



Contents lists available at ScienceDirect

Forest Policy and Economics

journal homepage: [www.elsevier.com/locate/forpol](http://www.elsevier.com/locate/forpol)

## Five years of REDD+ governance: The use of market mechanisms as a response to anthropogenic climate change

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### ARTICLE INFO

#### Article history:

Received 25 November 2015

Received in revised form 2 March 2016

Accepted 15 March 2016

Available online xxx

#### Keywords:

Anthropogenic forests

Forest policy

Governance standards

Nepal

Papua New Guinea

REDD+

Sustainable forest management

### ABSTRACT

Forest ecosystems worldwide are increasingly subjected to human intervention, leading commentators to argue that forests should be viewed as anthropogenic ecosystems. REDD+ is an emerging inter-governmental policy instrument aimed at both reducing deforestation and forest degradation and combatting climate change, whereby developed countries pay developing countries to reduce their forest-based emissions. The paper details a five-year research project to evaluate REDD+ quality of governance and develop governance standards for the mechanism. Quality of governance was evaluated in five key international institutional elements: the REDD+ related negotiations in the global climate talks; the support and funding agencies UN-REDD, Forest Carbon Partnership Facility (FCPF), Forest Investment Programme (FIP) and the REDD+ Partnership. This research was complemented by national level governance assessments and related standards setting initiatives in Nepal and Papua New Guinea. The researchers conclude that REDD+ confronts a number of challenges, notably around resources for capacity building, and benefit sharing. In addition, the lack of provisions for changing behaviour and solving the problem of forest-based emissions in the current safeguards render them inadequate to the task of delivering quality of governance. In the absence of consistent governance standards, REDD+ will only partially be successful in combatting climate change in the Anthropocene.

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### 1. Introduction to REDD+ and to the research

Deforestation and forest degradation account for nearly 20% of global greenhouse gas (GHG) emissions. Degradation results from logging for timber and fuel, and forest fires. These open up forests, increasing access to the resources that remain, leading in turn to further extraction and creating a feedback loop of expanding degradation, and eventually, deforestation. Deforestation is also a consequence of conversion to non-forest uses, such as the production of agro-fuels from palm oil and soy-based cattle food (Puppim de Oliveira et al., 2013: 9–10). Deforestation and forest degradation are almost entirely human activities, and has been argued that on account of rising levels of disturbance, forest ecosystems subjected to should be viewed as anthropogenic products, and managed as such (Sist et al., 2014: 497). As a consequence of the industrialisation and commercialisation of global forests, and ever-increasing human intervention, there a growing recognition of the contribution that sustainable forest management (SFM) can make to reduce the pressures on biodiversity and other ecosystem services caused by deforestation and forest degradation. This is especially relevant for

natural tropical forests, which are heavily impacted by human activities (ITTO, 2015: 10).

Under the United Nations Framework Convention on Climate Change (UNFCCC), developed countries ('donor countries' in UN parlance) provide support via implementing agencies to combat deforestation and degradation in developing (or 'recipient') countries. The negotiations stream in the initiative in the climate talks is known as 'Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries', referred to since the Conference of Parties (COP) 15 in Copenhagen as REDD+. These include the UN-REDD, the Forest Carbon Partnership Facility (FCPF), the Forest Investment Program (FIP), the Global Environment Facility (GEF), and the REDD+ Partnership (MTFO, 2013). An emphasis is placed on joint programmes between international and national-level agencies (FAO et al., 2008: 1). There is an expectation that funds will be delivered through one lead agency, and a single budget under the UN efficiency drive 'delivering as one' (UNDG, n.d.; UN, 2006: 1). It should also be noted that the recently established Green Climate Fund (GCF) is rapidly becoming the dominant player in the UN climate finance space, and is encroaching on territory previously under the aegis of the GEF. It is not exactly clear how this will play out in relation to REDD+ and reducing emissions. There is also on ongoing debate in

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the climate negotiations themselves whether REDD+ should remain a market-based system, with possible linkages to emissions trading, or simply be a delivery mechanism for payments. These kinds of policy uncertainty have previously had a negative impact on carbon prices and related market-based instruments, such as the Clean Development Mechanism (CDM) (Cadman, 2014a, 2014b: 355).

As the central UN institution providing support for the REDD+ initiative, UN-REDD is a collaborative management arrangement between the United Nations Environment Programme (UNEP) the United Nations Development Programme (UNDP) and the Food and Agriculture Organisation (FAO) (UN-REDD, 2009). The intent of the UN-REDD Programme is to manage and simplify the distribution of financial resources to participating developing countries for emissions reduction activities (MTFO, 2013). To date, funds have gone towards supporting REDD+ preparation and planning at the international and regional levels and via targeted assistance for country activities (UN-REDD, 2009). The UN-REDD programme strategy for 2011–2015 was approved in November 2010, and guides activities. In the context of national-level actions to mitigate and adapt to climate change, UN-REDD's economic and social strategies are aimed at to reducing emissions from deforestation and forest degradation from domestic forest industries, and contributing to human wellbeing. REDD+ Readiness Programmes (RPPs) provide performance-based payments in exchange for sustainable forest management and changed land use practices to reduce emissions (UN-REDD, 2011).

The FCPF is a programme of the World Bank. It too is involved in RPP activities and has played growing role in REDD+ finance over the last five years. It has funded pilot schemes for emissions reduction and performance-based payments generated from REDD activities, tested approaches to conserving biodiversity and sustain or enhance livelihoods of local communities, and disseminated lessons learned from the implementation of projects (FCPF, 2015). Formally launched in Bali in December 2007 at COP 13, the FCPF commenced activities in June 2008. It arose out of talks within the World Bank itself in 2006 around climate finance and its application to tackling deforestation, forest degradation and emissions reduction. The talks included governmental and non-governmental actors, and stressed the need to create an entity that worked as a partner with a wide range of stakeholders (FCPF, 2010). This was supposedly to offset the influence of donors and recipients, as well as buyers and sellers of any emissions reductions (ibid: 3; Lang, 2008).

Scholars, commentators and participants have identified a number of governance challenges confronting REDD+. The extent to which these are addressed will ultimately determine the quality and legitimacy of the mechanism as a policy instrument for combatting climate change (Cadman and Maraseni, 2012: 622–624). They may be summarised as relating to two key institutional arrangements for effective collaboration: stakeholder participation in REDD+, particularly concerning interest representation and the responsible behaviour of participating organisations; and deliberation, concerning decision-making processes, and the implementation of decision made (Cadman and Maraseni, 2013; Lederer, 2011; Lyster, 2011; Thompson et al., 2011; Forsyth, 2009). Stakeholder participation in environmental decision-making is critical to generating a sense of ownership, and encouraging the adoption and implementation of decisions made. Differential participation, in which policy makers have more access and influence than those active in the forest itself, is unlikely to result in changed behaviour, and the substantive reduction of emissions. Similarly, the allocation of resources, which stays at the upper echelons of the policy community, will not build capacity at the local level, where it is needed for improvements in forest management. Civil society organisations have also expressed concerns about the integrity of REDD+ finance and have questioned the rigour of anti-corruption measures (Lang, 2010; Transparency International, 2014). Lack of accountability and transparency also increases the potential for corruption, undermining institutional integrity. REDD+ is not the only policy

instrument to encounter legitimacy problems as a market-based instrument (MBI) within the environment/climate space. The problem is a more general one, and lies both in the conflation of economic and environmental objectives underlying MBIs and the governance arrangements utilized (Gómez-Baggethun and Muradian, 2015: 6). Evaluating the governance quality of REDD+ is consequently of value for determining the value of the mechanism itself for combatting climate change, as well as MBIs more generally.

In response to the governance challenges identified, the authors, in cooperation with a number of project partners, embarked on a five-year research project to survey and interview REDD+ stakeholders about the mechanism's governance quality at the intergovernmental, implementing agency- and country levels. The Institute for Global Environmental Strategies and the International Tropical Timber Organization were the principal project partners (Lopez-Casero et al., 2015; ITTO, n. d.). The results of these surveys yielded similar results over the study period, and at all levels. On the basis of those results, the research team worked with stakeholders to develop context-specific governance standards, relevant for REDD+ and related forest management at the country level (Nepal and Papua New Guinea). The project utilized an action-research model of stakeholder engagement and standards development (IGES, 2015a). The project focused on both REDD+ and forest management, using a hierarchically consistent framework of principles, criteria and indicators (PC&I), with field-based means of verification provided by governmental and non-governmental participants from multi-sectors. The research conducted highlighted the importance of providing stakeholders with the necessary resources to participate in REDD+ effectively. These standards, largely developed by the stakeholders themselves, have added value to the governance of intergovernmental policy initiatives such as REDD+, as they are implemented on the ground in specific forest policy contexts.

## 2. Context and methods of analysis

### 2.1. Context

REDD+ is but one of many policy mechanisms situated within the broader intergovernmental climate change regime, and subject to the varying interests of country negotiators. The exact nature of REDD+ remains contested, namely whether it is will become a purely market-based mechanism, generating tradable 'offsets' such as those created under the now largely defunct Clean Development Mechanism (CDM), or an incentives-based scheme that encourages emissions reductions through simple payments. In the post-Kyoto policy environment, there is still active interest from developed countries in developing new market mechanisms, but concerns around the commodification of carbon amongst some developing countries in the negotiations still need to be addressed. What can be said is that REDD+ is aimed at mitigating (preventing, or in its case, reducing) climate-change inducing forest-based emissions, rather than adapting to (or coping with) the impacts of actual climate change, such as the Warsaw International Mechanism for Loss and Damage. Given that the World Bank is still in the business of negotiating purchase contracts with national governments in REDD+ host developing countries around a price-per-tonne for carbon, it is probably better to say that the mechanism is currently functioning in a 'market-like' environment. There has also been active interest from intergovernmental organisations, and non-governmental organisations in the funding for initiatives to be implemented in country, whether from unilateral donor country arrangements, or via UN-REDD and FCPF. These could be designated as occurring in a much more 'aid-like' environment.

In the case of Nepal REDD+ activities commenced in 2008, and have been based on two types of activities: capacity building in the non-state sector for carbon accounting and benefit sharing mechanisms (largely with community forest user groups, or CFUGs); funded by developed country donor agencies, and delivered through various IGOs, and

international and local NGOs; and government activities around formal the more formal REDD+ activities of REDD institution-building, through REDD Readiness Preparation Proposals (RPPs), and so forth, supported via the FCPF UN-REDD (Paudel et al., 2013: 15–20). UN-REDD has also played a role since 2010 (UN-REDD, n.d.). Carbon rights reside exclusively with the government, and while community forest users may gain a share of the price at a future date, once arrangements with the World Bank are concluded, opportunities for private sector investment are limited. Papua New Guinea has had a different relationship with the mechanism from Nepal. PNG signed the Kyoto protocol in 2002, and was an early advocate for including deforestation and forest degradation under the Convention, first proposing an agenda item with Costa Rica at COP 11 in Montreal in 2005. It is also one of the founding members of the Coalition for Rainforest Nations (CfRN), an advocacy-based alliance of tropical forest nation-states, and was the first co-chair of the REDD+ Partnership, aimed at promoting finance and support for the initiative. It has a much clearer market focus, but the actual deployment of REDD+ initiatives has been a slow process, due partly to an initial lack of policy infrastructure around climate change, and institutional problems around poor forest governance, as well as political instability. REDD is now a part of the PNG development strategic plan (2012–2030), and several governmental bodies have been created to handle the creation of RPPs, and so forth. A number of pilot projects have been identified, operating largely under the auspices of the PNG FA, with some private sector projects as well. The government, while advocating strongly for a market mechanism in the climate negotiations, is less supportive of voluntary carbon markets, and has indicated a preference for the REDD+ negotiations to be formally concluded under the convention before considering such initiatives. Civil society has been less actively engaged, although a similar variety of actors to Nepal, including NGOs, donors, UN-REDD and so forth, have been involved. One strong note of difference is that most of PNG's forests (97%) are under customary land tenure, rather than the state, making the situation around benefit sharing in particular more complex (Babon and Gowae, 2013: 10–33).<sup>1</sup>

Whatever its definition and manifestation, policy makers and governments, partially in response to pressure from their electorates, have embraced REDD+ as a solution to addressing the negative impacts of climate change. Developing countries face a number of governance gaps, it has been argued, when it comes to ensuring their full participation in the mechanism (Skutsch and McCall, 2010). It has been suggested that the future success of REDD+ depends less on technical issues than it does on the governance of the mechanism as it functions at various levels (international, national and local) (Lederer, 2012: 107). Evaluations of REDD+ architecture at the national level indicate that there are concerns about the legitimacy of the market-based approach to emissions reduction. These relate notably to participatory issues around interest representation and organizational responsibilities, as well the extent to which the mechanism has the capacity (both economic and in terms of co-ordination) to deliver an effective outcome (Vatn and Vedeld, 2013).

In view of the stated governance challenges facing REDD+, it is probably not surprising that the mechanism has evolved in a broader context of civil society pressure on governments to provide social and environmental safeguards for climate finance. Environmental NGO WWF and non-governmental aid organisation CARE jointly released their own list of 'principles' to guide the safeguards negotiations in the lead up to the Cancun climate negotiations (COP 16, 2010) (WWF, 2010). This pressure was ultimately successful as COP 16 negotiators agreed to a number of social and environmental safeguards in relation to REDD+ governance. However, the extent to which these safeguards are or are not implemented varies considerably in different countries (Ravikumar et al., 2015). The NGO umbrella organisation Climate,

Community and Biodiversity Alliance (CCBA, and including CARE) convened a group of interested governments, social and environmental NGOs, Indigenous peoples' organisations, community associations, the private sector, and multilateral organisations from fourteen countries to prepare what were referred to as the REDD+ *Social and Environmental Standards* in 2010 (revised in 2012), but these did not have any verification procedures, nor were they site-specific, relying instead on existing national level interpretation and assessment, with some form of (unspecified) international review (CCBA, 2010; REDD+ SES, 2012: 6). There was also competition between agencies involved in REDD+ over whose safeguards system should prevail. UN-REDD published its own *Social and Environmental Principles and Criteria* (SEPC) in 2012, but these were not linked to any formal standards, instead describing "important issues to be considered in preparing for and implementing REDD+" (UNREDD, 2012: 2 [authors' emphasis]). The FCPF, as an entity of the World Bank, also released its own *Common Approach to Environmental and Social Safeguards for Multiple Delivery Partners* in 2011 (FCPF, 2011). This provided guidelines as to how agencies seeking REDD+ funding should go about developing a Strategic Environmental and Social Assessment (SESA), a World Bank requirement (FCPF, 2010). But again, the safeguards were not tied to any specific standards, other than the World Bank's own policies and procedures (FCPF, 2011: 2).

In order to understand how the various institutional arrangements for delivering such aspects of 'good' governance relate one to another within REDD+, a consistent framework of principles, criteria and indicators (PC&I) was applied. The terms used in the framework were based on an integrated literature review of over 250 texts in the political science disciplines of comparative politics, public administration, international relations and environmental policy; and from the standards-setting literature (Cadman, 2011: 12–18; Cadman, 2009: 23–108). These terms were organised hierarchically to ensure consistency of evaluation, following the 1997 benchmark methodology developed by Lammerts van Bueren and Blom (1997: 5–35). The difference in the approach adopted in the study was to focus on the institutional arrangements for good governance, using governance concepts drawn from a wide range of literature, and organised consistently for analytical purposes, rather than forest management. Table 1 sets out these terms, and their hierarchical relationship as governance principles, criteria and indicators.

In terms of the policy discussions around REDD+ governance quality, it is also clear that there is a considerable lack of consistency across the agencies and organisations involved. With no benchmarks for governance quality, this is perhaps not surprising. It is worth looking at these differences in the light of the approach adopted in this study. Table 2 provides a comparison of governance language in three key documents associated with REDD+ principles, criteria and standards, using the indicators of Table 1.

This table is provided less as an empirical and definitive evaluation of the governance quality of these documents, but more to highlight the inconsistencies in REDD+ governance arrangements contained

**Table 1**

Hierarchical framework for the assessment of governance quality (Cadman, 2011: 17; reproduced with permission of Palgrave Macmillan).

| Principle (level 1)        | Criterion (level 2)                  | Indicator (level 3)  |
|----------------------------|--------------------------------------|--|
| "Meaningful participation" | <i>Interest representation</i>       | <b>Inclusiveness</b>   |
|                            | <i>Organisational responsibility</i> | <b>Equality</b><br><b>Resources</b><br><b>Accountability</b>             |
| "Productive deliberation"  | <i>Decision making</i>               | <b>Transparency</b><br><b>Democracy</b><br><b>Agreement</b>              |
|                            | <i>Implementation</i>                | <b>Dispute settlement</b>  |
|                            |                                      | <b>Behavioural change</b><br><b>Problem solving</b><br><b>Durability</b> |

Note: text format denotes hierarchical level (Principle, Criterion, Indicator).

<sup>1</sup> Also based on interviews with governmental and non-governmental representatives in both countries, conducted 2015–2016.

**Table 2**  
Comparison of terminology across three core REDD+ safeguards documents using selected governance indicators.

| Indicator (and related terms)   | Document       |           |             |
|---|----------------|-----------|-------------|
|   | REDD+ SES 2010 | FCPF 2011 | UNREDD 2012 |
| Inclusiveness   | 4              | 3         | 4           |
| Equality  | 4              | 3         | 4           |
| Resources (capacity, capacity building)   | 5              | 5         | 5           |
| Accountability (answerable to, answer for)  | 5              | 5         | 5           |
| Transparency (open, visible)  | 5              | 5         | 5           |
| Democracy (procedural fairness)   | 0              | 0         | 4           |
| Agreement (consensus, voting)   | 5              | 5         | 5           |
| Dispute settlement (conflict resolution, mediation, procedural complaints)  | 4              | 4         | 0           |
| Behavioural change (any concept with 'behaviour' or 'change', or 'improvement')   | 2              | 2         | 2           |
| Problem solving (any concept with 'problem' or 'solving' or 'solution', 'resolved' (if not in the context of dispute settlement)) | 0              | 0         | 0           |
| Durability (Resilience, longevity, flexibility, adaptability)   | 0              | 0         | 0           |
| Total   | 34             | 32        | 34          |

Notes: 1) Scores are as follows: 5 – actual word or phrase; 4 – Cognate word used more than once in same paragraph; 3 – Cognate words used more than once in same document; 2 – half the word or phrase; 1 – concept; 0 – words not used 2) out of a maximum total of 55.

therein. UNREDD (2012) refers to the need for democratic governance of REDD+, while this is not mentioned at all in REDD+ SES (2010), or FCPF (2011). UNREDD does not refer to dispute settlement, while REDD+ SES and FCPF do. None of the documents refer to any concepts relating to either problem solving or durability, which is alarming, given that REDD+ is aimed specifically at reducing forest-based emissions contributing to anthropogenic climate change. Of interest are the overall results for all three documents, which are roughly similar. The table also makes a compelling case for evaluating the governance quality of REDD+ mechanisms in a consistent manner, and for developing governance standards, the subject of the remainder of this paper. However, the likelihood for such standards is remote. The REDD+ governance reality is that it is a mechanism under the UN, which emphasizes national sovereignty of member states. Consequently, while desirable, the application of the PC&I presented here, represents an ideal, not an actuality. The most optimistic scenario for REDD+ governance standards, should they arise, is likely to be based on a hybrid of 'good' governance arrangements combined with existing safeguards, dependent on the preferences of Parties to the Convention.

## 2.2. Method

The indicators of Table 1 were used as the basis for a series of Internet surveys of stakeholders participating in REDD+ related activities, which were conducted between 2010 and 2015. See Table 3.

Survey participants were recruited through a range of techniques. Internet-searches of publicly available REDD+-related participants' lists provided the most relevant respondents. In this case, participants active in REDD+ related negotiations were publicized in participants lists associated with international and national level policy dialogues and decision-making forums. These lists were related either to UNFCCC Conferences of Parties, or else via REDD+ related agencies themselves such as UN-REDD and FCPF. Other policy-relevant events, such as regional conferences held by investment agencies were also used (e.g. Carbon Africa). Using this method, an initial cohort of approximately one thousand email addresses was reduced to eight hundred and sixty five after attrition and opting out. This list was utilized throughout the survey period. This cohort of potential respondents was managed online via the survey tool SurveyMonkey (<http://www.surveymonkey.net>).

**Table 3**  
Summary of survey questions.

| Indicator          | Question   |
|--------------------|--|
| Inclusiveness      | Do you think REDD+ is inclusive of your interests?   |
| Equality           | Do you think REDD+ treats all interests equally?   |
| Resources          | What level of resources does REDD+ provide for you to participate?   |
| Accountability     | Do you think the various institutional elements in which you participate are accountable in their dealings with you regarding the REDD+ process? |
| Transparency       | Do you think the various institutional elements in which you participate are transparent in their dealings with you regarding the REDD+ process? |
| Democracy          | Do you consider the REDD+ processes in which you participate to act in a democratic manner?  |
| Agreement          | Do you consider the making of agreements in REDD+ to be effective?   |
| Dispute settlement | Do you consider the settling of disputes in REDD+ to be effective?   |
| Behavioural change | Do you think REDD+ will contribute to changing the behaviour that leads to deforestation and forest degradation in developing countries?         |
| Problem solving    | Do you think REDD+ will help solve the problem of deforestation and forest degradation in developing countries?                                  |
| Durability         | Do you consider REDD+ will be durable?   |

Note: explanatory text and introductory materials omitted.

Two pilot surveys were deployed in October–November 2009, and March 2010 to test various configurations of survey. Initially, several different collectors were used (sector by sector) and an email link was generated for each sector. This proved difficult for verifying individual responses (especially when individuals forwarded the email). Five identical surveys were deployed between 2010 and 2014, using a single online database and a unique email link for each individual. The largest number of completed responses from any survey was thirty-nine, or 4.5% of participants, and the smallest thirty, or 3.5%. Although the response rate was low, completion was very high at around ninety-five percent or higher for each survey.

The survey cohorts (and respondents) were comprised largely of members of the forest and climate related policy communities. In the longitudinal study respondents were asked to identify as 'Environmental', 'Social', 'Economic', 'Government', 'Secretariat or other institutional component', and 'Other' (who were asked to specify further). Typically, these were government officials, representatives of intergovernmental and non-governmental organisations (environmental, social and economic), members of the elements under investigation (secretariats or other institutional components), and a few 'others', notably academics and researchers, and individuals who chose to represent themselves more specifically as 'other' (e.g. 'private sector' or 'indigenous peoples' organisation'). Respondents were also invited to identify whether they came from the 'Global North' or 'Developed country', and 'Global South' or 'Developing Country'. Respondents came from a wide range of countries. Those with active REDD+ programmes were from Africa (Ghana and Tanzania), the Asia-Pacific region (Indonesia, Vietnam, Papua New Guinea) and Latin America (Ecuador). Developing country respondents were from a range of locations including Europe (Denmark, France, Germany, Netherlands, United Kingdom) and the United States.

Environment and government were consistently the highest participating groups, followed by other, and with a smattering of secretariat, followed by social and economic. Generally speaking North and South were relatively equally represented, with numbers fluctuating either way in each of the surveys. Although the respondents were not consistent across surveys, this breakdown of representation was maintained throughout. Tables 4 and 5 provide a representative sample of the general demographics of survey respondents.

For the longitudinal study, survey participants were asked to rate the governance quality of five elements – the UNFCCC REDD+ related negotiations, UN-REDD, FCPF, FIP and the REDD+ Partnership. At the

**Table 4**  
Total number of survey respondents by sector (2010).

| Sector  | Response count |
|---|----------------|
| Environmental                                 | 17             |
| Social  | 1              |
| Economic                                      | 2              |
| Government                                    | 19             |
| Secretariat, or other institutional component | 0              |
| Other   | 4              |

Note: includes those who did not complete the entire survey.

country level, participants were asked to comment only on 'REDD+'. Survey respondents rated their perceptions of the governance quality of the various REDD+-related elements by means of a five-point Likert scale, using the terms 'very low', 'low', 'medium', 'high' and 'very high'. Participants were sent a survey, and provided the option of clicking on a link, which took them to the survey, or they could select an option to remove themselves from the list. In addition to the Likert-scale, respondents were invited to make substantive comments relevant to each indicator, and asked if they wished to be interviewed. The surveys were deployed for one month, with three (weekly) reminder emails, and a final forty-eight hour closure notice. The surveys were anonymous, with confidentiality assured, but with the option for the lead researcher to identify individual respondents. A critique of the survey method is included in the conclusions below.

In the national-level surveys, participants were more context-specific, and represented the relevant multi-stakeholder national and cultural composition, classified subject to consultation. In the case of Nepal this consisted of 'Aid programmes', 'Community forest users', 'Dalit', 'Finance', 'Forest-based industry', 'Government', 'Indigenous peoples' organisation', 'Madhesi', 'NGO', 'Women's organisation' and 'Other'. Respondents were also invited to identify their nationality, i.e. whether they were 'Nepali', or 'Other'. In the case of those who selected 'other' respondents were asked to specify their sector (in the case of stakeholder groups), or their country (in the case of nationality). A single survey was deployed in June 2011. An initial cohort of approximately three hundred target recipients generated sixty-six respondents or approximately nineteen percent. Although the response rate was relatively high for an Internet survey, completion was low, with one hundred and thirty-one attempts, or fifty percent. The largest numbers of respondents were NGOs (21) other (16) and government (11), followed by community forest users (7), aid programmes (3), forest-based industry (3), Dalit (2), finance (1), Indigenous people (1) and Madhesi (1), with no women identifying as such. 'Other' largely consisted of the academic and research communities, with a few individuals (such as 'private consultant' and 'humanitarian organisation'). The overwhelming majority of respondents identified themselves as being from Nepal. Significant numbers of respondents provided substantive comments with each indicator (on several occasions over twenty), and forty-two agreed to be interviewed. The survey was conducted in English and Nepali.

In Papua New Guinea (PNG) national stakeholders were asked to identify themselves as 'Aid programme', 'Community forest users', 'Finance', 'Forest-based industry', 'Government', 'Landowner group', 'Incorporated Land Group (ILG)', 'International Non-government Organisation (INGO)', 'Local Non-government Organisation (NGO)', 'Women's organisation', 'Community Based Organisation (CBO)', 'Faith Based Organisation (FBO)', 'Cooperative Societies' and 'Other'. Respondents were also asked to identify their country. In both case of 'other',

**Table 5**  
Total number of survey respondents by sector (2010).

| Answer options                    | Response count |
|-----------------------------------|----------------|
| Global North (developed country)  | 21             |
| Global South (developing country) | 22             |

Note: includes those who did not complete the entire survey.

respondents were again asked to indicate their sector, and nationality. A single survey was deployed in April 2015. An initial cohort of approximately three hundred and eighty target recipients generated seventy-four respondents, or approximately nineteen percent. Forty-five respondents completed the survey (a completion rate of over sixty percent of those who commenced the survey). Overall, approximately twelve percent of the initial survey cohort completed the survey. Finance, faith-based organisation, landowner group, and cooperative societies did not respond. Other represented a broad base of interests including academics and researchers, agriculture, resource owners, the private sector (including oil palm and timber), various types of NGO, training, and consultants. As with Nepal, the largest numbers of respondent sectors were, NGOs (local NGOs – 9; and international NGOs – 5) and government (12) and other (9), followed by aid programme (3), forest based industry (3), community based organisation (1), community forest users (1), incorporated land group (1) and women's organisation (1). Eighty per cent of respondents were from PNG, and forty agreed to be interviewed. The survey was conducted in English and Tok Pisin.

The written feedback from each indicator informed the development of a context-relevant *quality-of-governance standard* for REDD+ in Nepal and PNG. The comments were used to generate *verifiers* to contribute to a 'proto standard' for REDD+ at the national level. The verifiers constituted the sources of information for the indicators, and helped determine the reference values for indicators (Lammerts van Bueren and Blom 1997: 35). Those who agreed to be interviewed also provided further input into the creation of materials for the standard. Additional interviewees were sought, to ensure greater representation from the lower numbers of survey respondents (e.g. women). Over sixty key informants were interviewed. The verifiers generated from the initial survey were taken to a national stakeholder forum-cum-workshop in each country, at which the verifiers were further consulted, and checked. Participants, constituting a balanced representation of the sectors identified, determined whether these verifiers related to the national, subnational, or local level. Forty-three stakeholders participated in Nepal, in PNG thirty-five. Participants also prioritized four indicators whose verifiers required specific attention (for Nepal: transparency, inclusiveness, accountability, and resources – TIAR; for PNG inclusiveness, accountability, resources, transparency – IART).

In the case of Nepal a 'draft national quality-of-governance standard for REDD+ and the forest sector' was circulated to the initial survey cohort, interviewees, workshop participants, and other stakeholders. Once again, the materials were circulated to more than three hundred and fifty stakeholders. Those verifiers identified by stakeholders as relevant for community forests were further consulted at the community forest user group (CFUG) level, in REDD+ pilot areas, and selected control CFUGs, focusing on the TIAR indicators. At the CFUG level, it became clear that *means of verification* (MoV) for each verifier were necessary. These were identified by the CFUGs themselves, and were later classified as either *verification methods* or *practices* necessary for the standard to be applied, and verified, at the community level. Stakeholders were particularly concerned about the provision of resources for emissions reduction activities, and to ensure effective benefit sharing systems for poverty alleviation, as well as ongoing sustainable management of forests. Over two hundred and seventy additional stakeholders from twelve CFUGs were involved in these consultations. Further guidance was sought from a national workshop of twenty-eight expert multi-stakeholders (from all levels) on how to proceed with standards development. On their recommendation, all materials were incorporated into a national standard, which combined national level verifiers, and regime specific MoVs (i.e. for community forests). A final 'checking' workshop at the CFUG level was held with previous participating communities, with some additional national and district level input (thirty four attendees). This 'modular' standard was released for public consultation in October 2015, and will be released as a 'pilot' standard in 2016 (IGES, 2015b). Further modules relating to other forest management

**Table 6a**  
Overall rating of REDD+ elements, by year, and indicator.

| Element     | Year       | Inclusive | Equality | Resources | Account | Trans. | Demo. | Agree | Dispute | Behaviour | Problem | Durability |
|-------------|------------|-----------|----------|-----------|---------|--------|-------|-------|---------|-----------|---------|------------|
| UNFCCC      | Jun. 2014  | 3.66      | 3.38     | 1.76      | 3.13    | 3.14   | 3.03  | 3.39  | 3.1     | 3.27      | 3.58    | 3.52       |
|             | Sept. 2013 | 3.44      | 3.25     | 2.06      | 3.09    | 3.16   | 3.03  | 2.94  | 2.88    | 3.28      | 3.22    | 3.25       |
|             | Oct. 2012  | 3.33      | 3        | 2.19      | 3.03    | 2.85   | 3     | 2.92  | 2.78    | 3.08      | 2.94    | 2.97       |
|             | Nov. 2011  | 3.42      | 3.15     | 2.2       | 2.98    | 3.17   | 3.15  | 2.84  | 2.78    | 3.29      | 3.44    | 3.27       |
|             | Nov. 2010  | 3.84      | 3.39     | 2.03      | 3.14    | 3.36   | 3.44  | 2.84  | 2.79    | 3.7       | 3.49    | 3.81       |
| UN-REDD     | June 2014  | 3.45      | 3.29     | 1.97      | 2.97    | 2.89   | 3.03  | 3.1   | 2.97    | 3.17      | 3.33    | 3.17       |
|             | Sept. 2013 | 3.57      | 3.16     | 2.1       | 2.97    | 2.97   | 2.89  | 3.11  | 2.86    | 3.1       | 2.93    | 2.93       |
|             | Oct. 2012  | 3.05      | 2.97     | 2.43      | 3       | 2.94   | 2.83  | 2.83  | 2.72    | 3.19      | 2.86    | 2.89       |
|             | Nov. 2011  | 3.53      | 3.32     | 2.19      | 3       | 3.26   | 3.23  | 3     | 2.98    | 3.31      | 3.38    | 3.31       |
|             | Nov. 2010  | 3.7       | 3.28     | 2.7       | 3.21    | 3.44   | 3.27  | 3.09  | 2.83    | 3.48      | 3.44    | 3.41       |
| FCPF        | June 2014  | 3.21      | 3.24     | 2.19      | 3.03    | 2.93   | 2.89  | 3.25  | 2.94    | 3.26      | 3.31    | 3.28       |
|             | Sept. 2013 | 3.43      | 3.13     | 2.03      | 3       | 2.89   | 3     | 3     | 2.86    | 3.1       | 2.93    | 2.79       |
|             | Oct. 2012  | 2.84      | 2.86     | 2.25      | 2.91    | 2.77   | 2.69  | 2.82  | 2.68    | 3.22      | 2.92    | 2.8        |
|             | Nov. 2011  | 3.4       | 3.02     | 1.91      | 2.98    | 3.04   | 3.13  | 2.95  | 3       | 3.07      | 3.13    | 3.11       |
|             | Nov. 2010  | 3.32      | 3.18     | 2.2       | 3.32    | 3.44   | 3.25  | 3.28  | 3.11    | 3.53      | 3.26    | 3.32       |
| FIP         | June 2014  | 2.9       | 2.8      | 1.77      | 2.5     | 2.7    | 2.7   | 2.97  | 2.6     | 2.9       | 3.1     | 2.93       |
|             | Sept. 2013 | 2.83      | 2.8      | 1.73      | 2.44    | 2.52   | 2.52  | 2.86  | 2.5     | 2.88      | 2.88    | 2.96       |
|             | Oct. 2012  | 2.65      | 2.71     | 2.15      | 2.52    | 2.52   | 2.66  | 2.71  | 2.54    | 3.1       | 2.93    | 2.67       |
|             | Nov. 2011  | 3.07      | 2.8      | 1.95      | 2.69    | 2.83   | 2.76  | 2.72  | 2.69    | 3.07      | 3.17    | 3.02       |
|             | Nov. 2010  | 2.97      | 2.71     | 2         | 2.92    | 3.1    | 2.77  | 2.77  | 2.79    | 3.1       | 3.19    | 3.14       |
| Partnership | June 2014  | 3.29      | 3.28     | 2.03      | 2.66    | 3      | 3     | 2.77  | 2.9     | 3.03      | 3.17    | 2.93       |
|             | Sept. 2013 | 3.04      | 2.97     | 2         | 2.64    | 2.68   | 2.73  | 2.62  | 2.58    | 2.85      | 2.81    | 2.78       |
|             | Oct. 2012  | 3.09      | 2.88     | 2.23      | 2.77    | 2.7    | 2.58  | 2.75  | 2.63    | 2.94      | 2.94    | 2.84       |
|             | Nov. 2011  | 3.36      | 3.19     | 2.16      | 2.78    | 3.09   | 3.09  | 2.76  | 2.81    | 3.07      | 3.09    | 3.09       |
|             | Nov. 2010  | 3.44      | 3.06     | 2.41      | 2.97    | 3.12   | 3.17  | 3.25  | 2.77    | 3.18      | 3.25    | 3.32       |

Notes: 1) light grey represents the highest-scoring indicators; 2) medium-grey represents the lowest scoring indicators

regimes (e.g. plantations, leasehold lands, collaborative forests, etc.) will be developed as resources permit.

It is anticipated that the PNG project will follow a similar, context-relevant standards development process.

### 3. Results

As discussed above, survey respondents were asked to identify their specific sectoral interest and also to indicate whether they were from the 'Global North' or 'Global South'. Due to the small sample size, commentary on the disaggregated results by sector was not possible. Table 6a provides the results of the surveys, focussing on the indicator level. Here, the results contain the total number of respondents for all mechanisms, and an average value of their perceptions regarding the 11 indicators. The total number of respondents for different mechanisms ranged from 30 to 39 (with the exceptions of Nepal and PNG, where numbers were higher; 66 and 45 respectively).

'Inclusiveness' and 'resources' provided the highest and lowest mean ratings across all the years in the study period, and across most mechanisms studied. This would appear to demonstrate that respondents had considerable differences in their perceptions as to the extent to which these two indicators were contributing to the 'good' governance of REDD+. This is reinforced by the fact that across all the years and all the mechanisms in the study, 'resources' was the only indicator to receive  $\leq 2.5$  while all other indicators achieved a mean score of  $\geq 2.5$ . These mean ratings were replicated amongst Nepalese and PNG respondents for all indicators, indicating that these two countries followed the global trends.

In addition to examining the highest and lowest performing indicators, the study also investigated whether there was any statistical difference (at 95% confidence levels) between the indicator ratings provided

by respondents across the different mechanisms, using the method of one-way analysis of variance (ANOVA). In 2010, with the exception of inclusiveness, the mean values of all 11 indicators under the different REDD+ mechanisms were not significantly different. In the case of inclusiveness, the mean values were significantly different ( $F = 2.52$  and  $p < 0.05$ ). UNFCCC received the highest rating (3.84) for inclusiveness, and FIP lowest score (2.97) resulting in a very high standard deviation of mean values. Between 2011 and 2014, the mean values of all eleven indicators under the different REDD+ mechanisms were not significantly different (the  $p$  values for all the indicators were over 0.05). This would appear to indicate that the respondents had common perceptions regarding each of the indicators under the different REDD+ mechanisms. In order to determine whether the *apparent* difference in stakeholder perceptions between the inclusiveness of UNFCCC cf. FIP in 2010 is indicative of an *actual* perception would require a larger number of respondents to determine whether this is indicative of a broader trend. However, what can be concluded with some certainty is that across years there is a very large difference in perceptions amongst stakeholders regarding the extent to which REDD+ could be seen as being inclusive, in contrast to the extent which the necessary resources were available for stakeholders to participate meaningfully. These findings are discussed below.

Table 6b provides the results of the surveys at the principle level, and as overall totals. On the basis of the PC&I framework discussed above, these scores are derived from the aggregation of results at the indicator level.

In addition to the consistency of results regarding the highest and lowest indicators, discussed immediately above, respondents perceived either the UNFCCC-REDD+ related negotiations, or UN-REDD, to have the highest quality of governance. They also perceived FIP to have the lowest quality of governance overall. Stakeholders in Nepal and PNG

**Table 6b**  
Overall rating of REDD+ by element, year, principle and total.

| REDD+ Element     | Meaningful Participation | Productive deliberation | Total (out of 55) |
|-------------------|--------------------------|-------------------------|-------------------|
| 2010              |                          |                         |                   |
| UNFCCC-REDD+      | 15.76                    | 20.07                   | 35.83             |
| UN-REDD           | 16.33                    | 19.52                   | 35.85             |
| FCPF              | 15.46                    | 19.75                   | 35.21             |
| FIP               | 13.70                    | 17.76                   | 31.46             |
| REDD+ Partnership | 15.00                    | 18.94                   | 33.94             |
| 2011              |                          |                         |                   |
| UNFCCC-REDD+      | 14.92                    | 18.77                   | 33.69             |
| UN-REDD           | 15.30                    | 19.21                   | 34.51             |
| FCPF              | 14.35                    | 18.39                   | 32.74             |
| FIP               | 13.34                    | 17.43                   | 30.77             |
| REDD+ Partnership | 14.58                    | 17.91                   | 32.49             |
| 2012              |                          |                         |                   |
| UNFCCC-REDD+      | 14.40                    | 17.69                   | 32.09             |
| UN-REDD           | 14.39                    | 17.32                   | 31.71             |
| FCPF              | 13.63                    | 17.13                   | 30.76             |
| FIP               | 12.55                    | 16.61                   | 29.16             |
| REDD+ Partnership | 13.67                    | 16.68                   | 30.35             |
| 2013              |                          |                         |                   |
| UNFCCC-REDD+      | 15.00                    | 18.60                   | 33.60             |
| UN-REDD           | 14.77                    | 17.82                   | 32.59             |
| FCPF              | 14.48                    | 17.68                   | 32.16             |
| FIP               | 12.32                    | 16.60                   | 28.92             |
| REDD+ Partnership | 13.33                    | 16.37                   | 29.70             |
| 2014              |                          |                         |                   |
| UNFCCC-REDD+      | 15.07                    | 19.89                   | 34.96             |
| UN-REDD           | 14.57                    | 18.77                   | 33.34             |
| FCPF              | 14.60                    | 18.93                   | 33.53             |
| FIP               | 12.67                    | 17.20                   | 29.87             |
| REDD+ Partnership | 14.26                    | 17.80                   | 32.06             |
| 2015              |                          |                         |                   |
| REDD+ PNG         | 14.24                    | 18.49                   | 32.73             |
| 2011              |                          |                         |                   |
| REDD+ Nepal       | 15.38                    | 19.47                   | 34.85             |

also provided ratings of governance quality of REDD+ at the national level that were on a par with international initiatives. With most scores exceeding thirty, and some exceeding thirty-five, it is a fair observation to say that overall, the perceptions of governance quality of REDD+ amongst respondents were good. However, there were some inconsistencies in governance quality across elements, and this should be a cause of some concern. These are discussed below.

### 3.1. Discussion of results

The extent to which REDD+ safeguards have been implemented varies considerably in different countries. This has led to the conclusion the mechanism requires inclusive transparent and accountable processes for decision-making, at all levels. Without such governance arrangements, its legitimacy will remain questionable (Ravikumar et al., 2015). The researchers identify two problems relating to the current state of REDD+ governance. Firstly, the focus on safeguards, rather than a comprehensive approach to ensuring 'good' governance, has created an inconsistent level of governance quality across the mechanism. Secondly, the different approaches to ensuring that those safeguards are met have resulted in an incoherent policy environment. These problems could mean that the mechanism is open to exploitation by unscrupulous actors, with unforeseen, and potentially perverse outcomes.

The results of the stakeholder surveys are interesting, as they reveal a relatively high level of confidence in REDD+ governance quality across the sub-institutional mechanisms investigated. But some caveats should be added at this point regarding survey sampling, which challenge the validity of the results presented. Firstly, with regard to the international-level longitudinal survey, the cohort of respondents was not stable over the years, and there was some attrition, while those who answered the surveys were not always the same respondents. Response rates were also low, which challenges the degree to which the results can be interpreted as representative of the cohort as a whole, let alone the wider REDD+ policy community.

Having made these observations, there is nevertheless a relative consistency of respondents' perceptions of governance quality of REDD+ elements at both the indicator level, and across the years. The highest scoring indicator was generally 'inclusiveness', a positive sign, given the multi-stakeholder nature of REDD+. The indicators associated with the criterion for implementation – behaviour change, problem solving and durability – also performed well. However, it should be noted that these are all 'aspirational' indicators as REDD+ negotiations have not concluded, and it is too early to say if REDD+ will reduce emissions and will change the behaviours that lead to deforestation and forest degradation. It should also be noted that the policy documents investigated in Table 2 do not address these issues, and there is a clearly governance gap in this regard, which should be addressed by REDD+ negotiators and policy makers. Lastly, it is alarming to note that the lowest scoring indicator was 'resources' – across years and elements, and without exception. Given that resources, or capacity, are essential for interest representation, and meaningful participation, attention must be given to addressing this critical area of good governance, as inclusiveness is not in itself sufficient for ensuring good interest representation. Stakeholders require the capacity (financial, educational, technical, institutional, etc.) to ensure that their participation is meaningful, rather than tokenistic.

## 4. Conclusions

Collaboration between stakeholders in the development of standards is central to ensuring the governance quality of sustainable development mechanisms (Bendell et al., 2011). The researchers conclude that there is an active interest across multi-stakeholder sectors in REDD+ for quality of governance standards applicable to emissions reduction activities and forest management. The results across years and institutional elements demonstrated that while perceptions of inclusiveness were generally high, resources (or capacity) consistently rated as the lowest indicator of governance quality. The survey at the national level of countries active in the REDD+ programme (Nepal, Papua New Guinea) found similar results. The standard setting process revealed a strong concern amongst stakeholders for transparency, inclusiveness, accountability, and resources. These findings have implications for policy makers, donors and investors when making decisions about the sustainable management of forests for emissions reduction activities into the future. In the planning, implementation and evaluation of REDD+, addressing economic issues will be one of the principal challenges. Without improving livelihoods in a sustainable way, Indigenous and local communities may prefer to convert forests to other land uses. Forests are vital to achieving global sustainable development but the challenge of improving the economic contribution of REDD+ activities to the sustainable management of forests remains. While it can be concluded that the overall results of the surveys appear to demonstrate that REDD+ is relatively well governed, it should also be noted that there was a difference in perceptions around the governance quality of some institutional elements of REDD+, notably FIP. Differences in quality between governance indicators and between the REDD+'s institutional sub-components would be addressed by the application of governance standards across the mechanism.

The researchers noted the incipient consistency of survey results at an early stage of the project, and identified a need for increased REDD + governance quality. As a result they commenced a research programme in REDD + target countries, commencing in Nepal, to develop quality-of-governance standards for REDD + in relation to forest-based emissions reduction activities. At the community level, stakeholders were keen to ensure that they shared the benefits resulting from emissions reductions and associated payments, largely in order to help alleviate poverty at the community forest level and ensure durability of sustainable forest management. Further research, at a larger scale, is needed to determine if the results of the longitudinal study are indicative of the wider REDD + stakeholder community as a whole. However, the similarity of results from Nepal and Papua New Guinea appear to show that this may be the case. Consequently, the researchers have now commenced trials of an assessment regime in Nepal, in collaboration with stakeholders, to determine the extent to which the means of verification identified by community forest users exist on the ground. The next stage would be to develop a certification/accreditation programme to provide potential markets with a quality assurance mechanism for the governance quality of REDD + and emissions reductions at scale. The standards development process, assessment regime, and accreditation programme could then be extended beyond the current project scope to include more REDD + countries.

However, going forward, the fate of REDD + as a market-based policy instrument to combat anthropogenic emissions is largely in the hands of the UNFCCC negotiators (IETA, 2014). REDD + governance at the country level now functions on the basis of safeguards, which are a poor substitute for meaningful stakeholder participation in decision-making. The door to improving the governance quality of the initiative was effectively shut at Lima COP. Whether it will be reopened in the wake of COP 21 and the Paris Agreement remains to be seen, as the reference to REDD + in the text is extremely general. Interestingly, the Paris text does refer to the need for “adequate and predictable financial resources, including for results-based payments, as appropriate, for the implementation of policy approaches” (UNFCCC, 2016: 8). This would appear to support the findings of the survey data relating to stakeholder concerns about resources, and the creation of governance verifiers by stakeholders in Nepal relating to benefit sharing. But the extent to which the academic community and other interest parties can now influence policy development in the light of Lima now appears to be limited.

The lack of policy clarity around REDD + governance poses a number of problems from a market perspective. Uncertainty (as demonstrated with the CDM) has previously impacted on carbon markets. So too has the continued pouring of public monies into climate finance through implementing agencies often disconnected from the private sector, thereby suppressing investment by capital markets, such as pension funds (Haigh, 2013: 118–122). Quality of governance standards would provide a consistent approach to addressing stakeholder needs (economic, environmental, and social), and as this research has shown, have a potential to be replicated across REDD + target countries. Without them, there is a danger that REDD + projects will be inconsistent in their governance quality, leading to possibly sub-optimal outcomes. This could act as a disincentive to donors, investors and the market, as well as undermining the problem-solving capacity of REDD + as a tool to combat forest-based emissions.

The emergence of the geo-scientific term Anthropocene to describe the contemporary era as one dominated by human intervention across a range of planetary boundaries has become an accepted part of the discourse. So much so, that it is beginning to frame the thinking of decision-makers (Castree, 2014: 233). In the same way that the Anthropocene has been marked by a new geological layer of plastic debris (Zalasiewicz et al., 2016), ‘stumps don’t lie’ (although they degrade more quickly). The idea that humans are shaping the natural environment has also lent popularity to the related term anthropogenic, which has been ascribed not just to human induced climate change,

but to forest ecosystems as well. It is perhaps no coincidence that both terms have arisen in the context of sustainable development, and its undeniably anthropocentric notion, that the market can provide the solution to environmental degradation. However, the market is only a partial response, requiring standards to control its historical excesses. At present, such standards (following the trend instantiated at the first Rio summit) are largely voluntary. In the absence of consistent methods for evaluating the quality of these standards, opportunities for the exploitation of forests under the guise of sustainability remain. Hence the project documented here, to develop ‘meta-governance’ standards, in collaboration with stakeholders, to avoid such perverse outcomes (unintended, or otherwise).

REDD + lies at the intersection between climate change, forests and the market, and as such it is an interesting case study for investigating the tensions that arise at such points of convergence. This paper has suggested that one of the greatest challenges facing REDD + is how to put in place governance arrangements that meet social, economic and environmental imperatives. On the social level, the paper has identified the views of range of stakeholders at both the international and national levels that the mechanism is relatively inclusive of their interests, and has been consistently so from its developmental phase until now (2016). But stakeholders also highlighted that there is lack of resources to meet their needs, calling into question how meaningful stakeholder participation in the mechanism really is. In addition, the focus on putting safeguards in place, rather than consistent governance standards, further challenges the legitimacy of the measures taken to reduce forest-based emissions. Finally, in the absence of governance standards, the lack of concrete measures to change behaviour and solve the problem of climate change (other than through financial incentives) weakens the case for market-based instruments as a method for ensuring sustainable development in the Anthropocene.

#### Acknowledgements and disclosure statement

The authors would like to acknowledge the generous support of the Institute for Global Environmental Strategies (IGES), the Ministry of Environment Japan (MoE-J) and the International Tropical Timber Organization (ITTO) in providing financial support for the empirical research and various standards setting activities undertaken over the course of the project. Thanks goes also to Transparency International (TI) for allowing publication of background research materials prepared by Dr Cadman as part of TI’s own investigations into UN-REDD and FCPF. Deep gratitude is extended to the forest management agencies, community groups, and all other stakeholders who participated in the online surveys, interviews, workshops, and field consultations. The views expressed are those of the author(s) and do not necessarily reflect the views or policies of any organisation referred to in this paper.

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