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SYNTHESIS

REDD+ Readiness progress across countries: time for reconsideration

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Abstract

Efforts towards Reducing Emissions from Deforestation and Forest Degradation plus conservation, sustainable management of forests and enhancement of carbon stocks (REDD+) have grown in importance in developing countries following negotiations within the United Nations Framework Convention on Climate Change (UNFCCC). This has favoured investments in processes to prepare countries for REDD+ at the national level (a process referred to as REDD+ Readiness). Yet, little attention has been given to how Readiness can be assessed and potentially improved. This article presents a framework for Readiness assessment and compares progress in REDD+ Readiness across four countries, namely Cameroon, Indonesia, Peru, and Vietnam. The Readiness assessment framework comprises six functions, namely planning and coordination; policy, laws, and institutions; measurement, reporting, verification (MRV), and audits;

credible and consistent in measuring progress and eliciting insight into Readiness processes at the country level. Country performance for various functions was mixed. Progress was evident on planning and coordination, and demonstration and pilots. However, MRV and audits; financing; benefit sharing; and policies, laws and institutions face major challenges. The results suggest that the way national forest governance has been shaped by historical circumstances (showing path dependency) is a critical factor for progress in Readiness processes. There is need for a rethink of the current REDD+ Readiness infrastructure given the serious gaps observed in addressing drivers of deforestation and forest degradation, linking REDD+ to broader national strategies and systematic capacity building.

Policy relevance

Policy makers, researchers and analysts helping to plan and implement REDD+, environmental services and climate change would find this paper potentially helpful. The paper explores progress on REDD+ Readiness across four countries (Cameroon, Indonesia, Peru and Vietnam) and provides broad lessons, recommendations and examples across these countries for further improving REDD+. The paper also suggests an innovative, credible and universally applicable set of criteria and indicators derived through a systematic review that could serve further global comparative analysis of readiness for REDD+ and relevant national environmental services delivery systems, including climate change mitigation.

Keywords:

indicators | national systems: Readiness functions | REDD+ Readiness

1. Introduction

Incentives and policy changes for Reducing Emissions from Deforestation and Forest Degradation plus conservation, sustainable management of forests and enhancement of carbon stocks (REDD+) have been promoted as an approach to addressing climate change and achieving sustainable development benefits. REDD+ is an evolving concept currently under negotiation within the United Nations Framework Convention on

emissions from forests against an agreed baseline or reference level. Economic incentives, through market and non-market mechanisms, are to be provided upon verification of the reported emission reduction. Five elements of potential emission reduction have been recognized for REDD+: 'reducing emissions from deforestation', 'reducing emissions from degradation', 'conservation of forest carbon stocks', 'sustainable management of forests', and 'enhancement of carbon stocks' (UNFCCC, 2010). They all lead to an increase, or at least to a reduction of an existing negative trend over time, of the total forest carbon stock (area × carbon stock density), as reported in national GHG inventories. REDD+, to be achieved by a combination of national-scale and location-specific changes from the business-as-usual, is expected also to generate sustainable development co-benefits such as biodiversity conservation, improved water quality, and poverty reduction. For example, Minang, Duguma, Bernard, Metz, and van Noordwijk (2014) have argued that integrating agroforestry into REDD+ generates numerous co-benefits related specifically to the needs of households. Decision 1/CP16 of the UNFCCC on REDD+ has encouraged countries to initiate readiness and demonstration activities (UNFCCC, 2010). Actions aimed at developing technical and institutional capacity in developing countries are referred to as REDD+ Readiness. REDD+ Readiness activities of some sort are being carried out in more than 75 countries, with an estimated US$7.2 billion committed to REDD+ since 2008 (Creed & Nakhooda, 2011).

The Cancún agreements laid out the principal elements for the development of REDD+ at the national level in paragraph 71 of UNFCCC Decision 1/CP16, as follows:

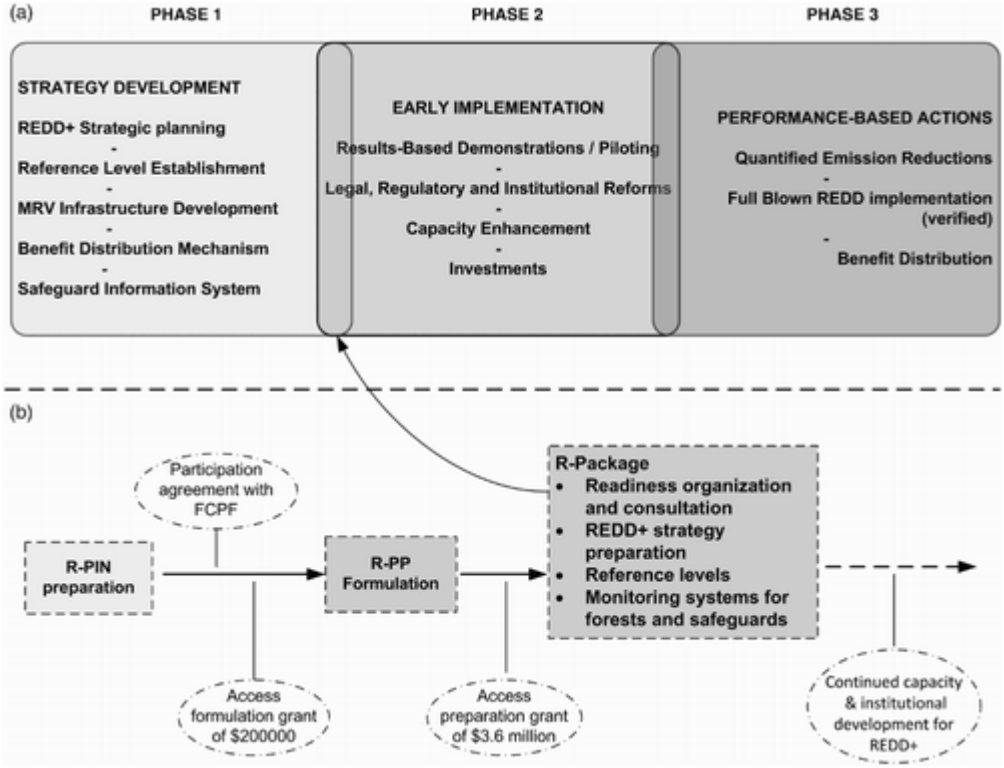
> Requests developing country Parties aiming to undertake the activities referred to in paragraph 70 above, in the context of adequate and predictable support, including financial resources, technical and technological support to developing country Parties, in accordance with national circumstances and respective capabilities to develop the following elements: … . (UNFCCC, 2010, Para 71)

These elements are further elaborated in paragraphs 71 to 73 and annexes I and II of the same decision. They can be summarized to include the following: (1) a national strategy or action plan; (2) a national forest reference emission level and/or forest reference level or, if appropriate, as an interim measure, subnational forest reference emission levels and/or forest reference levels, in accordance with national

monitoring and reporting of the activities with, if appropriate, subnational measurement and reporting as an interim measure; and (4) a system for providing information on how safeguards are being addressed and respected throughout the implementation of the activities, while respecting sovereignty.

A three-phased approach was adopted for REDD+ under the agreements reached in Cancún, Mexico, in 2010 (paragraph 73, Decision 1 CP.16), namely strategy development (Phase 1), early implementation (Phase 2), and performance-based actions (Phase 3) (see Figure 1a for a summary). Readiness actions such as planning, establishment of forest reference levels or reference emission levels, MRV and benefit-sharing frameworks, and safeguard information systems should be initiated in Phase 1. Other Readiness activities such as capacity-building, institutional and policy developments, demonstrations, piloting, and investments can be continued throughout Phase 1 and into Phase 2.

Figure 1 FCPF REDD+ Readiness process steps in relation to a phased approach to Readiness



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The largest internationally supported programmes on REDD+ Readiness in terms of number of countries covered are the Forest Carbon Partnership Facility (FCPF;

(www.un-redd.org), in which various UN agencies cooperate. The FCPF supports 36 countries through partnership agreements, while UN-REDD provides support to national programmes in 17 countries and partners with a further 31 countries (totalling 48 countries). It is worth noting that some countries, such as Vietnam, the Democratic Republic of Congo (DRC), Indonesia, and Tanzania, receive both UN-REDD and FCPF support. A key feature of both programmes is the Readiness Package (R-Package). Completion of the R-Package marks a milestone in the Readiness process, i.e. a transition from the strategy development phase to the early implementation phase of REDD+ (Kipalu, 2011). Figure 1b summarizes the FCPF programme steps that guide country processes (FCPF & UN-REDD, 2012; FCPF, 2013).

In a critical review of the FCPF programme, Dooley, Griffiths, Martone, and Ozinga (2011) acknowledged substantial strengths regarding Measurement, Reporting, and Verification (MRV) of carbon and budgeting in the content of selected Readiness Preparation Proposals (R-PPs). The authors also acknowledged improvements in the consultation processes in R-PP development. However, they deplored the lack of a detailed analysis of drivers of deforestation and deficiencies in addressing governance failures, rights, safeguards, livelihoods, and multiple benefit issues. Even where incisive diagnostics are provided, there is no logical connection to actions proposed to remedy the situation.

While the UN-REDD programme shares the R-Package structure with the World Bank FCPF, it also has six interlinked work areas guiding the priorities of the support for national Readiness processes as part of a five-year programme strategy (UN-REDD, 2010). The six work areas are (1) MRV and monitoring; (2) national REDD+ governance; (3) stakeholder engagement; (4) multiple benefits; (5) transparent, equitable, and accountable management; and (6) sector transformation (UN-REDD, 2010). Countries may modify these as necessary.

A number of publications have reported on country-level progress in REDD+ Readiness in India (Aggarwal, Das, & Paul, 2009), Tanzania (Burgess et al., 2010), Cambodia (Bradley, 2011), and Ecuador (MAE, 2012). These cases have used diverse dimensions of progress, thereby rendering any attempt at comparing Readiness progress across these countries very difficult and potentially inconsistent. This article describes the development of a framework for Readiness assessment and comparing progress in REDD+ Readiness across four countries, namely Cameroon, Indonesia, Peru, and

elements of a consistent and credible framework for assessing REDD+ Readiness across countries? (2) How are countries performing and what determinants of performance can be identified? It is hoped that such a comparison of Readiness across countries will contribute to learning, improvements, and further guidance on investments in REDD+ Readiness in the future.

2. Methods

This study was carried out in two steps using two sets of methods. A REDD+ Readiness assessment framework was developed in the first step. The second step constituted an application of the Readiness assessment framework in the four case-study countries mentioned above.

2.1. REDD+ Readiness assessment framework development

A framework for assessing REDD+ Readiness was developed based on a systematic review of the literature. Four sets of literature were targeted: (1) the Cancún UNFCCC agreement, and documentation and reports from REDD+ Readiness programmes including multilateral processes such as FCPF and UN-REDD literature, particularly the R-Package; (2) literature on country-level Readiness assessment, including from India, (Aggarwal et al., 2009), Tanzania (Burgess et al., 2010), Cambodia (Bradley, 2011), and Ecuador, (MAE, 2012); (3) literature involving key lessons from successful forest governance and reduced deforestation policy success stories; (4) literature on payment for ecosystem services (PES) in relation to national systems. Based on all the reviews, we designed a framework with six functions, which were further subdivided into a total of nine subfunctions. Each subfunction in turn was represented by indicator sets as discussed in Section 3 (and in Figure 3).

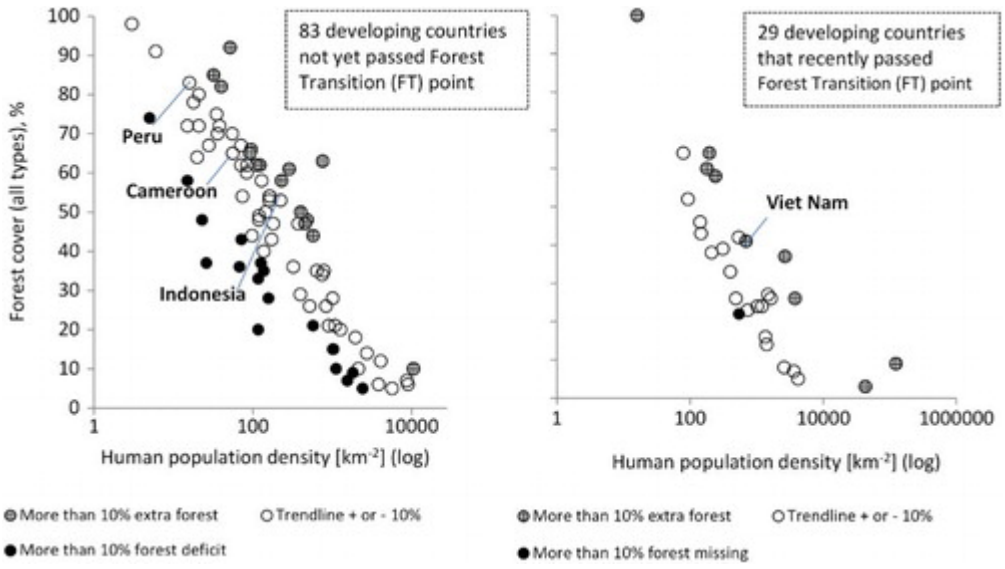
2.2. Country Readiness assessments

2.2.1. Case-study countries

The four countries selected for this study – Cameroon, Indonesia, Peru, and Vietnam – have been part of a funded project in which Readiness assessment was one of the components. Two factors were taken into account in the initial selection of project countries: representation in terms of the stage of the country in the 'forest transition'

recovery phase after halting of forest loss) (Mather, 1992); representation of a geographic spread across the humid and subhumid tropics so that a pantropical analysis could be initiated at national and landscape scales as the cases allow. Figure 2, using a data set provided by Köthke et al. (2013), shows the variation in forest cover against human population density for the four case-study countries, excluding outliers from the dominant trend lines. It shows three case-study countries (Cameroon, Indonesia, and Peru) before the forest transition and one (Vietnam) after this point. Vietnam is experiencing a net increase in forest cover, while Indonesia remains a high-forest, high-deforestation country. Cameroon and Peru are high-forest, low-deforestation countries.

Figure 2 Location of case-study countries along the forest transition (FT) as represented by forest cover versus human population densitySource: Köthke, Leischner, & Elsasser (2013).



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This set of countries provides a good variation in the mixes of pathways, institutional, technological, demographic, economic, cultural, and other conditions impacting deforestation and forest degradation across the humid and subhumid tropics. The selection of these countries, spread as they are along the forest transition continuum and under varied deforestation and forest degradation pathways and feedbacks, could help in gaining an understanding beyond the current state of knowledge on desired REDD+ Readiness conditions. Coincidentally, these countries also show a very diverse landscape of Readiness support. For instance, Indonesia and Vietnam receive both UN-

is also receiving investments (worth $1 billion) through a bilateral agreement with Norway, while Peru is set to receive modest investments from the Forest Investment Programme (FIP) of the World Bank (about $50 million).

2.2.2. Case-study methodology

In order to apply the REDD+ Readiness framework developed in the first phase of this study to assess Readiness in case-study countries, a mix of data collection methods were used, including interviews, focused group discussions, and a review of secondary evidence. First, a set of structured and semi-structured interviews were conducted with key informants based on the indicators of REDD+ Readiness processes. Secondary data and one to two focus group discussions per country were then used to triangulate and complement information from the key informants interviewed.

Key informants/respondents from governmental organizations and NGOs and universities engaged in and/or observing REDD+ activities took part as evaluators of Readiness level. These entities were selected strategically for the following reasons: (1) government institutions are often involved in formulating REDD+-related policies and strategies; (2) NGOs are widely engaged in implementing REDD+ projects; and (3) universities are engaged in REDD+ through research and training activities. As far as possible, specific evaluators from each entity were individuals responsible for REDD+ activities. In each country, between 7 and 20 key informants were interviewed, a number that was largely limited by the fact that REDD+ is a new, highly specialized, and multidisciplinary subject, and only a few individuals fully understand the detailed concepts.

One of the key activities involved designing the representation of indicators in terms of scaled units. After several discussions, the authors agreed to use a scale of 0 to 3, in accordance with the following attributes: 0, no evidence of Readiness consideration; 1, aware of it and being discussed; 2, agreed in principle (or some draft document and or recommendations exist); 3, established rules exist in law and/or are being implemented. Respondents were then asked to use this scale to represent how far a country has advanced for each indicator. This numerical representation of the different level of Readiness was used to ease the evaluation of in-country Readiness (i.e. between Readiness functions) and between countries to see how the varying national circumstances affect the Readiness extent. The value for each subfunction was

values for the Readiness functions were computed by averaging the values of the subfunctions. The computed means for the six Readiness functions were visually represented using spider-web diagrams. Further review of the secondary data and content analysis of interview and focus group discussion transcripts helped build the Readiness narratives in the countries. Both the numerical values and the narratives are meant to be complementary in interpreting Readiness progress.

3. A framework for assessing REDD+ Readiness

Figure 3 summarizes the REDD+ Readiness assessment framework designed in this study. It includes six REDD+ functions: planning and coordination; policies, laws, and institutions; monitoring, reporting, and verification and audit; financing and investment; benefit sharing; and demonstrations and pilots. These are further split into subfunctions. In terms of operationalization, a set of 29 corresponding indicators were identified to represent these functions. In reality, these functions and indicators are interrelated and interdependent, but are represented separately in the figure and in the following text as a simplification aimed at improving understanding. They build on and derive from REDD+-related literature, notably FCPF and UN-REDD Readiness documents, reported Readiness country assessments to date, forest governance, and policy and payments for ecosystem services literature (see summary in Table 1). Each of these six functions, subfunctions, and corresponding REDD+ Readiness indicators are briefly discussed in the following paragraphs.

Figure 3 Readiness for REDD+ assessment frameworkNote: * indicates FCPF-specific indicators.

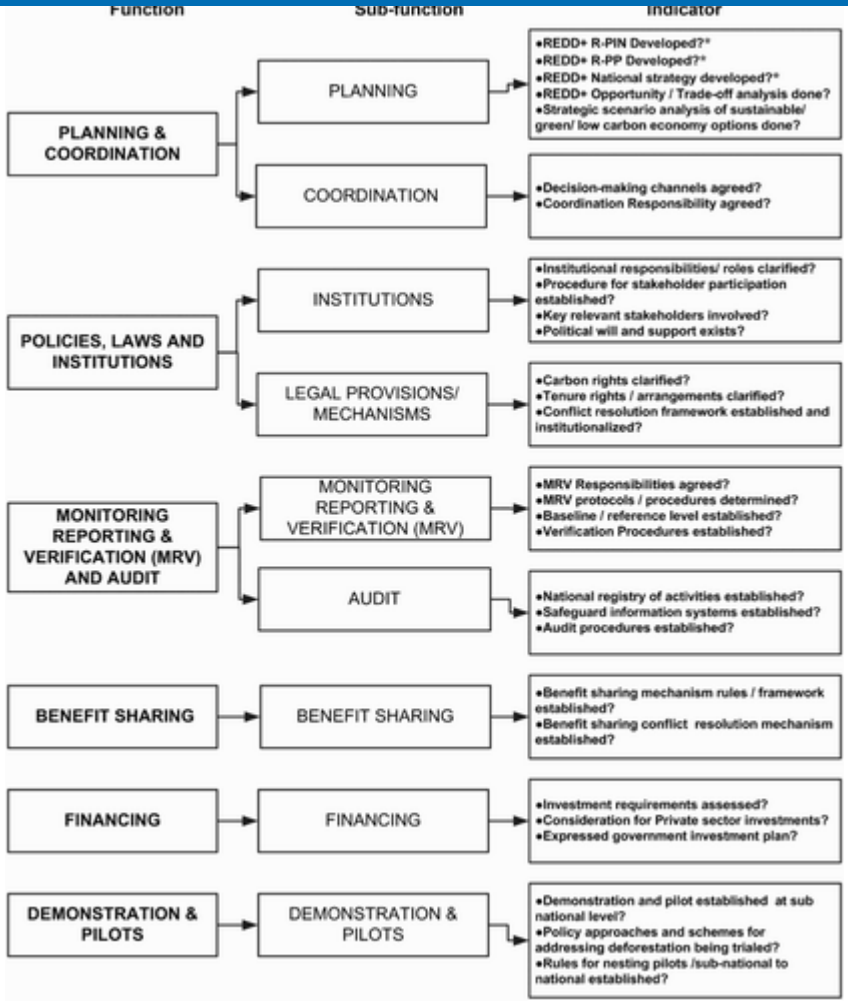

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Table 1 Summary of relevant Readiness assessment and salient national-level PES dimensions that inform the framework for assessing REDD+ Readiness, as used in this study

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3.1. Planning and coordination

The planning and coordination functions outline participatory processes in which the necessary assessments of potential costs, benefits, and trade-offs and the necessary strategic and operational planning for REDD+ are done. Assessments could include all cost categories – e.g. opportunity, implementation, and transaction costs (White et al., 2010) – and all benefits, including emission reduction, social, and other ecosystem services benefits. The list of progressive planning outputs in R-Package within the FCPF process, including the REDD+ Readiness Idea Note (R-PIN), the R-PP, and a national REDD+ strategy, exemplifies the kind of stepwise approach that might be needed to

frame REDD+ in a broader, green, sustainable, or low-carbon-economy planning process (e.g. Indonesia). In order for these planning processes to be effective and efficient, coordination responsibilities and rules and channels for decision making need to be as clear as possible. Countries may opt for a coordinating national REDD+ agency or share responsibility among government departments.

3.2. Policies, laws, and institutions

Enabling policies, laws, and institutional frameworks are needed for the implementation of REDD+. The national architecture for REDD+ would need policy instruments and institutions (norms, conventions, and legal rules) that govern actors (individuals and organizations) and regulate the relationships between them, especially regarding forest carbon management. This could be done by a single REDD+ policy or by strengthening a series of policy instruments for the same purpose. Boucher, Roquemore, and Fitzhugh (2013) have demonstrated that efficient policy enforcement and political will have significantly driven a reduction in deforestation in Brazil in recent years. Angelsen (2010) also provides examples of emission reduction policies. Among the long list of critical aspects of a policy and legal framework to be addressed by a REDD+-related mechanism are institutions (roles and responsibilities), participation and consultation rules, crediting and funding rules, rights to forests and carbon, taxes and state payments, benefit-sharing rules (Costenbader, 2009; Covington and Burling & Baker and McKenzie, 2009; Minang, Bressers, Skutsch, & McCall, 2007), and definitions of forests (van Noordwijk & Minang, 2009). In terms of involvement of stakeholders and enhancing participation in REDD+ and PES, some detailed elements have been identified, including investments in legal, capacity and technical support, addressing tenure barriers, costs of participation, flexible direct and indirect compensation mechanisms, and conflict resolution mechanisms (FCPF & UN-REDD, 2010; FONAFIFO, CONAFOR, & Ministry of Environment, 2012).

3.3. MRV and audit

The importance of an MRV system in REDD+ has been addressed extensively (Herold & Skutsch, 2011; Herold et al., 2011). In terms of a national MRV system, key steps might include assessing the data infrastructure, assigning responsibility for MRV in terms of institutions agreeing on rules and procedures for MRV. Government is directly responsible for emission reductions and therefore would be responsible for the validity

safeguards and ensuring other environmental and livelihood benefits, as well as ensuring the credibility of carbon measurements. The rules and systems for ensuring such safeguards and the verification of emissions need to be set up during the Readiness phase. Transparent, replicable, and accessible systems for carbon measurement and reporting are at the core of such credibility. Audit (periodic evaluations of systems and operations) and verification (of emission reductions) procedures are needed to ensure such credibility. FONAFIFO et al. (2012) and Swallow and Goddard (2013) present interesting examples of national-level verification for Costa Rica and jurisdictional-level audit infrastructure from the Province of Alberta in Canada, respectively. Establishment of a national registry of REDD+ activities has been advanced as an important Readiness activity, especially in the context of a nested approach to REDD+ (Minang & van Noordwijk, 2013).

Related to MRV is the task of establishing forest reference emission levels (gross emissions) or forest reference level (net emissions) estimated from forests within a reference time period. Decisions have to be made and a process designed to either establish a reference level as a first step to a reference emission level or do the reference emissions level straight away if required data and or capacity exist.

3.4. Financing

Addressing REDD+ financing has become increasingly necessary within the REDD+ Readiness process, as REDD+ finance mechanisms remain uncertain and financial flows fall far below promised amounts within global negotiations (Creed & Nakhooda, 2011; Streck, 2012). Diversifying and coupling funding sources – including facilitating private-sector contributions and enabling government investments – have been cited as key ways of enabling financial sustainability in REDD+ (FONAFIFO et al., 2012; Knight et al., 2010). These steps constitute some of the indicators of sustainable financing in our Readiness assessment.

3.5. Benefit sharing

While REDD+ is about providing incentives for reducing deforestation and forest degradation to actors that drive deforestation, current international negotiations have left it to national governments to determine the details of how the emission reduction targets (burden) at the national level and any benefits would be distributed in-country. As a result, national Readiness for REDD+ processes need to develop equitable

only look at rules and modalities for distribution, but also at how conflicts arising in the process can be resolved so that incentives do not generate perverse reactions (Costenbader, 2011; Lindhjem, Aronsen, Bråten, & Gleinsvik, 2009; Torres & Skutsch, 2012). Examples of specific rules in the design of benefit-sharing mechanisms include formulae for allocating benefits, eligibility for benefits, maintaining transparency in the process, timing of payment, and responsibilities of actors in the benefits-sharing process at multiple levels. In countries where emission reduction targets have been set at the national level – such as Indonesia – there is emerging evidence that consideration is being given to distributing these targets across subnational levels (Dewi, Johana, Ekadinata, & Putra, 2013).

3.6. Demonstration and pilots

Demonstration and pilots at all levels have been recognized and supported as part of REDD+ Readiness processes. A key reason for this is to foster 'learning by doing' and to enable adaptive management with REDD+. Demonstration projects or activities exist largely at the subnational level, while pilots could involve national-level systems. Demonstration projects have been documented in terms of their diversity (scale and type of REDD+ activity) and in terms of lessons being learned from these processes across the globe (Cerbu, Minang, Swallow, & Meadu, 2009; Cerbu, Swallow, & Thompson, 2011; Sills, Madiera, Sunderlin, & Wertz-Kanounnikoff, 2009). However, emphasis should also be placed on specific trials of incentives aimed at addressing drivers of deforestation and forest degradation. As Readiness progresses and national systems are developed, an emerging challenge relates to how current projects at the subnational level will be nested into a full-blown national REDD+ system (Minang & van Noordwijk, 2013).

It is important to note that, while these functions and indicators have been tailored for REDD+, the main functions and subfunctions would be useful for national-level PES systems in general, and specific indicators could then be developed for other services, including water or biodiversity for application purposes.

4. Country Readiness performances

Figure 4 summarizes REDD+ Readiness country performance in Cameroon, Indonesia,

discussed in Section 3. Table 2 highlights key findings from each country.

Figure 4 Spider-web diagram of REDD+ Readiness from the four study countries

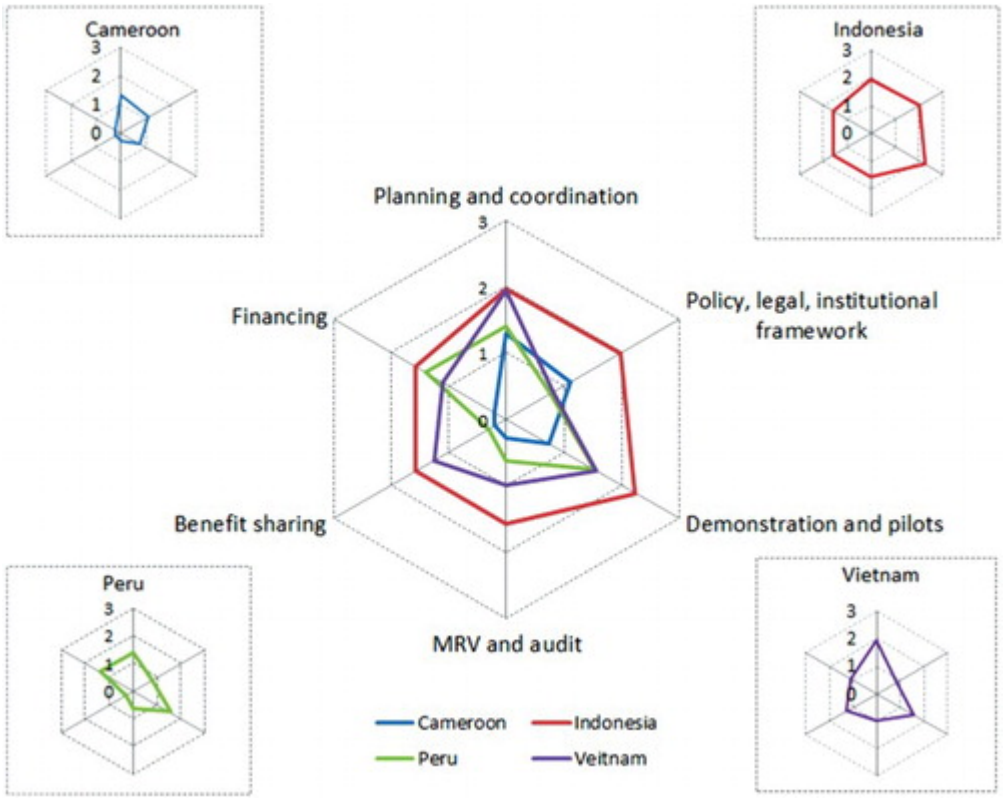

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Table 2 Highlights of progress in REDD+ Readiness in case-study countries

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Figure 4 shows the varied and mixed Readiness in the four countries. Most countries performed relatively well in the planning and coordination function, given that they have all completed R-PPs and are at least in the process of developing REDD+ strategies. All countries rated moderately on the policy, legal and institutional frameworks (except for Indonesia, which was rated highly) and demonstration and pilot projects. Yet, Indonesia has not been able to resolve challenges to the legal basis of state forest management within its constitution, forestry, and decentralization laws (van Noordwijk, Agus, Dewi, & Purnomo, 2013). Most countries were rated poorly on benefit sharing, MRV and audit, and financing, except Vietnam, which rated highly on benefit sharing.

In terms of planning and coordination, besides all countries having completed R-PPs and being in the process of developing REDD+ strategies, Indonesia has completed a national-level abatement cost curve (published by the National Council for Climate Change, DNPI). Cameroon, Vietnam, and Peru have only carried out indicative opportunity costs at a subnational level. No evidence of strategic scenario analysis relating to low-carbon economies was found in any of the countries. Decision processes and responsibilities regarding REDD+ were found to be mostly clear in all countries, although there was evidence of coordination challenges where multiple institutions were involved. This is true in Indonesia, where several institutions are involved, including the National REDD+ Task Force (Satgas REDD) in the President's Office, the Ministry of Forestry, the Ministry of Environment, DNPI, and the National Planning Bureau.

Regarding the policy, legal, and institutional frameworks, Indonesia was rated highest because it has developed both a Nationally Appropriate Mitigation Action (NAMA)[1] (Presidential Instruction 61 and 71 of 2011) and a REDD+ policy (P 68/2008 and P 30/2009) and has enacted and implemented a moratorium on logging within the context of REDD+. Rights and tenure issues, however, have remained largely unresolved (van Noordwijk et al., 2013). The rights issues referred to here included both forest tenure and carbon rights. Whether or not stakeholders participate adequately in REDD+ processes has been largely contested by non-governmental actors and communities in all countries.

In relation to MRV and audit, discussions remain at an exploratory level in most countries, with evidence of some assessments being done and options being considered. Indonesia has mulled the creation of an MRV agency, while Cameroon has been part of a regional programme exploring a Congo Basin-wide MRV programme design.

In terms of benefit sharing, Vietnam stands out as one country that has defined its mechanism and is actively looking at how to build on the existing Payment for Forest Ecosystem Services (PFES) programme in the country (PFES is a payment for ecosystem services programme implemented by the government in Vietnam between 2008 and 2010, which paid forest-land allocation certificate owners for watershed functions). Key features include a cascaded 10% allocation at national, provincial, and district levels, for management and implementation costs. The remainder is distributed

Minang, 2013). The K-factor is an indicator of forest capacity to generate environmental services, characterized by forest type, forest status, forest origin, and levels of difficulty in management, as used in the Vietnam PFES programme (Hoang et al., 2013; Thoa et al., 2010). It differentiates the impact of different kinds of forest on water provision and quality. Meanwhile, Cameroon, Indonesia, and Peru are at very early stages of consideration regarding benefit sharing.

In terms of financing, Indonesia and Peru have succeeded in negotiating $1 billion and $50 million, respectively, through bilateral and multilateral arrangements, but little or no sustained corresponding government investment or commitment were found. Vietnam has specifically created a working group on private-sector involvement with a view to enabling investments from the private sector. No evidence of any attempt at a fully fledged country-level assessment of REDD+ investment needs was found.

Finally, for the function demonstrations and pilots, Indonesia and Vietnam had official pilots (i.e. pilots established and sponsored by the national REDD+ or forest programme), while Cameroon and Peru had none. In terms of NGO-, community-, and/or private sector-sponsored projects, all four countries have several. These projects have varied definitions and are at different stages, and it is therefore challenging to make comparisons or scale up into subnational-/national-level REDD+ designs. However, several counts are given for those initiatives: Indonesia, between 44 and 77; Peru, 35; Cameroon, 31; Vietnam, 30. The only country that has attempted to regulate demonstration projects is Indonesia (regulation number P 68/2008). Under the regulation, individual investors or groups of actors can initiate demonstration activities provided prior approval is sought from the Ministry of Forestry. Peru is currently developing modalities and rules for establishing a project registry. No evidence was found of specific innovative incentive schemes designed to address drivers of deforestation being tested in a systematic manner.

In summary, Indonesia performed best in the overall assessment, Vietnam came second-best, with Peru a close third, and Cameroon registering by far the weakest performance (see Figure 4).

5. Eliciting understanding of performance, emerging patterns, and lessons

Despite the varied and mixed results for Readiness assessment across all four countries, the findings point to a set of emerging issues that characterize the global Readiness landscape, indicating requirements for further analysis and consideration. First, Readiness speed and effectiveness depend on country history and motivations. Second, Readiness processes, participation, and ownership are contested. Third, contrary to the limitations of forest definition and eligibility set out in REDD+, Readiness reveals a necessity for cross-sectorial dynamics at multiple scales. Fourth, Readiness has largely not addressed drivers of deforestation and forest degradation or rights and tenure. Finally, Readiness has so far only paid lip service to capacity-building. We elucidate on each of these points in the following paragraphs.

5.1. National circumstances are a principal determinant of progress in Readiness

Despite the UN-REDD and FCPF having a strong influence on Readiness processes in many countries, the pace, effectiveness, and efficiency recorded in terms of progress in REDD+ Readiness are diverse and mixed. We find that national circumstances (i.e. governance, capacity, history of involvement in payments for ecosystem services, political will, available resources, etc.) determine the choices, the decision-making processes, and eventually overall progress in Readiness. There is a very striking correlation between environmental governance performance based on the Environmental Performance Index (EPI) (Emerson et al., 2012) and the results of progress on REDD+ Readiness from this study. Emerson et al. (2012) showed that Indonesia had the highest EPI (52.29) in 2012 of the four countries, and the EPIs of Peru and Vietnam are quite close to each other, with values of 50.29 and 50.64, respectively. Cameroon has the lowest EPI value (42.27). EPI trend values for the last three years also show a similar pattern. Our Readiness results show a performance of the same order, with Indonesia performing best, Vietnam second, Peru third, and Cameroon last (see Figure 4). This suggests that REDD+ Readiness progress has been strongly influenced by national governance circumstances, despite working off the same World Bank FCPF- and UN-REDD-based Readiness models.

A possible explanation of the strong correlation of the Readiness level with the EPI could be that almost 44% of the indicators used to compute the EPI are directly related to forestry, biodiversity, climate change, and agriculture, which together make a great contribution to the REDD+ mechanism.

The ability to mobilize resources for REDD+ also mirrors the EPI rating. Indonesia has been able to negotiate $1 billion through a ‘letter of intent’ with Norway as well as some money from FIP and from UN-REDD and FCPF. Vietnam has also been able to secure bilateral funds from Norway, FIP, UN-REDD, and FCPF. Peru has been able to secure FIP, UN-REDD, and FCPF funding, while Cameroon has secured funds only from the FCPF. This perhaps suggests that the ability to mobilize financial resources is an important variable, i.e. in addition to governance and political will. Gupta et al. (2013) suggest similar patterns of progress and challenges in legal and institutional designs for REDD+ in a comparative study on the same countries used here. Kanowski, McDermott, and Cashore (2011) have also suggested that REDD+ performance is likely to be influenced by forest governance context.

5.2. History and motivations behind choices

The performance and Readiness trajectories of the four countries suggest a certain path dependency on forest, natural resource management history, and motivations. Path dependency refers to the fact that decisions and choices are influenced by, or limited by, past decisions and choices (or institutional entrenchments), even though past circumstances may no longer be relevant. For instance, progress and advancement in Indonesia can be attributed to two factors: (1) REDD+ thinking and planning started early (in 2006–2007) with the Indonesia Forest Carbon Alliance (IFCA, 2008), thereby enabling forward thinking on relevant issues such as REDD+ policy and MRV; (2) as a major emitter, Indonesia made a commitment to work towards reducing its emissions as host of the Bali UNFCCC Conference of the Parties (COP), with a target of 26% emissions reduction on its own, a further 15% with foreign support, while growing economically at 7% (Putra, Suyanto, Galudra, & Maryani, forthcoming). Such motivations have been a huge driving force in Indonesia. At the other extreme, Cameroon's slow-paced, largely cash-strapped, and bureaucratic challenges associated with forest reform since the 1980s (Ekoko, 2000; Topa, Karsenty, Megevand, & Debroux, 2009) have spilled over into the Readiness processes in the country (Dkamela, 2011). In Vietnam, striking progress in the development of a Benefit Sharing Mechanism (BSM) is largely explained by a wealth of experience in an existing BSM in the forest sector from which REDD+ borrows heavily and builds on (Do & Catacutan, 2014; Hoang et al., 2013).

5.3. Contested ownership, processes, and participation

Participation and ownership in REDD+ Readiness have largely been seen as determinants of REDD+ legitimacy and therefore important for success. In all four countries assessed there were divergent interpretations of participation between civil society and government, with the former claiming participation has been insufficient and the latter vice versa. In Peru, the degree to which indigenous communities have been excluded and/or not adequately considered remains a big issue for REDD+ (Robiglio, Armas, Silva, & White, forthcoming). In a few cases, shared/contested ownership of Readiness processes between government departments, notably the ministries of environment, agriculture, and other relevant/related government departments, has slightly affected perceptions and progress in Readiness.

5.4. Cross-sectoral dynamics at multiple scales

The fact that drivers of deforestation largely originate from outside the forests (Boucher et al., 2011; Geist & Lambin, 2002) has compelled Readiness processes to recognize cross-sectoral horizontal as well as vertical collaborations. In Cameroon, for example, the national REDD+ committee is composed of representatives from government departments such as forestry, environment, agriculture, and planning (Alemagi, Minang, Feudjio, & Duguma, 2014). The same is true for the compositions of REDD+ national committees in Peru (Robiglio et al., 2014). Aggarwal et al. (2009) suggest the same for India.

Very little evidence of how national-level emission reduction targets will be implemented on the ground has been found in REDD+ Readiness to date. Yet, REDD+ would have to be implemented on the ground by land and forest users and through the government hierarchy (Minang & van Noordwijk, 2013). Through its NAMA policy, Indonesia has directed how provinces should plan for emission reductions (Presidential Instruction 61 and 71 of 2011). The country has also defined modalities for project-level incentives. Peru is currently developing the same. No such evidence was found in Cameroon and Vietnam. REDD+ Readiness needs to shift focus from building national level infrastructure that looks after carbon accountability and environmental integrity of REDD+ vis-a-vis global requirements to consider internal (sub-national) organization, and governance for the implementation of REDD+ as an equally important part of the path towards effective, efficient, and equitable REDD+.

5.5. What about drivers of deforestation?

Although several demonstration and pilot projects were found in all four countries, there was very little evidence of deliberate national-level designs of incentives and policies for addressing drivers of deforestation and any trials within pilots of any such designs. This perhaps follows on from earlier critiques of R-PPs and Readiness in general as not sufficiently paying attention to drivers of deforestation (Brown & Bird, 2008; Dooley et al., 2011). Part of the problem in some countries is that some NGO-led and sometimes private sector-led projects preceded national REDD+ Readiness programmes, so there are difficulties in retrofitting these projects into the national system. However, even in Indonesia, where rules have been developed, these projects do not systematically identify, design, and test incentives, as recommended in the Bali decisions. There is a need to drastically shift the focus of Readiness processes to the core business of REDD+, i.e. addressing drivers of deforestation and forest degradation. Brazil's great success in reducing deforestation, which is largely due to improved policy enforcement and political will over the last few years (Boucher, Roquemore, & Fitzhugh, 2013), is evidence that a focus on policies is equally important for REDD+ Readiness.

5.6. Paying lip service to capacity-building?

One definition of Readiness refers to the development of the key competencies required for implementing REDD+ (Brown & Bird, 2008), yet in all four countries little has been found that points to any strategic development of knowledge and skills through training and/or of the development of specialized institutions, agencies, or units. Some training has occurred in all countries, but they have been ad hoc and opportunistic for the most part. There is, however, some action being taken by UN-REDD through a needs/capacity assessment carried out in 2010 (UN-REDD & FCPF, 2012). Therefore, countries might still need tailored assessments, plans, and actions in order to be effective going forward.

6. Implications

The objective of this article was to assess Readiness for REDD+ across four countries in a bid to provide lessons for improvement. In order to do that, we developed a framework for assessing Readiness based on REDD+ and other relevant literature. The resulting framework had six key functions of REDD+, namely planning and coordination; policies, legal, and institutional frameworks; MRV and audit; benefit

sharing; financing; and demonstration and pilots. These functions have a further nine subfunctions and 29 indicators for assessing progress in Readiness.

We found the framework credible and consistent in measuring progress and eliciting insight into Readiness processes at the country level. Country performance for various functions was mixed. Progress was evident on planning and coordination; and demonstration and pilots. However, MRV and audits; financing, benefit sharing; and policies, laws and institutions face major challenges. The results suggest that the path dependency of national forest governance, as shaped by history and circumstances, is a critical factor for progress in Readiness processes.

6.1. Implications for Readiness assessment

Despite the successful application of the framework, a number of points have to be taken into account in future applications.

- First, it must be recognized that the numbers/spider representations of Readiness derived from self-assessments can be subjective. While they give a useful picture, it is advisable to use them alongside insights from narratives constructed from semi-structured interviews, focus group discussions, and a review of secondary evidence. This provides for useful triangulation and a more complete picture of Readiness.
- Second, the framework should be used as a guide and a flexible instrument for REDD+ Readiness assessment. It would be advisable for the FCPF- and UN-REDD-specific process indicators relating to R-PINs and R-PPs indicated in Figure 3 to be removed or modified if the framework is used for countries that are not part of the FCPF and UN-REDD partnerships. Nonetheless, the framework built from a functions perspective would be very useful and complementary to FCPF frameworks being developed (FCPF, 2013), with innovations on the financing, audit, policies, and planning functions.

6.2. Implications for REDD+ Readiness infrastructure

Applying this Readiness assessment framework to Cameroon, Indonesia, Peru, and Vietnam brought insight that would be useful for rethinking the current Readiness infrastructure:

- The observed path-dependency of Readiness on history and circumstances of the

Readiness and actions with the broader economic, social, and environmental development agenda of the country. Despite a largely common framework for Readiness defined through the FCPF of the World Bank and UN-REDD, we find that the effectiveness and pace of Readiness largely depend on country circumstances, in particular governance, motivations, and history of forest and natural resources management. Early engagement and motivation for green growth is driving Indonesia further ahead with Readiness processes and demonstrations, while Cameroon's mixed forest reform performances have spilled over into the Readiness field. Vietnam's heralded reforestation progress continues to drive REDD+, enabling the country to stand out with one of the most advanced REDD+ benefit-sharing mechanisms defined so far. While issues of tenure and rights remain unresolved in all four countries, contentious indigenous peoples' rights and overlapping rights have remarkably punctuated the REDD+ Readiness landscape in Peru. These examples show that REDD+ Readiness needs to treat linkages between REDD+ and broader strategies more seriously if REDD+ is to succeed.

- The findings from this study point to a need to rethink the national-level focus of Readiness. Currently, little attention and or value is given to subnational-level processes. This view of REDD+ is very limiting given that, ultimately, REDD+ will be implemented on the ground. Issues such as nesting local agro-ecological variabilities into national plans, sharing the national burden of emission reductions intra-state (although benefit sharing is being considered), internal financing of REDD+, and enabling environments for REDD+ delivery at subnational levels that are currently not high on finance and technical support agenda at the international level have also received very little attention in the REDD+ Readiness process. Yet, these issues are crucial and necessary for an effective and efficient REDD+. Changing this might require a paradigm shift at the global level, where providing the technical guidance and support needed for an internal (national through subnational) infrastructure for REDD+ implementation is also an important component.

- Finally, REDD+ Readiness actors such as the FCPF, UN-REDD, and individual countries need to pay more attention to policies that can address drivers of deforestation as well as pay systematic attention to the knowledge, skills, and capacity development required to deliver on any such policies. To date, emphasis has been on global accounting issues such as MRV, baselines, and safeguards that

deforestation and forest degradation on the ground. In all four countries in this study, and in previous studies, little evidence of policies and incentives for addressing drivers was found. A serious rethink is thus needed.

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Notes

1. The NAMA concept was accepted by the UNFCCC in the Bali COP alongside REDD+, and refers to any set of policies and actions undertaken by countries as part of efforts to reduce GHG emissions, potentially across all economic sectors. Such actions are expected to be appropriate and respond to specific country circumstances, including development priorities, equity issues, and capabilities. Subsequently, debate has emerged on the extent to which NAMAs should reflect the common but differentiated responsibilities of all UNFCCC Parties, and whether or not it should be voluntary, part of commitments, and/or conditional on financial support from global mechanisms.

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