

Analysing REDD+

Challenges and choices

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Multiple levels and multiple challenges for REDD+

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- REDD+ is a multilevel endeavour that must ensure that global demands, national and subnational structures, local people's needs and aspirations are all linked in efforts to reduce emissions from deforestation and forest degradation. If these interconnections are disregarded, REDD+ could fail.
- Enhancing and harmonising information flows between local and national levels are essential for accountable measurement, reporting and verification and emissions leakage control. Sound information flows across the levels can also enhance the negotiation power of disadvantaged groups and ensure a more effective, efficient and equitable REDD+.
- To reduce the risk of conflict, REDD+ multilevel governance systems must match incentives and interests with transparent institutions.

6.1 Introduction

Achieving the objective of reducing emissions from deforestation and degradation (REDD+) is inherently a multilevel puzzle. Local people face global demands for climate change mitigation that must be effected through existing and emerging national and subnational institutions and structures.

REDD+ requires an integrated approach involving both international and local governance levels, with challenges every step of the way. External organisations and structures are also needed to ensure independent and credible reporting and verification and to guarantee accountability.

Initially, REDD+ emphasised a national approach since it can help to manage emissions leakage, encourage permanence and provide reliable measurement, reporting and verification (MRV) (Phelps *et al.* 2010b). But national governments struggle with multilevel challenges and have faced enforcement problems in the land use sector for decades (Corbera and Schroeder 2011).

There have been various theoretical reflections about multilevel governance and REDD+ (Armitage 2008; Skutsch and Van Laake 2008; Forsyth 2009). This chapter contributes to the debate by moving beyond theory to provide examples of how multilevel governance mechanisms are used to respond to challenges in REDD+ core elements in different countries as well as identifying the main obstacles and opportunities in current REDD+ realities.

Larson and Petkova (2011) define governance as follows: “Governance refers to *who makes decisions* and *how decisions are made*, from national to local scales, including formal and informal institutions and rules, power relations and practices of decision making.” In this chapter we apply Forsyth’s (2009) broad definition for multilevel governance (MLG) as the implementation of public policies across diverse spatial scales and by actors with dissimilar influence and values.

Currently, REDD+ progress is fragmented between and within international, national and subnational governance levels, and *mechanisms* for multilevel governance provide specific strategies for better integration. Pahl-Wostl (2009) considers three processes that enable this integration. First, actors from one level can participate in processes at another level. Second, institutions created at one level can influence processes or institutions at other levels. Third, knowledge produced at one level can influence processes at other levels.

To go further, based on the 4Is framework¹ presented in Chapter 2 of this volume, governance systems in REDD+ must: i) ensure the match of *institutions and incentives across the levels* involved in REDD+; ii) ensure the flow of *information* required to implement REDD+ (including local information); and iii) enable the negotiation of actors with different *interests* across levels.

This chapter argues for the need to identify and understand the multilevel governance mechanisms that are being implemented within REDD+ and the benefits and risks associated with a lack of multilevel governance. It points

1 The 4th I refers to ‘Ideas’ that are not explicitly considered here.

out that policy makers, negotiators, state agencies and nonstate actors, project proponents and local organisations need to understand how multilevel governance can help REDD+ to be more effective, efficient and equitable and how to strengthen governance mechanisms in existing REDD+ policies and programmes. There are encouraging examples showing that steps are being taken towards vertical integration. While multilevel governance and related issues have been debated in the conservation and development literature, as our preliminary results will show, there are still challenges in integrating multilevel thinking and action into the REDD+ policy process.

Our analysis considers the multilevel dimensions of REDD+ core elements. To support it, we provide anecdotal evidence of challenges and opportunities through a focus on measurement, reporting and verification (MRV) and emissions leakage in three countries involved in CIFOR's Global Comparative Study on REDD+ (see Appendix): Brazil, Vietnam and Indonesia. We focus on the multilevel nature of these elements within the three countries and not between international and national levels.

6.2 Framework: Dimensions of multilevel governance

Angelsen *et al.* (2009) and Kanninen *et al.* (2010) identified a number of key issues in REDD+ implementation, including the challenges of MRV system implementation, leakage control, permanence, financial mechanisms and benefit sharing as well as the participation and rights of indigenous people and local communities. Most of these elements have explicit multilevel dimensions and, if disregarded, pose risks for REDD+. In Table 6.1, we give examples of multilevel dimensions of REDD+ issues and risk factors if these dimensions are taken into consideration.

In the following sections, we will focus on two key issues: MRV and leakage control. Many of the other issues listed in Table 6.1 are covered in separate chapters of the book, e.g. benefit sharing (8), tenure (9), and reference levels (16). In this chapter we will present existing multilevel governance mechanisms, existing REDD+ responses and examples from case studies in Brazil, Vietnam and Indonesia. Finally, we highlight challenges related to the 4Is.

6.3 Multilevel governance and REDD+ response: Preliminary evidence

REDD+ includes various multilevel governance challenges as seen in Table 6.1. Most of these challenges relate to connecting actions at the local and subnational and national levels to ensure the flow and consistency of information and the management of interests across levels. Evidence from

Table 6.1 Core elements in REDD+ and their multilevel dimensions

Core elements in REDD+	Multilevel dimension	Risk if multilevel dimension disregarded
Measuring Reporting and Verification (MRV)	<ul style="list-style-type: none"> Flow of information and verification across levels Integration of spatial and field-based data Technical capacity to use information across levels Overlapping jurisdictional power over land use data by national and subnational agencies Aggregation and standardisation of data across levels 	<ul style="list-style-type: none"> Potential conflict between subnational and national agencies on responsibility for land cover data Datasets of differing quantity and quality and based on different methods, making aggregation difficult
Reference levels (RLs)	<ul style="list-style-type: none"> Various sectors, markets and policies drive deforestation in different ways within the same country Variation in methods to establish RLs for same area 	<ul style="list-style-type: none"> Inconsistency between subnational and national RLs Lack of ownership among subnational actors if local context and land use drivers not taken into account at national level Poor accuracy of RL if regional RLs are not modified based on local drivers and context
Leakage	<ul style="list-style-type: none"> Leakage management tasks can be assigned at the subnational level; national-level carbon monitoring systems must assign liability for leakage across subnational boundaries Guidelines for subnational governments to support and negotiate settlement of leakage-related disputes with other subnational governments 	<ul style="list-style-type: none"> Risk if no legitimate assignment of liability to subnational governments Risk of deforestation and degradation shifts to areas that have lower capacity to monitor emissions and enforce REDD+ policies
Permanence	<ul style="list-style-type: none"> Varying interests at different levels operate at different time horizons, creating difficulties in achieving permanent emissions reductions Establishment of national/international mechanisms to settle disputes among different entities in assigning liability over emissions in the future Establishment of insurance systems that account for variable subnational forest conditions/trends to help provide certainty where risk of emissions exists 	<ul style="list-style-type: none"> Different life spans (project cycles, election cycles, sustainability needs) can lead to inconsistent decision making over time Risk of distorted efforts for emissions reductions when political and commodity market conditions change Doubtful additionality when claims for credits are based on emissions reductions due to exogenous factors

<p>Benefit sharing and financial mechanisms</p>	<ul style="list-style-type: none"> • Benefit sharing systems are often national but affect local rights (colonial /post colonial tenure regimes, customary rights, local practices, see tenure) • Distribution of financial resources and technical assistance across the levels to support readiness and ongoing activities • Decisions over performance and release of funds across levels 	<ul style="list-style-type: none"> • Risk of elite capture because of unequal power relations between donor and beneficiary across levels and scales • Risk of corruption (See Box 6.1)
<p>Participation and rights of indigenous people and local communities</p>	<ul style="list-style-type: none"> • Rights of local communities to participate • Flow of interests and information from local to global level • Indicators of participation must recognise possibility of elite capture at all levels. • Decisions at national level have local consequences 	<ul style="list-style-type: none"> • Risk of elite capture across levels • Risk of missing learning opportunities from past failures/successes as claims of benefits to communities and real emission reductions made at higher levels, despite lack of/contrary evidence in the field
<p>Co-benefits (poverty alleviation, biodiversity conservation)</p>	<ul style="list-style-type: none"> • Interest in co-benefits vs. emission reductions differs across levels; emissions reduction is main concern at the international level but poverty alleviation is main concern at subnational/local level. National levels may try to balance both. 	<ul style="list-style-type: none"> • Insufficient attention to differing interests could cause disengagement of subnational/local actors, who are crucial in implementation success
<p>Tenure</p>	<ul style="list-style-type: none"> • Unclear land tenure systems are further complicated by REDD+, which operates under additional dimensions (carbon rights, which are still undefined in most countries) • Rights and responsibilities for REDD+ among land rights holders (ownership and use rights) at different levels are generally unclear and new legal frameworks under REDD+ may lead to usurpation of traditional rights 	<ul style="list-style-type: none"> • Lack of clarity on rights to carbon and land create injustice across levels. • Risks of insecurity of land claims and elite capture due to legal pluralism • If people question their ownership over REDD+ benefits, their incentive to reduce emissions will be diminished

Box 6.1 Risks of corruption in REDD+: Lessons from Indonesia

Ahmad Dermawan

The REDD+ readiness phase in Indonesia already involves large and growing public funding as well as private investment. It also involves complex interactions among actors from the global to local levels. The successful use of these funds for policy reform and reducing carbon emissions will require cooperation among agencies. However, the situation is still far from ideal.

One of the challenges is the poorly defined boundaries of areas under state forest. Licensing regulations require applicants for any concessions, including REDD+ project concessions, to meet certain criteria and ascertain that the area is free from any existing rights. Yet there are challenges to meet these criteria. For example, although timber plantation and ecosystem restoration permits should be issued only for degraded forests and must be free from competing claims, there are still applications for land either with good forest conditions or which have other claims on them. This could allow REDD+ concession holders to deforest before the accounting period begins. Also, since subnational governments have the authority to issue permits for plantations and mining, unclear forest boundaries would provide opportunities for them to issue permits within state forests.

Another challenge is the reconciliation of timber production and tax reports to ensure that forest concessions pay their dues. Actors from district to central government levels are involved in reconciling timber production and tax payment reports with strict timelines. Yet the Supreme Audit Agency found that reconciliation is not always carried out on a regular basis. As a result, the Supreme Audit Agency found discrepancies between the amount of tax actually received by the government, and the amount it should receive. If replicated under the REDD+, it will undermine accurate credit accounting and foster corruption.

Corruption and fraud could also affect the distribution of revenues at different levels of government. Past experience shows that there have been delays in disbursing and spending shared revenues from forestry across government levels. Under the existing fiscal balancing law in Indonesia, it is not possible to share money directly across government levels and communities. Depending on how REDD+ revenues are treated in the fiscal system, the approval of future REDD+ revenues levels and the allocation of these revenues will involve much negotiation between districts, provinces and central agencies, therefore increasing transaction costs and opening the door to corruption and bribes.

After each level of government receives its share of forest revenues, past experience shows that poor financial management capacity, elites who act outside the rule of law without being penalised and the absence of accountability mechanisms have led to corruption and misuse of forest funds. This could create significant risks for corruption in climate finance in Indonesia. Failing to anticipate these risks could compromise the ability of REDD+ to meet its emission reduction and revenue targets.

Source: Dermawan *et al.* (2011)

Brazil, Vietnam and Indonesia indicates the multilevel needs and mechanisms that must be addressed to achieve key REDD+ objectives (see Table 6.2).

Measurement, Reporting and Verification (MRV) is a system for providing quantitative estimates of greenhouse gas fluxes (emissions reductions and removals). The primary focus is on monitoring changes in forest carbon stocks and/or flows, reporting those changes in a transparent and timely manner and verifying those estimates through an independent third party (Herold and Skutsch 2009). MRV faces challenges in integrating different types of information across levels (global monitoring systems, establishment of national MRV systems and MRV techniques used by subnational REDD+ projects).

Leakage occurs when interventions to reduce emission on one area (subnational or national) lead to higher emissions in another area (see Wunder 2008). If leakage is not accounted for, reported emission reductions will be overestimated.² Leakage within national boundaries can be reported under a national carbon accounting system but may suggest the need for financial compensation between the subnational leakage source (where emission reductions occur) and the sink (where emissions are displaced).

6.4 MRV

Most countries still lack national REDD+ frameworks and policies, although various REDD+ pilot projects have been initiated and subnational decisions have been made on REDD+ strategies. As a result, many subnational project proponents are setting reference levels for their project sites and developing their own MRV systems. Links between levels are essential to determine how emissions reductions from these subnational initiatives will be accounted for at the national level. Furthermore, external organisations are needed to ensure independent and credible reporting and verification, and to ensure accountability. We elaborate on each of these challenges below.

6.4.1 Challenge: The lack of framework

In Brazil, interactions between government agencies and civil society at multiple levels have influenced the development of REDD+, including through proposals for setting reference levels and MRV at the national level. Brazil's National Institute for Space Research is well poised to measure, report and verify emissions from deforestation and degradation in the

² The term 'leakage' refers to 'negative leakage', i.e. when reductions in emissions in one area lead to increased emissions in another. This is only for simplification as we acknowledge that 'positive leakage' (i.e. reductions in emissions in one area lead to *reduced* emissions in another) could also happen.

Table 6.2 Multilevel governance mechanisms, REDD+ responses and case study examples

Core issue in REDD+	Multilevel governance mechanisms	REDD+ response	Preliminary evidence from GCS	Potential options
MRV	<ul style="list-style-type: none"> Capable, connected bodies at all levels that have explicit mandate, power and budget to collect and share information from various sectors to estimate carbon emissions from land use change Different forms of information (satellite imagery, GIS, field data, local knowledge etc.) 	<ul style="list-style-type: none"> National carbon accounting systems MRV capacity-building at national and subnational levels Participatory MRV Projects and governmental agencies outsource MRV services as needed REDD project registry Development of MRV guidelines for REDD+ projects 	<p>Brazil Advanced techniques used; project-level MRV systems in place undergoing third party verification; national framework still needed</p> <p>Vietnam Data are scattered and fragmented; national MRV framework established but still needs to be localised</p> <p>Indonesia Efforts to reconcile spatial data on land cover, concession borders and administrative boundaries</p>	<ul style="list-style-type: none"> Simplify international verification standards and methods to be more attainable by subnational initiatives Establish legislation on reporting responsibilities to centralise data under national monitoring agencies Establish uniform regulations on the rights, responsibilities and procedures for MRV across subnational governments Establish funds and transparent mechanism for allocating resources to support subnational MRV
Leakage	<ul style="list-style-type: none"> Vertical and sectoral coordination between local/cross-province/cross-national levels to avoid leakage, which can occur with short or long time lags, and come from different sectors Policies to address the mix of multiple spatial, temporal and sectoral issues Broader areas for REDD+ 	<ul style="list-style-type: none"> National carbon accounting systems Domestic discussion of trade/border-based policies to avoid leakage from/to other countries Development of leakage monitoring guidelines at the project level Studies on trade-based carbon balances across countries Improved regional trade and security dialogues 	<p>Brazil Promising subnational level experience in creating broader REDD+ areas; experience in addressing potential leakage across international borders</p> <p>Vietnam Weak coordination among relevant agencies; political relationship among Laos, Cambodia and Vietnam</p> <p>Indonesia Regional and local political games affecting subnational leakage</p>	<ul style="list-style-type: none"> Mandate a national emissions monitoring body Clarify the system for distributing REDD+ benefits and responsibilities across levels Establish legal procedures for settling disputes over leakage across subnational boundaries Create regional dialogues and regional agreements among neighbouring countries

Amazon through the use of state of the art remote sensing and GIS. Several REDD+ project proponents in Brazil have drawn on these national data and regional modelling efforts when establishing reference emissions levels for their project sites based on historical rates of deforestation. Proponents plan to use advanced remote sensing techniques, including airborne LiDAR data (Asner *et al.* 2010) and new algorithms for detecting forest fires (Alencar *et al.* 2011) to monitor deforestation and degradation. That said, there is still much uncertainty that must be addressed in establishing MRV systems in Brazil. Carbon emissions from degradation should be incorporated in baseline-setting, monitoring conducted on an annual basis, and remotely-sensed data integrated with robust field measurements (Souza Jr., personal communication, 9 March 2012. See also Chapter 15 concerning uncertainty about emissions factors). Brazil can claim at least two examples of local level integration in MRV systems of REDD+ projects where community-based monitoring is linked to spatial analyses. Despite these advances, given Brazil's large size, isolated subnational REDD+ projects will have little effect on reducing emissions if they are not linked to a broader national framework. In addition, the complexity of international verification standards and methods for measuring unplanned deforestation could be simplified to allow for greater accessibility by REDD+ project proponents, especially prior to finalisation of the jurisdictional and nested REDD+ approach by the Verified Carbon Standard (VCS) and national MRV frameworks.

6.4.2 Challenge: Conflict or lack of interest

In Vietnam, conflict of interests and the various land classifications used by different ministries, and even within ministries, increase the challenge of obtaining accurate information and data on forestry lands and forestry resources. Data are scattered and fragmented across different departments and units and are neither shared nor available to the public. Numerous donors have tried to assist the government to develop and improve the current MRV system. However, these efforts have been thwarted by the fact that internal stakeholders often do not share data and resources with each other, resulting in overlapping and duplicated actions. It is worth noting that current MRV initiatives fail to address the social impact assessment (SIA), as the relevant ministries for SIA are absent from the discussion.

In Vietnam, there are problems in arranging additional and independent bodies for MRV because of high transaction costs, conflicts with existing government policy (e.g. with regard to national security) disagreement between central and local authorities and among donors and lack of support from local agencies. The local governments challenge the central government and donors on the practicality and realism of these independent bodies and call for a more realistic and cost effective approach. If the potential for payment is small,

local governments may prefer to use existing mechanism and institutional arrangement with additional functions.

While participatory MRV remains a controversial issue in Vietnam, many projects have piloted participatory carbon monitoring. The World Agroforestry Center conducted the most significant test, in collaboration with national partners in Bac Kan, Thai Nguyen and Thua Thien Hue province. The new method, known as RaCSA (rapid carbon stock appraisal), was tested for its potential to help communities become involved in reporting and monitoring payments for ecosystem services (PES) contracts (Kurniatun *et al.* 2001), to explore local knowledge and investigate activities that can improve local livelihoods (Van Noordwijk 2007). Experience with this method shows that RaCSA can indeed help local people to actively participate in MRV. These lessons learned from this pilot study could potentially benefit the discussion and design of MRV system in Vietnam. However, the findings have not been widely shared among stakeholders nor fed into current policy debates, once again highlighting the disconnect between project-level activities and the national REDD+ programme.

6.4.3 Opportunity: Voluntary working groups

Indonesia provides an interesting example of an attempt to improve institutional linkages. *Ad hoc* REDD+ working groups in Central Kalimantan, East Kalimantan and Aceh, together with the national REDD+ task force, are helping to improve stakeholder participation and dialogue between ministries, private sector, civil society and academia. The working groups are temporary measure to address the lack of institutional links between sectors, and – at least in Indonesia – are a familiar mechanism for addressing emerging issues. The immediate goal is to improve dialogue, build informal networks, form a unified vision of REDD+ and create a policy and implementation space for REDD+ in relevant institutions (see Box 6.2).

6.4.4 Challenge: The lack of matching maps and mindsets

In Indonesia and Vietnam, the main problem in establishing a national MRV system is the lack of reliable, harmonised and centralised spatial data on land uses, such as forestry/mining/agriculture concessions, conservation areas and economic development zones. In Indonesia, steps have been taken to increase data transparency and to harmonise land use maps across provinces and sectors. The REDD+ Taskforce Working Group under the President's Unit for Development Control and Monitoring (UKP4) has posted spatial data on the Internet and has invited public analysis and input. This was done in response to the deforestation moratorium spurred by the Letter of Intent between the governments of Indonesia and Norway on REDD+ cooperation (see Box 2.1 in Chapter 2). Backing from the Indonesia president was key to legitimise

the mapping process. This process has generated interest at the district level. In Kapuas district, a REDD+ model district, spatial data reconciliation has become part of the REDD+ strategy (Field observations by Atmadja 2011). A multiagency initiative – the Indonesian National Carbon Accounting System (INCAS) – is establishing methods for national carbon accounting. It complies with IPCC requirements, contributing to reliable and standardised data. However, action to centralise data currently housed in various agencies is still limited.

The people and organisations responsible for implementing REDD+ projects often try to engage local policymakers in understanding the goals and objectives of their activities. But since the REDD+ payment mechanism is unclear, interest in REDD+ activities is very limited. One of the exceptions is the Kalimantan Forest Carbon Partnership (KFCP), a government-to-government partnership between Indonesia and Australia (The Government of Australia and The Government of the Republic of Indonesia 2007). Institutional presence and long-term funding for the partnership have helped to engage local policy makers in regular dialogues and collaborative decision making. (See Box 6.2 for additional cross-scale governance linkages in Central Kalimantan.)

6.5 Leakage

There are two issues related to leakage: i) the technical approach to monitoring and measuring leakage; and ii) the procedures and actions needed to manage or minimise it.

REDD+ interventions can cause local/cross-province/cross-national leakage, involve short or long time lags and come from different sectors (e.g. agricultural, mining, forestry and infrastructure; Wunder 2008). The mix of spatial, temporal and sectoral issues implies that multilevel governance mechanisms are necessary to ensure overall emissions reductions. Transnational leakage is still unregulated, possibly because strategies to limit it could include contentious trade measures that might impinge on international law and sovereignty concerns (see review in Droege 2011). Solving these disputes requires established institutions to determine the liability and legality of the selected leakage policies.

6.5.1 Opportunity: Learning from subnational experiences

An important way to control leakage is to consolidate a REDD+ framework at as broad of a scale as possible. The REDD+ leadership observed at the subnational level in the Brazilian Amazon, through the Amazonian state governments' participation in the Governors' Climate and Forests Taskforce (GCF), is an important strategy for decreasing the risks of leakage in the

Box 6.2 Regional policy networks in Indonesia

Caleb Gallemore and Rut Dini

CIFOR is undertaking research in Central Kalimantan (Kalteng), Indonesia to better understand how public, private, and civil society organisations interact in the process of constructing REDD+ policy on a provincial scale. Using a policy network analysis approach, CIFOR is studying patterns of information sharing, cooperation, funding and disagreement among approximately forty key organisations working on REDD+ policy in the province. While the research is ongoing, there is already clear evidence of the importance of cross-scale connections for understanding policy development – or lack of policy development – in Kalteng. The province entered the international spotlight when it was chosen as the first pilot province to benefit from a \$1 billion agreement with Norway, which requires Kalteng to develop a subnational REDD+ policy within the context of Indonesia's own national REDD+ strategy, adapting policy developed in Jakarta to local conditions. Organisations with an interest in REDD+ policy in Kalteng report confusion about REDD+'s legal status, both locally and in Jakarta. Lacking a firm legal basis for REDD+, the province's activities – and its REDD+ institutions – remain *ad hoc*.

Organisations that are active in REDD+ activities in the province cooperate with local groups, as well as with institutions in Jakarta or further afield, but historically this cooperation has bypassed the provincial government, meaning that efforts to manage cross-scale relationships are a central task for organisations like the governor's office, which in 2009 established the *ad hoc* Area Committee on REDD and its administrative arm, the Sekretariat REDD+ Bersama, as well as the United Nations Office for REDD+ Coordination in Indonesia (UNORCID). These organisations act as bridges between the province and the national government and are also undertaking a concerted effort to combine local REDD+ initiatives into a provincial-scale strategy: a challenging task given broad local powers granted under decentralisation.

Our respondents report that cross-scale relationships present a challenge and a source of confusion. Unsure about the legal basis of their roles in REDD+ implementation, provincial policy makers sometimes feel like they are waiting for something that will never happen. Within the province, much activity remains focused on specific REDD+ projects, as regency governments hold considerable authority over land use. While connections between national and provincial policy discussions are relatively common, there are few direct or indirect connections between the village and regency scales and the networks of organisations involved in policy discussion at the provincial scale. Several organisations in the provincial policy network, however, are working to find ways to build such connections. Initiatives like www.borneoclimate.info an SMS micro-

blogging platform for discussions about REDD+ and other forest issues, provide one way to use Indonesia's widespread mobile phone usage to its advantage. There are also discussions about the possibility of establishing one or more multistakeholder forums to provide an institutionalised setting for discussions about REDD+ between government, civil society, and traditional leaders, among others. Providing an environment in which connections between these scales can emerge, however, may also require a clear legal basis for REDD+ that delineates roles at all levels.

region. Based on this forum, and with support from national NGOs and the Amazon Fund, seven out of nine Amazonian states have initiated state plans to control deforestation within the framework of the National Plan for the Prevention and Control of Deforestation in the Amazon since 2008 (May *et al.* 2011b). The states of Amazonas and Acre have passed laws designed to reduce emissions from deforestation and degradation: the Amazonas' Climate and Conservation Law (3135/2007), passed in 2007, and Acre's State System for Environmental Services Law (Government of Acre 2010; Law 2308/2010) transformed state institutions when it was passed in 2010. With the assistance of environmental NGOs, Acre's government has also considered how to control international leakage through information exchanges and capacity building with the regional government of neighbouring Madre de Dios, Peru.

6.5.2 Challenge: Transboundary leakage from mismatched domestic supply and demand for wood

Leakage issues remain difficult in terms of data collection and political debate in Vietnam. Despite the commitment of the government to address the issues, research shows challenges (Meyfroidt and Lambin 2009), particularly related to a mismatch between economic development goals and the low national production of timber. Because of its significant contribution to the national economy, the wood processing industry has become a government priority. Yet the timber industry currently depends on imports for 80% of its raw materials (Doan *et al.* 2005; GSO 2009; Forest Trends 2010). To address the problem, the Vietnam Forestry Development Strategy 2006–2020 aims to reduce dependence on imported timbers to 20%. However, as ProForest (2009) noted, this goal is ambitious due to the unplanned conversion of land to other purposes and limited cooperation between enterprises. As a result, Vietnam is likely to remain dependent on imports from other countries, entailing a high risk of buying products from unknown and possibly illegal sources in countries such as Lao PDR and Cambodia (GSO 2009; ProForest 2009; Forest Trends 2010). In addition, while the forest cover in Vietnam has increased over the past few years, mainly due to the rapid increase of

forest plantation area, the quality of forest has decreased, leading to low carbon stock.

To address the problem, the UN-REDD Programme aims to quantify displacement probabilities across country borders by compiling and analyzing existing data as well as by establishing regional dialogues. Vietnam also plans to establish an inter-governmental partnership of Mekong River countries to avoid the risk of emissions displacement under REDD. A project concept note aiming to create a technical support body was drafted and submitted to the 2nd Meeting of the Participants Committee of the Forest Carbon Partnership Facility in Panama in March 2009. Discussions have continued but an agreement has not yet been reached between the four potential members: Cambodia, Vietnam, Lao PDR and Thailand (Scheyvens 2010).

6.5.3 Challenge: Local politics as a factor in subnational leakage

In Indonesia, decentralisation has given new rights and responsibilities to districts on land and natural resource management and revenue collection. Local politics introduces an extra element to REDD+: political party-based financing, and fundraising for election campaigns. The effect of subnational emissions displacement on REDD+ implementation is significant. If a district is strict on curbing deforestation and degradation, it risks losing potential revenues and investments by deterring industries that may bring about land conversion. Those industries may instead choose to conduct business in neighbouring districts, whose government has set less rigorous policies. Districts rely on tax revenues and employment generated by industries; the district elites rely on informal money connected to doing business to finance political campaigns and maintain patronage. Hence, there is a strong incentive to prevent interested investors from leaving the districts. On the one hand, this reduces leakage from highly profitable large-scale land uses. But it also compromises emission reductions goals and causes districts to be less likely to implement REDD+.

In achieving global greenhouse gas emissions reduction goals, leakage is an accounting and attribution problem. Accounting is done at the national level, yet emissions can shift from country to country. It is difficult to ascertain how carbon emissions are displaced from another country and to what extent one country is responsible for carbon displacement into another (Wunder 2008). Most literature focuses on international leakage (Atmadja and Verchot 2012), where there are still no institutional structures to deal with it. Like the subnational leakage story described here, cutting back on leakage could lead to limiting economic growth led by industries with alternative uses for forestland, at the risk of being uncompetitive with other countries that apply less rigorous REDD+ policies. The issue rubs against

sensitive topics such as sovereignty and rights to economic development. Bilateral approaches could be a place to start but may be too piecemeal to guarantee emissions do not shift elsewhere. Hence, in implementing REDD+ at the global level, leakage becomes an economic and political problem that needs to strike a balance between ensuring effective emission reductions through mitigation leakage and the geopolitical concerns of individual countries

6.6 Institutions, interests and information: Obstacles and opportunities

Based on the anecdotal evidence above and the theoretical frameworks considered (4Is in Chapter 2; Pahl-Wostl 2009), we identify the following key aspects requiring specific attention by REDD+ decision makers: i) matching flows of information and incentives with transparency and accountability; and ii) matching interests and institutions across scales.

6.6.1 The flow of information and incentives

We outline various challenges for multilevel governance from our case studies, but also observe promising opportunities. The lack of national REDD+ frameworks is a critical challenge that affects efforts to build an accountable national MRV system and to harmonise REDD+ activities. Improving communication and flows of information between subnational REDD+ projects and the national level is an important way to create a multilevel governance system in REDD.

It is important to note that information is power in the REDD+ world and the institutions that hold the power and capacity to deliver information at both at the project and national levels play a crucial role in shaping national REDD+ politics. It is also important to integrate local knowledge into MRV systems, as recent initiatives in Brazil and Vietnam have attempted to do. Furthermore, knowledge is a product of power relations and social concerns and it is equally important to ask what knowledge is not being produced and disseminated. The definition of an MRV system and the knowledge upon which it is based are thus technical as well as political issues.

Designing a system for distributing REDD+ benefits and responsibilities requires sound information flows. Mechanisms for multilevel governance enable the equitable flow of incentives from national to subnational and local levels. The relationship between national and local governments and allowing local governments the flexibility to implement broader REDD+ interventions are key elements in the benefit sharing discussion (see Chapter 8).

6.6.2 Matching issues and institutions to scale

The integration of institutions operating at different levels may also help to harmonise spatial planning. New institutional arrangements are needed to create or build on existing bodies for accountable MRV, with a special focus on tools for overcoming the obstacles to information flow across levels. In the countries studied, however, there are still political and economic challenges to creating such institutions. This task also requires new skills and abilities to tackle various types of information, e.g. local and spatial data of varying quality.

In many countries, subnational governments can play a pivotal role in REDD+ implementation. In Indonesia and Brazil, for example, decentralisation has put the power of land and natural resource management in the hands of subnational governments, making them key players in REDD+ implementation. In such countries, it is essential to establish coherent regulations on the rights, responsibilities and procedures for MRV by subnational governments and to establish funds and transparent mechanisms for allocating resources to subnational REDD+ actors. In Indonesia, voluntary working groups are helping to overcome the lack of institutional links between sectors and scales and are providing an example of institutional integration across levels.

As seen in both Vietnam and Brazil, although coherent MRV at the national level is important, leakage management should be trans-boundary. Trans-boundary supply and demand gaps can be overcome through multilevel institutional integration and horizontal coordination, as demonstrated by the promising initiatives of the Mekong REDD Commission for Intergovernmental Partnership and Acre's collaboration with the regional government of Madre de Dios in Peru.

6.6.3 The need for participation

While REDD+ is commonly criticised for being implemented through top-down approaches, a multilevel governance approach that focuses on the flow and match of interests across levels can result in strong stakeholder participation. Evidence from REDD+ countries shows that participation in REDD+ can be greatly improved (Indrarto *et al.* 2012; Pham *et al.* 2012). The participation of actors from one level in processes at other levels is key to improving vertical coordination (Pahl-Wostl 2009). It is worth noting that the legal framework for REDD+ in all countries requires participation and consultation with different groups, but this is rarely applied in practice. (See also Box 6.3 for REDD+ process in Madagascar.)

Nevertheless, in Brazil, due to the recognition of potential challenges associated with fair engagement in REDD+, there has been substantial

Box 6.3 Decentralisation or INGOisation of REDD+? Lack of national lead in building a REDD+ strategy in Madagascar

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Madagascar, an island state in the Indian Ocean renowned as a biodiversity hot spot, engaged with the World Bank's Forest Carbon Partnership Facility (FCPF) in 2008 in a REDD+ readiness process aimed at preparing a national REDD+ strategy. In parallel, international NGO-led REDD+ pilot projects have been established in different regions of the country with the goal of informing the national REDD+ policy formulation process. Attempts to build a coherent national REDD+ strategy are struggling in a situation where a lack of national leadership in synchronising experience from individual pilots hinders the transition from fragmented INGO-driven activities to a national, nested REDD+ governance system.

Community forest management (CFM), an envisaged backbone governance arrangement for a Malagasy REDD+, can be used to map ongoing governance activities on different levels. On the grassroot level, all REDD+ pilot projects have established CFM associations, known as COBAs, by transferring forest management rights from the state to community groups under time bound contracts. On the local level, COBAs contract with the local municipality and forest service. The management transfer is often entirely led by an environmental mediator, which in the case of major REDD+ projects has been an INGO. The role of the mediator in CFM contract design and related activities, such as attempts to create alternative livelihood activities for COBAs, cannot be overstated. At the regional level, some REDD+ projects are organising COBAs in federations, but a functional regional level governance structure remains a missing link, presently filled by the INGOs.

National level coordination of REDD+ activities has been channelled through an *ad hoc* committee known as the CT-REDD, composed of state, nonstate and para-state actors. Before its work was (temporarily?) disrupted in early 2011, CT-REDD communicated with stakeholders in order to integrate ongoing REDD+ experiences and organised regional consultations for the elaboration of a Readiness Preparation Proposal (R-PP) to be presented for the Forest Carbon Partnership Facility. Apart from the R-PP document, any national level multiactor efforts to jointly outline a direction for REDD+ have been stagnated and unfunded. On the supra-national level, Madagascar has struggled to receive funding for its R-PP vision, partly due to the national political crisis that started with a coup d'état in 2009. Instead, international donors support INGOs to continue developing REDD+ methodologies in separate project areas.

Individual projects form microcosms, making information and capacity flows highly reliant on the INGOs, individual actors with the technical capacity required for MRV and individual actors present on the governance levels described above. Control and participation in REDD+ by state actors can be expected to remain weak. The possible hidden motivations for maintaining a project-driven situation of INGO-dominance needs careful attention. Tensions between state and nonstate actors' views and interests reveal problems of state sovereignty, legitimacy and transparency. Early observation suggests that REDD+ could further increase the power of external, nonstate REDD+ beneficiaries and strengthen a transnational governance project that has shaped natural resource management in Madagascar since the 1980s (Duffy 2006).

mobilisation by indigenous groups and forest-based communities to promote local participation in the process. These groups, recognising both the potential benefits and risks associated with REDD+, have taken action to promote inclusion of social and environmental safeguards for REDD+ actions (Gomes *et al.* 2010; see also Chapter 17 on safeguards). Most NGO and government REDD+ project proponents have held or plan to hold public consultations with target actors at the project sites to present and obtain feedback.

In Vietnam, limited participation in REDD+ can be explained by a political process characterised by ineffective consultation mechanisms and weak representation by different groups. Also, as Pham *et al.* (2010) highlight, intermediaries are often hired by donors to carry out consultations but due to pressure (time, donors' priorities and cost) these consultations are inadequate. As a preliminary example from Vietnam shows, local participation is possible and could enhance the MRV system, but the evidence is not efficiently disseminated across the levels.

In Indonesia, much of the weak interest in participating in REDD+ discussions stem from participation fatigue, lack of proof that REDD+ can work and strong vested interests in other land uses that could cause emissions. Even where successful voluntary working groups were established to enhance stakeholder participation, there were too many REDD+ workshops, stakeholders' discussions and seminars, resulting in REDD+ fatigue.

6.6.4 The negotiation of interests

The information flow across levels can be impeded by conflict or a lack of interest in sharing information with other actors, as seen in the cases of Vietnam and Indonesia. Institutional stickiness and established power structures hinder the flow and match of different types of information across levels. It is important to recognise the power of informal relationships and networks in bridging the gap between agencies at different levels. In Vietnam, most stakeholders share information through informal channels, e.g. based on personal relationships or informal networks. However, these informal networks are rarely known or recognised, they lack transparency and are absolutely exclusive.

Building a coherent national REDD+ framework would help to tackle many multilevel governance challenges. As seen in Brazil, however, strong governance at the subnational level has been important for advancing REDD+ at local and national levels. Experience from Brazil provides an illustrative example of the steps needed for vertical coordination and multilevel governance in REDD+, even though there is still some way to go before a coherent national

framework is defined for the country. Although the national framework is essential for overall coordination, a multilevel governance system is a shift towards accepting the reality that all aspects of environmental governance can involve disagreements and different objectives that have to be reconciled or accepted as different. Mechanisms of multilevel governance, however, provide tools to make them to match across levels to a greater degree.

REDD+ can never operate in a political and societal vacuum but is intertwined with existing political processes and societal structures. In Indonesia, REDD+ has tightened the regional and local political games and its outcomes will affect the structure of the MRV system as well as emission leakages inside the country. Multilevel governance, including the establishment of legal procedures, is needed to settle disputes in implementation. REDD+ will require design elements to complement existing forest related policies and should be informed by the experience of decades of local and global initiatives. That would be consistent with proposals for the development of 'nested' climate governance regimes (Forsyth 2009).

6.7 Conclusions

It is obvious that REDD+ is a multilevel undertaking. As a result, it requires a multilevel governance system that is unique in the history of environmental policy (Skutsch and Van Laake 2008). The dimensions and mechanisms for such a system vary strongly among different REDD+ elements. The case studies also show that the appropriate mechanisms vary significantly across countries.

Multilevel governance in REDD+, particularly for leakage and MRV, is about harmonising information and incentives across all levels. This is, in part, a practical and technical problem: information and data for REDD+ are formed through various processes and according to different standards, making it difficult to aggregate at the national level. Furthermore, differences in data quality and quantity across data sources provide loopholes for undetected and unaccounted leakage.

However, information and incentive flows in REDD+ can lead to conflicts between subnational and national actors, which stem from conflicting interests at different levels. Information and incentives are the two main currencies in the complex REDD+ world relating back to the differences in power relations among the actors who control them. Multilevel governance systems in REDD+ should be designed with two aims: they should seek ways to help actors at different levels to better match their interests, and at the same time they should adjust and diversify REDD+ to work with different interests.

In summary, policy and institutional reforms to redefine existing information, incentive and power structures are needed to ensure successful REDD+ implementation. REDD+ can act as a game changer for wider transformational change and mechanisms for multilevel governance will play a pivotal role in this process. The sound flow of information and incentives across different levels, together with transparent institutions, will be a key to effective, efficient and equitable REDD+ implementation.