Working Paper

Beyond reforestation: An assessment of Vietnam's REDD+ Readiness

Do Trong Hoan and Delia Catacutan

World Agroforestry Centre

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Abstract

As the Government of Vietnam is showing great interest and commitment to REDD+, it is important to examine the country's 'readiness' based on the functions that need to be fulfilled. This paper reports on rapid REDD+ readiness assessment conducted through documents' review, survey-questionnaires, in-depth interviews and round-table discussions with Vietnam's National REDD Network. It was found that Vietnam's reforestation experience does not foretell REDD+ readiness. Its readiness level as perceived by in-situ stakeholders only ranged from low to medium across all functions. For the country to move beyond its current state of REDD+ readiness, activities should focus on indicators where it is weak while strengthening those that are already advancing, and post-reforestation issues should be resolved. Failure to address them will mean an uphill implementation of REDD+. The paper concludes with specific recommendations for Vietnam to advance its REDD+ readiness that might be useful for other countries that share similar issues with Vietnam.

Keywords: climate change policies, forest carbon, REDD, REDD+ readiness

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1 Introduction

Since losing between 33% to more than half of its forest cover from 1943 to early 1990s (Collins, Jeffrey & Timothy, 1991; De Koninck, 1999; Rambaldi, Bugna & Geiger, 2001; Sunderlin, & Huynh, 2005; Scheyvens, Hyakumura & Seki, 2007; Meyfroidt & Lambin, 2008), the Government of Vietnam has been implementing policies and programmes aimed at curbing deforestation and accelerating reforestation. The revised Land Law of 1993 can be considered as Vietnam's landmark in forestland allocation that paved the way to progressive policy reforms in the forestry sector. Building on predecessor reforestation projects, Decision 661/QD-TTg, otherwise known as Programme 661, is by far, the largest reforestation programme in Vietnam. The Programme which began in 1998 aimed to reforest five million hectares, not only to achieve 43% forest cover by 2010, but also to create jobs and increase rural incomes, achieve socio-political stability, and transform forestry into an economically vibrant sector through sustainable supply of wood, pulp and timber. The Programme mobilized the entire government-led forestry sector and local governments to ensure success.

Ten years after the implementation of Programme 661, the Ministry of Agriculture and Rural Development (MARD) reported an increase in forest cover from 26% in 1994 to 38% in 2006 (Dinh, & Dang 2008). Several authors such as Meyfroidt & Lambin (2009) also reported a steady growth in forest cover from about 24.7% in 1992 to about 38.2% in 2005. By 2010, the reported forest cover in Vietnam was 39.5% (MARD, 2011) with a net increase of 18.6% in 10 years (2000-2010) (Figure 1). Subsequently, Vietnam received global attention for making it to the latter stage of forest transition (Meyfroidt & Lambin, 2008, 2011; Angelsen et al., 2009; Mertz et al., 2012). However, concerns about forest quality remain, as the country's forests have been transformed into young and poorly stocked forests (Lambin & Meyfroidt, 2010; Socialist Republic of Vietnam [SRV], 2011). The government was also criticized for its top-down approach in the design and implementation of reforestation programmes (Castella, Gevraise, & Novosad, 2005; Sunderlin & Huynh, 2006; Pham, Moeliono, T.H. Nguyen, H.T. Nguyen & Vu, 2012), and for its lack of mechanism for performance-based benefit sharing (UN-REDD, 2010). Vietnam has been also criticized for protecting its forest while exporting deforestation to neighboring countries for nearly two decades (1987-2006). This strategy has reportedly contributed 39% of the volume of wood regrowth of Vietnam's forests (Meyfroidt & Lambin, 2009). There are other negative environmental and social consequences of Vietnam's strategy, which are often overlooked by many observers (McElwee, 2012).

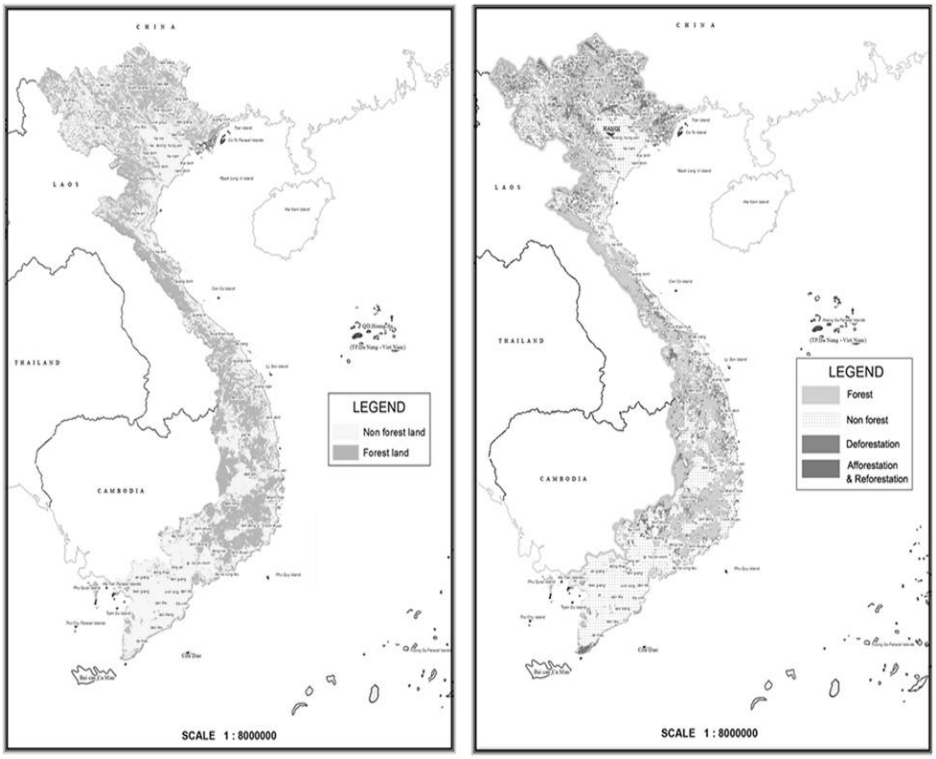


Figure 1. Forest changes in Vietnam (2000-2010)

Forest changes in Vietnam are a result of mixed causes. On one hand, the direct drivers of deforestation and degradation are agriculture expansion, infrastructure development, unsustainable logging and forest fires, while population and migration, weak forest management capacity, and limited funding for forest protection are indirect drivers (De Koninck, 1999; SRV, 2008; Hoang et al., 2010; Pham et al., 2012). Reforestation on the other hand, is driven by economic and political responses to forest and land scarcity, economic growth, land privatization, land-use zoning, food crop intensification, market liberalization (Sunderlin & Huynh, 2005; Meyfroidt & Lambin, 2011), and science and technology development (De Jong, Do & Trieu, 2006). Addressing these drivers through comprehensive forest conservation and management under a REDD+ framework is crucial to success.

Despite the ambivalence in Vietnam's reforestation and forest protection strategies, it was, in 2008, chosen by the Forest Carbon Partnership Facility (FCPF) among a number of countries to be given support, and was again, in 2009 selected as the first pilot country of the United Nations Collaborative Programme on REDD (UN-REDD) to implement the following activities: (i) building a robust policy platform through preparation of a National REDD Programme (NRP); (ii) establishing a coordination and steering mechanism for REDD readiness; and (iii) preparing a national REDD infrastructure, building capacity at national and subnational levels and establishing a national accounting system. Subsequently, Vietnam was recognized as amongst few countries that have gained momentum towards the 2nd phase of REDD Readiness (UN-REDD & FCPF, 2012). However, several issues remain, and questions arise whether such recognition actually depicts reality.

To address this question, we assessed Vietnam's 'readiness' REDD+ using the Readiness Assessment Framework suggested by Minang et al., (in this issue), which is described in the methods section below. The assessment was guided by the following questions: (i) how do stakeholders in Vietnam's

National REDD Network (NRN) assess the country's REDD+ readiness?; (ii) do government and non-government members of NRN differ in their assessment of Vietnam's REDD+ readiness?; and (iii) what recommendations can be made for the government to be fully ready to implement its NRP?

Our assessment is nowhere complete or comprehensive, but the framework used is more practical as it embodies the main functions of REDD+ design and implementation, making the assessment more direct and concrete. However, it was prudent for us to reflect upon the rich experience of Vietnam's reforestation, as this has made an important mark in the history of its forest sector.

2 Methodology

2.1 REDD+ Readiness Assessment Framework

While significant amount of funding has been made available for readiness activities over the last few years, there is lack of criteria and guidelines for the evaluation of the Readiness-Package (R-Package) (Lang, 2011). Funding for REDD+ readiness are generally used for these building blocks: (i) preparation of national REDD+ strategies; (ii) stakeholders' engagement and consultation; (iii) filling the gaps of institutional structures and national policies; (iv) designing/implementing Monitoring, Reporting and Verification (MRV) systems; (v) development of national systems for determining baselines and Reference Emissions Levels (RELs); (vi) development of a transparent, equitable and accountable benefit sharing mechanisms; (vii) developing safeguards and grievance mechanisms to protect the interests of forest communities and the poor; and (viii) clarifying national land, forest and carbon tenure rights. Both the UN-REDD and FCPF (2012) developed a framework for REDD+ Readiness at country level with six components that is consistent with currently used R-PP template and the UN-REDD Programme's Support to National REDD+ Action – Global Programme Framework 2011–2015 (Figure 2a). Similarly, Scheyvens (2010) developed a six-element conceptual framework for REDD+ readiness based on discussions under United Nations' Framework Convention on Climate Change (UNFCCC) (Figure 2b).

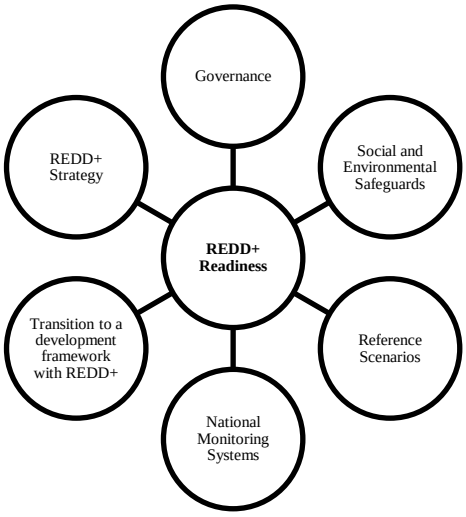


Figure 2a. Elements of national REDD+ (UN-REDD and FCPF, 2012)

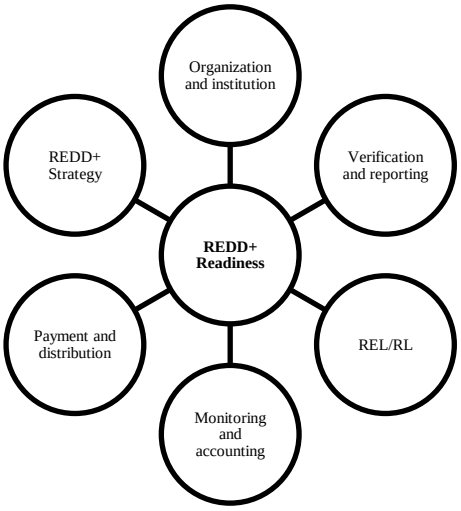


Figure 2b. Elements of national REDD+ (Scheyvens, 2010)

Moreover, Simula (2010) merged the cost requirement components of R-PP and National Programme Documents for UN-REDD into four functional categories: (i) Organization, consultation and management of the REDD+ process; (ii) REDD+ Strategy; (iii) Reference scenario/level; and (iv) Monitoring system. Lastly, Parker (2012) listed seven elements of REDD+ in two umbrella domains. The first domain is legal and institutional framework, which has management and coordination, stakeholder engagement and participation, rights and tenure, and compliance as elements. The second is methodological framework with elements such as reference levels, safeguards, and MRV.

Although the above frameworks are similar and overlapping, there is no single framework or criteria used in various readiness studies. This could be partly explained by differences in stakeholders' understanding and expectations of REDD+ readiness across many countries and the expertise of readiness evaluators and their roles in the global REDD+ processes (Simula, 2010; Westholm, 2010; UN-REDD and FCPF, 2012; International Sustainability Unit [ISU], 2012). In short, REDD+ readiness definition is diverse and evolving (Parker, 2012); hence, there is no universal definition of who is ready for REDD+. It should be considered that although countries are utilizing similar readiness funding sources, they are at different stages of readiness (ISU, 2012; UN-REDD and FCPF, 2012) and have different their own priorities (Johns, Johnson & Greenglass, 2010). Some authors including Mayers, Maginnis, & Arthur (2010) and Mattson, Persson, Ostwald, & Nissanka (2012) scrutinized readiness at the country level by focusing on the most practical need to national circumstance. Although this approach is practical, it was difficult to compare the state of readiness of the countries involved. It appears that despite many REDD+ assessments, little was discussed about how 'readiness' activities actually relates to the countries' capacity as well as how stakeholders were consulted during the process.

Minang et al. REDD+ readiness framework, which comprised six functions, 9 sub-functions and 27 indicators (Figure 3) was used for this assessment, for several reasons: (i) it adds political and economic dimensions into existing readiness thinking based on technical, institutional and policy conditions; (ii) it categorizes readiness elements into domains, sub-domains and indicators with narrative descriptions; (iii) it is largely scalable and applicable to other environmental services (than emission reduction alone) with modification of indicators as relevant; and (iv) unlike most readiness

assessments in the literature which are based on subjective evaluations of consultants or authors, the framework captures perspectives of national stakeholders who are directly involved in REDD+ readiness processes. A brief description of each function is given below.

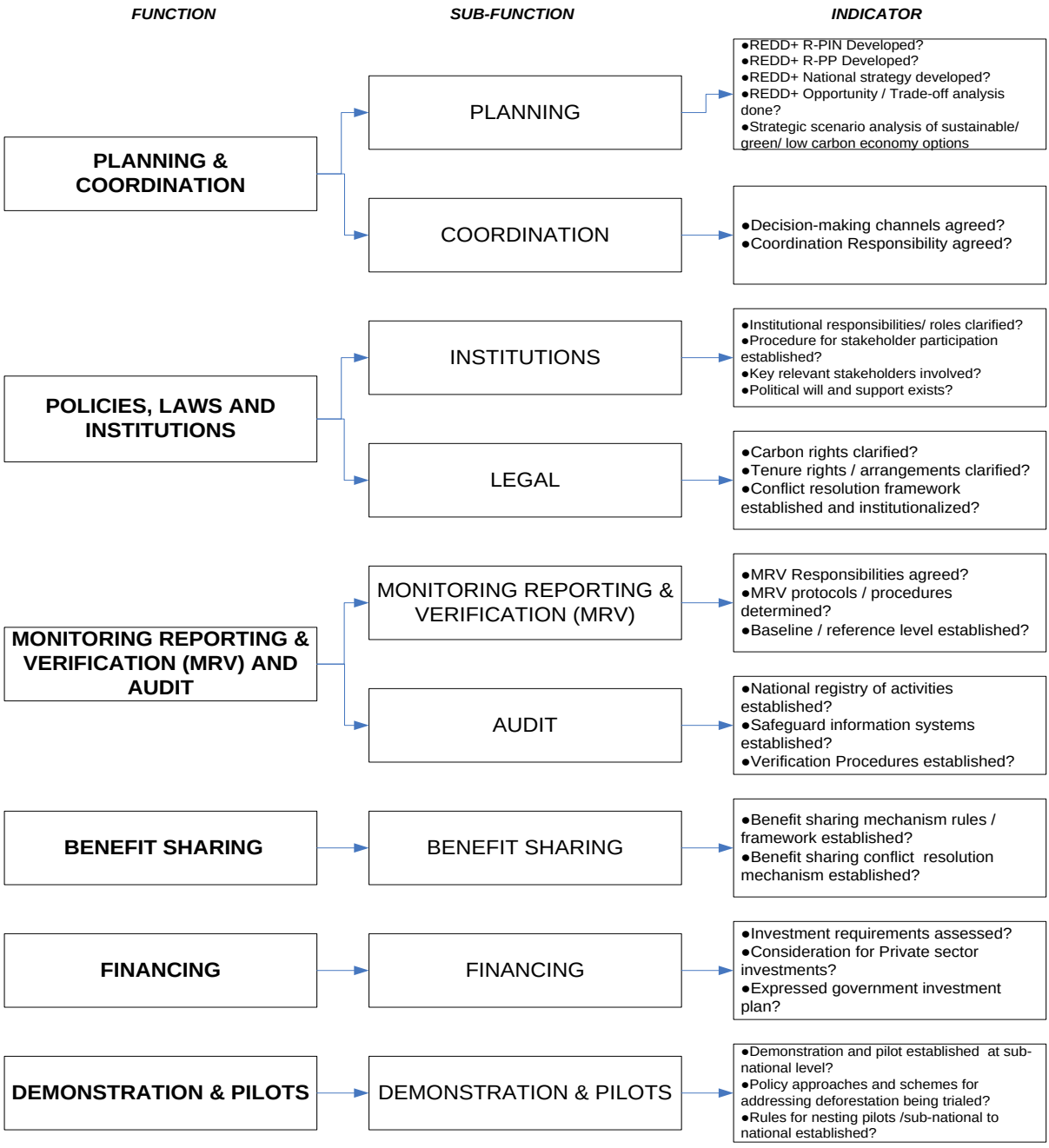


Figure 3. REDD+ Readiness Assessment Framework (Minang et al., this issue)

Planning and Coordination. Participatory approaches are used in planning and coordination, and necessary assessments of potential costs, benefits and trade-offs, as well as strategic and operational planning for REDD are done.

1. *Policies, Laws, and Institutions.* Among the critical aspects of a policy and legal framework that are necessary in a REDD+ mechanism are institutions, participation and consultation rules,

process for project approval, funding rules, management of a national pool or buffer, rights to forests and carbon, taxes and state payments, benefit sharing rules and forest definitions.

2. *Monitoring, Reporting and Verification (MRV) and Audit.* A national MRV system include key steps such as assessing the data infrastructure, assigning responsibility for MRV in terms of an institution agreeing on rules for, and setting up a baseline or reference emission level and protocols and procedures for MRV.
3. *Financing.* REDD+ could not depend on global financing alone. Countries involved or interested in REDD+ mechanism should leverage internal funding. Diversifying and coupling funding sources, including facilitating private sector contributions, enabling government investments, and seeking efficient ways of managing REDD projects enable financial sustainability for REDD+.
4. *Benefit Sharing.* Equitable, transparent and effective benefit sharing mechanisms are necessary for REDD+ to succeed. Such mechanisms should look at rules and modalities for distribution and conflict resolution. Rules established for a benefit sharing mechanism include formula for allocating benefits, eligibility for benefits, maintaining transparency, timing of payment, and responsibilities of actors in the benefits sharing process at multiple levels.
5. *Demonstration and Pilots.* Demonstration and pilots at all levels have been recognized and supported as part of REDD+ readiness process. These pilots foster learning-by-doing and enable adaptive management. Demonstrations are largely at subnational level, while pilots could entail national level systems.

2.2 Scope and limitation

NRN members referred to, as 'in situ' stakeholders in this paper, assessed Vietnam's REDD+ readiness using 19 out of 27 indicators. The assessment centered on readiness activities financed through the UN-REDD Programme and the FCPF, although reference was also made to activities implemented by international, national or local non-government organizations in the country. Our assessment is neither complete nor comprehensive, but our recommendations might help the country to move towards REDD+ implementation.

2.3 Data collection

Data were collected through documents review, round table discussion, self-administered questionnaires, and in-depth interviews from July to December 2012.

Review of documents

The following documents were reviewed: (i) national programmes/strategies; (ii) UN-REDD Programme and FCPF reports; and (iii) reports from the Vietnam Administration of Forestry (VNFOREST) and NRN, and the findings aided in explaining the interview results.

Round-table discussion

A round table discussion was facilitated with nine NRN members and NGO staff involved in REDD+ related projects on July 2012 to (i) discuss the REDD+ readiness assessment framework; (ii) pre-test the questionnaire; and (iii) draw preliminary insights on Vietnam's REDD+ readiness.

Self-administered questionnaire

A self-administered questionnaire was designed to assess REDD+ readiness functions and indicators using the rating scale shown in Table 1. The questionnaire was electronically circulated to the NRN,

of which, 14 were retrieved, representing about 25% of its membership. The respondents were grouped according to their institutional affiliations. The first group is government organization (GO), comprising government (5) and donor agency (2) representatives. The second group comprised NGO staff involved in REDD+ projects (7). Data were analyzed using descriptive statistics such as frequencies and means.

Table 1. Rating scale used in assessing REDD+ readiness functions and indicators

Rating	Description	Conditions
0-1	Low/Poor	Indicator is not yet discussed
>1-2	Medium/Fair	Indicator is being discussed
>2	High/Good	Indicator or issues around it are agreed in principle
3	Very High/Very Good	Rules, laws or policy decisions already exist

In-depth interviews

Seven out of 14 respondents were subjected to in-depth interviews, of which, three were from the GO and four were from the NGO group. The interviews were aimed to elicit more information, and follow up specific issues.

3 Results

3.1 Overall status of REDD+ readiness

In the following order, respondents rated Planning and Coordination, Demonstration/pilots, Benefit Sharing, and MRV and Audit functions, only fairly (>1-2) and low/poorly (0-1) for Policy/Legal and Institutional Framework and Financing (Figure 4). Of 19 indicators, three were rated high, eight medium, and another eight were rated low (Table 2). Despite concerns and criticisms against them, it appears that the REDD Readiness Plan Idea Notes (R-PIN), Readiness Preparation Proposal (R-PP) and National REDD Strategy, and policies to address deforestation out did 16 indicators, although their mean value was less only than two (>2).

In sum, the six readiness functions were rated only fairly/medium (>1-2), which means that Vietnam's readiness preparations might take longer than expected. Low rated indicators such as trade-off analysis, nesting rules, tenure and carbon rights, and REDD+ conflict resolution framework are crucial to REDD+ implementation, and should be the focus of readiness activities. Failure to address them would mean an uphill implementation of REDD+ in Vietnam. A detailed discussion of the assessment is provided below.

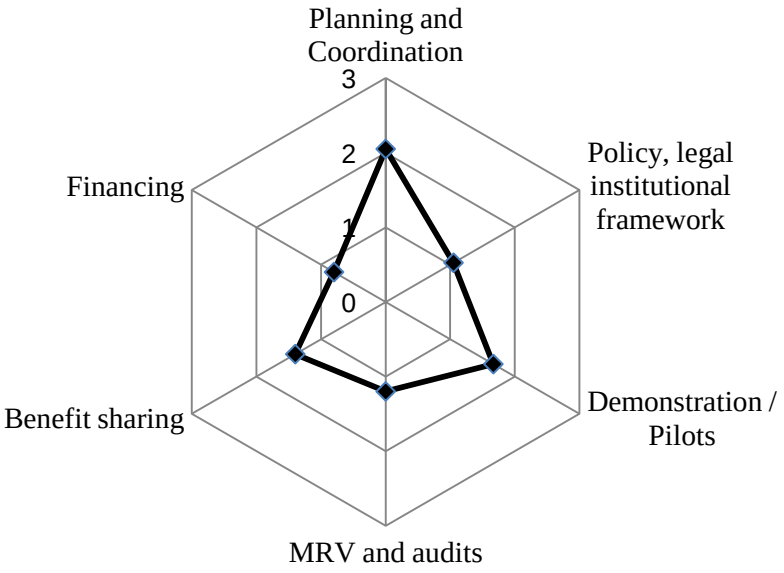


Figure 4. Overall assessment of REDD+ Readiness

Table 2. Assessment of REDD+ readiness indicators

Function	Indicators	Mean (n = 14)	Readiness
P & C	REDD RPIN, RPP	2.57	High
P&C	National REDD strategy	2.50	High
D&P	Policy approaches and schemes for decrease deforestation	2.07	High
D&P	Demonstration and pilot established at subnational level	1.86	Medium
P&C	Decision-making channels	1.79	Medium
BS	BSM framework RULES	1.64	Medium
PL&I	Institutional responsibilities	1.36	Medium
MRV&A	MRV responsibilities	1.36	Medium
PL&I	Procedure for stakeholder participation	1.14	Medium
MRV&A	MRV protocols/procedures	1.14	Medium
MRV&A	Baseline/reference level	1.07	Medium
P&C	Opportunity cost/trade off analysis	0.93	Low
MRV&A	Safeguard info system	0.93	Low
BS	BSM conflict resolution	0.86	Low
D&P	Rule for nesting	0.71	Low
F	Financial investment requirements	0.64	Low
PL&I	Tenure carbon rights and contractual procedures	0.50	Low
MRV&A	National registry	0.50	Low
PL&I	REDD conflict resolution framework	0.29	Low

Note: *P&C: Planning and Coordination; PL&I: Policies, Laws and Institutions; MRV&A: Monitoring, Reporting, Verification and Audits; D&M: Demonstration and Pilots; BS: Benefit Sharing; F: Financing.*

3.2 REDD+ Readiness Assessment by Function

3.2.1 Planning and Coordination

Readiness in terms of the National REDD+ Action Programme (NRAP) (National REDD Strategy in many international documents), R-PIN and R-PP was rated medium, while opportunity cost analysis received a lower rating. The NRAP, which was approved by the Prime Minister in June 2012 is part of the National Climate Change Strategy and National Action Plan on forest protection and development (2011-2020). However, NGO respondents were concerned about the lack of consultation and participation of relevant stakeholders in developing the above documents. In terms of opportunity cost analysis at subnational level, the UN-REDD Programme (UN-REDD, 2011a) has already provided a guideline, but the Vietnam REDD Office (VRO) encountered delays in implementing it, and there were concerns that the VRO's technical expertise on this aspect may be lacking.

The establishment and clarification of REDD+ decision-making channel is rated medium (1.79) since it was part of the establishment of the National REDD Steering Committee (NRSC). However in reality, the decision-making channel for REDD+ in Vietnam has a lot of nuances. First, the Prime Minister is the only person who makes major decisions over REDD+; no decision-making channel exist at subnational level, except for the REDD+ pilot province in Lam Dong. Second, pursuant to guideline No. 282/VPCP-QHQT issued by the Prime Minister, MARD through Decision 39, created the NRSC to formulate and implement Vietnam's REDD+ Programme. The fact that the NRSC was constituted by MARD is strategic, but its structure and mandate suggest a decision-making process that is concentrated only within MARD, although it is has to collaborate with relevant Ministries and local agencies to facilitate inter-sectoral/provincial REDD+ design and implementation. The problem is that, the weakness of MARD's forestry sector in coordinating other Ministries is common-knowledge, leading to doubts as to the ability of the NRSC to attract non-forest sectors to REDD+.

3.2.2 Demonstration/Pilots

Respondents' assessment of demonstration/pilots came next to planning and coordination (>1-2) due to past and ongoing government programs, and the number of REDD+ pilot projects in Vietnam. Two of Vietnam's national programs, namely Programme 661 and Payment for Forest Environmental Services (PFES)[(i)] were identified as major policies that provide financial incentives to poor communities and households for forest protection and development. Several initiatives follow sought such as Programme 147 and Forest Protection and Development Strategy (2006-2020). However, despite their good intentions, these programs have their share of weaknesses (Pham et al., 2012), which concerns NGO respondents the most. The NGO group expressed deep concerns on the way national reforestation projects were implemented—they are of strong opinion that the current forest management regime is indecisive when it comes to performance-based rewards, forest and carbon rights, benefit sharing and conflict resolution.

Furthermore, it was recognized that most pilot projects are implemented by international organizations such as the Japanese International Cooperation Agency (JICA), the Netherlands Development Agency (SNV), German Technical Cooperation (GTZ), and Flora and Fauna International (FFI) to name a few. They focused on feasibility assessment, carbon mapping, trade-off and tenure analysis, testing REDD+ design, community forestry development, and piloting free and prior inform consent (FPIC) process. These projects have been reported to the STWG, but

[(i)] Decision 380 and Decree 99/2010 of the Government of Vietnam on Payment for Forest Environmental Services

respondents were unsure if those reports were actually used to inform the NRAP design, considering the informal representation of the STWG within the NRN and NRSC structures. Furthermore, respondents were dissatisfied that REDD+ pilots are still in form of official development assistance targeting REDD readiness, than dealing with carbon offsets.

3.2.3 Benefit Sharing

Benefit sharing was also rated fairly after demonstration/pilots (Figure 4). This assessment seems right, as Vietnam is amongst very few countries that has embedded REDD+ benefit sharing into its policies (Pham et al., 2013). The UN-REDD Programme funded several studies on national Benefit Distribution System (BDS) in line with international standards and appropriateness to local and national contexts. As a result, 17 Policy Decisions for REDD+ BDS have been identified (UN-REDD, 2010). However, amongst 17 policy decisions, only the 'classification of REDD+ revenues and creation of REDD+ funding' was addressed in the NRAP, where creating a separate 'branch' for REDD+ funds within the Forest Protection and Development Fund (FPDF) was proposed.

Despite the eminence of these policy decisions, respondents were concern that without a conflict resolution mechanism, the government will in the end, use the BDS employed by Programme 661 and PFES, juxtaposing the guidelines that have already been developed by the NRSC. Respondents further highlighted the need to resolve forest and carbon rights issues, as well as create an independent monitoring channel as a prerequisite for REDD+ BDS. Not to mention carbon rights, land and resource rights have always been a challenge even for PFES since absence of forestland tenure or resource rights prevents local people from opening a bank account or registering land ownership. This concern corroborates with Wertz-Kanounnikoff & Kongphan-Apirak (2009) who found PES an option hardly feasible especially if formal tenure rights (including to carbon) are required. In essence, the bottleneck for Vietnam's REDD+ BDS lies in the weakness of its land tenure and property rights system.

3.2.4 MRV and Audits

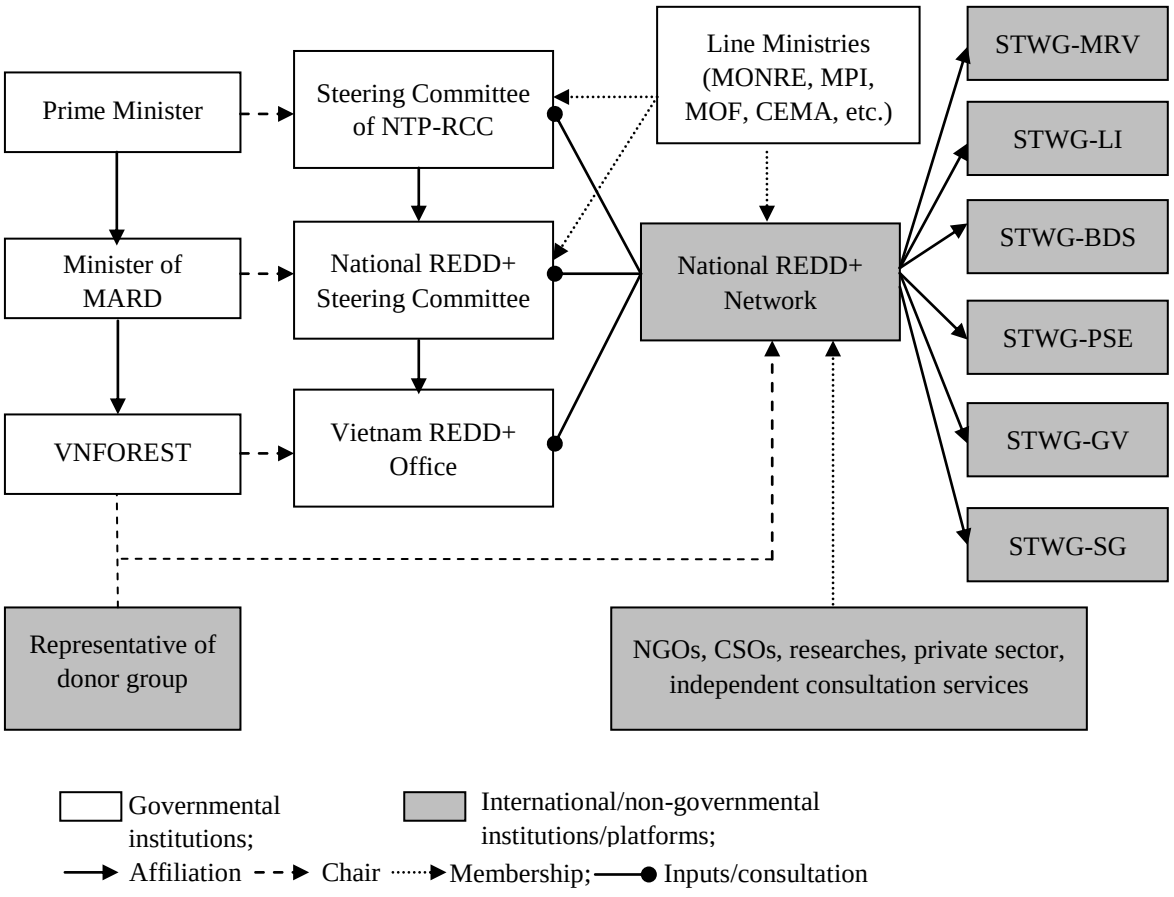
MRV and Audit is the least developed amongst four functions that were rated fair/medium by respondents. The STWG-MRV was first established to help the government address the complexity in developing a REDD+ compatible MRV system. Discussions under the STWG-MRV were thought to be substantive, with the highest number of meetings held compared to other STWGs (Pham et al., 2012). MRV is also considered a core component of the NRAP. Nevertheless, such a national system is likely to take longer to evolve to the level where REDD+ can be implemented with accuracy (Peskett and Baukahaus, 2009).

The most significant output of the STWG-MRV is the draft MRV Framework document with reference to Safeguards Information and Monitoring of Policies and Measures (UN-REDD, 2011), which outlines the institutional arrangement of Vietnam's MRV. For this reason, respondents rated this indicator medium (1.36) (Table 2). MRV responsibilities were given to the NRSC, Forest Planning and Inventory Institute (FIPI) and the General Department of Land Administration (GDLA), particularly on national carbon inventory and land monitoring. In addition, the National Office for Climate Change and Ozone Protection (NOCCOP) is tasked to compile GHG inventories including REDD+ emissions and removals. MRV protocols and analyses of capacity gaps were also described in the document. However, an important aspect that was missing in the MRV framework, which was highlighted by some respondents is a mechanism to engage local communities in the MRV process.

A number of national safeguards exist that can be incorporated into REDD+, including the Law on Environmental Protection (2005), Law on Biodiversity (2008), National Assembly's Ordinance on Plant Varieties (2004), National Assembly's Ordinance on Grassroots Democracy (2007), Decree 29 on Strategic Environmental Assessment (2011), Amended Law on Anti-corruption (2012), and most recently, Law on Grassroots Reconciliation (2013). However, NRN respondents do not consider the above as REDD+ safeguards, and instead, recommended to develop a specific REDD+ safeguards system. Nevertheless, recognition of customary laws of ethnic minorities is still a gap in current social safeguards and, as recommended by most interviewees, should be legally recognized. Meanwhile, the establishment of Safeguards Information System (SIS) for REDD+ did not progress at the pace expected by respondents; hence, it is much more behind among other indicators.

3.2.5 Policy, Legal and Institutional Framework

Policy, Legal and Institutional Framework is at the bottom two of the six functions (0-1) (Figure 4). Within this function, clarification of institutional responsibilities was fairly assessed (medium), which adequately conforms to efforts of the government and other stakeholders to create an institutional structure for REDD+ (Figure 5); however, respondents reiterated that the bottleneck of this function, lies in addressing tenure and carbon rights and conflict resolution (Table 2 above).



STWG: Sub-technical Working Group; MRV: Monitoring, Reporting and Verification; LI: Local implementation; BDS: Benefit distribution system; PSE: Private sector engagement; GV: Governance; SG: Safeguards; MONRE: Ministry of Natural Resources and Environment, MPI: Ministry of Planning and Investment; MOF: Ministry of Finance; CEMA: Committee of Ethnic Minority Affairs

Figure 5. Interim Institutional Structure for REDD+ in Vietnam

Vietnam's REDD+ institutional structure is quite comprehensive. The Prime Minister brings the notion of political commitment to REDD+, with MARD as its executive arm. By virtue of MARD Decision 39, VNFOREST in 2011, which is in charge of national forest administration created both the NRSC and VRO. At the same time, the NRN was created as a flexible component of the REDD+ structure, to provide a forum for stakeholders to discuss and exchange information and advocate for a REDD+ policy. With six STWGs, the NRN is currently co-chaired by VNFOREST and a Norwegian government representative (the major donor of REDD+ in Vietnam) (Figure 5 above).

On one hand, respondents confirmed the effectiveness of the STWGs in creating a platform for REDD+ discussions, and cited the lack of participation of other relevant stakeholders such as indigenous peoples and media groups, on the other hand. This helped to explain the relatively low rating given to 'procedure of stakeholder participation' (Table 2 above).

Moreover, the NRSC had several important tasks, of which, one is to direct the formulation and implementation of the Vietnam REDD+ Programme. It also has to collaborate with relevant Ministries and local organizations to effectively coordinate an inter-sectoral--provincial implementation of REDD+. However, the weak coordination track record of MARD's forestry sector has long been observed (Hoang et al, 2010; Pham et al., 2012; UN-REDD, 2012), creating doubts on the NRSC's ability to effectively engage non-forest actors into REDD+.

Furthermore, the assessment for 'decision-making channel' was <2. It could be because only the Prime Minister decides on major aspects of REDD+ and no other decision-making channel exists at the sub-national level except at the UN-REDD+ pilot province in Lam Dong.

3.2.6. REDD+ Financing

Financing was lowest among six functions (Figure 4). This is unsurprising since the fund-based approach is by far, the most widely pursued approach by many REDD+ implementers in Vietnam. Efforts were made to map donors and engage the private sector to meet the financial requirements of REDD+. However, since there was no comprehensive assessment of the funding requirements of REDD+, respondents wondered as to how the budget was determined. The figure was thought to have been estimated based on donor committed funding rather than real needs. Unlike Programme 661, the government has also not leveraged substantial funding for REDD+.

3.3 Differences between GO and NGO assessment of REDD+ readiness

Differences between GO and NGO assessment of readiness were found in Policy/legal/institutional framework, Financing, Benefit Sharing, MRV and Audits, albeit, the difference was very narrow for Planning/Coordination and Demonstration/Pilots (Figure 6), indicating that both groups agree on their assessment of the two.

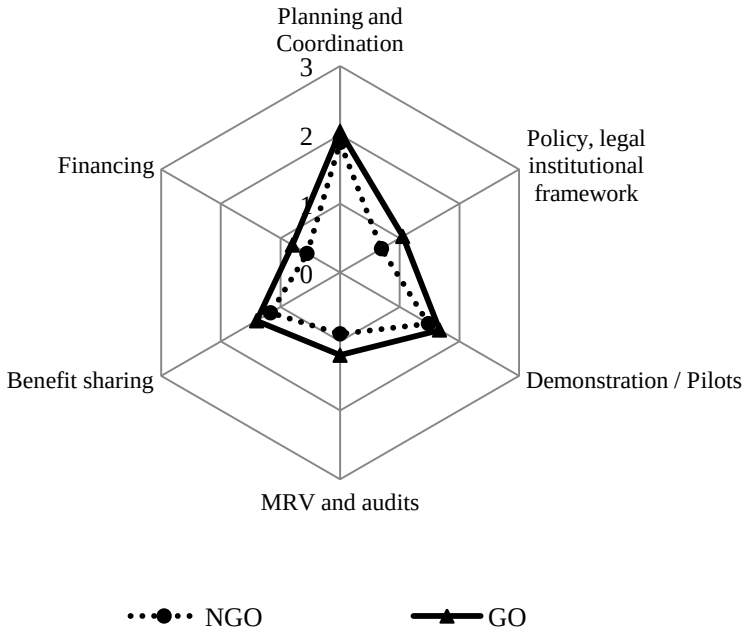


Figure 6. GO and NGO assessment of REDD+ readiness

The marked difference between NGO and GO assessment on SIS, tenure and carbon rights, MRV responsibilities, and conflict resolution framework corroborate with other authors, among others, Sunderlin & Huynh (2005), Peskett & Brockhaus (2009) and Pham et al., (2012). These authors mentioned that differences exist in State and non-State actors' perceptions over forest tenure particularly when it relates to indigenous peoples.

The NGO group also expressed concerns about the ambiguity of Vietnam's legal tenure system particularly around forest, land ownership and carbon rights, with respect to the requirements of REDD+; in contrast, the GO group was confident on the recourse and dispute settlement mechanism that the government is using when dealing with REDD+ related complaints. Both groups however, admitted that carbon rights and contractual arrangements were discussed only recently.

Perhaps due to its leadership in these issues within the NRN, SIS and nesting rules were rated highly by the NGO group. Notably, the STWG for safeguards is headed by an NGO, and Forest Trends, for example, has organized a national workshop on integrating national and sub-national approaches to REDD+ in Vietnam (To et al., 2012b) which is the only effort concerning REDD+ nesting in the country.

4 Discussion

From the foregoing analyses, it is clear that despite the acclaimed efforts in reforestation and significant support of the UN-REDD Programme, the World Bank's FCPF and other international

NGOs, myriad issues remain, more work is needed before Vietnam can be fully ready for a national REDD+ implementation.

4.1 REDD+ readiness and drivers of deforestation and degradation

The fact that tropical deforestation is driven mainly by economic factors, institutions, national policies and remote influences have not been given high importance in analyzing how countries can reverse deforestation and degradation (Skutsch & McCall, 2010; Corbera, Estrada & Brown, 2010). Like many other countries, Vietnam does not have a specific strategy that directly addresses deforestation and degradation (Brown & Bird, 2008; Corbera & Schroeder, 2010; Hall, 2011). Even the NRAP does not include activities that address drivers of deforestation and degradation, as suggested by the UNFCCC, the World Bank, and some authors like Eliasch (2008).

Furthermore, no REDD+ policies have been formulated to address drivers of deforestation and degradation outside the forest sector, or to reconcile conflicts between forest conservation and economic development. The absence of underlying drivers of deforestation in the REDD+ debate in Vietnam indicates that current interests are detached from the core objectives of REDD+ (Angelsen et al., 2009). A good example is the targeted 150,000 has of new rubber plantation within poor natural forest areas by 2020[(ii)]. With incoherent agricultural, economic and environmental policies, this target has been pushed with undue consideration of REDD+ efforts by sectors that have no interest on REDD+. Criticisms have been passed around Vietnam that as long as large-scale forest conversion continues, and the drivers of degradation and deforestation are not addressed, the country will only be superficially ready for REDD+. The fair rating given to REDD+ Strategy, R-PIN and PDD can thus be interpreted only as recognition of the existence of such policy documents than being ready for REDD+. Optimistically, the existence of the NRAP and other policy documents signaled a strong political commitment of Vietnam to REDD+, and the Prime Minister's imprimatur ensured national sovereignty over the REDD+ process.

4.2 Institutional structure for REDD+

Behind the REDD+ institutional structure are concerns about clarity of roles, and efficiency and effectiveness of such structure. The ambiguous roles of the Ministry of Natural Resources and Environment (MONRE), the Committee of Ethnic Minority Affairs (CEMA), and VNFOREST's affiliated units, as well as the complacent attitudes of Ministry staff that lack interest on REDD+ (UN-REDD, 2012) is a tall order for the understaffed VRO. This needs urgent action if these agencies are to be involved in REDD+.

Many opportunities were also wasted with the slow uptake of STWG outputs. Pham et al., (2012) mentioned that this is due to fewer government staff who were dedicated to the NRN and the constricted decision-making channel, both of which points to the need for revamping current GO representation in the NRN, and devolving some decisions to the VRO and MARD.

The lack of indigenous people's participation in the NRN composition could be due to the fact that local people in protected areas often, ethnic minorities have always been viewed as the problem, rather than the solution by the Vietnamese Government and some conservationists (Boissière, Sheil,

[(ii)] Decision 750/QD-TTg of the Prime Minister issued in 2007

Basuki, Wan & Le, 2009). Ethnic minorities are given preferential treatments when it comes to social services, but not in decision-making. Current REDD+ readiness efforts have not shown improvements in this regard, although some consultations have been already conducted in Lam Dong and Bac Kan provinces. But guidance on how local people can participate in REDD+ has not yet been considered, while developing a recourse mechanism (i.e. REDD+ conflicts resolution framework) was only mentioned in few documents. The low rating for this indicator [lowest amongst indicators (0.29)] is thus well founded.

The contribution of REDD+ readiness activities to securing rights to use and manage forests that is proven more effective than State management in many cases (Nagendra, 2007; Blomley et al., 2008; Somanathan, Prabhakar & Mehta, 2009) also remains doubtful. To, Dressler, Mahanty, Pham, & Zingerli (2012a) found that centralized state forest land management in Lam Dong province constrained local households from receiving PFES benefits, and triggered conflict in villages, and that strong state protection might lead to structural problems. There have been a number of proposals for institutional and policy reforms toward decentralized forest management, but the government may have been acting on these proposals complacently. These findings imply a real challenge to REDD+ in Vietnam. Without forest governance regime that encourages active participation from local communities, REDD+ will likely repeat the mistakes of past reforestation projects that have done little to stimulate individual initiative and participation (Castella et al., 2005), which could undermine the core objectives of REDD+. The above raises question as to whether local peoples' participation, among others, can even be an indicator for REDD+ readiness for a country like Vietnam where 'participatory governance' is still a distant vision. The idea of tailor-made REDD+ indicators to suit a country's political context has been floated, and could be an interest for research in Vietnam, as other authors have done in other countries, but this requires the global REDD Programme to be flexible enough to adopt both general and specific indicators for REDD+.

The low participation of the private sector is a result of mixed causes. First, the Vietnamese Government prefers a fund-based approach to REDD+, which fits the realities of centralized land ownership and potentially reduces opportunities for the private sector (Burgess et al., 2010). Second, is the great uncertainty of REDD+ at international and national levels, the centralized governance structure, and the lack of clear mechanism to enforce environmental and social safeguards that are considered critical determinants of private sector involvement in REDD+ (Lin & Streck, 2011; Bernard, McFatridge & Minang, 2012). Nonetheless, while a radical reform toward decentralization and market-orientation could not be expected to happen in the near future, private sector paritcipation could be promoted through REDD+ safeguards, where links with market regulations such as FLEGT is of interest. In sum, the existing institutional structure for REDD+ in Vietnam may be more efficient than fair.

4.3 Tenure, carbon rights and benefit sharing

The situation in Vietnam is not unique when it comes to tenure. Many countries preparing for REDD+ face similar issues due to ambiguity of legal framework on natural resources and property rights, on which the definition of carbon rights depends (Suzuki, 2011). Very few countries have developed laws on carbon (Skutsch, 2010). As mentioned before, carbon rights, contractual arrangements and REDD+ conflict resolution were discussed only recently. Although, BDS principles and guidelines have been identified, discussions on recourse mechanism for REDD+ benefit distribution as

recommended by UN-REDD have not prospered. Williams & David (2011) also found that the R-PP of Vietnam does not provide any information on types of disputes and how they were resolved.

Undoubtedly, tenure and carbon rights/contractual arrangement and conflict resolution are crucial to the future of REDD+. With unclear and overlapping forest land rights in Vietnam (UN-REDD, 2010; To et al., 2012b), carbon rights may complicate the implementation of REDD+ due to great variation in forest use between different forest groups. Tenure and carbon rights relates to all functions, and can thus, be a bottleneck to REDD+ implementation as mentioned earlier; however carbon rights can be resolved through reforms in pertinent legal frameworks such as the Land Law (2003), Law on Environmental Protection (2005) and Law on Forest Protection and Development (2004); otherwise, a well-designed contractual arrangement could be an option, with some legislative modifications.

Policy discussions around carbon rights and contractual arrangement should involve as many actors as possible that will directly or indirectly benefit from the REDD+ Programme. This is important for Vietnam, where the risks of retaining REDD+ financial benefit by the government or new risks to be introduced are real (Peskett & Brockhaus, 2009; Angelsen, Brockhaus, Sunderlin, & Verchot, 2012). The development of a REDD+ conflict resolution framework and national registry also need to be initiated urgently.

Building upon earlier forest conservation programs including the most recent PFES Programme, REDD+ benefit sharing in Vietnam can be seen as fairly advanced compared to other REDD+ readiness domains and indicators. As mentioned earlier, a REDD+ Fund has been established as part of the FPDF, which has been used since 2008 to distribute PFES benefits. However, some institutional aspects of PFES will have to be employed with a caveat that the management of REDD+ revenues requires some degree of legal certainty (UN-REDD, 2010).

Pham et al. (2013) reviewed REDD+ benefit sharing approaches in 13 countries and found that most countries are trying to establish new institutional arrangements for REDD+ operations while Vietnam and Brazil aim to use existing institutional mechanisms. Reducing operational cost has been the reason for making use of existing institutional structures. The economic and political rationale of this approach is clear since the State has retained its role despite the shift toward free and market-oriented schemes (To et al., 2012a; McElwee, 2012).

Moreover, a performance based scheme like REDD+ is as difficult as an input-based PES mechanism. A flat rate payment per hectare to all participants that comply with management agreements can be the most convenient approach to reduce emissions from deforestation (Torres & Skutsch, 2012). A performance-based approach however, which is more relevant to Vietnam's forest transition, requires higher technical and institutional capacity, and is currently a gap.

4.4 MRV and Audit and Nesting

The weakness of forest monitoring, information and reporting in Vietnam is recognized within and outside the forestry sector (Lang, 2001; Hoang et al., 2010; UN-REDD, 2011b; SRV, 2011), characterized by lack of coordination, irregular data collection and sharing, and poor technological infrastructure. Confusion about the roles of the VRO and the Designated National Authority (DNA) for CDM under MONRE on emission reduction registration was also revealed. Hence, it was unsurprising that this indicator was rated the least in the MRV function.

It has to be noted that while Vietnam's UN-REDD Programme puts heavy emphasis on setting up MRV protocols, the development of a national baseline/reference level has mainly been carried out by JICA. A report on 'interim' RELs and baseline development was released by JICA in March 2012 (JOFCA & JAFTA, 2012). The FORMIS project of the Government of Finland is also helping Vietnam improve its national forest inventory database. With ample external support, the technical issues of national REDD+ MRV would have been all addressed. The respondents were however, unsure about how and whether the data, methodologies and recommendations from these projects will be adopted by the government. Nonetheless, the draft MRV framework indicated that all seven areas of safeguards would be included in the global information system; however respondents further commented that it might take longer to put the Safeguards Information System (SIS) in place.

Linking national and subnational REDD+ projects is also real challenge in Vietnam. The project-based approach is still dominant and no legal framework exists with which to base the nesting of subnational initiatives into the NRAP. Such legal framework needs to include aspects of carbon rights, national accounting, MRV and benefit sharing, among others. Studies about cross-scale benefit sharing such as those conducted by Hoang et al., (2013) and the efforts of SNV and VNFOREST to create an 'interim' REDD+ registration system needs to be effectively communicated to obtain 'buy-in' from the NRN and VRO. However, nesting rules appears to be less urgent for almost all respondents possibly due to the fact most REDD+ projects in Vietnam are still focusing on capacity building than carbon offsets per se--- these projects are all waiting to be endorsed for inclusion into the NRP operations, and thereafter transform into a fund-based model. A national registration agency for emission reduction or REDD+ was to be established; however this was not also urgent for most respondents.

4.5 Reforestation and REDD+

Forest plantations, either by State forest enterprises (SFEs) or individual households have been key to restoring Vietnam's forest cover (The & Ngoc, 2008, Sandewall et al., 2010). By 2010, the contribution of planted forest to the total forest area of Vietnam was 22% (MARD's statistics, 2011) while the global rate was only 7% (FAO, 2010). Since most of these plantations were established in deforested areas, it may (and should) generate carbon credits under REDD+ if an appropriate accounting method is applied (Dyer, Matthews, & Meyfroidt, 2012). However, whether these activities are going to be institutionally included under the "+" in REDD+ remains a question. The argument is that Vietnam should not be penalized, and should instead, be rewarded for its reforestation efforts under a REDD+ scheme. Nevertheless, as afforestation, avoided deforestation and forest management are not independent (Bosetti & Rose, 2011), it implies that more balanced policies than a focus on replanting only is desirable for REDD+ planning and design in Vietnam.

Will past reforestation create enough momentum for REDD+ readiness?

Reflecting on past reforestation projects, particularly Programme 661 where the Vietnamese government mobilized internal funding and human resources for a goal similar to REDD+, with difference only in the latter's emphasis on emission reductions and performance-based monitoring and incentives, the question then arise, is Vietnam ready for REDD+? Certainly, the donor community has high expectations on Vietnam's readiness for REDD+ implementation--the government's experience in mobilizing internal resources and homegrown strategies during its 20 years of reforestation was expected to mirror REDD+ readiness. But, as this assessment suggests, the rules and

requirements imposed by the global REDD mechanism are a tall order for Vietnam - the same rules and requirements on reforestation that are used to define the country's readiness for REDD+, are baffling national and local REDD+ efforts. Strict adherence to REDD+ rules and requirements therefore means that Vietnam's vast experience in reforestation does not make it sufficiently ready for REDD+ implementation. However, the government's response to REDD+ is noteworthy---it is progressively responding to new demands, issues and opportunities. From a project management perspective, Vietnam's readiness may well be achieved within a REDD+ project cycle.

5 Conclusion

In conclusion, Vietnam is only partially ready for REDD+ with 'fair' as the highest rating for some functions and low for several undeveloped indicators. Specifically, it scored fairly in Planning and Coordination, Demonstration/pilots, Benefit-sharing and MRV, owing to the development of the REDD-RPIN and RPP, the National REDD+ Strategy, BDS principles, MRV framework, as well as, relevant policies predating REDD+. Despite the poor rating of Vietnam's Policy, Legal and Institutional Framework, the creation of REDD+ implementing structure, with all its imperfections, can however, be seen as a leap of faith of the Vietnamese government and a significant step towards achieving readiness, albeit this should not mask inherent structural flaws, and undermine many unresolved post-reforestation issues that underlie forest degradation and deforestation.

For the country to move beyond its current state of REDD+ readiness, future activities should focus on indicators where it is weak while strengthening those that are already advancing. Failure to strengthen the weak indicators will mean an uphill implementation of the NRAP. The following actions are recommended: (i) shift from too much focus on replanting policies to a more balanced policy approach so that local people can access a wide array of benefits not only from REDD+ but also other relevant programmes; (ii) refine the NRAP and amend relevant forest policies to reverse drivers of deforestation and degradation; (iii) remove policy and institutional bottlenecks through reforms in the forest and land laws, as well as jurisdictional process, to address tenure and carbon rights, equitable benefit sharing, and conflict resolution, and (iv) enhance inter-agency collaboration and broaden sectoral participation, to include private sector and indigenous peoples' representation in the NRSC, to increase the legitimacy and effectiveness of REDD+ readiness. Despite the limited number of participants to this in depth-case study, it generated useful information and recommendations that are not only useful to Vietnam but also to other developing countries that share similar issues with Vietnam.

References

Angelsen, A., Brockhaus, M., Kanninen, M., Sills, E., Sunderlin, W. D., & Wertz-Kanounnikoff, S. (Eds.) (2009). *Realising REDD+: National strategy and policy options*. Bogor: Centre for International Forestry Research (CIFOR)

Angelsen, A., Brockhaus, M., Sunderlin, W.D., & Verchot, L.V. (Eds). (2012) Analysing REDD+: Challenges and choices. Bogor: Centre for International Forestry Research (CIFOR)

Atmadja, S., & Verchot, L. (2011). A review of the state of research, policies and strategies in addressing leakage from reducing emissions from deforestation and forest degradation (REDD+). Mitig Adapt Strateg Glob Change (2012) 17:311–336

Bernand, F., McFatridge, S., & Minang, P.A. (2012). The Private Sector in the REDD+ Supply Chain: Trends, challenges and opportunities. IISD report August 2012. Manitoba: International Institute for Sustainable Development

Blomley, T., Pfliegner, K., Isango, J., Zahabu, E., Ahrends, A., & Burgess, N. (2008). Seeing the wood for the trees: An assessment of the impact of participatory forest management on forest condition in Tanzania. Oryx, 42(3), 380-391 doi:http://dx.doi.org/10.1017/S0030605308071433

Bosetti, V., & Rose, S. K. (2011). Reducing carbon emissions from deforestation and forest degradation: Issues for policy design and implementation. *Environment and Development Economics, 16*(4), 357-360 doi:http://dx.doi.org/10.1017/S1355770X11000143

Boissière, M., Sheil, D., Basuki, I., Wan, M., & Le, H. (2009). Can engaging local people's interests reduce forest degradation in central Vietnam? Biodiversity & Conservation, 18(10), 2743-2757. doi:http://dx.doi.org/10.1007/s10531-009-9627-1

Boykoff, T. M., & Boykoff, M. J. (2007). Climate change and journalistic norms: a case-study of US massmedia coverage. Geoforum, 38, 1190-1204. doi:10.1016/j.geoforum.2007.01.008

Brown, D., & Bird, N., (2008). The REDD Road to Copenhagen: Readiness for What? Opinion 118. London: Overseas Development Institute

Burgess, N. D., Bahane, B., Clairs, T., Danielsen, F., Dalsgaard, S., Funder, M., . . . Zahabu, E. (2010). Getting ready for REDD+ in Tanzania: A case study of progress and challenges. Oryx, 44(3), 339-351. doi:http://dx.doi.org/10.1017/S0030605310000554

Castella, J.-C., V. Gevraise, & P. Novosad. (2005). Centralized planning and economic reforms in a mountainous region of Vietnam. Journal of Contemporary Asia 5:166-182.

Collins, N. M., Jeffrey A. Sr, & Timothy C. W. (1991). The Conservation Atlas of Tropical Forests: Asia and the Pacific. New York, NY: Simon & Schuster

Corbera, E., Estrada, M., & Brown, K. (2010). Reducing greenhouse gas emissions from deforestation and forest degradation in developing countries: Revisiting the assumptions. *Climatic Change, 100*(3-4), 355-388 doi:http://dx.doi.org/10.1007/s10584-009-9773-1

Corbera, E., & Schroeder, H. (2011). Governing and implementing REDD+. Environmental Science & Policy 14 (2011) 89-99. doi:10.1016/j.envsci.2010.11.002

De Jong, W., Do, D. S., & Trieu, V. H. (2006). Forest rehabilitation in Vietnam: History, reality and future. Bogor: Centre for International Forestry Research (CIFOR).

De Koninck, R. (1999). Deforestation in Vietnam. Ottawa : International Development Research Centre (IIED)

Dyer, G. A., Matthews, R., & Meyfroidt, P. (2012). Is there an ideal REDD+ program? an analysis of policy trade-offs at the local level. PLoS One, 7(12) doi:http://dx.doi.org/10.1371/journal.pone.0052478

Dinh, H. H., & Dang, K. S. (2008). *Land and forest allocation in Viet Nam - Policy and implementation*. Hanoi: Institute for Policies and Strategies in Agriculture and Rural Development (IPSARD)

Eliasch, J. (2008). Climate Change: Financing Global Forests. London: HMSO. Retrieved from: http://www.official-documents.gov.uk/document/other/9780108507632/9780108507632.pdf

Food and Agriculture Organization of the United Nations (FAO). (2010). Global Forest Resources Assessment 2010. FAO Forestry Paper 163. Rome: FAO. Retrieved from: http://www.fao.org/docrep/013/i1757e/i1757e00.htm

Hall, A. (2011). GETTING REDD-Y: Conservation and climate change in Latin America. Latin American Research Review, 46, 184-210, 214-215. Retrieved from http://search.proquest.com/docview/1368622143?accountid=34304

Hoang, M. H., Do, T. H., van Noordwijk, M., Pham, T.T., Palm, M., To, X. P., ..Hoang, T.V.A. (2010). An assessment of opportunities for reducing emissions from all land uses – Vietnam preparing for REDD. Final National Report. Nairobi: ASB Partnership for the Tropical Forest Margins.

Hoang, M. H., Do, T. H., Pham, M.T., van Noordwijk, M., & Minang, P. A. (2013). Benefit distribution across scales to reduce emissions from deforestation and forest degradation (REDD+) in Vietnam. Land Use Policy, 31, 48-60. doi:10.1016/j.landusepol.2011.09.013

International Sustainability Unit (ISU). 2012. Interim REDD+ Finance: Current Status and Ways Forward for 2013-2020. 31p. Retrieved from: http://www.pcfisu.org/wp-content/uploads/2012/11/Nov-2012-Interim-REDD+-Finance-Current-Status-and-Ways-Forward-2013-2020-Princes-Rainforests-Project.pdf

Japan Overseas Forestry Consultants Association (JOFCA) & Japan Forest Technology Association (JFTA). (2012). The Study on Potential Forests and Land Related to "Climate Change and Forests" in the Socialist Republic of Vietnam. Final report. Hanoi: JICA.

Johns, T., Johnson, E., & Greenglass, N. 2009. An Overview of Readiness for REDD: A compilation of readiness activities prepared on behalf of the Forum on Readiness for REDD. Falmouth, MA: The Woods Hole Research Center. Retrieved from: http://www.cbd.int/forest/doc/overview-readiness-redd.pdf

Lambin, E. F., & Meyfroidt, P. (2010). Land use transitions: Socio-ecological feedback versus socio-economic change. Land Use Policy, 27, 108–118. doi: 10.1016/j.landusepol.2009.09.003

Lang, C. (2001). Deforestation in Vietnam, Laos and Cambodia, in D.K. Vajpeyi (Ed.) Deforestation, Environment, and Sustainable Development: A Comparative Analysis. Westport, Connecticut and London: Praeger. pp. 111-137.

Lin, J., & Streck, C. (2009). Mobilising finance for climate change mitigation: private sector involvement in international carbon finance mechanisms. Melbourne Journal of International Law, 10(1), 70-101. Retrieved from http://search.proquest.com/docview/217506006?accountid=34304

Mattsson, E., Persson, U.M., Ostwald, M., & Nissanka, S.P. (2012). REDD+ readiness implications for Sri Lanka in terms of reducing deforestation. Journal of Environmental Management 100 (2012) 29-40. doi:10.1016/j.jenvman.2012.01.018

Mayers, J., Maginnis, S., & Arthur, E. (2010). REDD Readiness Requires Radical Reform: Prospects for Making the Big Changes Needed to Prepare for REDD-plus in Ghana: Co-chairs' Summary of an International REDD Readiness Dialogue in Ghana, June 2010. New Haven, CT: The Forests Dialogue. Retrieved from: http://www.growingforestpartnerships.org/sites/growingforestpartnerships.org/files/gfp_REDDReadiness_Ghana_Report.pdf

McElwee, P. (2012). Payments for environmental services as neoliberal market-based forest conservation in Vietnam: panacea or problem? Geoforum 43 (3) 412-426. doi:10.1016/j.geoforum.2011.04.010

Mertz, O., Muller, D., Sikor, D., Hett, C., Andreas-Heinimann, Castell, J.C.,… Sun, Z. (2012). The forgotten D: challenges of addressing forest degradation in complex mosaic landscapes under REDD. Geografisk Tidsskrift-Danish Journal of Geography, 112 (1), 63-76. doi:10.1080/00167223.2012.709678

Meyfroidt , P., & Lambin, E. F. (2008). The causes of the reforestation in Vietnam. Land Use Policy, 25 (182–197). doi: 10.1016/j.landusepol.2007.06.001

Meyfroidt , P., & Lambin, E. F. (2009). Forest transition in Vietnam and displacement of deforestation abroad. *Proceedings of the National Academy of Sciences* 106 (38), 16139-16144

Meyfroidt , P., & Lambin, E.F. (2011). Global Forest Transition: Prospects for an End to Deforestation. *Annu. Rev*. Environ. Resour, 36, 343-371. doi: 10.1146/annurev-environ-090710-143732

Minang, P. A., van Noordwijk, M., Duguma, L. A., Kahurani, E., Do, T. H., Bernard, F., ..… Widayati, A. (submitted 2013). REDD+ Readiness footprints across the tropics: time for a rethink (This issue)

Ministry of Agriculture and Rural Development of Vietnam (MARD). (2011). Quyết định số 1828/QĐ-BNN-TCLN ngày 11/8/2011 về việc công bố hiện trạng rừng toàn quốc năm 2010 [Decision No. 1828/QD-BNN/TCLN dated of 11 August 2011 to announce Vietnam's forest status in 2010]. Retrieved from http://www.kiemlam.org.vn/Desktop.aspx/Tainguyen/Quyet-dinh/907D0382AAA44BDBAD7101C74E9B110C (January 2013)

Nagendra, H. (2007). Drivers of reforestation in human-dominated forests. Proceedings of the National Academy of Sciences of the USA, 104, 15218–15223

Parker, C. (2011). Getting ready for REDD: The REDD Countries database of the REDD Desk. Presentation by Charlie Parker, Head of Policy, Global Canopy Programme at Oxford Centre for Tropical Forests. March 4, 2011. Retrieved from: http://www.theredddesk.org/es/node/3166

Pham, T. T. (2011). *REDD+* politics in the media: a case study from Vietnam. Working Paper 53. Bogor: Centre for International Forestry Research (CIFOR)

Pham,T.T., Moeliono, M., Nguyen,T.H., Nguyen, H.T., & Vu, T.H. (2012). The context of REDD+ in Vietnam:Drivers, agents and institutions. Occasional Paper 75. Bogor: Bogor: Center for International Forestry Research (CIFOR)

Pham, T.T., Brockhaus, M., Wong, G., Dung, L.N., Tjajadi, J.S., Loft, L., Luttrell C. & Assembe Mvondo, S. (2013). Approaches to benefit sharing: A preliminary comparative analysis of 13 REDD+ countries. Working Paper 108. CIFOR, Bogor, Indonesia

Peskett, L., & Brockhaus, M. (2009). When REDD+ goes national: A review of realities, opportunities and challenges. In Angelsen, A., Brockhaus, M., Kanninen, M., Sills, E., Sunderlin, W. D., & Wertz-Kanounnikoff, S. (Eds.) (2009). Realising REDD+: National strategy and policy options. Bogor: Center for International Forestry Research (CIFOR)

Rambaldi, G., Bugna, S., & Geiger, M. (2001). Review of the protected area system of Vietnam. Special Report. Asean Biodiversity, pp 43–51

Sandewall, M., Ohlsson, B., Sandewall, R. K., & Viet, L. S. (2010). The expansion of farm-based plantation forestry in vietnam. Ambio, 39 (8), 567-79. Retrieved from http://search.proquest.com/docview/856980400?accountid=34304

Scheyvens, H. (Eds). (2010). *Developing National REDD-plus Systems: Progress challenges and ways forward* - Indonesia and Viet Nam country studies. Hayama: Institute for Global Environmental Strategies

Scheyvens, H., Hyakumura, K., & Seki, Y. (Eds). (2007). Decentralisation and State-Sponsored Community Forestry in Asia. Hayama: Institute for Global Environmental Strategies. Retrieved from: http://enviroscope.iges.or.jp/modules/envirolib/view.php?docid=809

Simula M. (2010). Analysis of REDD+ Financing Gaps and Overlaps (Ardot, 30 December 2010; prepared on commission by the REDD+ Partnership). Retrieved from http://reddpluspartnership.org/25159-09eb378a8444ec149e8ab32e2f5671b11.pdf (November 2012)

Skutsch, M. M., & Mccall, M. K. (2010). Reassessing REDD: Governance, markets and the hype cycle. Climatic Change, 100(3-4), 395-402 doi:http://dx.doi.org/10.1007/s10584-009-9768-y

Skutsch, M. (2013). Slicing the REDD+ pie: controversies around the distribution of benefits. CAB Reviews, 2013, 8, 020, 1-10

Socialist Republic of Vietnam (SRV). (2008). Readiness plan ideas note (RPIN). Washington, DC: Forest Carbon Partnership Facility. Retreive from http://www.forestcarbonpartnership.org/fcp/VN

Socialist Republic of Vietnam (SRV). (2011). Readiness Preparation Proposal (R-PP). Forest Carbon Partnership Facility. Retrieved from http://vietnam-redd.org/Upload/Download/File/Viet_Nam_R-PP_Revised_November_2011_4536.pdf

Somanathan, E., Prabhakar, R., & Mehta, B.S. (2009). Decentralization for cost-effective conservation. Proceedings of the National Academy of Sciences of the USA, 106, 4143–4147

Sunderlin, W. D., & Huynh, T. B. (2005). Poverty Alleviation and Forests in Vietnam. Bogor: Center for International Forestry Research (CIFOR)

Suzuki, R. (2011). Carbon Rights and REDD+. REDD-Net Bulletin, Asia-Pacific, Issue 03, January 2011. Retrieved from http://redd-net.org/resource-library/redd-net-asia-pacific-bulletin-3-carbon-rights-and-redd

The, B. D., & Ngoc, H. B. (2008). Payments for environmental services in vietnam: An empirical experiment in sustainable forest management. ASEAN Economic Bulletin, 25(1), 48-59. Retrieved from http://search.proquest.com/docview/219626485?accountid=34304

To, P. X., Dressler, W. H., Mahanty, S., Pham, T. T., & Zingerli, C. (2012a). The prospects for payment for ecosystem services (PES) in vietnam: A look at three payment schemes. Human Ecology, 40(2), 237-249. doi:http://dx.doi.org/10.1007/s10745-012-9480-9

To, X.P., O'Sullivan, R., Olander, J., Hawkins, S., Pham, Q.H., & Kitamura, N. (2012b). REDD+ in Vietnam: Integrating National and Subnational Approaches. Forest Trends Association and Climate Focus. 35 p. Retrieved from: http://www.forest-trends.org/publication_details.php?publicationID=3227

Torres, A.B., & Skutsch, M. (2012). Splitting the Difference: A Proposal for Benefit Sharing in Reduced Emissions from Deforestation and Forest Degradation (REDD+). Forests 2012, 3, 137-154; doi:10.3390/f3010137

UN-REDD Programme (UN-REDD). (2010). Design of a REDD-Compliant Benefit Distribution System for Vietnam. Hanoi: UN-REDD Programme

UN-REDD Programme (UN-REDD). (2011a). Analysis of Opportunity Cost for REDD+. Hanoi: UN-REDD Programme

UN-REDD Programme (UN-REDD). (2011b). Measurement, Reporting and Verification (MRV) Framework Document. Hanoi: UN-REDD Programme

UN-REDD Programme (UN-REDD) & Forest Carbon Partnership Facility (FCPF). (2012). Country Needs Assessment: a report on REDD+ Readiness among UN-REDD Programme and FCPF Member Countries. Retrieved from www.forestcarbonpartnership.org (November 2012)

UN-REDD Programme (UN-REDD). (2012). *Lessons Learned Viet Nam UN-REDD Programme, Phase 1*. Hanoi: UN-REDD Programme

Wertz-Kanounnikoff, S., & Kongphan-Apirak, M. (2009). Emerging REDD+: A preliminary survey of demonstration and readiness activities. Working Paper 46. CIFOR, Bogor, Indonesia

Westholm. (2010). Getting Ready for REDD+. FOCALI Report, 2010: 01. Gothenburg: FOCALI. Retrieved from http://www.fao.org/fileadmin/user_upload/rome2007/docs/Getting%20ready%20for%20REDD+.pdf (November 2012)

Williams, L.G., & Davis, C. (2011). Getting Ready with Forest Governance: A Review of the Forest Carbon Partnerhip Facility Readiness Preparation Proposals and the UN-REDD National Programme Documents., v 1.8. WRI Working Paper. Washington, DC: World Resources Institute. Retrieved from http://www.wri.org/publication/getting-ready

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The World Agroforestry Centre is an autonomous, non-profit research organization whose vision is a rural transformation in the developing world as smallholder households increase their use of trees in agricultural landscapes to improve food security, nutrition, income, health, shelter, social cohesion, energy resources and environmental sustainability. The Centre generates science-based knowledge about the diverse roles that trees play in agricultural landscapes, and uses its research to advance policies and practices, and their implementation that benefit the poor and the environment. It aims to ensure that all this is achieved by enhancing the quality of its science work, increasing operational efficiency, building and maintaining strong partnerships, accelerating the use and impact of its research, and promoting greater cohesion, interdependence and alignment within the organization.

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