

# Demonstrating 'respect' for the UNFCCC REDD+ safeguards: the importance of community-collected information

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#### **Key Points**

- Information collected by forest communities will be helpful, and in some cases critical, for efforts to objectively describe whether the UNFCCC REDD+ safeguards have been 'respected'.
- A lack of forest community involvement in gathering information on safeguards could pose risks to their implementation, to the success of REDD+ activities and incentives, and to the effective implementation of other major international conventions and agreements.
- Information collected by forest communities is important because forest communities are central to the aims and realisation of the REDD+ safeguards, and often well-positioned to make relevant observations within forest lands.
- Community information on a small number of indicators, consolidated at a national scale, can be useful for assessing the effectiveness of all of the safeguards.
- Information gathering by adequately trained communities can be as cost effective and accurate as professional information gathering, allowing decision-makers under budget and capacity constraints to confidently build on existing community-based information systems.
- In order to receive and respond to communitycollected information, REDD+ safeguard information systems will need to incorporate communication channels that communities can access easily.

#### Introduction

The UNFCCC REDD+ safeguards¹ (see Box 1) are a response to the social and environmental risks and additional benefits that UNFCCC<sup>2</sup> parties have recognised could arise from implementing REDD+3, the international mechanism designed to mitigate climate change by conserving, restoring and enhancing forest carbon stocks in tropical forest countries. The REDD+ safeguards (hereafter 'the safeguards') represent a commitment to make sure that the risks are minimised or avoided, and that the benefits are realised. Without full implementation of the safeguards, the risks are potentially high for people, biodiversity and the success of REDD+ as a climate mitigation mechanism, and therefore their full and effective implementation is as important as REDD+ itself. Communicating comprehensively and accurately on their implementation will therefore be as important as monitoring and reporting on forest carbon emissions.

Countries undertaking REDD+ and wishing to receive performance-based payments under the UNFCCC are requested to provide summaries of information on how the safeguards are being 'addressed and respected'.<sup>4</sup> Countries should establish safeguard information systems for providing this information. These requirements present significant challenges to forest countries, which will need to interpret the safeguards, determine what information to collect and how to do so, and gather this information from multiple stakeholder groups (Braña Varela et al. 2014) with limited guidance<sup>5</sup> from the UNFCCC on how to do so, while also responding to the safeguard requirements of their bilateral and contractual<sup>6</sup> agreements (RSWG 2014).

UNFCCC Decision 1/CP.16 Appendix I, paragraph 2

United Nations Framework Convention on Climate Change.

<sup>3</sup> REDD+ stands for Reducing Emissions from Deforestation and Degradation, conservation of forest carbon stocks, enhancement of forest carbon stocks and sustainable forest management

#### Box 1: The UNFCCC REDD+ safeguards<sup>7</sup>

Under the UNFCCC, Parties have agreed that countries undertaking REDD+ activities should promote and support the following REDD+ safeguards, also known as the Cancun safeguards:

- (a) That actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;
- (b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty.
- (c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration the Rights of Indigenous Peoples;
- (d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in [REDD+] actions...;
- (e) That actions are consistent with the conservation of natural forests and biological diversity, ensuring that...[REDD+] actions... are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits.<sup>8</sup>
- (f) Actions to address the risk of reversals;
- (g) Actions to reduce displacement of emissions.

This paper argues that some of these stakeholder groups — specifically indigenous and local communities living in or directly dependent upon forests (hereafter 'forest communities') — can often offer an important source of knowledge and capacity to support information gathering for safeguard information requirements. Indeed, in some cases, their involvement not only in information gathering but also in defining what information needs to be gathered and how — i.e. designing safeguards information systems (RECOFTC 2014) — will be important for protecting their rights, and critical for minimising the risk that REDD+ initiatives,

or the safeguards, could fail. This is because forest communities' choices and experiences are central to the safeguards, because of their physical presence in forest areas (they own and/or manage up to a quarter of forest land which could be affected by REDD+; see RRI and ITTO, 2010), and because of their ability to gather key information in places where other existing monitoring systems cannot do so comprehensively.

In line with other interpretations (e.g. United States 2014; Braña Varela et al. 2014), it is assumed in this paper that addressing and respecting the safeguards implies ensuring both that the necessary governance frameworks are in place (i.e. legislation, policies and institutions), and also that the safeguards are being effectively implemented (i.e. that they are leading to the desired outcomes for people and the environment). The former ('addressing') can be assessed and summarised at the national level using 'input' indicators to measure policies, processes, actions taken or resources deployed. However, assessment of the latter ('respecting') will rely far more on information from sources 'on the ground' within forest areas and communities, and on 'output' or 'outcome' indicators, which can measure the results of actions taken (see PROFOR and FAO 2011, and REDD+ SES 2012).

This paper examines each safeguard in turn to explore the types of information needed to report on its effective implementation, suggesting some guiding questions that can help gather this information. It also describes the kinds of indicators for which communities could gather information in support of national efforts to demonstrate the extent to which the safeguards have been respected. It draws on a variety of sources and views, including existing information gathering frameworks, as well as criticisms of past efforts to gather information on other REDD+ safeguard frameworks such as that used under the Guyana-Norway REDD+ agreement<sup>9</sup>.

Following UNFCCC decisions to date, countries undertaking REDD+ activities will decide individually how to demonstrate that the safeguards have been addressed and respected. The questions and indicators suggested in this paper are intended to support this process and to highlight the value of integrating community information into safeguard summaries and information systems, without pre-supposing how individual countries might interpret the safeguards or which indicators might be chosen for use at the national level.

This paper gives examples of how forest communities are already gathering and reporting information directly

<sup>4</sup> UNFCCC Decision 2/CP.17. These summaries should be submitted by countries throughout the implementation of their REDD+ activities, and access to results-based finance is dependent upon submission of the most recent summary to the UNFCCC (see UNFCCC Decision 9/CP.19 paragraph 4). The UNFCCC guidance does not specify the types of information that should be included in country summaries.

<sup>5</sup> The safeguards rent rollerblades in paris are intentionally broadly worded, to respect national sovereignty and maintain flexibility (see Korwin and Rey 2015). Most parties to the UNFCCC are in favour of further guidance from the UNFCCC on safeguard information systems, while some disagree (Menton et al. 2014).

<sup>6</sup> Such as contractual requirements under the World Bank Forest Carbon Partnership Facility (FCPF), which are legally binding obligations. See Denier et al. (2014) pp 32-33.

## **Box 2. UNFCCC guidance on safeguard** information systems

Under the UNFCCC, in addition to operationalising the safeguards, countries undertaking REDD+ activities are required to establish safeguard information systems (SIS) for providing information on how the Cancun safeguards are addressed and respected<sup>10</sup>. These systems should also<sup>11</sup>:

- provide transparent and consistent information that is accessible by all relevant stakeholders and updated on a regular basis
- be transparent and flexible, to allow for improvements over time
- be country-driven and implemented at the national level
- build upon existing systems, as appropriate

Developing country parties are also 'strongly encouraged' to include, 'where appropriate', the following elements in their safeguards summaries<sup>12</sup>:

- (a) Information on national circumstances relevant to addressing and respecting the safeguards;
- (b) A description of each safeguard in accordance with national circumstances;
- (c) A description of existing systems and processes relevant to addressing and respecting safeguards, including the information systems referred to in decision 12/CP.17, in accordance with national circumstances;
- (d) Information on how each of the safeguards has been addressed and respected, in accordance with national circumstances; build upon existing systems, as appropriate.

relevant to each of the safeguards, and in some cases prompting action in response to this information. The accuracy of this information is often equal to that obtained by professionals, while its cost can be lower (e.g. see Brofeldt et al. 2014; Danielsen et al. 2013; Skutsch (ed) 2010). It is also important to note that, while some of these activities are being undertaken as part of purpose-built monitoring initiatives related to international undertakings such as

REDD+ and FLEGT¹³, or as a management requirement under institutions such as community forestry, in other cases they are self-mandated efforts by forest communities attempting to protect forest resources on the basis of their own values, needs, and conviction. Efforts to establish national safeguard information systems could benefit from supporting and strengthening these kinds of initiatives and the momentum within them, in line with the UNFCCC guidance that safeguard information systems should 'build on existing systems, where appropriate' (see Box 2). This will be particularly relevant to governments working to respond effectively to the UNFCCC requirements with limited budgets and capacity.

Community-based forest monitoring is not without challenges. It may provide patchy coverage due to inconsistencies in where and how it is implemented. Investment may be needed in order to integrate communitybased monitoring initiatives into wider systems. Participants may not always wish to gather or share information that may be relevant to the safeguards but that they view as sensitive or potentially detrimental to their reputation or livelihoods. And different initiatives may rely on diverse motivations and incentives to maintain effective, long-lasting information systems. The authors do not explore these issues in detail in this paper because they do not detract from the need for or benefits of community-based forest monitoring for the REDD+ safeguards, but invite readers to find out more about the challenges through the case studies hosted at the Forest COMPASS project website (www.forestcompass.org).

# Forest community information and the safeguards: analysis and examples

Safeguard (a) That actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements

'National forest programmes' are the policy and institutional frameworks that support sustainable forest management within individual countries (FAO 2015), while 'international conventions and agreements' cover a range of undertakings relating mainly to environmental protection, individual and collective human rights, and governance (see Box 3), to which many UNFCCC parties are also signatories. Many of these relate to or overlap with REDD+ objectives (Boyle and Murphy 2012). For example, the International Tropical Timber Agreement (ITTA) (1985/2006) aims, *inter alia*, to

<sup>7</sup> UNFCCC Decision 1/CP.16 Appendix, paragraph 2

<sup>8</sup> Taking into account the need for sustainable livelihoods of indigenous peoples and local communities and their interdependence on forests in most countries, reflected in the United Nations Declaration on the Rights of Indigenous Peoples, as well as the International Mother Earth Day (UNFCCC Decision 1/CP.16 Appendix, paragraph 2).

<sup>9</sup> See section on transparency and information sharing in Guyana, under Safeguard (B) below.

<sup>10</sup> UNFCCC Decision 1/CP.16 paragraph 71(d).

<sup>11</sup> UNFCCC Decision 12/ CP.17 paragraph 2

## Box 3: International conventions and agreements

A wide range of international conventions and agreements relate to REDD+. These include:

- International Labour Organization Convention Concerning Indigenous and Tribal peoples in Independent Countries (ILO Convention No. 169) (ILO Convention No. 169)
- The Convention on Biological Diversity (CBD)
- The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1973);
- The International Tropical Timber Agreement (ITTA) (1985/2006)
- The United Nations Declaration on the Rights of Indigenous Peoples
- The United Nations Convention against Corruption (UNCAC) (2005)

See Rey et al. (2013) for a comprehensive list.

strengthen the capacity of members to improve forest law enforcement and governance, and address illegal logging and related trade in tropical timber.

Forest communities are central to many of these undertakings, whether through direct references (e.g. to indigenous people's rights in UNDRIP), because they have the potential to be affected (e.g. by actions to protect forest wildlife under CITES), and/or because they are likely to be some of most immediate witnesses to, and will sometimes be participants in, the activities the policies aim to control or promote (e.g. illegal logging under the ITTA). Their observations may therefore be some of the most valuable and timely.

While ensuring consistency in governance arrangements to 'address' safeguard (a) will require policy reviews and coordination among government agencies, ensuring that this safeguard has been 'respected' – i.e. that there is complementarity and consistency *in practice* between REDD+ actions and other laws and policies – will require information on actual outcomes. This is where community-collected information can and will need to play a key role. For example, community information on a REDD+ activity

underway on indigenous peoples' lands without their free, prior and informed consent (FPIC)<sup>14</sup> may reveal operational inconsistencies between REDD+ actions and national and international policies relating to rights, forest use and biodiversity, which a high-level policy review could easily miss. This applies particularly to countries lacking adequate institutional capacity to monitor activities taking place in their forests.

Key questions for assessing the extent to which this safeguard has been respected may therefore include: Is there consistency between REDD+ actions on the ground and the objectives of national forestry programmes and international conventions and agreements? and If not, how can the conflicts or obstacles be resolved? Useful insights on these issues can be provided by community-collected information on indicators such as land use boundaries, drivers of deforestation (e.g. land use activities and location and frequency of logging activities) and policy effectiveness (e.g. local stakeholders' understanding of policies and use of incentives or benefits linked to natural resource conservation). These could help reveal conflicts – and synergies – between land management agendas and incentive schemes.

#### **Examples**

Between March and October 2014, people from local communities living in the Chico Mendes Extractive Reserve in Acre, Brazil, monitored indicators across three main thematic groups relevant to national and international forest-related policies: forest governance and its effectiveness; livelihoods and land use; and wellbeing and social development. The results indicated that local uptake of the Bolsa Verde payment for ecosystem services (PES) scheme may be compromised because of the high cost to community members of having to travel long distances to collect payments (GCP 2014a). This kind of information can reveal barriers to policy implementation, and opportunities to establish solutions.

#### Safeguard (b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty

Forest governance consists of legal, institutional and regulatory frameworks and processes related to forests, as well as the resulting stakeholder interactions and outcomes (PROFOR and FAO 2011). Its effectiveness and transparency therefore depend as much on public participation, access

<sup>12</sup> UNFCCC Draft decision -/CP.21 paragraph 5

<sup>13</sup> The European Union's Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan (2003), which aims to 'reduce illegal logging by strengthening sustainable and legal forest management, improving governance and promoting trade in legally produced timber'. See www.euflegt.efi.int.

<sup>14</sup> Free, prior and informed consent (FPIC) refers to 'the collective right of indigenous peoples to participate in decision making and to give or withhold their consent to, or withhold it from, activities affecting their lands, territories, resources and rights' (GCP 2014b).

to justice and information, accountability, and measures to prevent or address corruption, as on the governance frameworks themselves (Rey et al. 2013).

To support countries' development of their frameworks for assessing and monitoring the effectiveness of forest governance, PROFOR and FAO (2011) identified a framework of components. These include: the comprehensiveness and accuracy of documentation and accessibility of information related to forest tenure and rights; adequacy of measures and mechanisms to ensure the tenure security of forest owners and rights holders; stakeholder participation, capacity and action; transparency and accountability; and existence and effectiveness of channels for reporting corruption, and whistle-blower protection. In developing their own assessment frameworks, it is possible that countries will incorporate some or all of these components. Given adequate support, many forest communities could be well-placed to gather information related to issues such as these - and indeed may need to in some circumstances, in order to overcome mistrust.

Information from stakeholders can be crucial for identifying gaps in governance frameworks. In 2010 and 2011, two separate reports on Guyana's performance against the REDD+ related indicators used under the country's agreement with Norway concluded that the government relied excessively on the internet for transparency and information sharing, including with Amerindian communities, and that key information was not always uploaded (Global Witness et al. 2011; Donovan et al. 2010). One report highlighted that 'information that is publicly available on the internet is not actually publicly available to communities in the interior who have no access to internet' (Global Witness et al. 2011).

Addressing and respecting this safeguard will therefore not only require having national forest governance structures in place, but also finding out if they really are transparent and effective. Community based monitoring might seek to answer questions such as: Are forest communities aware of, and in agreement with, official land-use boundaries associated with REDD+ activities? Do communities agree with these boundaries and believe that they are being respected? Are they aware of, and able to access, information on relevant laws, institutions and grievance redress mechanisms? Are they actively accessing these systems and information? This might involve input from forest communities on local-level indicators such as land-use boundaries; awareness (and perceived effectiveness) of particular laws and policies; community information needs and their access to, understanding of and views on available information; and use or uptake of policies and related tools and benefits.

#### Examples

In Cameroon, Bantu and Baka groups have been involved in documenting forest land and resource rights; territory mapping and resource monitoring to support forest governance through resource monitoring; and government accountability, in connection with the country's FLEGT process (Lewis and Nkuintchua 2012). Dozens of maps generated by the communities showed overlap between logging activities and community lands. At least one map disproved the claim of a logging company that their concession was not used by indigenous people, and other maps were taken up by local forestry authorities. In many cases, there was no response to the maps from the authorities, reflecting the need to strengthen other aspects of the governance system. Nonetheless, project members (which included the company responsible for timber traceability in Cameroon) judged the monitoring of logging activities by forest community members to be 'a key part of achieving better forest governance' in the country.

Civil society monitoring in Cameroon is considered essential to ensure effective monitoring of forest governance, and communities have been amongst a group of trained monitors whose observations of illegal activities have led to a small number of permits being cancelled (Brack and Léger 2013).

The community-based forest monitoring initiative in Chico Mendes Extractive Reserve, mentioned under safeguard (a), also included indicators such as access to and knowledge of public policies, and perceived effectiveness of environmental policies.

Safeguard (c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples

The recognition and definition of 'indigenous peoples' varies between countries, but their identification is an essential step in providing information on safeguard (c). 'Indigenous peoples' are defined under the International Labor Organization Convention Concerning Indigenous and Tribal peoples in Independent Countries (ILO Convention No. 169). Key characteristics cited include presence in a particular geographical location before invasion or colonisation, historical occupation by their ancestors, and/or their possession of unique institutions, or religious or spiritual values, as well as collective self-identification as indigenous people, which has been identified as the principal criterion (ILO 1989).

Whether the knowledge of forest communities has been respected cannot easily be judged by those without a good understanding of what that knowledge is and how it should be respected; the best authorities on the subject being the indigenous peoples and local communities themselves. Two examples where this is the case are knowledge of traditional medicine and herbs and the knowledge and practice of traditional forest livelihoods.

Internationally, the rights of indigenous peoples and forest communities include the right to non-discrimination, self-determination and collective land tenure, as well as cultural and procedural rights (Rey et al. 2012) such as the right of indigenous peoples to FPIC. FPIC intrinsically demands an internal process of deliberation and decision-making by the community, so judgements on whether it has been carried out must rely substantially on their views.

Assessing whether safeguard (c) has been addressed and respected therefore requires not only suitable governance structures (building on existing structures wherever useful and possible to avoid overlap or excessive burdens), but also a significant understanding of the culture, institutions and beliefs of forest communities, and information gathered by the communities themselves. An important overarching question in assessing this safeguard would be: *Do indigenous peoples and local communities believe that their knowledge and rights are being respected?* 

Communities could assess the degree to which safeguard (c) has been respected by looking at indicators including: communities' knowledge of their rights; views on whether their rights are being respected; knowledge of land ownership boundaries; location of land incursions or extraction activities; views on whether land use boundaries are correct and have been respected – as also suggested for safeguard (b); and views on whether their knowledge has been respected.

#### Examples

Given the importance of land tenure rights to safeguard (c), land and resource use mapping and monitoring can provide useful information for assessing whether it has been respected – similar to some aspects of safeguard (b).

In the Brazilian Amazonia, Paiter Suruí indigenous people have gathered and uploaded GPS locations of forest encroachments (Butler 2009). In Cameroon, indigenous people in the Tinto Community have used participatory mobile GIS to create maps (some of which were better than those of the Forestry Ministry) and to raise challenges over alienation of their land (McCall and Minang 2005, and McCall and Dunn 2012).

In the Ruai SMS initiative in Kalimantan, Indonesia, indigenous and remote communities are monitoring and reporting on issues related to respect for their rights, such as deforestation drivers, land use change (i.e. oil palm concession boundaries), and presence/absence of police intimidation. One indicator that features frequently in the reports is incursion into customary land by commercial interests. Reports are transmitted to a local news station and to law enforcers by mobile phone text messaging (Forest COMPASS 2014a).

Safeguard (d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in [REDD+] actions...

In order to assess stakeholder participation, it will be necessary to understand how, and to what extent, the opportunity to participate has been offered. This involves knowing not only what policy tools, communication platforms and grievance mechanisms are provided, but also whether stakeholders are aware of and able to access and use them. Where FPIC is required, it will also be necessary to understand whether FPIC principles have been followed, which communities must largely judge for themselves. In order to do so, however, they need to thoroughly understand the principles of FPIC, including their right to define the process and to withdraw consent (Stevens et al 2014).

From the perspective of governments and REDD+ financiers and investors, higher risks will associated with REDD+ activities if participation has not been adequate before and throughout the project.

Showing whether safeguard (d) is being addressed and respected will involve answering questions such as: Which forest community stakeholders have been consulted, and how? Do communities have access to relevant information and do they understand it? Do they think their process and timeline for FPIC have been respected, and have they given their FPIC? Do they have an effective route by which to raise questions and concerns? What role (if any) do they envision themselves playing in the REDD+ activities? Do they wish to continue with the activity, or to adjust it?

While governments will often take the lead in designing and implementing measures to allow and promote participation (to 'address' this safeguard), and will be able to assess some aspects of their implementation and effectiveness, answering the questions above will also rely to a large extent on information from communities. Beyond simply gathering this information, community involvement in designing the mechanisms of participation, and what information to gather, can help ensure that both the mechanisms and the information are meaningful and effective.

#### Examples

In Kalimantan, Indonesia, where agricultural expansion is causing conflict amongst local populations, community monitors involved in the Ruai SMS initiative collected information on presence/absence of liaison between oil palm companies and stakeholders impacted by new concessions (Forest COMPASS 2014a).

The Chico Mendes Extractive Reserve project in Acre, described under safeguard (a), included indicators relevant to participation, such as frequency of attendance, participation, and perceptions at meetings of community based groups, associations and management councils, which would be relevant for monitoring the application of FPIC (GCP 2014a). The community monitors also collected information on access to and understanding of policies and plans related to Acre's subnational REDD+ programme (GCP 2014a).

Communities in Guinea Bissau, India, Mali, Nepal, New Guinea, Senegal and Tanzania collected information on a range of relevant indicators through the Kyoto: Think Global, Act Local (K:TGAL) project, between 2003 and 2009 (Skutsch 2010). The project found that, despite limited training, forest carbon measurements were as accurate as professional monitoring in the sites where this was assessed. Where accuracy was lower, this was due to problems such as misunderstandings of GPS equipment, which could be solved through external technical support and/or further training. A key finding was that the cost of this community monitoring was, on the whole, at least 50% lower than that of professional monitoring. These findings support the argument for community participation in information collection.

Safeguard (e) That actions are consistent with the conservation of natural forests and biological diversity, ensuring that...[REDD+] actions... are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits

National biodiversity surveys, where they exist, may provide information of relevance for safeguard (e). For some communities who live in or are dependent upon forests, their presence in the area, and their understanding of forest biodiversity derived from day-to-day dependence on it, can mean they are well positioned to collect and provide information that can be used to monitor biodiversity trends in response to REDD+ interventions and fill gaps in existing national data sets. They may also observe activities that contribute to conversion of natural forests.

Danielsen et al. (2014b) analysed the suitability of expert monitoring, community monitoring and collaborative monitoring for indicators relevant to monitoring for the Convention on Biological Diversity (CBD) and concluded that 30% of these could be monitored autonomously by local community members and 75% collaboratively by communities and scientists. The REDD+ Social and Environmental Standards also promote the involvement of indigenous peoples and local communities in assessing the predicted and actual environmental impacts of REDD+ programmes (REDD+ SES 2012).

Relevant questions that could be asked to assess the extent to which safeguard (e) is being respected include: Are species of interest to the community being influenced positively or negatively by REDD+ activities? Are natural forests being converted? How might these changes, and the REDD+ activities themselves, affect the wellbeing of community members? What is the cause of the impact? and Are actions to address impacts working?

Indicators could therefore include those which identify or measure activities causing harmful impacts to biodiversity (such as poaching), the status of wildlife or plant populations, benefits to people (such as the availability of a particular species that is often harvested for food), and the effectiveness of management actions such as enforcement patrols.<sup>15</sup>

#### Examples

In Nicaragua, the Miskito and Mayangna communities assessed trends in biodiversity at a lower cost than, and with equal accuracy to, professional assessments (Danielsen et al. 2014a).

In Brazil, community monitors for the Suruí Forest Carbon Project gather data on birds and mammals using indicators such as species, location and number of individuals (Forest COMPASS, 2014b). This is done through surveys along line transects, to record data (using digital technology) on animal sightings and also indirect traces such as prints, faeces and carcasses.

In the Community Monitoring, Reporting and Verification (CMRV) Project in North Rupununi, Guyana, between 2011 and 2014, indigenous communities monitored a large number of indicators relating to forests and biodiversity, including forest type, perceived scarcity of game and non-timber forest products over time, species preference and demand, number of households extracting game, and effectiveness of rules and their enforcement (GCP 2014b).

Non-literate hunter-gatherers in the rainforests of Congo are using Android smartphones to collect data on the natural resources that they value most; the activities of commercial hunters and loggers; and instances of harassment by 'eco-guards' who enforce hunting regulations. This is gradually bringing some positive change. For example, maps have proved more effective for communicating the hunter-gatherers' needs to a logging company than previous meetings and workshops. As a result, every resource that they wished to protect has been removed from the cutting schedule, including locally valuable caterpillar trees and sites of spiritual importance (Lewis 2012 and Vitos et al. 2013).

## Safeguard (f) Actions to address the risk of reversals

Forest-related greenhouse gas emission reductions could be reversed due to a range of factors, some of which are natural (e.g. drought or fire) and some of which relate to human activity (e.g. increasing prices for forest risk commodities, such as timber and soy, ineffective forest governance, or changes in government) (Rey et al. 2013).

Whatever their cause, reversals will consist of forest loss and degradation in forest areas in which REDD+ activities are already underway and emission reductions have already taken place, and therefore will be identifiable in much the same way as any form of forest loss and degradation would be. Observations of changes will need to be made over the long term and in a sustainable way. This supports an argument for observation by local people, including forest communities for land that they own or manage.

In addition to describing the actions intended to address the risk of reversals, useful questions for assessing whether this safeguard has been 'respected' might include: Is a risk emerging which could reverse emissions reductions? Is deforestation or forest degradation occurring in spite of REDD+ interventions? and Are actions to address reversals effective?

Useful indicators might include those used to monitor environmental change such as drought; drivers of deforestation; stakeholders' understanding of the REDD+ activity; and frequency of law enforcement activities.

#### **Examples**

The communities involved in most of the initiatives described in previous sections of this paper have also gathered information on indicators relevant to this safeguard. These include information on tree measurements, drivers of forest change, and perceptions of change in water resources in the CMRV project in Guyana; the locations of

illegal incursions and forest resource extraction in Indonesia and in Cameroon; and the locations of activities contributing to forest degradation, and areas potentially affected by hazards such as fire and flooding, in the K:TGAL project (in various countries).

## Safeguard (g) Actions to reduce displacement of emissions

Forest emissions may be displaced to other nearby areas, or across large distances, including internationally. The causes may be complex and involve local, national or international factors, including global market forces and differences in national legislation and enforcement, which cause deforestation drivers to shift from one location to another (Rey et al. 2013).

Although some local and global displacement may be predictable, this will often not be the case. People living in or near forests may be the first to notice activities (associated with drivers of deforestation, for example) that precede or reveal displacement of forest emissions to a new location, even if the observers are not aware that the new emissions are the result of displacement. This information could be important for complementing national and international information on displacement.

Useful indicators could include drivers of deforestation, land use activities and land use boundaries in response to REDD+, stakeholders' understanding of relevant law and policy, and locations and frequency of incursions.

#### **Examples**

The examples provided under safeguard (f) above illustrate how communities are gathering and reporting information that is equally relevant for monitoring indicators of 'respect' for safeguard (g).

#### Conclusions and recommendations

As shown in the examples above, community-collected information can be relevant, helpful, and sometimes critically important, for assessing the extent to which the UNFCCC REDD+ safeguards have been 'respected' (the outcomes). This can complement information from other sources, on policies, processes, and institutions, which reveal whether and to what extent the safeguards have been 'addressed' (the efforts). Convincing information on both aspects will be needed in order for REDD+ activities to attain credibility amongst local populations, as well as public and private investors and other stakeholders. Also critical for establishing credibility among forest communities is their active engagement in designing the systems for gathering and sharing information.

Furthermore, as a result of the connections and overlap between safeguards, community-collected information on a small set of indicators can be useful for assessing multiple safeguards. These include indicators on deforestation drivers, natural resources, land boundaries, and stakeholder understanding of and access to policies and information. Between them, these indicators can provide valuable insights on the effectiveness of all seven safeguards.

Although a standard methodology for assessing the cost effectiveness of community-collected information has yet to emerge, studies of initiatives around the world suggest that community information is often as cost effective as that collected by professionals – and sometimes more cost effective. In addition, communities with limited training have been able to collect information relevant to the safeguards which is as accurate as professionally gathered information. In some cases where community information has been less accurate, this has been due to obstacles such as misunderstanding of methodologies, which can be overcome.

Communication channels are an additional consideration for incorporating community information and knowledge into safeguards summaries and information systems. The examples in this paper show that some communities are already using text-messaging and digital smartphone technology to gather and report information. Others with valuable information to provide may not have access to these tools, or not be trained in their use. Therefore, just as with the provision of information to forest communities, the receipt of information from communities will be facilitated if communications channels are made available which are appropriate for them to use (including more traditional means such as telephone communication and site visits to communities, rather than only methods that require digital technology or internet access).

Finally, for forest communities to feel empowered to gather and communicate their information, it is important that they feel safe in doing so. Therefore, in line with safeguards (a), (b), (c) and (d), it will be important that community information gathering and reporting for both REDD+ and the safeguards are supported through transparent and effective governance frameworks and law enforcement, to protect the rights, and the ability to participate<sup>16</sup>, of the people who are most present in forest lands and therefore often most able to observe them.

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