of the outputs in the FCPF/UN-REDD R-Package (the REDD Readiness Idea Note (R-PIN) and the R-PP) and of reports and communications from the government and NGOs. This preliminary step enabled the understanding of the institutional context, identification of key stakeholders, and construction of narratives regarding the baseline and progress of each REDD + function. Second, semi-structured interviews were framed around the readiness indicators while considering the outcomes of the preliminary review. Interviews had the twofold objective of qualitatively assessing progress and obtain contextual information. An open-ended questionnaire was associated to a ranking exercise. Scores from 0 to 3 were used to assess the readiness status of each indicator, where '0' indicated no evidence of readiness consideration, '1' indicated awareness of it and discussion under way, '2' indicated agreement in principle (or some draft document and or recommendations existed), and '3' indicated that established rules existed in law and or were being implemented.

To run the semistructured interviews, 15 experts were identified as engaged in (or observers of) the REDD + readiness process at national and subnational levels. They belonged to the institutions identified during the review phase, namely government ministries (MINAM and the Ministry of Agriculture), subnational governments, NGOs, national and regional Mesas REDD, indigenous people organizations, donor groups, and international research organizations. Only 11 of the 15 experts were found to have an overall view of the diverse functions and were able to evaluate progress in readiness in relative terms.

To allow for a visual comparison of progress in each of the six readiness functions, means were computed by averaging the values for each of the subfunctions, in turn computed by averaging the values for the associated indicators. The data were then presented graphically via a spider web diagram. Further review of secondary data and content analysis of interview transcripts provided useful information to develop the narrative on REDD + readiness in Section 4.

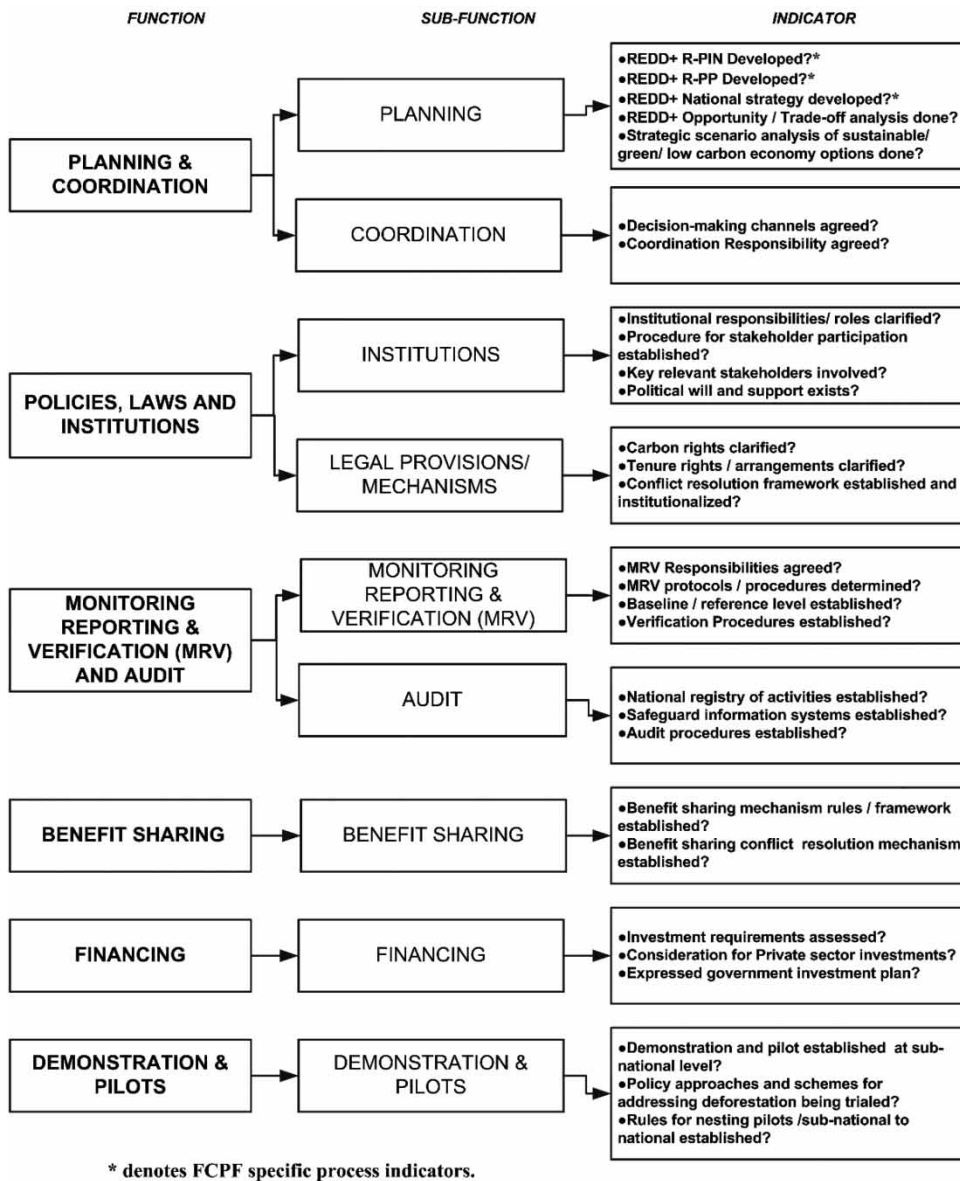


Figure 1 Diagram of functions, subfunctions, and indicators

4. Results

4.1. Progressing with readiness

According to the respondents, no REDD function has achieved a status of readiness, i.e. being fully established or implemented. The three functions of 'planning and coordination', 'demonstrations

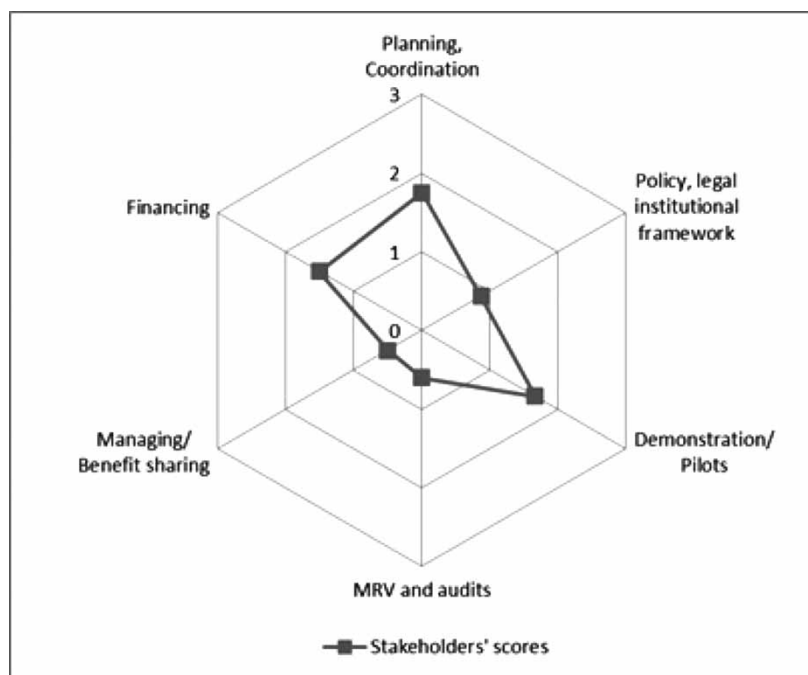


Figure 2 Progress in six readiness functions based on expert opinion (0, not existing; 1, not defined, proposals exist but mechanism/rule is not yet identified; 2, defined, proposal exists mechanism/rule is identified; 3, established mechanism/rule implemented)

and pilots', and 'financing' were the most advanced, although the scores received were still lower than 2, implying movement towards general awareness and agreement. Figure 2 summarizes graphically the scores for each function.

4.2. Planning and coordination

A majority of the experts (nine) found that the channels for participatory strategic decision making and coordination at the national level were inadequate during the first readiness phase. Non-inclusion of key governmental sectors (MINAG, the Ministry of Culture, and the Ministry of Finance) and fundamental stakeholders (indigenous people and civil society) was reported at both national (five) and sub-national (three) levels. Other shortcomings included the need to establish a national REDD Coordination Agency (OCBR, by its Spanish name) as proposed in the 2011 version of the R-PP,² and consequently a lack of a national REDD strategy.³

Greater advances were perceived at the subnational level. Experts identified the Regional Environmental Commission (CAR), or alternatively the Regional Environmental Authority (ARA) as being adequate cross-sectoral consultation and coordination units for strategic planning and alignment of REDD+ to the subnational climate change strategies. Concerning indigenous people, the majority of respondents (eleven) found that national and regional indigenous Mesas REDD were adequate in

promoting learning and the involvement of indigenous people organizations in the preparation and implementation phase, in particular at the regional level.

Although preparation documents referred to existing cost and feasibility studies (Armas et al., 2009; Fleck et al., 2010) together with subnational initiatives where opportunity costs analyses were ongoing, fundamental components of the readiness planning process were lacking. For example, a comprehensive assessment of associated benefits, costs, and trade-offs associated with REDD + policies had not been conducted, nor the scenario and spatial analyses required to identify priority interventions and their geographic scope.

4.3. Policy, institutional, and legal framework

Experts found very little progress towards readiness of the enabling policies, laws, and institutional frameworks needed for the implementation of REDD + , in particular at the national level (Figure 2). Nine respondents reported a persistent lack of clarity on a national REDD + architecture, which had hindered the development of essential policy, laws, and institutions. Other factors also caused a slowing of the readiness processes: (1) ambiguity surrounding consolidation of the ongoing institutional and policy reform process at national and regional levels; (2) lack of genuine political interest and willingness to develop sound cross-sectoral policy coordination and development processes, in particular for the Amazon region; and (3) general uncertainty about the international REDD + context and a lack of coherent guidelines.

Numerous shortcomings were identified with fundamental REDD + policy and legal frameworks. Specific regulations supportive of REDD + , or alternatively the provision of environmental services in general, had not yet been implemented. A draft law (Proyectos de Ley 2386) remained under preparation for nearly five years without establishing a framework definition and classification of environmental services and payments⁴ (Armas et al., 2009). Despite that, according to Capella and Sandoval (2012), the existing legal framework possibly provided a sufficiently clear regulatory support to develop payments for environmental services (PES) schemes. However, according to the same authors, elusive coordination between the agencies responsible for promoting, designing, and allocating eventual PES, e.g. MINAM, MINAG–DGFFS, SERNANP, regional governments, and the institutions responsible for measuring, monitoring, and reporting, and the management of the related funds, prevented any implementation.

4.4. MRV and audit

At the time of writing this article, multiple technical and capacity-building initiatives had been funded under the umbrella of the PNCBMCC, at MINAG-DGFFS, MINAM-DGOT (Directorate of Land Use Planning) and at regional levels, mostly with the support of international and national NGOs and cooperation partners. Regional emission baselines and carbon estimates provided by technical and research partners were being used by the REDD + project at MINAM to develop national-level references and a preliminary Tier 2 carbon map.

According to an initial design proposed by MINAM, MRV had to be part of the National System for the Inventory of Greenhouse Gases managed by MINAM, with each sector and relevant agency (e.g. MINAG) contributing to the associated data (Paz-Cigaran, 2010). However, at the time of this study, institutional and technical responsibilities had not yet been established. Furthermore, the

agencies responsible for the monitoring and control of forest-based activities at the national and decentralized levels were only nominally involved in the definition of such a design.

All the experts stressed the need for more efficient coordination to align the ongoing initiatives, avoid overlaps, agree on definitions, and identify compatible standardized methodologies for MRV. As described by one of the experts, alternative proposals for a nested/national MRV design were under discussion, because significant trade-offs were identified between distinct nested design approaches, with regional governments proposing bottom-up processes and MINAM preferring a top-down, more centralized, approach. The suitability of both options in terms of MRV regulation, the establishment of norms and validation, and in managing and implementing monitoring activities on the ground were extensively debated in the regional roundtables and MINAM. Specific aspects of the discussion included (1) efficiency, effectiveness, and equity criteria, in particular in relation to the capacities of local communities, regional and local administrations/versus technical capacities in NGOs and private partners; (2) the reliability and quality of the information and the control over it; (3) the costs to be sustained by the various stakeholders (e.g. by project developers in the case of a purely bottom-up approach); and (4) the opportunity to align with other regional and central land-monitoring and control activities (e.g. Monitoreo DGOT/MINAM, Proyecto REDD + MINAM). The MRV systems already developed in two regions were suggested as a blueprint for other regions and for use at the national level.

Besides struggles regarding the definition of an institutional design for MRV, experts also reported a lack of fundamental agreement. For instance, a unified forest definition to be submitted to the UNFCCC was still under debate among governmental agencies. Consequently, the identification of REDD + -eligible areas, MRV, and the assessment of a reference emission level at national and subnational levels were controversial. A national register for REDD + initiatives had not been established. Consequently, a ministerial order was under preparation by DGHCCR regarding the principles and the legal and technical criteria for projects to be included in the register. Acquiring such information was considered by some experts (five) to be an essential first step in concretely implementing a nested approach. In order to integrate local initiatives into a national register, MINAM also needed to create a platform of stakeholders and achieve (1) a transparent and consensual identification of inclusion criteria (four experts); (2) application of safeguards (three); (3) gradually establishing compatibility between methodologies and approaches (two); and (4) identification of verification standards (one). The majority of respondents (six) identified the regional level as being the most suitable to integrate local demonstration initiatives into the national system.

4.5. Demonstration and pilots

The experts recognized that numerous demonstration and pilot activities at all levels had been realized and supported as part of REDD + readiness processes. Indeed, the country has multiple initiatives⁵ on forest conservation and climate change mitigation supported by multilateral and bilateral funds, the private sector, and NGOs, with a diversity of activities being highlighted, from certified logging concessions to Non timber forest products extractions and agroforestry/reforestation (see, e.g., Hajek, Ventresca, Scriven, & Castro, 2011; Pettenella & Brotto, 2012). Approximately 70% of projects were oriented towards PES, 25% were in protected areas and more than 30% in forest concessions, 50% in community forests, mostly with indigenous communities. Nevertheless, only a fraction will probably

be considered eligible for inclusion in a national REDD + programme. For example, Che Piu and Garcia (2011) identified 35 potential initiatives, with most projects being at an early stage. Most experts (eleven) noted that, so far, little existed in terms of lessons learned in reducing deforestation, apart from the common knowledge of sustainable forest management or conservation being possible after a clear land-titling and concession procedure (i.e. protected areas, entitlement to indigenous communities, and private concessions; three respondents). In addition, although demonstration and pilot initiatives were considered important for the evolution of readiness and for the general REDD + debate in Peru (Hajek et al., 2011), most had taken place at the subnational level.

4.6. Financing

Respondents recognized that financing was not a major shortcoming for advancing early readiness in Peru. A budget of \$12 million (MINAM, 2011) for the preparation and implementation phases was covered through a combination of funds from FCPF,⁶ the Moore Foundation, KfW (Kreditanstalt für Wiederaufbau, the German government-owned development bank), and JICA (Japan International Cooperation Agency), and other projects funded the technical, legal, and institutional capacity-building for MRV in the framework of the PNPBMCC. The country expects \$50 million (\$26.8 million in grant funding and \$23.2 million in loans) from the Climate Investment Fund (CIF) to implement the FIP⁷ through a series of projects to support readiness.

Despite these advances in obtaining financial support, very little knowledge existed about the actual costs of REDD + once implemented. At the time of writing, the FIP Working Technical Group was formulating a draft of the investment plan. This included a definition of the strategy to enhance the convergence of existing actions for forest loss and degradation reduction, inclusion of the private sector in the investment strategy for Peru, and the role of the public sector.

4.7. Benefit sharing

Assessment of benefit-sharing functions revealed that the design of an equitable, transparent, and effective benefit-sharing mechanism was not advanced. According to the experts (nine), no assessment of REDD + funds distribution in terms of the impact on the livelihoods of local people and of legal and jurisdictional design had yet been taken into consideration. Institutional agreements between the central government and the regions and a reinforced collaboration under the decentralization framework were deemed as being fundamental to implementing the nested approach, with the definition of a clear channel for the distribution of REDD + funds to decentralized jurisdictions and local communities. Preliminary to the implementation of any possible design, experts agreed, there was the need to clarify land tenure and resource rights, in particular for indigenous (seven) and peasant (eight) communities.

A first suggested step would be to document and assess existing benefit-sharing schemes at the national and subnational levels. However, the respondents recognized that the early stage of existing projects had not yet offered enough evidence for assessing the performance of benefit sharing. Besides, according to some experts, the large involvement of NGOs and the private sector in local initiatives raised issues about the risk of REDD + preparation funds being captured by intermediaries (e.g. implementers, validators, verifiers, commercialization agents, and consultants) instead of landowners or communities (see also Hajek et al., 2011).

5. Discussion

The assessment of the REDD + readiness process for Peru has shown how, despite starting with high initial optimism and ambitious commitments, no major areas of progress were registered between 2011 and early 2013. As in other countries, the REDD + readiness process in Peru suffered from an abrupt start, pushed by international NGOs, donors, and international and national experts (Murdiyaso, Brockhaus, Sunderlin, & Verchot, 2012). The substantial institutional changes required for supporting cross-sector interventions needed to be established, and the fundamental importance of having an institutionally and legally enabling environment had been underestimated, as well as the possible influence of an undermining political environment (Corbera, Estrada, & Brown, 2010).

During this initial readiness phase, three key stakeholders emerged and positioned themselves to shape the future REDD + readiness process and overall governance. First, MINAM (a ministry founded in 2008), thanks to REDD + had the opportunity to rapidly gain political power and visibility, develop in-house technical and political capacities, and enforce new performance-based policies and mitigation initiatives such as the PNPBMCC (MINAM, 2011). Second, conservation NGOs, both national and international, obtained new funding to cover the costs of conservation (Hajek et al., 2011). To them, REDD + was a unique platform to increase visibility and gain political influence, by channelling funds and contributing to the overall debate about forest conservation in the national and regional Mesas REDD through the implementation of numerous local pilot initiatives and providing technical support to regional governments regarding MRV design. This group gained extraordinary influence, and the adoption of the nested approach as the national REDD governance framework was one of its major success (Hajek et al., 2011). Third, the indigenous groups, and civil society supporting them, found in REDD + a unique opportunity to gain political weight and visibility and to advocate advances regarding the unresolved titling of land and the issue of overlapping claims (Espinoza & Feather, 2012). With persistent formal challenges from AIDSESEP (Asociación Interétnica de Desarrollo de la Selva Peruana) and other indigenous and rural community organizations against the national government, arguments that questioned the basic premises of land and forest ownership became more clear and urgent, ultimately causing significant delays to final approval for World Bank and FIP funding (AIDSESEP, 2013; Teixeira, 2013; White, 2013). Protests and challenges by indigenous organizations contributed to deepening the narrative on deforestation drivers, to include large well-financed interests and permissive government policies. In addition to the well-known causes of smallholder settlers and agro-industry expansion, concession leases for petroleum and gas drilling had been granted by the government for over 70% of the Amazon region in the country, including lands officially owned by indigenous people (Gavalda, 2012).

Various lessons from PES projects (Hajek et al., 2011), integrated conservation and development projects (ICDP), and forest certification (Pettenella & Brotto, 2012) can contribute to developing specific components of a national REDD + strategy and related policy (see Kanowsky et al., 2011; Minang & van Noordwijk, 2013). Both interviews and the literature indicated the need for a rigorous and pragmatic assessment of ongoing pilots and demonstration activities, in particular at the national level, i.e. the 'Conditional Transfer' mechanism in the PNCBMCC, and local PES pilots. A review of existing performance-based schemes is a fundamental step towards understanding the effectiveness, efficiency, and equity (Angelsen et al., 2009) of each initiative, which is crucial for

the definition of a REDD + strategy, estimates of its costs, and ultimately for harmonization across levels in the nested approach. In the case of Peru, three main aspect themes remain persistent challenges to advancing readiness:

■ *Lack of capacity for cross-sectoral stakeholder dialogue.*

In general, delays in the readiness process have become common across participating countries. The development of adequate technical capacities at multiples scales, in particular for MRV, have been especially difficult (Corbera et al., 2010; McDermott et al., 2012). Furthermore, despite multiple consultation process via Mesas REDD in Peru, the interviews revealed a common perception that a lack of political capacity and leadership prevented the coordination of a sound inclusive process and the ability to activate a multi-sectoral dialogue.

■ *Limited understanding of deforestation drivers and appropriate policy responses.*

According to one expert, a consequence of inadequate multisectoral debate was the lack of a critical understanding of the drivers of deforestation, including the socio-political context that has been enabling unplanned forest conversion and degradation to take place. These shortcomings were reflected by an apparent deficiency of the readiness planning process as reported by the experts, both in terms of the definition of the institutional design to achieve emission reductions and of technical analysis, such as comprehensive opportunity cost analyses and the identification of priority areas for REDD + mitigation interventions.

Integrating lessons from the long-standing and unresolved challenges of forest and land governance in the Amazon (White, 2013) is essential, in particular the implications of a high-level of fragmentation of responsibilities amongst agencies that contributed to (1) hampering forest and land governance, (2) exacerbating problems of uncoordinated, and conflicting, policies at the national and regional levels (Environmental Investigation Agency, 2012), (3) limiting compliance with regulations (e.g. land-titling procedures, forest management, harvesting, and monitoring; Environmental Investigation Agency, 2012).

■ *Integration of REDD + policies into national and regional plans.*

The ongoing process of jurisdictional/administrative reorganization at the subnational level, including decentralization of government functions (Ley Orgánica de Gobiernos Regionales no. 27867), had been essential in advancing REDD + preparation and in the definition of the nested approach as an option for REDD + design in Peru (MINAM, 2011). Final decisions regarding the nesting of responsibilities across scales and institutions will largely be determined by the associated costs and benefits, along with potential conflicts, negotiated benefit-sharing agreement, and the time required for programme implementation (Blom, Sunderland, & Murdiyarso, 2010; Minang & van Noordwijk, 2013).

Interviewees responded positively about the recent establishment of the regional agencies and commissions, such as the CARs and ARA. Nevertheless, the definition of regional REDD + strategies and the territorial and strategic multisectoral planning efforts of the regional governments were perceived as being disconnected.

Land-use zoning constitutes the technical basis for land categorization at the macro-, meso-, and micro-levels. It is expected to contribute to fewer overlapping rights and conflictive allocations of land (Capella & Sandoval, 2012) and to facilitate land-use change monitoring. In addition, the allocation of a tract of land to a land-use suitability class (CUM, *capacidad de uso mayor*, a major land suitability class), which takes place during the first phase of the planning process, determines *de facto* the public authority responsible for granting rights on it and its legal use. Land-use zoning serves as the basis for the construction of the forest cadastre, which is crucial in the process of tenure clarification and titling (Capella & Sandoval, 2012). Associated land information will also help advance analyses of institutional and technical feasibility, including those based on multiple benefits (carbon, water, and biodiversity), comprehensive costs (opportunity, implementation, and transactions), and likely socio-cultural trade-offs associated with specific REDD+ policies (Dewi, Johana, Ekadinata, & Agung, 2013).

6. Conclusions

Between 2011 and 2013, progress in REDD readiness in Peru has been limited due to a mix of concurring causes. To overcome the risk of stagnation, major investment is needed in building the leadership and political capacity to coordinate a genuine politically – and socially – inclusive process, promoting cross-sectoral dialogue, supporting the establishment and reinforcement of land governance mechanisms across sectors and agencies at the central level as well as in the regions. Alignment of the multiple ongoing initiatives is needed, in particular for the monitoring, reporting and verification (MRV) and baseline establishment and a critical assessment of existing pilots and demonstrations. The option of establishing a stronger link with the land-use planning platform should be considered to facilitate an informed dialogue between sectoral stakeholders in the regions and to coordinate efforts to reduce deforestation and forest degradation.

Notes

1. The new forestry code (Ley 29673) provides for the National forest and Wildlife Service (SERFOR for its Spanish acronym), a new autonomous technical body within MINAG, to be in charge of national forest authority (Che Piu and Menton 2013)
2. An updated version of the R-PP is being presented at the end of 2013.
3. A first draft of a national strategy for forest and climate change (*Estrategia Nacional de Bosques y Cambio Climático*) is in preparation, which includes inputs for the definition of a national REDD+ strategy.
4. Eventually, a *Pre Dictamen* was approved by the Congress on 10 December 2013.
5. A technical report in support of the development of the FIP investment strategy indicates a total of 110 initiatives.
6. Although the submitted R-PIN and R-PP documents were tentatively approved in March 2011, more than two years passed without any formal approval of the \$3.6 million of the FCPF preparation grant.
7. FIP endorsed the investment plan for Peru at the end of 2013.

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