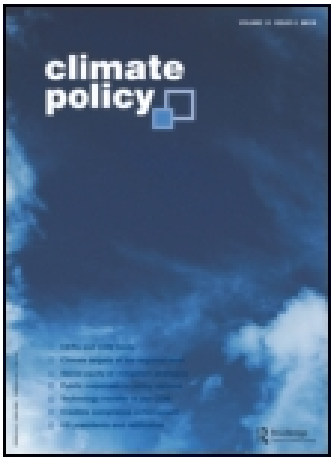

Climate Policy
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/tcpo20

Reform or reversal: the impact of REDD+ readiness on forest governance in Indonesia

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Published online: 09 Sep 2014.

To cite this article: Putra Agung, Gamma Galudra, Meine Van Noordwijk & Retno Maryani (2014) Reform or reversal: the impact of REDD+ readiness on forest governance in Indonesia, Climate Policy, 14:6, 748-768, DOI: 10.1080/14693062.2014.941317

To link to this article: http://dx.doi.org/10.1080/14693062.2014.941317

Vol. 14, No. 6, 748–768, http://dx.doi.org/10.1080/14693062.2014.941317

climate policy

research article

Reform or reversal: the impact of REDD+ readiness on forest governance in Indonesia

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Indonesia has turned its alleged role as global leader of land-based carbon emissions into a role as a global trailblazer exploring modalities for Reducing Emissions from Deforestation and Forest Degradation (REDD+). REDD+ readiness is largely about improving forest governance, but this itself is a multilayered concept. This article analyses how the processes and practices of REDD+ readiness are leading to various forest governance reforms in Indonesia. We analysed six dimensions of REDD+ readiness progress over the past six years and the way these interact with land tenure reform and land-use planning. We found evidence that (1) tenure issues are taken more seriously, as evidenced by the development of social safeguard mechanisms and efforts to accelerate the gazettement of forest boundaries, although a constitutional court recognition in 2013 for customary forest management is, however, yet to be operationalized; (2) spatial planning relates forests more clearly to other parts of the landscape in terms of compliance with Nationally Appropriate Mitigation Actions (NAMAs) commitments; and (3) the forest and peatland conversion moratorium initiative led to a revamping of forest management. Despite progress, there are still major obstacles to full REDD+ implementation in Indonesia. The discussion focuses on the weaker part of readiness and possible ways forward.

Policy relevance

Reducing Emissions from Deforestation and forest Degradation plus (REDD+) was introduced at the 13th Conference of the Parties (COP 13) 2007 in Bali designed to support the efforts of the parties to reduce emissions from deforestation and forest degradation and enhance the forest carbon stock, by means of forest conservation and the sustainable management of forests. This article aims to examine the impact of REDD+ readiness process in Indonesia on transforming existing forest governance. This paper focus the analysis on the two most contentious forest governance issues in Indonesia: land tenure and land-use planning. Such analysis and lessons are relevant for policy-makers in Indonesia in an effort to have a forest governance reform and also the future challenges of forest governance in national and sub-national level in the world of sustainable forest management as well as REDD+ implementation.

Keywords: climate change; demonstration activities; forest governance reform; Indonesia; REDD+

1. Introduction

A targeted mechanism known as Reducing Emissions from Deforestation and forest Degradation (REDD) was introduced at the 13th Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) in Bali in 2007, under Indonesian chairmanship. Subsequently, REDD evolved to become REDD+, by the inclusion of efforts to enhance forest carbon

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stock as part of improved management and forest conservation (Minang et al., 2014; Thompson, Baruah, & Carr, 2011; Umemiya, Remetsteiner, & Kraxner, 2010). As data at the time suggested that forest-related emissions accounted for approximately one-fifth of total anthropogenic emissions (IPCC, 2007), there was an expectation that reducing the rate of deforestation in developing countries could substantially contribute to global emission reduction, as well as have other benefits. In contrast with earlier project-based efforts within the Clean Development Mechanism (CDM; van Noordwijk, Suyamto, Lusiana, Ekadinata, & Hairiah, 2008b), the focus of REDD+ should be on national-scale implementation. Nevertheless, project-scale pilot efforts were agreed to be part of the learning process (Cerbu, Swallow, & Thompson, 2011). At the 15th COP in Copenhagen, in 2009, it was agreed that REDD+ will be an instrument in any post-2012 climate agreement. Further progress on the broader context and financing has been slower than expected, but REDD+ is still part of the perceived way forward (Matthews & van Noordwijk, 2014).

Indonesia is actively involved in these debates and forums, for at least four reasons. First, because Indonesia has a long coastline, with a large part of its population living in its coastal zones, it is vulnerable to climate change and, so, awareness has grown. Second, Indonesian forests constitute the third largest tropical forest (after the Brazilian Amazon and Democratic Republic of Congo forests), and its peatlands have the largest carbon stock anywhere in the tropics. Third, Indonesia's emissions due to forest and peatland fires and the conversion of forest to non-forest uses have made Indonesia the global leader in land-based emissions, and third overall after China and the US, negatively affecting the country's global standing. Finally, as well as being home to communities who depend on forest resources for their livelihoods, the forests also provide revenue for the country, and a better use of them can have development benefits. In 2007, Indonesia initiated the Indonesia Forest Climate Alliance (IFCA) and took an active role in the emerging REDD and REDD+ discussions. As reviewed by van Noordwijk, Agus, Dewi, and Purnomo (2013a), some of the challenges identified early in the REDD debate have been addressed by inclusion of all land uses in Nationally Appropriate Mitigation Actions (NAMA) planning, a mechanism that was introduced at COP 13 in Bali and developed in parallel to REDD(+).

Any REDD+ implementation needs to deal with the underlying causes and drivers, rather than just the symptoms. For Indonesia, from the IFCA report onwards, this implied a focus on tenure arrangements, the structure of forest governance, and the effective participation of stakeholders, particularly indigenous people (IP) and the local community (Arcidiacono-Bársony, Ciais, Viory, & Vuichard, 2011; IFCA, 2008; van Noordwijk et al., 2013a). The IFCA process introduced a stepwise approach to 'REDD readiness' in the global discourse, emphasizing the institutional side and cross-scale linkage of what is needed to relate global incentives to local actions in order to change them according to decreased global emission impacts.

The structure of forest governance and tenure arrangements are highly debated topics in the discussions about REDD+ readiness, especially where the relative power of national- and local-scale institutions is an issue. Sandbrook, Nelson, Adams, and Agrawal (2010) and Phelps, Webb, and Agrawal (2010) warned of the threat of REDD+ to the decentralization process. They argued that recent decentralization had a positive impact on forest conservation and that REDD+ will probably reverse that trend, with recentralization eventually hurting both people and forests. On the other hand, Wunder (2010) argued that placing responsibility at the least centralized competent level will enable local people to manage forests in a more rational way. Where forests are abundant, however, local people

often have rational self-interest in converting them to other uses. Gaining more power from decentralization would enable local people in such cases to convert forests to non-forest uses. In this view, decentralization will need to be accompanied by clear economic incentive systems to internalize the external appreciation for intact forests. Tenure security interacts with, but does not imply the right to either reduce or increase emissions (Resosudarmo et al., 2014), but existing tenure insecurity and conflict may affect local negotiations.

Many analysts limit their discussion of REDD+ impact to demonstration activities and local issues, especially those involving communities' rights (Galudra et al., 2011). They largely ignore the impact of the REDD architecture on forest governance reform at the national scale. As part of a global comparative study reported by Minang et al. (2014), this article takes stock of the REDD+ readiness process in Indonesia and discusses the impacts on transforming existing forest governance by adopting the concept of good forest governance. Specifically, the good forest governance concepts developed by local NGOs in Indonesia (Indonesian Center for Environmental Law (ICEL), *Serasi Kelola Alam* (SEKALA), Forest Watch Indonesia (FWI), Association for Community and Ecologically-Based Law Reform (HuMA), and Telapak) and the World Resources Institute (WRI) are taken as the target. The discussion focuses on the most contentious forest governance issues in Indonesia: land tenure and land-use planning.

2. Methodology and theoretical framework: REDD+ and forest governance

2.1. Methods

Indonesia, as well as three other countries (Cameroon, Peru, and Viet Nam), was selected for a comparative study (Minang et al., 2014), consisting of two phases and using two methods. A REDD+ readiness assessment framework was developed in the first phase, which was applied in the second phase in the four countries. The framework for assessing REDD+ readiness was developed based on a systematic review of the literature. Based on the reviews, six dimensions were identified, which were subdivided into nine subfunctions. Each subfunction, in turn, was represented by indicator sets (Minang et al., 2014).

The REDD+ readiness assessment framework was based on a combination of interviews, focus-group discussions, and review of secondary evidence. First, a set of structured and semistructured interviews were conducted with key informants based on the indicators of the agreed REDD+ readiness framework. Then, secondary data and focus-group discussions were used to triangulate and complement information from the informants interviewed.

Key informants from governmental organizations, NGOs, and universities engaged in and or observing REDD+ activities were interviewed. These entities were strategically selected 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. In each participant country 5–20 key informants were interviewed; in Indonesia seven key informants were interviewed, mainly limited by the fact that REDD+ is a new, highly specialized and multidisciplinary subject. Interviews were held with REDD+ leading parties and institutions in Indonesia. Key persons from the Ministry of Forestry (MoF), National Council of Climate Change (DNPI), NGOs, and universities (among other

agencies) were interviewed using an open-ended semistructured questionnaire. Literature on REDD+ in Indonesia and in the global context was also reviewed and analysed.

2.2. Theoretical framework of REDD+ and forest governance

The emerging REDD+ implementation is embedded within larger governance architecture in much the same ways as deforestation and forest degradation are related to other global change processes (Biermann, Pattberg, van Asselt, & Zelli, 2009; Corber & Schroeder, 2011; Rockstrom et al., 2009). Sandbrook et al. (2010) has mentioned that the institutional arrangement governing forests will be a critical factor in REDD+ as part of the global effort to mitigate climate change. In particular, the design of any REDD+ mechanism must ensure the implementation of existing knowledge on good forest governance. This includes not only the effectiveness, efficiency, and equity implications of different forest governance regimes, but also the political process that determines how forest governance institutions are shaped.

The majority of Indonesia's forest was designated 'state forest' under Basic Forestry Law 5/1967, an act that brought 62–69% (120–133 million hectares; the maps and details remain subject to debate) of the country's total land surface under the legal jurisdiction of the MoF, but which was not tested for compliance with the Constitution (Contreras & Fay, 2005). As stated by Mulyani and Jepson (2013), from the perspective of the MoF, REDD+ is the latest in a series of international policy initiatives through which international actors have sought to influence its governance of forestland, following previous international efforts to support Reduced Impact Logging (early 1990s), formulation of National Forest Programmes (1995–1997), Integrated Conservation and Development Projects (late 1990s), Forest Stewardship Council (FSC) certification (2000s), and afforestation/reforestation as part of the CDM (2005–ongoing). More effort is needed to ensure lessons learned in the past are used to frame new programmes.

Hyden, Mease, Foresti, and Fritz (2008) argued that international and national architectures of REDD+ should be built on the principles of 'good governance' because they will affect positively the overall legitimacy of REDD+. Kanowski, McDermott, and Cashore (2011) stated that REDD+ initiatives should focus on the implementation of existing national and subnational commitments for forest conservation and management, in ways that are consistent with established principles of good forest governance.

As a key challenge and concern, the issue remains that forest governance involves complex interactions of state, private, and civil society actors at various levels, and institutions linking higher levels of social and political organization (Mwangi & Wardell, 2012). The dynamics and modes of power and authority among different actors need to be explained, as these may affect the success and failure of forest governance (Newell et al., 2012).

Little attention has been paid to the design and governance aspects of REDD+ in international discussions, as this touched on sovereignty, a touchy subject in the international negotiation arena. Nevertheless, there is huge concern regarding how countries' REDD+ readiness can lead to the principles of good forest governance. Here, we focus on two issues that frequently emerge in Indonesia's policy discourse: forest tenure and land-use planning. Like Pettenella and Brotto (2012), we modified applicable good forest governance recommendations from those developed by Indonesian local NGOs: SEKALA, Telapak, ICEL, FWI, HuMA, and the WRI under the Governance of Forest Initiatives (GFI) version 2.0. In

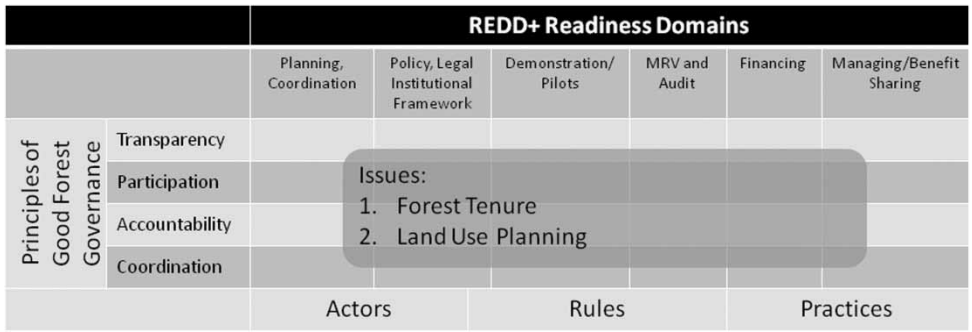

Figure 1 Cross-cutting issues between good forest governance principles and REDD+ domains

the 2013 publication *Indikator Tata Kelola Kehutanan* (version 2.0): a draft framework of indicators for governance of the forest sector in Indonesia. The GFI suggests four principles of good forest governance: transparency, participation, accountability, and coordination (ICEL et al., 2013).

The GFI has also presented indicators for four core governance issues (forest tenure, land-use planning, forest management, and forest revenue), each with three governance components (actors, rules, and practice), but this article only focuses on the two first issues (forest tenure and land-use planning) due to time and data constraints. Before analysing the progress in forest governance reform in Indonesia, this article examines REDD+ readiness in Indonesia based on six domains: (1) planning and coordination; (2) policy, legal institutional framework; (3) demonstrations/pilots; (4) measurement, reporting and verification (MRV) and audit; (5) financing; and (6) benefit-sharing mechanism (Minang et al., 2014). Based on this REDD+ readiness, the question is discussed of how the process has supported efforts by civil society to reform current forest governance in Indonesia (Figure 1).

For data analysis we used expert ranking based on the respondent's perception of the state of advancement, with results presented as spider-web diagrams. We ranked responses from 0 to 3: 0 = not existing; 1 = aware and being discussed; 2 = agreed in principle (draft document and recommendation exist); 3 = established rules exist in law.

3. The starting point of REDD+ in Indonesia

Since 2005, the idea of a global RED(D)(+)mechanism has gained considerable momentum, including in Indonesia. As a national-level starting point for REDD and REDD+ implementation, Indonesia has hosted communication, coordination, and consultation on REDD-related issues. The IFCA was formed in July 2007 for that purpose, in addition to preparing for the COP 13 in Bali in December 2007. The IFCA conducted a study that resulted in a framework for reducing emissions from deforestation and forest degradation. The framework served as the basis for forest policy formulation, the establishment of pilot projects, and methodological development through research-related capacities. In Bali, COP 13 adopted two decisions, namely the Bali Action Plan (as Decision 1/CP13 Para 1(b)(iii)) and Reducing Emissions from Deforestation in Developing Countries: Approaches to Stimulate Action (as Decision 2/CP13). Under Decision 1, the concept of REDD+ was identified in the following statement: 'Policy approaches and positive incentives on issues relating to reducing emissions from deforestation

and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.'

The Bali Action Plan introduced NAMAs as follows: 'measurable, reportable and verifiable nationally appropriate mitigation commitments or actions by all developed countries; and nationally appropriate mitigation actions by developing country parties, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner.'

Together with Decision 2, COP 13 raised five issues that were contentious for many countries: (1) scope – what should be included in the definition of REDD, with the remaining eligible for NAMAs, (2) MRV, (3) the rights of indigenous people in regards to land cover with and without trees, (4) financing options, and (5) institutional arrangements, whether REDD activities were considered as at the national or project level. Regarding scope, parties debated whether beyond conservation and the sustainable management of forests, REDD should also pertain to the enhancement of carbon stocks and possibly all land use and land-use change (LULUCF).

The rights debate focused on indigenous people and local communities as stakeholders, as well as on their rights in terms of participation, land tenure, and distribution of funds. In terms of funding, the debate was about how REDD should be financed, initially through governments via capacity-building support, via a fund established under the COP, or via market funding such as allowance auctions, a carbon credit market, etc. Regarding institutional arrangements, concerns arose regarding whether REDD+ should fall under the umbrella of NAMAs. For MRV, concerns arose with regard to setting baselines for the reference level of emissions, leakage, and permanence, as well as additionality.

A major step forward was made in September 2009 when Indonesia's President Susilo Bambang Yudhoyono announced a target of 26% reduction in overall emission by 2020, and a further 15% reduction with international assistance. There was some ambiguity in the way these numbers included both REDD+ and NAMA mechanisms (Luttrell et al., 2014; van Noordwijk et al., 2013a; van Noordwijk, Suyanto, & Velarde, 2013b). The ambitions expressed paved the way for a Letter of Intent (LoI), signed in May 2010 by the Government of Indonesia (GoI) and the Government of Norway, agreeing on a bilateral arrangement to support REDD+ -related activities. Several activities identified in the LoI are under way or have been completed. These include consultations concerning the design of a REDD+ national strategy, the establishment of an independent agency for MRV, a presidential decree for a moratorium on issuing new licences for concessions on forestland, and the selection of a province for pilot implementation (Luttrell, Resosudarmo, Muharrom, Brockhaus, & Seymour, 2014).

4. Findings

4.1. REDD+ planning and coordination

The IFCA report divided the implementation of REDD+ in Indonesia into three different phases. The first was the scientific phase and development of REDD-supported policy during 2007–2008. The second was a testing period to strengthen the scientific base and policy support for the REDD implementation period in 2009–2012. The third phase, from 2012 onwards, was foreseen as the full implementation of REDD+ (IFCA, 2008).

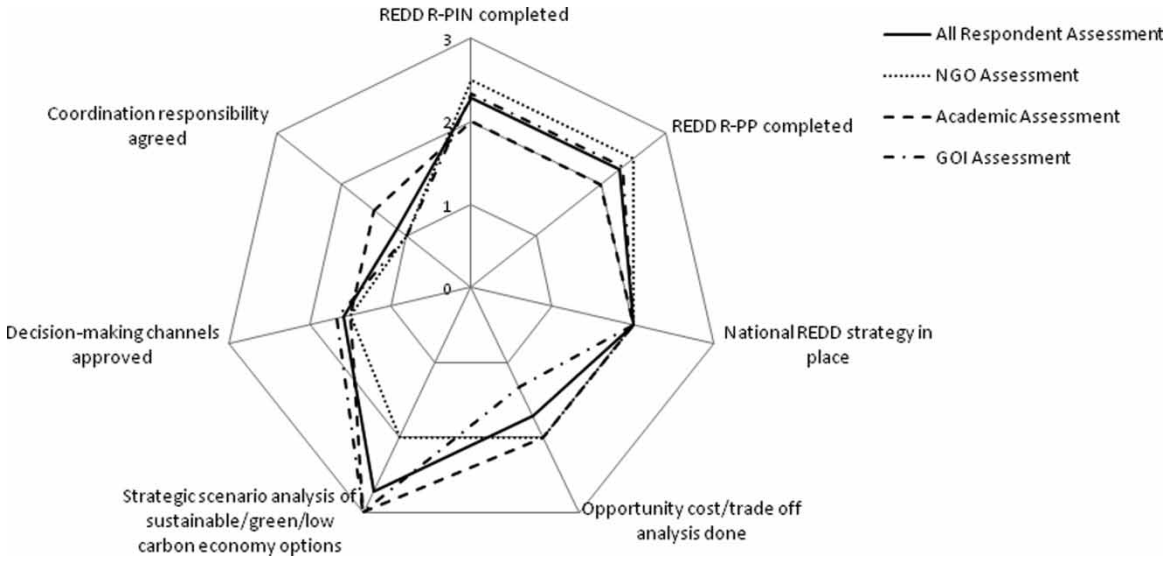

Figure 2 REDD+ planning and coordination assessment

Indonesia was involved in at least three REDD+ funding mechanisms in the very early stages: REDD readiness (the Forest Climate Partnership Facility (FCPF) and/or UN-REDD), reforms and investment (UN-REDD, Forest Investment Program (FIP)), and the global REDD fund/market (UNFCCC). In order to be funded for the implementation of the REDD+ readiness phase, especially from the FCPF and UN-REDD scheme, the GoI had to complete a Readiness Plan Idea Note (R-PIN) and Readiness Preparation Proposal (R-PP). Because Indonesia had never submitted an R-PIN to the FCPF, the IFCA studies and report were used as the reference and base for the Readiness Plan submitted to the FCPF in May 2009.

During 2011, the GoI, through the National REDD+ Task Force (Satgas REDD+), finished the Indonesia REDD+ National Strategy (Stranas REDD+), which will be used for REDD+ implementation guidance in Indonesia. Although the Stranas REDD+ has a national approach, the aim is to have it implemented at the subnational level. Subsequently, during 2011, the GoI launched Presidential Regulation No. 61/2011 (Perpres. No. 61/2011), the 'National Action Plan to Reduce Green House Gases (GHG)'. This regulation elaborated the targets and strategies to reduce GHGs in five main sectors: (1) agriculture; (2) forestry and peat land; (3) energy; (4) transportation; and (5) waste management. This regulation, considered a NAMA, aims to reduce national emissions by 26% in 2020, with forestry and peat land contributing around 67% of this target.

The development of and discussions leading to Stranas REDD+ and Presidential Regulation No. 61/2011 contributed, according to our interviewees, to the perspective that REDD+ in Indonesia had to be part of a broader low-emission development strategy, as articulated in the NAMA. Nevertheless, most of the respondents emphasized that some issues must still be addressed. First, the lack of clarity on coordination at the national level between Satgas REDD+ , DNPI, and MoF creates confusion regarding who has the right to regulate and make any decision on REDD+ . Each institution claims to have a mandate

to regulate REDD. A proposal to establish a new REDD+ institution has now been realized through Presidential Decree No. 63/2013 on a REDD+ Agency. Although this REDD+ Agency is not yet fully operational, the dispute on planning and coordination on REDD+ implementation could be resolved. A second issue concerns the Stranas REDD+ document, which does not have a clear legal position. Consequently, the proposed strategy will only serve as a reference and guidance document, and will require further operationalization (Figure 2).

4.2. Policies and legal institutional framework of REDD+, and other land-based sector climate issues

Before Stranas REDD+ and Presidential Regulation No. 61/2011, the GoI enacted several regulations related to REDD+ institutions and demonstration activities. In 2008, the DNPI was established through Presidential Instruction No. 46/2008, with a mandate to be the national focal point for global climate negotiations, including on forestry issues. Members of this council, led by the president, include a number of cabinet ministers.

The State Ministry of Environment (MoE) is the lead agency for preparing National Communications to the UNFCCC, reporting on the progress of national policy to reduce GHGs, the GHG inventory, mitigation, and adaptation. A National Communication was most recently published in 2010. In 2009, a sectoral roadmap on mainstreaming climate change issues was developed and submitted to the State Ministry of National Development Planning (BAPPENAS). Together, the work of these two institutions led to the establishment of Presidential Regulation No. 61/2011 and Presidential Regulation No. 71/2011 on the National Green House Gases (GHG) Inventory.

Meanwhile, the MoF regulated mechanisms to reduce emissions arising from forestry activities and to implement a REDD readiness strategy. Three regulations concerning REDD+ have been issued by the MoF. The first concerned procedures for establishing demonstration activities under REDD (MoF Decree No. 68/Menhut-II/2008). This provided a framework for an individual actor (investor) or a group of actors to initiate demonstration activities with MoF approval. The second was Decree No. 30/Menhut-II/2009, which sets forth procedures for REDD. Parties eligible to conduct REDD activities are defined and they are considered as proponents for REDD. The proponents are in fact rights holders for forest uses as defined in Forestry Law No. 41, issued in 1999. These include the rights of holders to utilize timber products, non-timber products, and to restore an ecosystem. The third, MoF Decree No. 36/Menhut-II/2009, laid out procedures to issue permits for the uses of production and protection forests for absorbing and storing forest carbon.

These three regulations, although officially issued, have had their effectiveness questioned. Numerous demonstration activities located in various regions barely make any reference to Decree No. 68/2008 or indeed Decree No. 30/2009 in conducting emissions reduction. More importantly, Decree No. 30/2009 has invited widespread criticism concerning the distribution of REDD benefits, with the benefits promised in Decree No. 30/2009 not having materialized in the community.

In April 2012, the MoF issued another regulation – MoF Decree No. 20/Menhut-II/2012 – to regulate the implementation of REDD+ and REDD+ readiness and complement the three earlier regulations. In addition, some articles were also substituted in Decree No. 68/Menhut-II/2008 and Decree No. 30/Menhut-II/2009. Unfortunately, they did not resolve the legality issues for demonstration activities or clarify the link to the national action plan addressed by Presidential Decree No. 61/2011 (Figure 3).

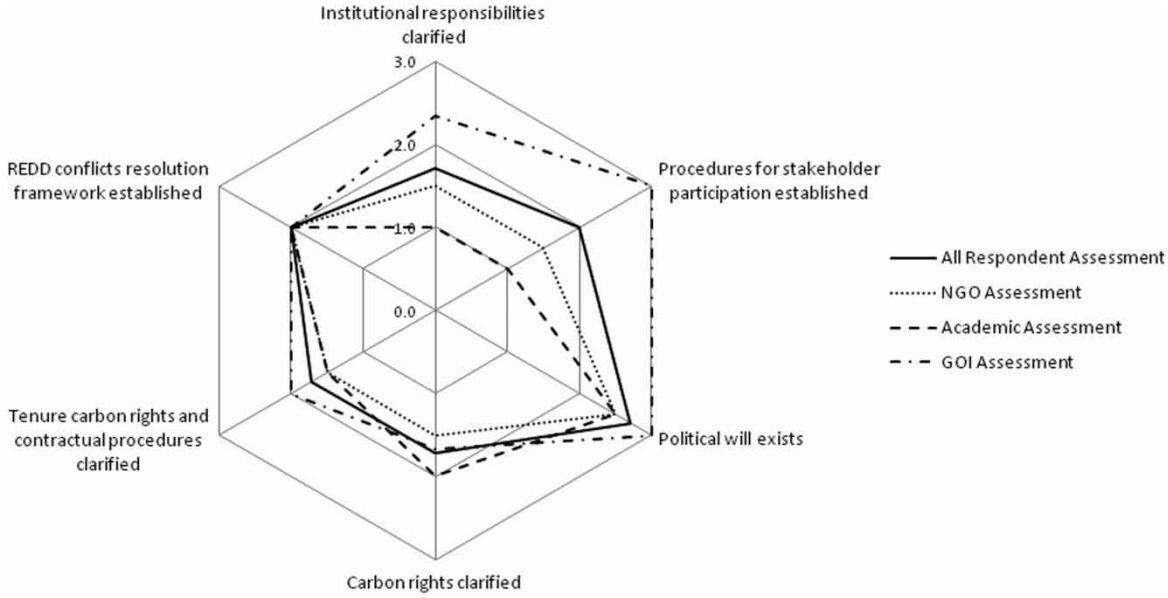

Figure 3 Policies, legal institutional framework assessment

In the interviews, all respondents agreed that Indonesia has shown commitment and political will for the implementation of REDD+ , as can be shown from the regulations enacted so far. Respondents also emphasized their concern regarding tenure, carbon rights, and conflict resolution issues. Many civil society organizations raised these issues (Steni, 2010), and none of their concerns were fully accommodated within the above regulations. Social safeguards like the Strategic Environmental Social Safeguard Assessment (SESA) and Principles, Criteria and Indicators for REDD+ Safeguards Indonesia (PRISAI) produced by MoF and Satgas REDD+ are still being discussed. The SESA has been criticized by the National Forestry Council (Dewan Kehutanan Nasional) for not following the national strategy of REDD+ on the issue of land tenure as well as communities and indigenous rights. Free, prior, informed and consent (FPIC) is being recognized in REDD+ National Strategy but not elaborated in detail by SESA compared to PRISAI (DKN, 2013).

Building on the social safeguards operationalization framework of McDermott, Coad, Helfgott, and Schroeder (2012) and de Royer, Galudra, and Pradhan (2013), defined that SESA is a 'risk-based approach', focused on pricing and prioritizing risks according to a logic of economically efficient risk management and effective accountability mechanisms. Social safeguards are implemented only to ensure that those who bear the costs of REDD+ schemes receive an appropriate share of the benefits. On the other hand, PRISAI is a 'right-based approach', focusing on ensuring that rights holders secure their rights, without reference to cost. The idea of equity and justice play a key role in developing these social safeguards. The two safeguard frameworks have different interests and ideas and may lead to a conflict when the safeguards are being operationalized at the national level. Hopefully, these safeguards can address the issues of tenure, carbon rights, and conflict resolution within REDD+ implementation. In a number of cases, differences

in perspective between national and local government priorities have emerged that align with different segments of local society, as in the contested peat swamp of Tripa in Aceh Province (Tata et al., 2013).

As part of the LoI agreement between the GoI and the Government of Norway there is also a statement addressing the problem of forest governance under Presidential Instruction No. 10/2011 (renewed by the issuing of Presidential Instruction No. 6/2013) regarding the moratorium on granting new licences and improvement of natural primary forest and peat land governance. This Instruction stated that no licences pertaining to primary forest and peat land will be issued, with just four exceptions: areas where in-principle permits were already in the process of being issued; areas of projects vital to national security such as food and energy; extensions of forest-use licences, as long as the applicants' business licence was valid; and ecosystem restoration activities.

4.3. Demonstration and pilots

REDD+ demonstration activities are another important part of the REDD+ policy development process. Indonesia is undertaking several such activities in collaboration with other countries and international agencies, and these will provide important lessons for the design of a national REDD+ policy framework.

In collaboration with the Government of Australia, Indonesia launched the Kalimantan Forest Carbon Partnership (KFCP) in Central Kalimantan. This first demonstration project intended to

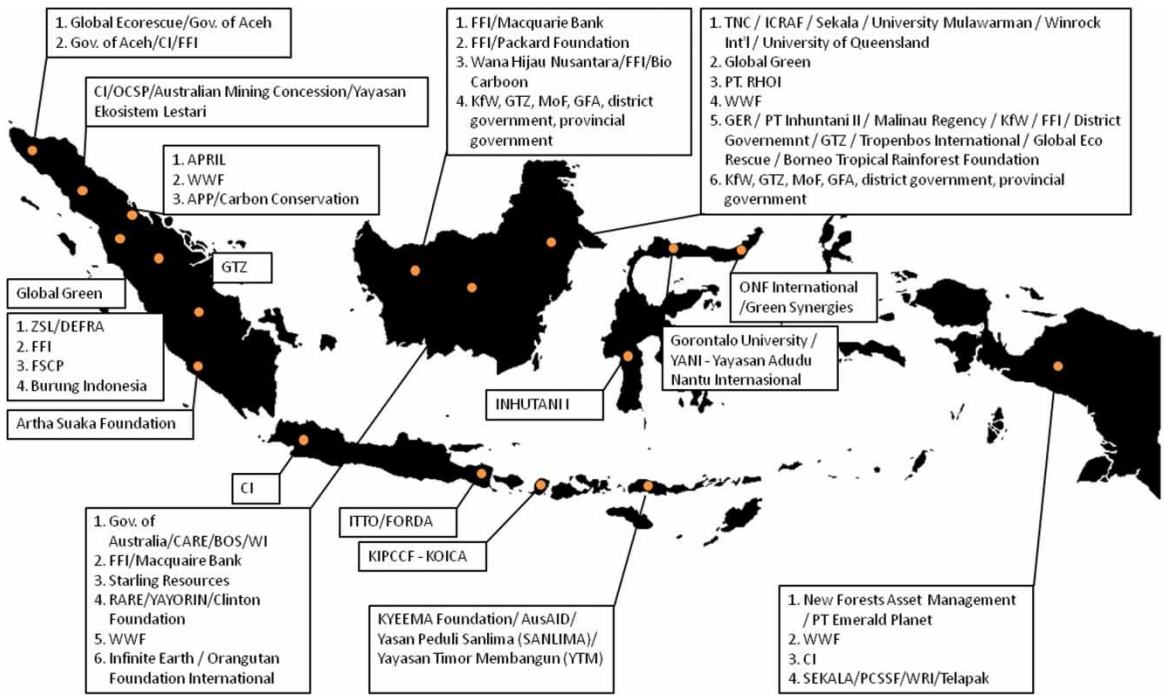

Figure 4 REDD+ readiness project sites distribution
Source: Center for International Forestry Research and MoF.

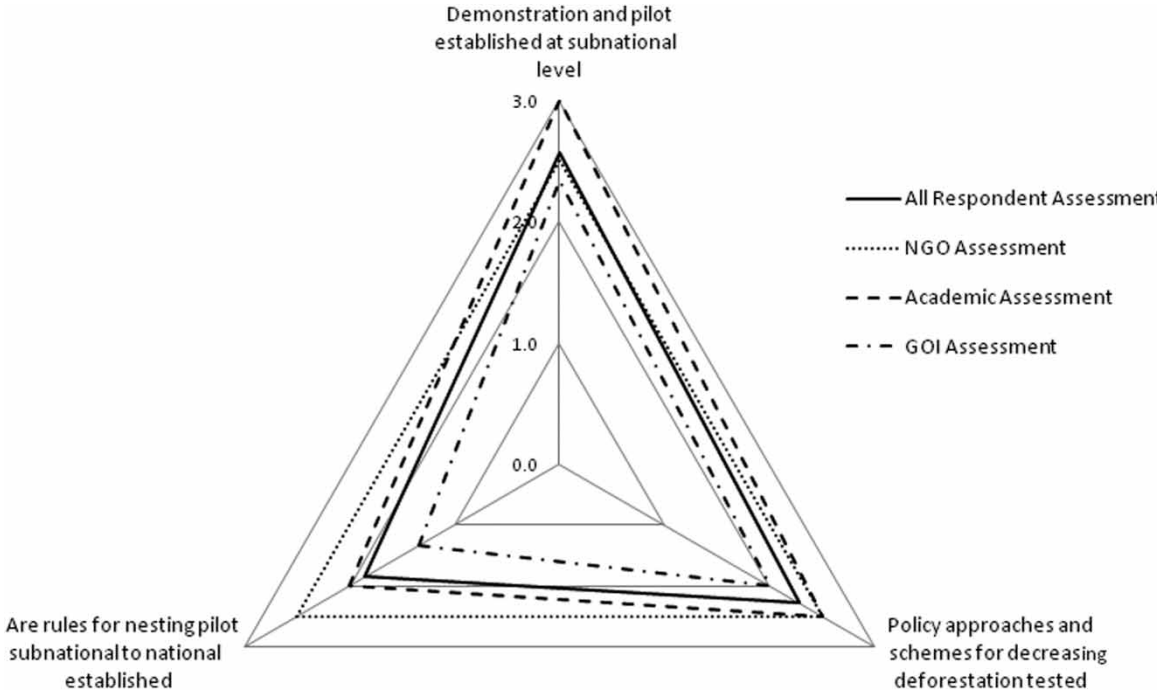

Figure 5 Demonstrations/pilots assessment

identify drivers of deforestation at the subnational level and set Reference Emission Level/Reference Level (REL/RL) at the district level. In collaboration with the Government of Germany, a second project was launched in East Kalimantan, using the provincial level as the unit of demonstration activity. A deeper analysis of how and why the KFCP failed to heed early signs of underestimating the complexity of the site (Galudra et al., 2011), and subsequently failed to deliver on the initial expectations, needs to be written. There are important lessons yet to be learned (Figure 4).

Many more demonstration activities have been initiated by various REDD+ stakeholders, including The Nature Conservancy (TNC), the Government of South Korea (KOICA), the International Tropical Timber Organization (ITTO), UN-REDD (collaboration between the GoI and the UN Environment Programme (UNEP), the UN Development Programme (UNDP), the Food and Agriculture Organization (FAO), FCPF, etc. The programmes vary, but most activities aim to identify local-level drivers of deforestation, to develop REL/RL, to relate to afforestation and reforestation activities, to improve the capacity of local stakeholders, to identity opportunities to regulate REDD+ payment, benefit sharing, and safeguard protocols development. Most demonstration activities take place at specific project locations, but some operate at district and provincial levels. MoF Decree No. 30/Menhut-II/2009 stipulated that REDD+ activities can be implemented at forest concession areas: Natural Forest Concessions (HPH), Timber Forest Plantations (HTI), Social Forestry Areas (HKm), and Village Forests (HD). It also mentions ecosystem restoration projects, conservation areas (national parks), customary forests, and forest management units.

Although the exact number has been debated, in total some 44 demonstration activities have flourished during the last five years. There is a need to coordinate the activities, in particular because they are all concerned with the uses of forest land and the definition of beneficiaries. Coordination is needed to prevent conflicting claims of use as well as to ensure a fair and efficient distribution of benefits. It is also important to clarify how to identify the lessons learned from the REDD+ activities and nest them into national REDD+ policy. Interviewed respondents felt that there is still uncertainty on how lessons learned could be nested into the national level. This feeling was strongest among GoI officials (Figure 5).

4.4. MRV and audit

An MRV system needs to be developed for emissions reductions. The system needs to be transparent, internationally accepted, and standardized for independent bodies to conduct verification. Such a system has yet to be designed for Indonesia. Guidelines for monitoring are provided in COP decisions 2/CP13 and 4/CP15 and require the use of a combination of remote-sensing and ground-based forest carbon inventory approaches for estimating forest-related GHG emissions by sources and removals by sinks, forest carbon stocks, and forest area changes. Guidelines and modalities for reporting and verification are still to be developed and agreed by the COPs.

The GoI has put considerable effort into setting up a transparent and internationally accepted MRV system. The agreement between the governments of Indonesia and Norway shows a significant investment to establish a robust MRV system with interrelated institutions, each with funding. Presidential decrees No. 61/2011 and No. 71/2011 were issued to address the establishment of an Indonesian MRV system. Implementation of the decrees was assigned to BAPPENAS, which coordinates the formulation of the Provincial Action Plans for GHG Reduction.

For successful implementation of MRV, a number of issues need to be addressed. These include policy design, data acquisition and management, technology, and technical capacities, in addition to the institutional coordination mechanism among key agencies operating at different levels of governance. There is also a need to clarify MRV responsibilities, protocols, and a REDD+ national registry.

Respondents said that the agreement with Norway had drawn attention to the need to establish a credible and reliable institutional body for MRV at the national level. Such an institution is still being developed. Within the MoF, the Directorate General of Forest Planning potentially has that capacity, as data acquisition and processing for forest land-use changes are among its main activities. However, as emissions reductions involve active roles by other sectors, it is questionable whether the MoF alone should manage the MRV system for the whole country.

Through the MRV process, the effectiveness of efforts and efficiency of cost of emission reduction can be measured quantitatively, and benefit distribution can be achieved fairly. Accordingly, the MRV system must be carried out by an independent institution, but in coordination with any future REDD+ institution as the governing council of all REDD+ activities in Indonesia. MRV findings will provide the basis for payment for output/performance by the REDD+ Partnership Funds Institution (National REDD+ Task Force, 2013).

From interviews with GoI officials it was learned that the MoF has formulated a Road Map for Forestry MRV. The Road Map identifies some activities to support MRV implementation. These include activities to redesign field data acquisition for the National Forest Inventory at the national and subnational levels, to compare the different methods for setting REL/RL used by different demonstration

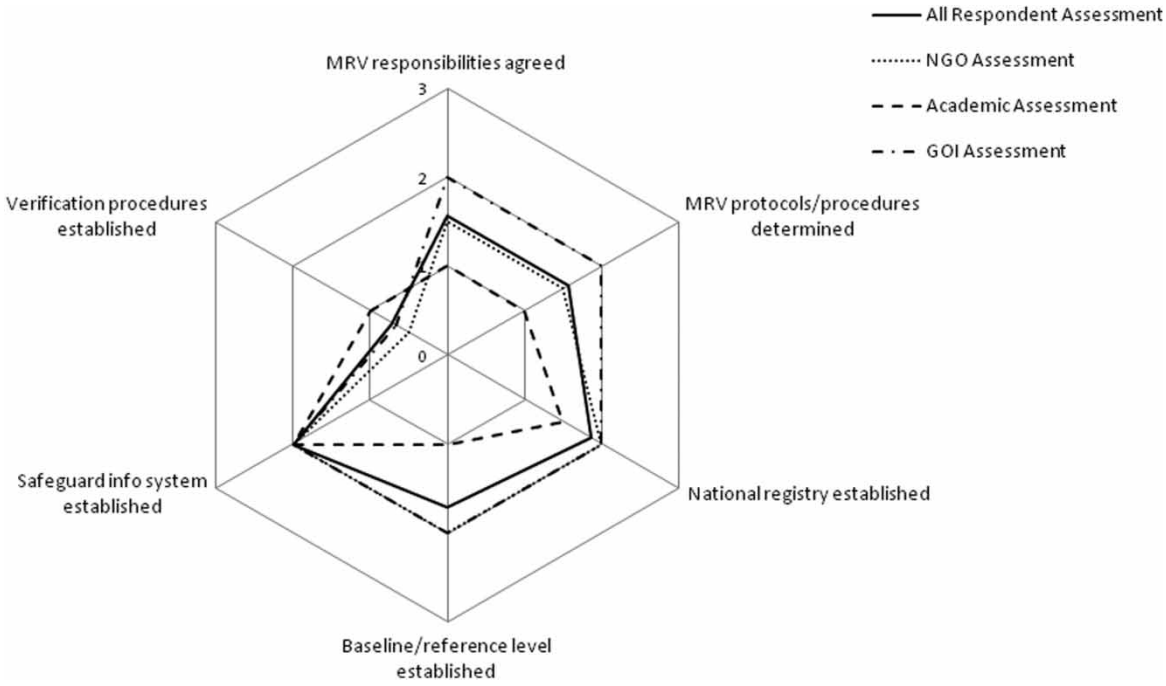

Figure 6 MRV and audit assessment

activities, to develop allometric equations for prominent species or vegetation types, and to re-adjust the existing classification of forestland uses. Overall, respondents argued that the MRV system is far from being established at the national level, especially as regards the division of responsibilities, protocols, and national REL setting (Figure 6).

4.5. Financing/funding instrument

REDD+ in Indonesia will require effective financial mechanisms and accounts. The scope of this funding system includes a structure that can attract and channel involvement of the private sector in the implementation of REDD+ and an appropriate market structure to generate credits. In addition, funding mechanisms must satisfy the principle of balance between the effective disbursement of funds and compliance with social, environmental, and financial safeguards.

Currently, the Satgas REDD+ has discussed but not yet implemented Fund for REDD+ in Indonesia (FREDDI). FREDDI will be established as a Public Trust Fund via Presidential Regulation No. 80/2011 on Trust Fund. Beside FREDDI, there are also several funding instruments for reducing emissions of GHGs in Indonesia (Helmi, 2012). In 2008, a Working Group of Financial Mechanism was established under the DNPI. This working group led negotiations on finance at the UNFCCC and other international fora related to climate change, and made plans for follow-up at the national level. In 2009, the Indonesia Climate Change Trust Fund (ICCTF) was established. The ICCTF aims to provide funding to achieve Indonesia's goals of a low-emission economy and greater resilience to climate change (Figure 7).

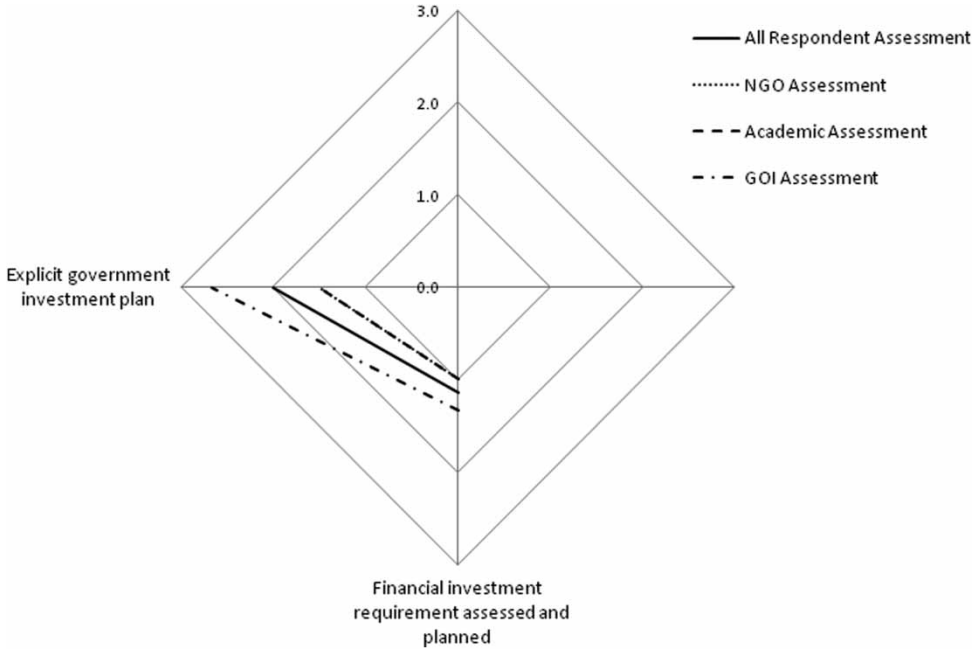

Figure 7 Financing assessment

Currently, financing for REDD+ is mainly sourced from donor grants and by using the operational funds of the MoF and some funds from the government's budget (APBN). A national fund for the implementation of *Rencana Aksi Nasional/Rencana Aksi Daerah Penurunan Emisi Gas Rumah Kaca* (RAN/RAD GRK) as mandated in Presidential Decree No. 61/2011 is also used.

4.6. Benefit sharing

The objective of the REDD+ payment distribution mechanism is to support policies and measures that reduce deforestation and forest degradation through the transfer of revenues from international REDD+ funds or carbon markets to Indonesian claimants. It is clear (as confirmed by the interviews) that the only policy that regulates benefit sharing so far is MoF Decree No. 36/Menhut-II/2009. This regulation, following up on ideas developed in the IFCA report, enacted the benefit distribution from carbon sequestration and/or storage effort, but was criticized by civil society for omitting three additional activities – carbon ehancement, conservation efforts, and sustainable management of forests – which are part of REDD+ , but not REDD (IFCA, 2008). Unfortunately, at the time Regulation No. 36 was prepared, international agreement on REDD+ had not yet taken place (Indrarto et al., 2012).

Our interviews indicated that the benefit-sharing mechanism framework remains unclear, as no sharing criteria have yet been established. Some respondents argued that the benefit-sharing mechanism framework and conflict resolution should be discussed at the national level. Several REDD+ recommendations cover conflict resolution on benefit-sharing mechanisms. This situation eventually leads to the question of who is entitled to receive benefits and how these benefits can be distributed.

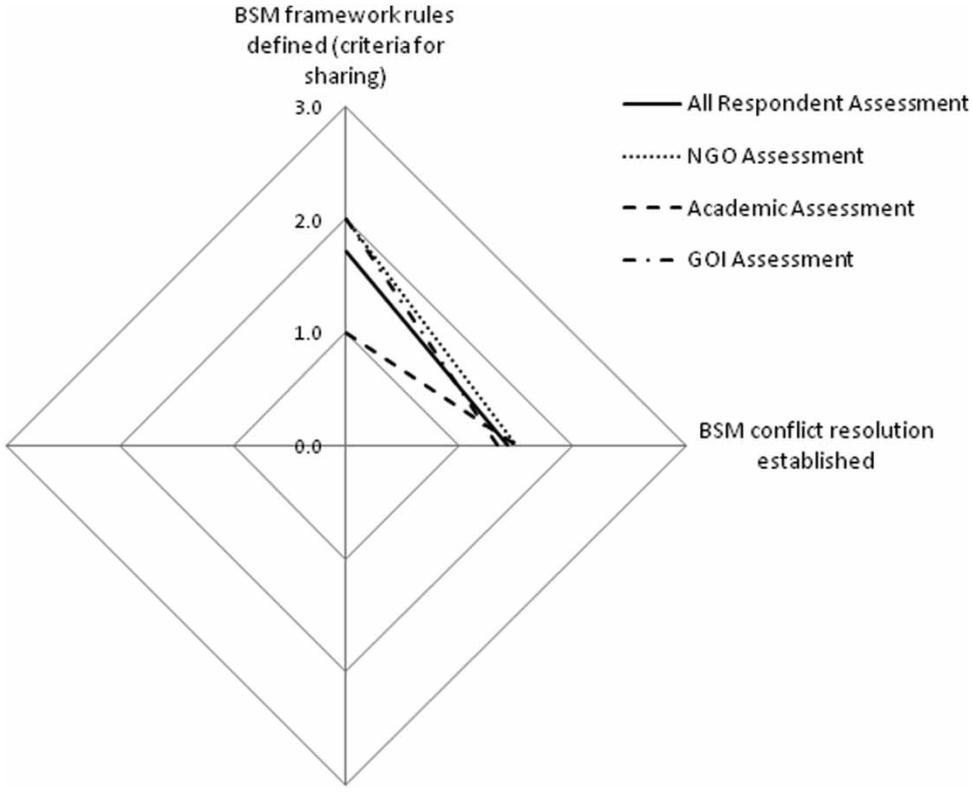

Figure 8 Managing/benefit sharing
Note: BSM, Benefit Sharing Mechanism.

van Noordwijk et al. (2008a) emphasized that to ensure demonstrable results on emissions reduction, the REDD mechanism must be effective in targeting a wide range of agents involved in deforestation and degradation, learning lessons from the past and ongoing conservation efforts that have apparently failed.

Furthermore, van Noordwijk et al. (2008a) said that REDD+ must reward good performance and produce incentives compared to reference scenarios, and adequately compensate agents suffer losses from changed practices. Unfortunately, mechanisms have not yet been established to implement these benefit-sharing recommendations. Additional opinion on how stakeholders expect any REDD cake to be shared, and how they would like to see it, has been presented by Lusiana et al. (2013), using the Fairness and Efficiency in REDD Value Chains (FERVA) methodology (van Noordwijk et al., 2013b) (Figure 8).

5. Discussion

From our data analysis we found that among the six REDD+ domains assessed, two are considered more advanced (demonstration and pilot projects and policies; legal and institutional framework)

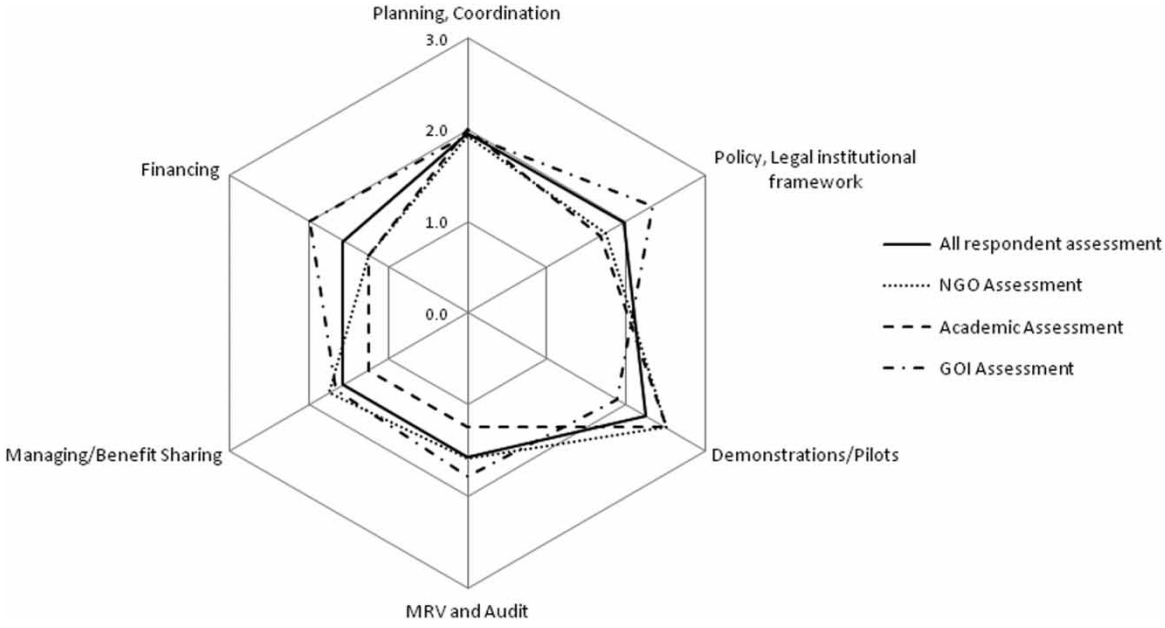

Figure 9 Overall REDD+ domains assessment

than the other four (presented in Figure 9). NGOs and academics argued that the number of demonstration activities at the subnational level is remarkable. Meanwhile, the GoI respondents took the view that the establishment of policy, legal and institutional frameworks is an outstanding domain for REDD+ progress in Indonesia. It is hoped that the REDD+ readiness process has led to improved forest governance, but of course no one can guarantee that forest governance will improve just by relying on pressure in the implementation of REDD+ . Mulyani and Jepson (2013) reported REDD+ as a significant opportunity to build momentum for improvement in forest governance as it has placed the issue high on Indonesia's political agenda.

Demonstration and pilot projects, as well as the revision of policies, legal and institutional frameworks, are considered to have advanced as REDD+ readiness domains because there have been many improvements since the establishment of the IFCA. A total of 44 REDD+ readiness pilot projects funded by international donors and conservation NGOs have been recorded officially across Indonesia (with additional attempts not recorded) and contribute to lessons being learned for further REDD+ implementation. The establishment of the DNPI, a National Action Plan to Reduce GHG, regulations on REDD/REDD+ readiness strategy in the forestry sector, the REDD+ National Strategy, the forest and peatland conversion moratorium under presidential instructions, and the establishment of a REDD+ agency are all evidence of serious efforts to achieve emissions reduction at the national scale.

In a synthesis on progress towards reducing emissions from peatland use, mostly in Indonesia, van Noordwijk et al. (2014) used the analogy of a knowledge value chain to analyse multiple bottlenecks on the path to effective change in behaviour. While a fundamental understanding of the processes that lead to emissions needs to be translated into internationally agreed accounting standards and MRV

systems, willingness to act, ability to act, and the availability of examples of working solutions that are integrating development and environmental concerns can all limit progress. In REDD+ , the 'ability to act' at the relevant scale and the 'willingness to act at all relevant local levels' may well be the primary constraint, as willingness at a national scale, MRV systems, and local examples have made progress. The willingness and ability to act on emissions reductions often collide with fundamental forest/land tenure problems across Indonesia, as well as coordination among land-based sectors.

Regarding land tenure, several REDD+ instruments are being used to improve forest governance. The process of developing the REDD+ social safeguard during the readiness phase provides an opportunity to strengthen the engagement of indigenous and local peoples in forest resource management. Tenure is important to REDD+ implementation in determining who can claim ownership and the environmental services provided by the forest and relevant benefit from REDD+ . REDD+ social safeguards can also be used to ensure the participation of indigenous and local peoples in decisions concerning their customary ('*adat*') land and forest. The momentum for forest tenure reform was endorsed by Kuntoro Mangkusobroto, Satgas REDD during his speech at the Forest Tenure, Governance and Enterprise conference in Lombok, 11 July 2011.

In March 2013, 12 ministries signed a memorandum of understanding on acceleration in the gazettement of forest boundaries, which was expected to lead to compliance with the law regarding the Indonesian forest area. In 2011, the gazettement of forest boundaries only covered 14.2 million hectares of the total 130,786 million hectares of forest area (MoF, 2011, cited in National REDD+ Task Force, 2011). This development therefore heralds a beginning of clarity regarding tenure and carbon rights, which in turn will facilitate the achievement of a conflict resolution framework and benefit-sharing mechanism.

At least partly as a consequence of underestimating the complexity of tenure issues (Galudra et al., 2011; Galudra, van Noordwijk, Agung, Suyanto, & Pradhan, 2013), the Australian-funded KFCP halted their REDD+ pilot activities in Central Kalimantan (Sunderlin et al., 2014). Another important development on tenure already realized within REDD+ implementation is Indonesia Constitutional Court Rule No. 35 (16 May 2013), which accepted a judicial review of the key clauses of Law No. 41/1999, removing ambiguity about whether indigenous peoples' forest management is recognized or not (it now is). The consequences of this ruling for specific REDD+ projects in preparation or pilot modes have yet to be clarified (van Noordwijk et al., 2013a).

From the perspective of spatial planning, several provisions in Law No. 26/2007 on spatial planning are supportive of efforts to decrease deforestation rates (Indrarto et al., 2012). Indrarto et al. (2012) have stated that if this law is properly enforced, then the existing spatial planning instrument can become more effective in monitoring the development process, including REDD+ implementation. In addition to REDD+ readiness, mitigation efforts have also included NAMAs through the national and subnational Plans for Reducing Greenhouse Gases (RAN/RAD GRK) process, as enacted by presidential decree. Integration between REDD+ and RAN/RAD GRK is expected to be efficient in terms of reducing emissions because it takes into account all land uses rather than only forest and peat lands. In addition, integration of the two systems will contribute to permit allocation decisions regarding the forest area, as well as to the planning of forest management.

Within the process of REDD+ and RAN/RAD GRK, the need for good quality data has also become an issue. The National REDD+ Task Force has tried to encourage discussion among the agencies that share a concern for the environment and land use (MoF, MoE, BAPPENAS, the National Land Agency, and the

Geospatial Information Agency). The purpose was to compile all the spatial data in order to create one integrated geographical information system for Indonesia. This initiative could lead to the refinement of spatial data and to tackling the confusion caused by inconsistencies across geographical databases.

With regard to forest management, the REDD+ readiness phase also contributed to the issuing of Presidential Instruction No. 10/2011 regarding the moratorium on granting new licences and the improvement of natural forest and peat land governance. This regulation essentially comprises part of a LoI between the governments of Indonesia and Norway. This regulation was enforced for two years (2011–2013), and was renewed through Presidential Instruction No. 6/2013. The presidential instruction on the forest and peat conversion moratorium, with all its limitations and drawbacks, is still seen by many stakeholders as a stepping stone to a refinement of Indonesian forest governance.

REDD+ readiness is also expected to expand and strengthen areas of community management. This can be seen from the rise of initiatives to establish community-based forest management areas, which have also been used by some demonstration activities as well as by civil societies (through the Forest Tenure Road Map). However, from what has been described already regarding the potential contribution of REDD+ readiness to reforms in forest governance in Indonesia, there are still many difficulties to be resolved.

6. Conclusion

The structure of forest governance and tenure arrangements are highly debated topics in the discussion of REDD+ readiness in Indonesia. The biggest challenge for REDD+ implementation is how to curb emissions from cross-sectoral land-use change as well as changes in practice within forestry. So far, the issue of REDD+ has generated considerable enthusiasm and momentum in civil society to reform current forest governance. It is now time to take stock of whether REDD+ actually leads to more effective forest governance in Indonesia. In particular, the design of any REDD+ mechanism must ensure the implementation of existing knowledge on good forest governance, including not only the effectiveness, efficiency, and equity implications of different forest governance regimes, but also the political process that determines how forest governance institutions are shaped.

This article has explored the impact of the REDD+ readiness process to reform forest governance in Indonesia. Based on the analysis it has been found that, in terms of readiness, considerable effort is being made by the GoI, as shown by progress on the six REDD+ domains we used to assess REDD+ readiness. We found that, among the six REDD+ domains assessed, two are considered more advanced (i.e. demonstration and pilot projects and policies; legal and institutional framework) than the other four. In the end we argue that REDD+ readiness processes have contributed to the reform of Indonesia's forest governance and the need for more cross-sectoral cooperation in meeting the GoI's pledge to reduce Indonesia's emissions by, 26% by 2020. The forest moratorium is not only helping to halt deforestation and peat land conversion, but is also effectively forcing the national and subnational political economies to interact in the related environmental issues. The same effect has also occurred as a result of social safeguards, as land tenure is a prominent factor in ensuring that REDD+ activities do not harm local communities and indigenous rights. The Constitutional Court ruling that indigenous land is a category separate from state forest land has helped to clarify the contentious issues on forest tenure rights and state forest land definition. The evidence

thus shows that processes of REDD+ readiness actually affect issues at the core of forest governance in Indonesia. However, it will require further effort for the issues to be resolved.

The readiness phase has provided an opportunity for subnational government to develop its own planning regarding its emissions reduction effort in contributing to the national pledge through the Provincial Strategy and Planning on REDD+ Implementation (Strategi dan Rencana Aksi Propinsi – SRAP), a Stranas REDD+ derivative. RAN-GRK (a Nationally Appropriate Mitigation Action) was also implemented at the subnational level through RAD-GRK (a LAAMA, a locally appropriate adaptation and mitigation action). Despite the fact that attention to REDD+ readiness has actually acted as a stimulus to forest governance reform in Indonesia, there is a need for further debate on the processes and structure of forest governance, as the state, private sector, and civil society have complementary but sometimes contrasting views.

Acknowledgements

We acknowledge financial support from the Norwegian Climate and Forest Initiative (NICFI) and NORAD to the Reducing Emissions from All Land Uses (REALU) project; and technical facilitation from the CGIAR research program on 'Forests, Trees and Agroforestry' (FTA). We would like to thank the following people for reviewing a draft of this article: Dr. Suyanto, Dr. Atiek Widayati and Dr. Sonya Dewi. We are also grateful to the three anonymous reviewers for the constructive comments that helped improve this paper.

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