



global witness

Building Confidence in REDD

Monitoring Beyond Carbon

Global Witness December 2009

Acknowledgements

Global Witness would like to acknowledge support received from the UN Collaborative Programme on REDD (UN-REDD) to produce this report.

Global Witness Limited (Global Witness) is a non-profit company limited by guarantee and incorporated in England (Company No. 2871809). Global Witness exposes and breaks the links between the exploitation of natural resources and the funding of conflict, corruption and human rights abuses. Global Witness carries out investigations in countries devastated by conflict, corruption and poverty and our findings from these investigations are used to brief governments, intergovernmental organisations, civil society and the media.

Global Witness is recognised as the equivalent of a US public charity as described in section 509(a)(1) of the US Internal Revenue Service Code 1986.

ISBN: 978-0-9562028-8-8

© Global Witness Ltd. December 2009

Disclaimer

Any views expressed in this report are those of Global Witness.

This document has been printed on 100% recycled paper.

Table of Contents

Abbreviations and Terms	ii-iii
Executive Summary	1
1 Introduction	6
2 Governance and the climate of risk	9
3 The International Climate Regime and Monitoring REDD	12
3.1 The UNFCCC and state of play in the negotiations	12
3.2 A performance-based REDD through a phased approach with safeguards	13
3.3 Clarifying MRV and review: definitions	14
3.4 Monitoring under the current climate regime	15
3.5 Monitoring beyond carbon: developments to date	17
4 Existing systems providing lessons for REDD	23
4.1 Independent forest monitoring (IFM)	23
4.2 FLEGT Legality Assurance Systems	24
4.3 British Columbia Ombudsman	26
4.4 Clean Development Mechanism (CDM)	26
4.5 Extractive Industries Transparency Initiative (EITI)	27
5 Designing a REDD monitoring system	29
5.1 Scope and characteristics	29
5.2 Engagement of stakeholders	30
5.3 Appropriate systems with low tech methods	30
6 Independent Monitoring of REDD (IM-REDD)	31
6.1 Rationale: building confidence through an integrated and coordinated system	31
6.2 Applying lessons learned from IFM to designing IM-REDD	32
6.2.1 Participation and transparency	32
6.2.2 Mandate and monitor	33
6.2.3 What should be monitored?	34
6.2.4 Funding	39
6.3 The added value of IM-REDD for MRV and review	40
6.4 A regional approach to address leakage	42
7 Conclusions and Recommendations	43
Annex: Coface risk ratings	46
References	48
Boxes	
Box 1: Governance and REDD	19
Box 2: Monitoring more than carbon	20
Box 3: Independent monitoring under FLEGT	25
Box 4: Auditing under the CDM	27
Box 5: Multi-stakeholder participation in EITI	28
Box 6: Minimum standards proposed for IM-REDD	34
Tables	
Table 1: Countries participating in UN-REDD and the FCPF	6
Table 2: Coface risk ratings assigned to 41 REDD countries	11
Table 3: Key monitoring questions for REDD implementation	35
Figures	
Figure 1: Ranking of 37 FCPF countries on two World Bank Worldwide Governance Indicators	9
Figure 2: Estimated proportion of illegal and legal timber exports from 15 REDD countries in 2007	10
Figure 3: The relationship between C-MRV and monitoring to support REDD implementation	18
Figure 4: The scope and characteristics of a REDD monitoring system	29
Figure 5: Proposed system for monitoring REDD	32

Abbreviations and Terms

Annex I parties	Developed countries listed in Annex I of the UNFCCC
A/R	Afforestation and Reforestation
AWG-LCA	(UNFCCC) Ad Hoc Working Group on Long Term Cooperative Action
BAP	Bali Action Plan
CAR	Central African Republic
CDM	Clean Development Mechanism
CER	Certified Emissions Reductions
CGE	Consultative Group of Experts
CIFOR	Center for International Forestry Research
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
C-MRV	MRV of emissions reductions and removals / carbon stock changes (MRV of carbon)
Coface	Export credit insurance company managing State guarantees for French exports
COP	Conference of the Parties to the UNFCCC (the highest decision-making authority)
COP/MOP	Conference of the Parties serving as the Meeting of the Parties (the highest decision-making authority of the Kyoto Protocol)
CSO	Civil society organisation ^a
DRC	Democratic Republic of Congo
EITI	Extractive Industries Transparency Initiative
FAO	The UN Food and Agriculture Organisation
FERN	The Forests and the European Union Resource Network
FCPF	Forest Carbon Partnership Facility of the World Bank
FLEG	Forest Law Enforcement and Governance
FLEGT	EU Forest Law Enforcement, Governance and Trade initiative
FIP	Forest Investment Programme of the World Bank
GHG	Greenhouse gas
GPS	Global Positioning System
IDR	In-depth review (of Annex I national communications and inventories under the UNFCCC and Kyoto Protocol)
IFM	Independent Forest Monitoring

ILO	International Labour Organisation
IM-FLEG	Independent Monitoring of FLEG
IM-REDD	Independent Monitoring of REDD
IPCC	Intergovernmental Panel on Climate Change
JIC	Joint Implementation Committee (under FLEGT)
LAS	Legality Assurance Systems (under FLEGT)
LATF	Lusaka Agreement Task Force
LEITI	Liberia Extractive Industries Transparency Initiative
MEA	Multilateral environmental agreement
MRV	Measurement, reporting and verification
NAMA	Nationally Appropriate Mitigation Action
NGO	Non-Governmental Organisation
PNG	Papua New Guinea
PWYP	Publish What You Pay
REDD	Reducing Emissions from Deforestation and forest Degradation in developing countries
REM	Resource Extraction Monitoring
RoC	Republic of Congo
R-PP	Readiness Preparation Proposal (under the World Bank FCPF)
SBSTA	Subsidiary Body for Scientific and Technological Advice (under the UNFCCC)
TAP	Technical Advisory Panel (of the FCPF)
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	UN Collaborative Programme on REDD (a joint Programme of FAO, UNDP and UNEP)
VPA	Voluntary Partnership Agreement

^a This report uses the term *civil society* to include local communities, indigenous peoples, local and international NGOs and generally all forest-dependent people.

Exchange rates: figures have been converted to US\$ using <http://www.xe.com/> which gives the exchange rate at the relevant time. Thus rates will vary.

Executive Summary

For the first time in history, forests are near the top of the global political agenda. This unprecedented interest comes from widespread recognition that their protection and regeneration are essential to combating climate change. A mechanism to provide incentives for reducing emissions from deforestation and forest degradation in developing countries (REDD) is at the centre of the high profile negotiations under the United Nations Framework Convention on Climate Change (UNFCCC). REDD is expected to be an integral part of the anticipated new climate agreement and to include a system for monitoring activities and ensuring they deliver results.

This report is intended to inform the development of a monitoring system for REDD that goes beyond the measurement, reporting and verification of emissions reductions and carbon stored in forests (C-MRV). It identifies governance challenges and the risks presented to investment by weak governance and extensive illegality in REDD countries, and provides the rationale for a broad-based robust monitoring system. It clarifies terminology on MRV and examines monitoring under the current climate regime as well as the state of play in the REDD negotiations and broader developments on REDD monitoring and governance. It then looks at existing systems that provide lessons for REDD, particularly Independent Forest Monitoring (IFM) and other processes such as the Extractive Industries Transparency Initiative (EITI). On the basis of lessons learned from these processes, particularly IFM,¹ it addresses the scope and characteristics of a REDD monitoring system and proposes the establishment of national systems for independent monitoring of REDD (IM-REDD) as part of an integrated monitoring system, founded on multi-stakeholder processes, to secure the successful implementation of REDD at national and local levels.

Over time, REDD is expected to channel billions of dollars into forest-rich nations with weak governance, corruption, high levels of illegality in the forestry sector, poor forest law enforcement and high risk business climates. The challenges of ensuring this money is distributed equitably both among and within REDD countries to address varying capacity needs, and on the basis of reliable and well monitored performance and results, are considerable. The risks of inequitable distribution, elite capture, misappropriation of funds, carbon crime and conflict are high. Of the 40 countries participating in the UN Collaborative Programme on REDD (UN-REDD) and the World Bank's Forest Carbon Partnership Facility (FCPF), 33 (83%) are rated by the French export credit insurance company Coface as having unstable business climates and 13 (33%) are rated as highly risky (two are not rated). Inevitably REDD investment, particularly from the private sector, will migrate to the few countries with more stable environments. If REDD is to succeed, countries will need to build the confidence of stakeholders, including donors, private investors, civil society and local communities. This will depend on robust, transparent, accountable and equitable systems developed through multi-stakeholder processes. A central pillar of this will be a broad-based monitoring system capable of assessing performance and governance reforms as well as the application of and adherence to safeguards currently being built into the international REDD framework.

Under the Bali Action Plan, the new climate agreement is expected to provide for the measurement, reporting and verification (MRV) of nationally appropriate mitigation actions (NAMAs) by developing countries, of which REDD is recognised as a special case. Details of how this will be achieved are still under negotiation with the future of a legally binding agreement in the balance, but the framework for REDD, including

operational aspects and guidance on monitoring, is expected to be agreed at the upcoming climate change conference in Copenhagen. Until recently, discussions on monitoring and REDD, both inside and outside the UNFCCC, focused almost exclusively on methodology for measuring emissions reductions and removals and carbon stock changes (the 'M' of C-MRV). But spearheaded by UN-REDD and, more recently, by developments under the FCPF, there has been increasing recognition of the need for REDD monitoring to go 'beyond carbon', not only to ensure the effective implementation of REDD and deliver results, but also to build confidence in national systems and in REDD as a whole. While monitoring forest cover and carbon stock changes is clearly an essential part of a results-based system of incentives, it will be unable on its own to provide a real reflection of the impact of REDD or to enable implementing institutions to review performance and identify problems with implementation. A well integrated system for monitoring REDD implementation from local to international level is needed that addresses governance, and helps to ensure that safeguards to protect rights and environmental integrity and address non-permanence and leakage are applied. The system needs to be broad (addressing a wide range of information needs), robust, transparent, independent, inclusive, based on multi-stakeholder engagement and able to provide feedback and early warning to detect and correct failures. Mechanisms for cooperation at regional level will be needed to prevent leakage.

Experience from IFM, EITI and regulatory multilateral environmental agreements such as the Montreal Protocol and CITES indicates that all relevant stakeholders, including civil society, local communities, the private sector and enforcement agencies, should be involved in the design as well as implementation of REDD monitoring systems from the earliest possible stage. This builds trust and transparency, and by involving international agencies engaged in cooperative enforcement such as Interpol and the Lusaka Agreement Task Force (LATF – an African inter-governmental enforcement agency), risks from new forms of environmental crime such as carbon fraud can be minimised and means to tackle corruption and misappropriation of funds can be addressed. National REDD monitoring systems should also be appropriate and not rely solely on expensive 'high tech' methodology. Inexpensive low tech methods such as the creation of networks linking local communities with enforcement agencies by making use of GPS, mobile phones and the internet have proved effective and should be deployed.

Despite being the framework-setting institution for REDD, the UNFCCC is lagging behind UN-REDD and the FCPF on policy and practice concerning monitoring and governance. The latest version of the template for Readiness Preparation Proposals (R-PPs) prepared by the FCPF, which will be used by countries participating in both mechanisms, sets the pace for national strategies. It asks countries to conduct an assessment of land use, forest policy and governance, including the effectiveness of law enforcement systems, to help identify key drivers of deforestation and/or forest degradation and promising approaches for REDD strategy. The template also requires the design of a monitoring system that includes ideas (either within an integrated system or in coordinated activities) on monitoring rural livelihoods, biodiversity conservation and 'key governance factors directly pertinent to REDD implementation', and to assess the impacts of REDD strategy in the forest sector. Furthermore, it asks countries how a monitoring system would '*provide for establishing independent monitoring and review, involving civil society and other stakeholders and enabling feedback of findings to improve REDD implementation*'.²

² 'Forest Carbon Partnership Facility (FCPF) Readiness Preparation Proposal (R-PP) Template', R-PP v.3 (September 4, 2009).

In contrast, the UNFCCC has failed to produce adequate or coherent provisions on monitoring in the latest draft text which will provide the basis for negotiations in Copenhagen. Its focus on MRV of emissions reductions and removals in phase 3 of REDD, with no provisions for adequate monitoring in phases 1 and 2 or for monitoring the safeguards it elaborates, not only diminishes the value of the safeguards, it undermines the ability of REDD to achieve its main objective – reducing emissions. With the exception of a provision on independent review of systems as well as results, a draft Decision produced by the Subsidiary Body for Scientific and Technological Advice (SBSTA) in June, also due to be discussed in Copenhagen, is similarly narrow in scope. These profound failures of the UNFCCC with respect to designing the framework for a REDD monitoring system need to be fixed in Copenhagen, not only to avoid a roll-back of progress achieved through the FCPF and UN-REDD but to ensure the integrity of REDD implementation throughout the three phases as well as the delivery of results that will benefit the climate. If consensus cannot be reached on an appropriate and effective framework, it would be preferable to initiate a process to develop such a framework rather than agree to provisions that are regressive and inadequate.

Current requirements for reporting under the UNFCCC are weak for developing countries, and only Annex I parties (developed countries) are subject to independent review. Although more stringent reporting requirements are expected for some developing countries under a new agreement, a robust system for international independent oversight may not emerge from the UNFCCC negotiations. Even if a system for independent expert review of REDD similar to the one operating currently for Annex I parties is established under the UNFCCC it would only provide a certain degree of oversight. The existing system is limited in its ability to truly verify reported information. Furthermore, desk-based reviews of national communications submitted by governments and periodic, short in-country visits would not provide in-depth information on issues extending down to field level or provide early warning of risks and failures. Moreover, if national communications are only submitted every 6 years as is currently proposed, they will have little value for monitoring REDD implementation. Similarly, verifying results (in terms of carbon and forest cover) and auditing national REDD funds will not provide the broad-based information needed for monitoring REDD implementation or provide an early warning system to prevent or detect risks and failures. In short, a system reliant on UNFCCC processes alone will not be adequate to monitor REDD.

A REDD monitoring system which incorporates robust systems for independent monitoring at national level, modelled on IFM, could provide both in-depth information and an early warning system. Independent Forest Monitoring, developed over the last decade to monitor logging, legal compliance and forest law enforcement, is a tool designed to work in poor governance scenarios. Through the provision of publicly accessible, objective information on the control of activities in the forest sector, IFM addresses governance and transparency and supports forest law enforcement. Centring its work on field missions, the monitor operates under an official agreement with a national host institution, so its findings are not easy to disregard. In effect a form of systems or governance monitoring, IFM has been implemented in Cambodia, Cameroon, the Republic of Congo (RoC), Honduras and Nicaragua. Global Witness was involved in establishing and implementing IFM in four of these countries, and is currently the independent monitor in Nicaragua. There are two other IFM providers, the NGO Resource Extraction Monitoring (REM) and the Honduran National Commission for Human Rights (CONADEH). An analysis of experience in designing

and implementing IFM presented in Global Witness's partner report, *A Decade of Experience: Lessons Learned from Independent Forest Monitoring to Inform REDD*, has informed the proposal in this report for a system for independent monitoring of REDD (IM-REDD) at national level.

National IM-REDD systems modelled on IFM would contribute to enhancing governance by increasing transparency and access to information and improving the capacity and credibility of forest authorities and relevant enforcement agencies. They would help to build confidence in REDD and trust between countries and could play a key role in lowering reputational risks associated with funding bad projects or fraudulent carbon credits. Furthermore, they would strengthen civil society and provide objective, ground-truthed independent verification of information. They could help to clarify questions concerning resource rights, report on whether these rights are being respected and provide an additional means of independent oversight by monitoring the distribution of REDD payments. Reports from an independent monitor could assist the FCPF and UN-REDD with country programme design and implementation, and ad hoc Technical Advisory Panels established under the FCPF with reviewing the programmes. If a system for independent review similar to the one operating under the Kyoto Protocol is established under a new climate agreement, the monitor's reports could also feed into this mechanism.

The following key elements of a national IM-REDD system have been identified through applying lessons learned from designing and implementing IFM:

- **Participation and transparency** Independent monitoring systems for REDD need to be transparent and participatory, and bring all actors together. A trust building process is an essential preliminary step, as is building a peer review mechanism – a multi-stakeholder reporting or review panel – that opens spaces for discussion, and validates and takes ownership of the monitor's reports.
- **Mandate and monitor** It is essential to achieve a good design from the outset. IM-REDD would need the same official but independent status as IFM, made explicit through a contract with the relevant national authority. A set of minimum standards would be required to ensure the quality of monitoring systems, and a system of prioritisation in place to assess which issues require more immediate action. Independent monitoring providers should have a proven track record of independence, credibility, rigour and objectivity. Ultimately, one or more national or local civil society organisations would be expected to undertake the role.
- **What should be monitored** IM-REDD should aim to monitor and inform REDD implementation by providing evidence-based information about aspects related to policy and regulations, including application of safeguards; transparency, engagement and accountability; enforcement; goods and services; and revenue, benefit distribution and rights.

IM-REDD should complement, and not be a substitute for, a country's obligations to report on issues related to REDD implementation to the UNFCCC and other international implementing entities such as the FCPF and UN-REDD. It would need to be separate from the national monitoring system but run closely in parallel and be part of the institutional framework. It could support C-MRV by checking that those doing the measuring, reporting and verifying are performing and delivering adequately, and by drawing attention to areas that require improvement. It could support capacity building and the collection of field data as well as the provision of accurate, complete,

comparable and transparent information that reflects reality on the ground, and provide recommendations and guidance on improving reporting guidelines and addressing systems failures. Once the MRV system is fully operational and working smoothly, the monitor could work more intermittently, carrying out spot checks to corroborate that the system continues to function.

National IM-REDD systems should be an integral part of the overall system for monitoring REDD. Ideally, there should be an international coordinating body for IM-REDD which would look at the bigger picture, draw comparisons among countries, identify those experiencing problems and draw these to the attention of the relevant REDD implementation institutions at national and international level. A single IM-REDD website including all IM-REDD activities worldwide – similar to the REDD web platform on the UNFCCC website – would provide a means for information sharing and cross-pollination, and act as a learning resource for independent monitors. It should be hosted by an international entity, which could be the proposed international coordinating body for IM-REDD, or UN-REDD.

Independent monitoring is cost effective. Indicative costs for establishing and running an effective IFM project for a year, based on experience in Cameroon, have been estimated at around US\$630,000. However, if more is invested, broader coverage of the forest estate can be achieved and enhanced capacity building incorporated. The overall cost of the independent monitoring project in RoC, which is run by REM and incorporates civil society training, is around US\$1 million a year. As IFM becomes more established, revenues accrued from fines can more than cover the costs, while reduced corruption and illegality can improve tax and other revenue flows to the state. The costs of establishing IM-REDD would likely be higher than IFM given the additional technical expertise needed in the monitoring team, but since it can be conducted through spot checks the costs should be lower than 'chain of custody' tracking, which is more intensive with respect to technology and human resources.

Experience with IFM indicates that, in order to inform the design and implementation of REDD, the earlier national IM-REDD systems can be established the better. Ideally, they should be incorporated into national strategies already being developed in the readiness phase through the FCPF and UN-REDD, with a well functioning IM-REDD system in place before substantial funds begin to flow in subsequent phases. Incorporation of a provision for independent monitoring and review involving civil society into the R-PP template is a good start. However, adequate support will be needed for countries requiring capacity building to develop the systems.

The opportunity presented by REDD is unprecedented but the risks are considerable. To ensure it fulfils expectations and becomes part of the solution to climate change and not part of the problem will require a monitoring system on which we can rely, a system which is robust, broad-based, transparent, integrated, inclusive, truly independent and capable of addressing governance realities on the ground. A coordinated system for independent monitoring of REDD, modelled on existing IFM systems and incorporated into the overall monitoring system, would not only contribute towards this, it would help to reduce reputational risk and build the confidence and trust needed for REDD to succeed.

1. Introduction

For the first time in history, forests are near the top of the global political agenda. Widespread recognition that their protection and regeneration are essential to combat climate change places them at the centre of any global solution. In the spotlight lies REDD, the international mechanism to provide incentives for reducing emissions from deforestation and forest degradation in developing countries being negotiated as part of a new climate change agreement under the UN Framework Convention on Climate Change (UNFCCC). Formal negotiations on REDD were initiated in 2007 with the Bali Action Plan (BAP) which lays out a two-year roadmap for the latest round of climate negotiations due to culminate at the 15th Conference of the Parties (COP15) in Copenhagen in December 2009 (UNFCCC, 2007). At the time of writing, the conclusion of a new legally binding agreement in December looks unlikely, but an agreement on REDD that addresses operational provisions, including guidance on monitoring, as well as scope and principles is looking increasingly likely.

Although the framework and detailed provisions for an international REDD mechanism are still to be finalised under the UNFCCC, national strategies have been evolving over the last year or more through an iterative process of 'learning by doing' under the UN Collaborative Programme on REDD (UN-REDD), a joint programme of the FAO, UNDP and UNEP³ and the World Bank's Forest Carbon Partnership Facility (FCPF).⁴ Table 1 lists the 40 member countries of UN-REDD and the FCPF⁵. Countries that are further ahead in the process than others are already addressing monitoring needs for REDD implementation and reporting on progress at regular meetings of the FCPF and UN-REDD.

Table 1: Countries participating in UN-REDD and the FCPF

UN-REDD members		FCPF participants		
Pilot countries ⁱ	Observers ⁱⁱ	Africa	Latin America	Asia - Pacific
Africa <i>DRC</i> <i>Tanzania</i> <i>Zambia</i>	Latin America <i>Argentina</i> <i>Ecuador</i>	Africa <i>Cameroon*</i> <i>CAR</i> <i>DRC*</i> <i>Ethiopia*</i> <i>Equatorial Guinea</i> <i>Gabon*</i> <i>Ghana *</i> <i>Kenya*</i> <i>Liberia*</i> <i>Madagascar*</i> <i>Mozambique</i> <i>RoC</i> <i>Tanzania</i> <i>Uganda</i>	Latin America <i>Argentina</i> <i>Bolivia*</i> <i>Chile</i> <i>Colombia*</i> <i>Costa Rica*</i> <i>El Salvador</i> <i>Guatemala</i> <i>Guyana*</i> <i>Honduras</i> <i>Mexico*</i> <i>Nicaragua</i> <i>Panama*</i> <i>Paraguay*</i> <i>Peru*</i> <i>Suriname</i>	Asia - Pacific <i>Cambodia</i> <i>Indonesia</i> <i>Lao PDR*</i> <i>Nepal*</i> <i>PNG*</i> <i>Thailand</i> <i>Vanuatu</i> <i>Vietnam*</i>

ⁱ Selected as pilot countries based on factors such as existing relationships with the UN, emission reduction potential, geographic representation, and REDD readiness potential

ⁱⁱ Joined as observers in October 2009 and can participate in the global programme. Country programmes cannot be developed until additional funding is available

* First group of 20 countries selected have priority access to a grant of up to US\$3.6 million until June 2010, subject to approval of their R-PPs and due diligence

Countries in italics are in both FCPF and UN-REDD

3 Launched in September 2008, UN-REDD is governed by a Policy Board and implemented by a Secretariat established in Geneva in cooperation with the three participating agencies. It has an international programme as well as 9 pilot country programmes. Five more countries recently joined UN-REDD as observers.

4 Launched in December 2007 in Bali, the FCPF is governed by a Participants Committee and Participants Assembly and managed by the FCPF Management Team in the World Bank. There are currently 37 REDD countries participating in the Facility.

5 Strategies and programmes in the 40 countries are at various stages of development depending on when they joined UN-REDD and/or the FCPF and their national circumstances.

The principal motivation behind REDD was to establish a cost effective, results-based financing mechanism for reducing emissions from deforestation and forest degradation. Since negotiations were initiated it has been recognised that emissions reductions and removals of greenhouse gases (GHGs) must be measured, reported and verified, i.e. that forest cover and carbon stock changes must be monitored, since this would ultimately determine the levels of payments. Initially, the prevailing view in discussions inside and outside the UNFCCC was that a system of payments based on carbon monitoring (C-MRV) would be adequate to deliver the over-riding goal of reducing emissions. Attention was focused on methodology for remote sensing and carbon accounting (the 'M' of C-MRV), and broader monitoring needs to support REDD implementation were largely ignored. Over the last year, however, spearheaded by a policy debate begun under UN-REDD, this has changed, at least in discussions outside the UNFCCC. Both UN-REDD and the FCPF are developing policies and guidance on broader monitoring systems for REDD that address governance as well as other issues, including independent monitoring and review and stakeholder engagement. This is manifested most recently in the FCPF template for Readiness Preparation Proposals (R-PPs).

The R-PP template considers that, in addition to measuring, reporting and verifying the effect of REDD strategy on GHG emissions, a 'core component of REDD readiness' is a system that monitors *'the drivers of deforestation and forest degradation, as well as other variables relevant to the implementation of REDD'*. These variables include *'key governance factors directly pertinent to REDD implementation in the country'* as well as rural livelihoods, conservation of biodiversity, and an assessment of the impacts of the REDD strategy in the forest sector. (FCPF, 2009)

Unfortunately, the progress made outside the UNFCCC in developing monitoring systems that look 'beyond carbon' has not been matched with progress inside. Although the latest negotiating text emerging from the most recent round of negotiations in Barcelona in November 2009 includes provisions on safeguards that address governance, the rights of indigenous peoples and local communities, biodiversity, the conversion of natural forests, and non-permanence and leakage, there are no provisions for monitoring these safeguards. Instead, the text focuses on C-MRV and fails to reflect the evolution of policy outside the UNFCCC which is setting standards for broader monitoring systems that address all aspects of REDD implementation including governance.

The recognition that monitoring systems should address governance stems from the fact that most REDD countries face profound governance challenges. Symptoms of these challenges are extensive illegality in the logging industry and a 'climate of risk' for investors. If governance is not dealt with then, quite simply, REDD will fail.

One way to address governance, and at the same time build confidence in national REDD programmes, is through the development of systems for independent monitoring. A precedent exists in methodology developed for Independent Forest Monitoring (IFM), a tool designed to monitor logging, legal compliance and forest law enforcement in poor governance scenarios. Currently operating in four countries, IFM has evolved through ten years of practice. Its inclusion in Legality Assurance Systems being established under the EU Forest Law Enforcement, Governance and Trade initiative (FLEGT) illustrates both the value of IFM and the international recognition it has gained. Experience from designing and implementing IFM presents many lessons for developing national systems for independent monitoring of REDD. This experience

is detailed in a partner report, *A Decade of Experience: Lessons Learned from Independent Forest Monitoring to Inform REDD* (Global Witness, 2009).

The current report first examines the seriousness of governance challenges in REDD countries and the climate of risk for investors. It goes on to describe the state of play in the current negotiations on REDD, then clarify the use of terminology for MRV and describe monitoring under the current climate regime before addressing discussions to date on REDD monitoring and governance. It looks at several existing systems that provide lessons for REDD, including IFM, then addresses the scope and characteristics of a REDD monitoring system. Lastly, it addresses independent monitoring of REDD (IM-REDD), applying lessons learned from ten years of experience with IFM to the design of proposed national IM-REDD systems which would be part of an integrated REDD monitoring system extending from local to international level.

2. Governance and the climate of risk

'Good governance will enable an environment conducive to the predictable and lasting delivery of emissions reductions.' (UN-REDD, 2009c)

The sums required for implementing REDD have been estimated at €2 billion to support preparatory activities from 2010-15, €13-23 billion over the same period for proxy-based results (assuming 25% REDD implementation) and €7-14 billion per year by 2020 for fully MRVed emissions reductions and removals (assuming 50% REDD implementation) (Streck et al, 2009⁶).

The challenges of ensuring this money is distributed equitably both among and within REDD countries to address varying capacity needs, and on the basis of reliable and well monitored performance and results, are considerable. In the majority of REDD countries, governance is weak and corruption endemic. Illegality in the timber industry is widespread, and the risk of doing business is high. Effective monitoring is a key tool in addressing these challenges, so the systems need to be well designed and implemented.

To illustrate the extent of corruption and lack of accountability in many REDD countries, two indicators were selected from a World Bank survey of governance in 212 countries – 'control of corruption' and 'voice and accountability'.⁷ The 37 countries participating in the FCPF were then ranked; 80% of the countries fell in the bottom half, and nearly 30% in the lowest quarter, illustrating the potential risk of misappropriation of readiness funds and the magnitude of the task ahead in strengthening governance.

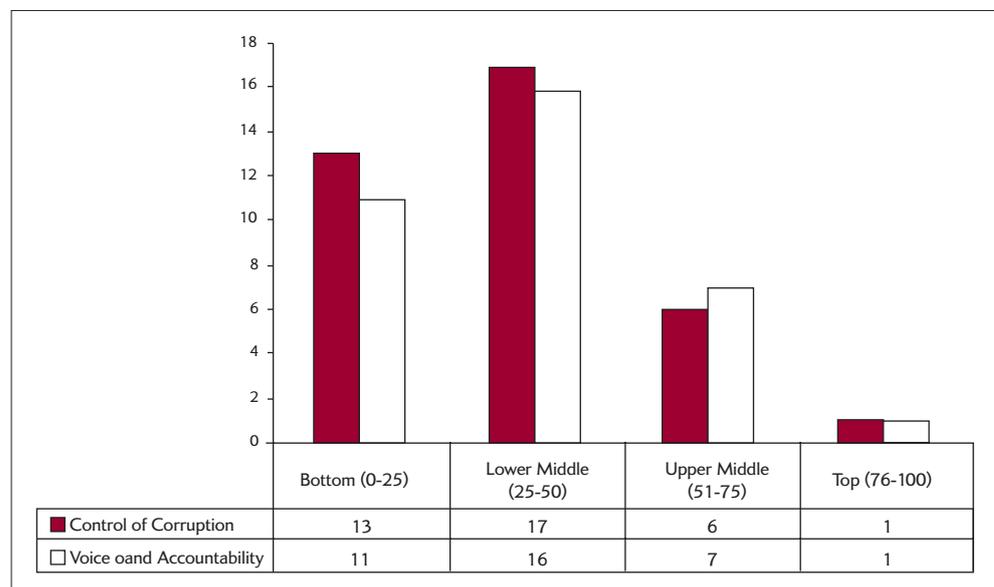


Figure 1: Ranking of 37 FCPF countries on two World Bank Worldwide Governance Indicators

80% of countries selected rank in the bottom half of a World Bank survey of governance indicators in 212 countries, indicating the extent of problems with corruption and failures in governance. Nearly 30% are in the lowest quarter.

⁶ Referencing Summary of the preliminary report of the Informal Working Group on Interim Finance for REDD, second draft, IWG-IFR, 23 September 2009, and Communication from the European Commission, 'Stepping up International Climate Finance: A European Blueprint for the Copenhagen Deal', COM(2009) 475/3, 10 September 2009.

⁷ The World Bank World Governance Indicators are aggregate indicators based on 35 individual data sources from 32 organizations, including surveys of households and firms, and experts from NGOs and the public and private sector. Accessed at <http://info.worldbank.org/governance/wgi/index.asp>

Illegal timber production and trade is a symptom of poor governance and weak forest law enforcement. In a comparative study in 2007 for Chatham House of enforcement in four different sectors - fisheries, forests, wildlife and ozone - forest law enforcement emerged as the weakest by far. From seven country case studies (all of which are now REDD countries) it was concluded that 'the general picture that emerges is one of widespread corruption undermining attempts to strengthen forest law enforcement' (Reeve, 2007). The extent of illegality in the forest sector is illustrated in Figure 2 which shows the estimated proportion of illegal and legal timber exports from 15 REDD countries in 2007.



Figure 2: Estimated proportion of illegal and legal timber exports from 15 REDD countries in 2007

Source: based on estimates from <http://globaltimber.org.uk/IllegalTimberPercentages.doc> except Columbia (World Bank estimate)

A picture of the risk of conducting business in REDD countries can be gained from examining ratings produced by the French export credit insurance company, Coface,⁸ which supports businesses operating in high risk markets. Coface assigns two types of ratings to countries: 1) country ratings based on macro-economic and political data, the Coface payment experience and business environment quality; and 2) business climate ratings which reflect whether corporate financial information is available and reliable, whether the legal system provides fair and efficient creditor protection, and whether a country's institutional framework is good for companies. The seven categories for both types of ratings range from A1 (least risk) to D (highest risk) (see Annex for descriptions of each rating⁹). Most REDD countries fall in higher risk categories (see Table 2). The business climate in 83% of the 40 REDD countries in the FCPF and UN-REDD is rated at B or below, and in 33% of the countries it is rated at D.¹⁰ Business climates rated B are considered unstable and largely inefficient, in which transactions between

⁸ Coface was founded in 1946 as a specialised export credit insurance company, managing its own products and State guarantees for French exports.

⁹ www.trading-safely.com/sitecwp/ceen.nsf/vwCRO/B655C3E2E5B6241DC1256AE900523D7E.

¹⁰ Note that Coface ratings are not available for Suriname and Vanuatu.

companies run appreciable risks, while those ranked D are considered highly risky in which company transactions are very difficult to manage. The rankings illustrate the risks to private investors in REDD if governance issues are not addressed. They also illustrate the considerable differences between the few countries at the top of the table and those towards the bottom. Inevitably, private investment will migrate to the more stable environments.

Table 2: Coface risk ratings assigned to 41 REDD countries¹¹

REDD countries*	Business climate rating	Country rating	REDD countries*	Business climate rating	Country rating
Chile	A2	A2	Paraguay	C	C
Thailand	A3	A3	Uganda	C	C
Costa Rica	A3	A4	Zambia	C	C
Brazil*	A4	A4	Bolivia	C	D
Mexico	A4	A4	Nicaragua	C	D
Panama	A4	A4	Mozambique	D	B
Columbia	B	A4	Papua New Guinea	D	B
El Salvador	B	B	Tanzania	D	B
Peru	B	B	Ethiopia	D	C
Argentina	B	C	Republic of Congo	D	C
Sri Lanka	B	C	Cambodia	D	D
Gabon	C	B	Central African Republic	D	D
Guatemala	C	B	DRC	D	D
Indonesia	C	B	Equatorial Guinea	D	D
Vietnam	C	B	Guyana	D	D
Cameroon	C	C	Lao PDR	D	D
Ecuador	C	C	Liberia	D	D
Ghana	C	C	Nepal	D	D
Honduras	C	C	Suriname	Not rated	Not rated
Kenya	C	C	Vanuatu	Not rated	Not rated
Madagascar	C	C			

* All countries are members of the FCPF and/or UN-REDD except Brazil

The realities in REDD countries do little to inspire confidence. The risk of inequitable distribution both among and within countries and elite capture of revenues, whether from funds or the carbon market, is high. At the same time, new opportunities will open up for criminal activities, including carbon fraud, and eventually the involvement of organised crime. Poor law enforcement and the levels of illegality in the timber industry indicate that many REDD countries will be unprepared to deal with the challenges carbon crime will present. Countries will need to strengthen law enforcement and to build sound and equitable national implementing mechanisms through multi-stakeholder processes and gain the confidence of donors and investors, be they from the private or public sector. To minimise the risk of criminality, national and international enforcement agencies should be engaged in developing the mechanisms.

The success of REDD implementation is likely to be built on stakeholder confidence, which in turn will depend on robust systems. As the R-PP template recognises, a monitoring system builds accountability and trust among local constituencies (FCPF, 2009). It also builds trust among international constituencies, including governments and investors. As this section illustrates, part of that confidence building will be addressing governance, with more work to do in some countries than others.

3. The International Climate Regime and Monitoring REDD

3.1 The UNFCCC and state of play in the negotiations

The climate regime is comprised of the 1992 framework convention (UNFCCC), which lays down basic provisions to address climate change, and the 1998 Kyoto Protocol, which sets out stronger commitments and targets for developed countries listed in Annex I of the UNFCCC.¹² The Kyoto Protocol is currently in its first commitment period which runs from 2008 to 2012 during which Annex I parties are expected to reduce their overall emissions of greenhouse gases by at least 5% below 1990 levels. The Bali Action Plan, adopted at COP13 in 2007, provides the basis for 'long-term cooperative action' to implement the UNFCCC up to and beyond 2012. It represents a milestone in negotiations for a new agreement by encompassing all parties to the UNFCCC, not just those listed in Annex I. With respect to developing countries, the Bali Action Plan calls for:

*'(ii) Nationally appropriate mitigation actions by developing country Parties ... in a measurable, reportable and verifiable manner; [and]
(iii) Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries'.* (BAP, paragraph 1(b))

The Bali Action Plan therefore anticipates that a new climate agreement will provide for the measurement, reporting and verification (MRV) of nationally appropriate mitigation actions (NAMAs) by developing countries. REDD is one such mitigation action, but recognised in the negotiations as a special case with unique characteristics.¹³ The BAP further provides for the MRV of support from developed countries. This report, however, focuses on monitoring actions by REDD countries.

Since COP14 in Poznan in December 2008, five negotiating meetings have taken place. Initially slow to start, the negotiations on REDD picked up speed with the establishment of a sub-group to address paragraph 1(b) (iii) of the BAP under the contact group on mitigation.¹⁴ Since it met for the first time in August 2009, negotiations under this sub-group have progressed more rapidly than on other issues, including on NAMAs. At the close of the most recent negotiating meeting in Barcelona in November 2009, hopes faded for a new legally binding agreement on climate change in Copenhagen. However, the comparatively advanced state of the REDD negotiations indicates that an agreement could be reached on REDD, not only on objectives, scope and principles but also on operational aspects, including the means of implementation, monitoring and institutional arrangements. These operational aspects were the focus of negotiations in Barcelona, resulting in a draft text by the facilitator which will provide the basis for negotiations in Copenhagen.¹⁵

Although it is recognised that the UNFCCC will provide the overarching framework for REDD, policies are being developed as much through initiatives under UN-REDD and the FCPF as they are through the UNFCCC. Fourteen countries are now members of UN-REDD,

¹² Annex I parties are developed countries which are parties to the UNFCCC and listed in Annex I to the Convention that were committed to returning their GHG emissions to 1990 levels by 2000. They include a total of 40 countries plus the European Union as a block.

¹³ REDD is now being referred to by some as REDD-plus to reflect that the negotiating text includes additional activities within its potential scope, such as the conservation and sustainable management of forests, and enhancement of forest carbon stocks.

¹⁴ Discussions on REDD are being conducted in the Ad Hoc Working Group on Long Term Cooperative Action (AWG-LCA) under the Contact Group on Enhanced Action on Mitigation and its Associated Means of Implementation as well as in the SBSTA.

¹⁵ UNFCCC Non-paper 39, 5/11/2009 @ 19.00, Contact Group on Enhanced Action on Mitigation and its Associated Means of Implementation: Sub-group on paragraph 1(b) (iii) of the Bali Action Plan, Draft text proposed by the facilitator. All documents relating to the climate change regime can be obtained from the website www.unfccc.int.

five having recently joined as observers in addition to the original nine pilot countries, while 37 countries are participating in the FCPF. A total of 40 countries are participating in one or both institutions (see Table 1). For the 8 countries fully participating in both, a process of harmonisation is underway at the national level as well as at the international level.

3.2 A performance-based REDD through a phased approach with safeguards

A performance-based approach to REDD is anticipated with countries passing through phases of preparation and implementation. The facilitator's draft text delineates three phases:

- *Phase 1* The development of strategies or action plans, policies and measures and capacity building (the readiness phase);
- *Phase 2* The implementation of these strategies or plans, policies and measures that could involve further capacity building and technology transfer; and
- *Phase 3* Results-based actions that are measured reported and verified.¹⁶

A 'multi-speed REDD' is anticipated with variable timings of transitions between the phases to accommodate countries at different levels of preparedness or readiness for REDD. Support would begin with capacity building, institutional strengthening and the building of monitoring capacities (Streck et al, 2009). Many countries are already in phase 1 with several multilateral, bilateral and unilateral programmes underway. As well as UN-REDD and the FCPF, other institutions and arrangements include the Global Environment Facility, the Congo Basin Forest Fund, bilateral arrangements established by Norway's International Climate and Forest Initiative and the Amazon Fund established by Brazil (Streck et al, 2009). The World Bank has also established the Forest Investment Programme (FIP) with a view to scaling up the preparation of countries to engage in REDD through providing bridge financing for reforms and investments identified through readiness programmes.¹⁷

Details concerning the phases, including performance indicators, eligibility criteria and monitoring requirements, remain to be decided. Norway has proposed detailed eligibility criteria for transition between the phases. However, at this stage these are only reflected in the facilitator's text in square brackets as 'guidance or criteria' on actions that can be funded, with no link to the phases. Payment for emissions reductions on the basis of proxy indicators has been discussed for phase 2 (Streck et al, 2009).¹⁸

The precise objectives and scope of REDD remain to be clarified. However, negotiators have reached a degree of understanding on the need for safeguards¹⁹ concerning:

- non-permanence of emissions reductions;
- leakage or emissions displacement (leakage occurs when mitigation actions in one area may result, directly or indirectly, in emission increases in another area);

¹⁶ UNFCCC Non-paper 39, 5/11/2009 @ 19.00, Contact Group on Enhanced Action on Mitigation and its Associated Means of Implementation: Sub-group on paragraph 1 (b) (iii) of the Bali Action Plan, Draft text proposed by the facilitator.

¹⁷ See Streck et al, 2009, for an overview of institutions engaged in, and proposed for, REDD.

¹⁸ The Informal Working Group on Interim Finance for REDD considers phase 2 in two parts, a) building capacity and b) payments for emissions reductions measured by proxies.

¹⁹ UNFCCC Non-paper 39, 5/11/2009 @ 19.00, Contact Group on Enhanced Action on Mitigation and its Associated Means of Implementation: Sub-group on paragraph 1(b) (iii) of the Bali Action Plan, Draft text proposed by the facilitator, paragraph 4, *Principles – safeguards*.

- transparent governance structures and accessible support mechanisms (the 'governance safeguard');
- consistency with national forest programmes and international conventions and agreements;
- respect for the rights of indigenous peoples and local communities and the full and effective participation of all relevant stakeholders (the 'social safeguard');
- conservation of biological diversity, including safeguards on the conversion of natural forests, and enhancing social and environmental benefits, including environmental or ecosystem services (the 'environmental safeguard').

However, some of the text is weak with key provisions in square brackets, and no provision has been made for monitoring the application of and adherence to these safeguards.

3.3 Clarifying MRV and review: definitions

MRV is a new concept introduced by the Bali Action Plan. Although measurement and reporting, and to a limited extent verification, are used in the context of the current climate regime, the BAP delineated and linked them for the first time. It did not, however, define the three terms.

Since then, terminology concerning MRV in documents and literature on REDD has been used inconsistently, leading to potential misunderstandings. Some refer to MRV as monitoring, reporting and verification and some as measurement, reporting and verification, while others use monitoring to refer to more than one element of MRV. UN-REDD, for example, referred initially to MARV – measurement, assessment, reporting and verification (UN-REDD, 2008b and 2009a) – but has since reverted to MRV (UN-REDD, 2009b).

In this report, MRV is interpreted as measurement, reporting and verification. It is viewed as part of an integrated system which, together with review (a different concept to verification), will be required for monitoring REDD at both national and international level throughout the different phases, not only to assess and improve REDD implementation but to build confidence in the regime.

The four terms – measurement, reporting, verification and review – are understood as follows.

Measurement can refer to both quantitative and qualitative assessments, and includes the analysis and production of results as well as the actual measurements or observations of key parameters. Although it typically refers to quantifiable attributes, almost any phenomenon can be measured (Breidenich and Bodansky, 2009). An example of qualitative assessment is the national legislation project under CITES (the Convention on International Trade in Endangered Species) in which the Secretariat measures parties' compliance by qualitatively assessing their national implementing legislation and categorising it according to the extent to which it complies with CITES requirements (Reeve, 2002). Under a REDD agreement, measurement could refer to measuring and analysing GHG emissions and removals, but it could also refer to measuring and assessing progress with preparation and implementation in phases 1 and 2 (similar to the CITES national legislation project), and maintenance of that progress in phase 3.

Measurement is generally the responsibility of government authorities. However, it may be delegated to, or include input from, non-state actors including research organisations, civil society and private sector agencies.

Reporting is generally viewed as the process by which parties submit formal reports to the Conference of the Parties, or, in the case of the Kyoto Protocol, the Conference of the Parties serving as the Meeting of the Parties (COP/MOP). This is usually the responsibility of government authorities, but under some conventions non-state actors may also report information directly or submit observations on government reports, or be involved in the national process to prepare reports (Breidenich and Bodansky, 2009). CITES is one example and the International Labour Organisation (ILO) another (Reeve, 2002), while the Convention on Biological Diversity recommends that parties establish a consultative process involving relevant stakeholders in preparing their national reports (Breidenich and Bodansky, 2009). Under a REDD agreement, reports could also be submitted to other relevant international institutions such as UN-REDD and the FCPF.

Verification generally refers to the process of independently checking the accuracy and reliability of reported information or the procedures used to generate information.²⁰ Verification can play a key role in building confidence among parties. Strong verification regimes are generally seen as essential components of agreements on arms control and nuclear non-proliferation. The independence of this function is critical for the credibility of the system as a whole and as such must be carried out by non-state actors.²¹

Review is not the same as verification, although sometimes the two overlap. Generally speaking, verification is a technical, non-judgmental function, while review may involve an evaluation of performance or an assessment of the adequacy of commitments more generally. Under the FCPF, ad hoc Technical Advisory Panels (TAPs) are established to review REDD readiness proposals, while under the UNFCCC and Kyoto Protocol, a system has been established for independent review by experts of national communications and greenhouse gas inventories of Annex I parties. However, 'review' under the UNFCCC has been construed largely as a technical assessment of implementation, not as a judgement of performance, and entails verification only in limited areas (Breidenich and Bodansky, 2009).

3.4 Monitoring under the current climate regime²²

The monitoring of commitments under the UNFCCC and Kyoto Protocol has to date been based on information in reports and greenhouse gas inventories prepared and submitted by governments, and, in the case of Annex I parties, reviewed by independent experts. Monitoring requirements are more stringent for Annex I parties than they are for non-Annex I parties (developing countries) since the former have emissions targets to meet.

²⁰ UNEP, 2007, at 22 ('Verification is a process undertaken to test the accuracy of data or information provided by a Party to the MEA Secretariat. The process is undertaken by a third party, such as the Secretariat or an NGO, or by them in combination with other Parties to the treaty.').

²¹ For an overview of verification in international treaties see Breidenich and Bodansky, 2009.

²² See Breidenich and Bodansky, 2009 for an overview of requirements on reporting and review under the climate regime.

All parties to the UNFCCC, however, are required to:

- implement measures to mitigate GHG emissions (the Convention and Protocol identify possible types of policies and measures, but do not require parties to adopt any in particular), and
- report to the UNFCCC through national communications and GHG inventories.

Annex I parties must submit, within six months of entry into force of the Convention and periodically thereafter, a national communication to the COP describing steps taken or planned to implement the UNFCCC. Since 1996, Annex I parties have also had to submit to the COP a separate annual inventory of anthropogenic emissions by sources and removals by sinks, supported by a National Inventory Report with information on national circumstances and methods pertinent to the review and analysis of the inventory. Detailed information on policies and measures which Annex I parties are implementing to meet their Convention obligations and Kyoto Protocol targets is required in their national communications.

Non-Annex I parties are also required to submit national communications (which include inventories) but have up to three years after entry into force to submit the first communication. Reporting guidelines are much weaker than for Annex I parties, in that while non-Annex I parties are encouraged to report on their policies and measures, they have complete flexibility in whether and how they do so. Least developed country parties (LDCs) can make their initial communication at their discretion. Under the anticipated new climate agreement, reporting obligations for non-Annex I parties are expected to become more stringent. However, while the submission of inventories is proposed to be annual, it is only proposed to be every 6 years for national communications, with LDCs still allowed discretion.²³

In addition to self-reporting by parties, the UNFCCC employs a system of in-depth reviews (IDRs) carried out by outside experts. Established by a decision of COP1, the process submits to an in-depth review the national communications of Annex I parties by a review team of experts nominated by parties and international organisations and drawn from a pre-approved roster. Experts are not allowed to participate in review teams for their own country's national communication. The IDR process initially provided for country visits as an option, with the consent of the party concerned. In practice, reviews are conducted in-country at least every five years to examine documentation and activity data more thoroughly and to assess a party's institutional, procedural, and archiving arrangements. Consisting of three to six persons and coordinated by the UNFCCC Secretariat, the review teams visit the country's capital for usually four to five days near the beginning of the IDR, and meet with relevant government officials, members of the academic and scientific community and business and environmental NGOs. In 1998, parties decided the review should be separated into two distinct parts, a technical review of inventory information and a review of non-inventory information in national communications.

The Kyoto Protocol improved the system by including a means to act on information in the reports, in effect adding a feedback loop. Under the Protocol, the expert review

²³ UNFCCC Non-paper No. 28, 9/10/2009 @ 10:00, Contact Group on Enhanced Action on Mitigation and its Associated Means of Implementation, Non-paper by the chair, Annex 1.

teams are required to prepare a report for the COP/MOP assessing implementation of commitments by each Annex I party and identifying potential problems and factors influencing fulfillment of the commitments. The reports are circulated to all parties by the Secretariat, which lists 'questions of implementation' identified in the reports for further consideration by the COP/MOP and the Compliance Committee.

Expert reviews of national communications aim to provide a 'thorough and comprehensive technical assessment of the implementation of the Convention' by individual parties.²⁴ Under both the UNFCCC and Kyoto Protocol, the review is largely aimed at facilitating better understanding and providing feedback on the information reported. Through meetings with national experts and stakeholders, teams attempt to verify reported information and check emissions estimates against inventories or other data as far as possible, but, according to Breidenich and Bodansky, *'their ability to truly verify this information is limited. Due to the lack of specificity in parties' commitments and, consequently, in the reporting guidelines, the information currently provided by Annex I parties on mitigation policies and measures does not allow a full assessment or verification of their effectiveness, or a comparison of efforts across countries.'* (Breidenich and Bodansky, 2009).

There is no equivalent review of non-Annex I national communications and inventories under the UNFCCC. A Consultative Group of Experts (CGE) was established by the COP as a forum for parties to share experiences and to identify barriers and capacity building needs with a view to improving the preparation of national communications. Although it provided some feedback on the inventories of non-Annex I parties, it did not review or verify those submitted. The CGE's mandate expired in 2007 but was recently renewed. In the current climate talks, a review system similar to the IDR but which would be applied to all parties is under discussion in the contact group on mitigation.²⁵

The Kyoto Protocol established a system for auditing and verification of project activities under the Clean Development Mechanism (CDM) with the objective of 'ensuring transparency, efficiency and accountability'. Accredited 'operational entities': 1) validate proposed CDM activities through an independent evaluation against the requirements of the CDM; and 2) verify and certify emission reductions of registered CDM project activities (see section 4.4 and Box 4 for more details).

3.5 Monitoring beyond carbon: developments to date

'While the IPCC provides standards for carbon monitoring, the REDD monitoring systems must address a much broader set of parameters and at the same time generate affordable and timely knowledge for national level decision-making and accounting' (UN-REDD, 2008a).

'...a monitoring system also builds accountability and trust among local constituencies' (FCPF, 2009).

A system for monitoring REDD is evolving not only under the UNFCCC, but also through discussions, policy papers and country programmes under UN-REDD and the FCPF. There have been attempts to coordinate the work and ensure that the

²⁴ Decision 2/CP.1, 'Review of First Communications from the Parties Included in Annex I to the Convention'.

²⁵ UNFCCC Non-paper No. 28, 9/10/2009 @ 10:00, Contact Group on Enhanced Action on Mitigation and its Associated Means of Implementation, Non-paper by the chair, Annex 1.

country programmes already taking shape, as well as the UN-REDD global programme, do not move ahead of the UNFCCC, but the process has been neither smooth nor entirely harmonious. In reality, the FCPF and UN-REDD, along with the country programmes, have moved ahead and developed more progressive policies and procedures than the UNFCCC.

Both the scope and form of the system for monitoring REDD remain to be resolved. Those who prefer to limit the concept of MRV to emissions reductions and GHG removals, i.e. to C-MRV, in the belief that performance-based payments determined by the results of C-MRV will be adequate to deliver emissions reductions want to focus attention on developing the parameters for the C-MRV system. Others who understand the challenges of forest management and governance in developing countries believe that more attention should be paid to other monitoring needs to support REDD implementation (see Figure 3). This includes monitoring the application of safeguards as well as actions expected to be included in the scope and objectives of REDD.²⁶ It is also anticipated that the performance-based nature of REDD will require the monitoring of performance-based metrics, including elements of effective implementation, socio-economic and environmental impacts (which the safeguards are intended to address), and participation as well as proxies for GHG results (Streck et al, 2009).

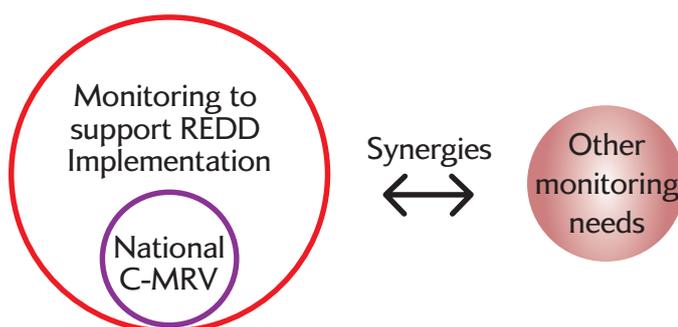


Figure 3: The relationship between C-MRV and monitoring to support REDD implementation²⁷

To date, most of the discussions surrounding monitoring, MRV and REDD, both inside and outside the UNFCCC, have focused on measuring emissions reductions and GHG removals using remote sensing and carbon stock assessment methodologies with a view to developing capacity for measuring GHG results in phase 3 (i.e. attention has been directed to the 'M' of C-MRV). Meanwhile, little attention has been paid to reporting and almost none to verification or to the requirements for monitoring performance and aspects of REDD implementation other than carbon (e.g. the application of safeguards), which are of particular importance in phases 1 and 2 as well as phase 3. While C-MRV is clearly a core component of any monitoring system, it has been recognised by both UN-REDD and the FCPF that REDD design and implementation must involve the development of a broader monitoring system which goes 'beyond carbon'.

²⁶ The need to monitor safeguards was discussed by negotiators in Barcelona in November 2009 (personal communications to Global Witness).

²⁷ Taken from a slide presentation by Peter Holmgren, FAO, given at an initial planning meeting on Guidance on Monitoring for REDD Implementation, New York 16-17 July 2009.

The Framework Document for UN-REDD states that *'While the IPCC provides standards for carbon monitoring, the REDD monitoring systems must address a much broader set of parameters and at the same time generate affordable and timely knowledge for national level decision-making and accounting'* (UN-REDD, 2008a). A workshop convened by UN-REDD on Monitoring, Assessment and Verification in September 2008 devoted part of its discussions to broader parameters and monitoring needs other than C-MRV and produced a set of initial recommendations (UN-REDD, 2008b). A subsequent discussion paper prepared for the first UN-REDD Policy Board meeting in Panama noted that *'REDD parameters that go beyond carbon stocks and changes may become required in the mandatory reporting to the convention'* and identified the drivers of deforestation and forest degradation as an additional information need (UN-REDD, 2009a). At the second Policy Board meeting in Montreux in June 2009, there was further recognition that monitoring needs are broader than carbon. A background paper was presented listing indicative information requirements for REDD implementation additional to carbon information, including: goods; ecosystems and other services; uses and users of such services; socio-economic, livelihoods, food security and poverty indicators; and land tenure (UN-REDD, 2009b).

The importance of governance for the delivery of emissions reductions, and the need to monitor it, has also been recognised by UN-REDD (see Box 1). In Montreux, a draft paper on a 'Governance MRV Framework' was presented (UN-REDD, 2009c), and approval given for a series of working papers that will provide detailed analyses and practical guidance, as well as for a programme of capacity building workshops and training. The draft paper asserts that *'REDD governance outcomes will have to be measured against a set of indicators and reported and verified through transparent processes, effectively resulting in building a "Governance MRV Framework"'*. A common

Box 1: Governance and REDD (UN-REDD, 2009c)

'The delivery of emission reductions will take place at the local level and issues of governance and livelihoods are key if REDD is to be the impetus for shifts to low-carbon development pathways.

In this context, good and efficient governance of forest resources will be central to the success of REDD policies and measures. Good governance will enable an environment conducive to the predictable and lasting delivery of emission reductions, ensure that REDD policies provide sufficient incentives and minimize negative social impacts, and promote structures of service delivery and payments geared towards sustainable development and poverty reduction outcomes. Governance challenges are many: unenforced land tenure systems, elite capture, marginalization of stakeholders, uncoordinated mechanisms or corruption are often recognized, and can be met with coordinated, cross-sectoral development strategies.

Underpinning and reinforcing good governance is secure tenure and enforcement. Governance will need to be grounded on clear and enforceable tenure systems for land and carbon and well-defined rights to resources; it will emphasize multi-stakeholder mechanisms and local empowerment; and it will be based on principles of transparency, inclusiveness, accountability, coordination and capacity and enforcement.'

thread through the series of working papers will be a *'focus on contributing to the development of a Governance MRV Framework and indicators to assess REDD interventions, as well as best practices on reporting and verification for these indicators.'* (UN-REDD, 2009c).

The FCPF has similarly recognised and elaborated on monitoring needs beyond carbon, and identified governance as a core component of REDD readiness (FCPF, 2009). The most recent template for Readiness Preparation Proposals (R-PPs), released in September 2009 and which is now the basis for all readiness proposals under

Box 2: Monitoring more than carbon (FCPF, 2009)

FCPF R-PP template

Section 4b. Other Benefits and Impacts

Guidelines

Please consider using the following steps as a guide to prepare the monitoring system:

1. How will the monitoring system address key governance factors pertinent to REDD implementation?
2. How will it monitor social and environmental impacts, and how does it build on the existing environmental and social monitoring systems of the country?
3. How does it provide for establishing independent monitoring and review, involving civil society and other stakeholders and enabling feedback of findings to improve REDD implementation?
4. If it is a staged approach, describe the timeframe in which the phases will be developed and the key outcomes expected.
5. Assess existing capacities and future capacities required: define the roles and responsibilities for design and implementation of measuring, reporting and verifying, including those for national institutions. Define capacity building, training, and hardware and software needed, including possibility of scaling up existing initiatives and collaborations.
6. Assess the scope and role for local communities, NGOs, various government agencies or institutes, and the private sector in the MRV system.
7. Assess systems/structures required for monitoring and review, transparency, accessibility and sharing of data both nationally and internationally.
8. Assess the financial support required and the sources of funding.
9. Consider the potential benefits of designing the system to integrate across subnational regions; or at a multi-country regional level, if either of these is relevant, based on your ecological, institutional and economic context.

preparation, contains a component on designing a monitoring system (component 4) which is divided into two sections: (a) monitoring emissions and removals (C-MRV); and (b) monitoring other benefits and impacts. Its rationale states that, in addition to demonstrating credible reductions in deforestation and/or forest degradation in comparison to a country's reference scenario in order to obtain performance-based financial incentives, *'a monitoring system also builds accountability and trust among local constituencies. The system design should include early ideas on including capability (either within an integrated system, or in coordinated activities) to monitor rural livelihoods, conservation of biodiversity, key governance factors directly pertinent to REDD implementation in the country, and to assess the impacts of the REDD strategy in the forest sector.'* (FCPF, 2009). The template considers it possible to integrate (a) and (b) as one system or to have them as separate monitoring systems.

Section 4b on monitoring other benefits and impacts (i.e. monitoring beyond carbon) contains guidelines for countries to follow in preparing their R-PPs (see Box 2). These guidelines address a number of important issues, including: how the monitoring system will address key governance factors; how it will monitor social and environmental impacts; and assessing the scope and role for local communities, NGOs, various government agencies or institutes, and the private sector in the MRV system.

The R-PP template also provides for an assessment of land use, forest policy and governance to 'help the country identify key drivers of deforestation and/or forest degradation and review its past experiences with reducing deforestation and forest degradation, in order to identify promising approaches for the emerging REDD strategy'. The effectiveness of law enforcement systems is among issues to be considered in the assessment (FCPF, 2009).

Thus over the last year, significant progress has been made in the FCPF and UN-REDD in determining the needs of a monitoring system and increasing attention has been paid to both monitoring needs beyond carbon and to governance. This progress is not reflected, however, in the UNFCCC where negotiations are lagging behind developments in the FCPF and UN-REDD. Although a safeguard on governance has been included in the facilitator's draft text, the wording is weak. Moreover, discussions in Barcelona did not result in a coherent text on monitoring. The draft text contains several provisions on monitoring and MRV but they do not lay the foundation for a coherent integrated system. Although it provides for establishing a 'robust and transparent national monitoring and reporting system', this is restricted to 'emissions and removals in the forestry sector'.²⁸ The focus of the text is on MRV of emissions reductions and removals in phase 3.²⁹ It lays out the nature of the phases more clearly than in previous drafts, but does not link them to monitoring needs or clearly address these needs in phases 1 and 2. Neither does it address monitoring of safeguards despite this issue being raised by several delegations. A weak provision for 'simplified reporting requirements' linked to incentives for performance and financial support is included but in square brackets.³⁰ A draft Decision prepared by SBSTA in June 2009 is similarly narrow in its scope, although it does state that it should not prejudge any further decisions of the COP, providing a small window to address shortcomings later (UNFCCC, 2009b). These texts will be discussed further in Copenhagen where it is

28 UNFCCC Non-paper 39, 5/11/2009 @ 19.00, Contact Group on Enhanced Action on Mitigation and its Associated Means of Implementation: Sub-group on paragraph 1(b) (iii) of the Bali Action Plan, Draft text proposed by the facilitator, paragraph 5 (c).

29 Ibid, paragraphs 7 and 12-15.

30 Ibid, paragraph 9.

hoped that more coherent and practical provisions can be agreed that take into account progress on determining the needs for monitoring systems made in the FCPF and UN-REDD.

In all three processes there has been recognition, but in different ways, that to ensure a REDD monitoring system is robust, it should encompass some form of independent third party monitoring, verification or review at both national and international levels. This is important to ensure transparency, accountability and ultimately good governance. The earliest recognition of this was in recommendations made at the Workshop on Monitoring, Assessment and Verification convened by UN-REDD in September 2008 which included the *'implementation of a third party monitoring and verification process, at national and international level, to achieve transparency of the process'* (UN-REDD, 2008b). Subsequently, some of the party submissions to the UNFCCC on REDD referred specifically to independent monitoring, review or verification,³¹ but the form it might take is unclear. The facilitator's draft text provides for either an expert review team or a measurement, reporting and verification technical panel for 'the verification of actions'. Their independence is not made explicit, except in the case of 'sub-national scale activities' for which the establishment of 'an independent body' is proposed.³² At this stage it is not clear if such a mechanism would operate separately from the review system proposed for inventories and national communications.

Reference to independent review is also made in the draft Decision prepared by SBSTA in June 2009, which provides for national 'monitoring systems and their results' to be 'open to independent review as agreed by the Conference of the Parties' (UNFCCC, 2009b). The provision is currently in square brackets, however, indicating that consensus was not reached, as are the provisions in the facilitator's draft text for an expert review team or a measurement, reporting and verification technical panel.

The clearest provision on independent monitoring and review is in the FCPF R-PP template, which asks countries how a system of monitoring 'other benefits and impacts' would *'provide for establishing independent monitoring and review, involving civil society and other stakeholders and enabling feedback of findings to improve REDD implementation'* (see Box 2) (FCPF, 2009). This question will therefore have to be addressed in R-PPs currently under preparation for the next meeting of the Participants Committee in March 2010.

In addition to identifying monitoring needs, the FCPF and UN-REDD have developed procedures that in effect operate as a monitoring system. At every meeting of the FCPF Participants Committee and UN-REDD Policy Board, presentations of country proposals are made and, in the case of the FCPF, TAP reviews are presented. In effect, this procedure is fulfilling the role of a monitoring system in phase 1 and filling the vacuum in the absence of a system under the UNFCCC.

³¹ See for example the proposal submitted by Tuvalu, which refers to the need to have independent monitoring of *'certified sustainable forest management practices'* (FCCC/KP/AWG/2009/MISC.5/Add.1); and text submitted by Norway, proposing *'The Conference of the Parties shall elaborate modalities, rules and procedures for the REDD-plus mechanism, in particular for ensuring transparency, efficiency and accountability through independent auditing and verification of REDD-plus activities and the dispersal and expenditure of REDD-plus related compensation'* (FCCC/AWGLCA/2009/INF.2, page 128).

³² UNFCCC Non-paper 39, 5/11/2009 @ 19.00, Contact Group on Enhanced Action on Mitigation and its Associated Means of Implementation: Sub-group on paragraph 1(b) (iii) of the Bali Action Plan, Draft text proposed by the facilitator, paragraph 22 (b).

4. Existing systems providing lessons for REDD

4.1 Independent forest monitoring (IFM)

'IFM is the use of an independent third party that, by agreement with state authorities, provides an assessment of legal compliance, and observation of and guidance on official forest law enforcement systems' (Global Witness, 2005)

Developed over the last ten years in the context of concession-based logging to monitor legal compliance and systems for forest law enforcement, IFM provides publicly accessible, objective information concerning the control of activities in the forest sector. Implemented in five countries to date, it addresses governance and transparency and supports forest law enforcement at national level. Its focus on ground-truthing through field investigations enables it to provide reliable evidence on forest management, including institutional weaknesses and corruption, and to report on illegal activities.³³

The official but independent nature of IFM makes it unique. An independent monitor (typically an NGO but sometimes, though not ideally, a private entity) enters into a contract with a local host organisation, typically the ministry of forests. The recognition that this arrangement helps to ensure that reports, which are based on field missions often conducted jointly with forest officers, are acted upon by the government and not disregarded. Once provided with the evidence, the government and the judiciary are more likely to initiate cases against those breaching the law. IFM is also a useful tool for strengthening civil society,³⁴ since it enhances transparency and accountability by providing a means to access and channel information, provides evidence of illegal practices, and opens spaces for public debates. Essentially, IFM is a tool for monitoring governance in any forest management regime and is therefore a form of systems monitoring.

IFM has been implemented in Asia (Cambodia), Africa (Cameroon and Republic of Congo) and Central America (Honduras and Nicaragua). IFM-related work has also been carried out in other countries, including capacity building workshops in Liberia, Indonesia and Nicaragua and information workshops in Central America and Peru, while feasibility studies and pilot missions have been conducted in a number of countries.³⁵ Since its inception in 1999, stakeholders around the world have increasingly recognised the role of IFM in supporting law enforcement and contributing to forest sector reform, thereby building credibility and confidence. This is illustrated by the inclusion of IFM in the EU Forest Law Enforcement, Governance and Trade (FLEGT) initiative as a component of the bilateral Voluntary Partnership Agreements (VPAs) signed or being negotiated under FLEGT (see below and Box 3).

IFM has worked best when there has been some degree of political will, a broad mandate, participatory design and constructive relations with the host institution, while the monitor maintains objectivity. Experience shows that to operate effectively, the monitor must have access to information, access to the field and the freedom to publish. Monitors have typically come from civil society organisations (CSOs) and involved multi-disciplinary teams which engage in field missions. In Nicaragua,

³³ See Global Witness, 2009, *A Decade of Experience: Lessons Learned from Independent Monitoring to Inform REDD*, for a detailed description of IFM.

³⁴ This report uses the term civil society to include local communities, indigenous peoples, local and international NGOs and generally all forest-dependent people.

³⁵ See Global Witness, 2009, Table 1 for an overview of IFM projects worldwide.

monitoring, which to date has been carried out by Global Witness, is being devolved to the local level with the proposed establishment of District Monitoring Units, and training undertaken to enable civil society representatives to fulfil monitoring roles. In the Republic of Congo (RoC), civil society training is also being carried out by the NGOs REM and Forests Monitor who are conducting field missions in which an expert team is assisted by a shadow team in training.

The monitor makes recommendations in its reports but the enforcement agencies retain responsibility to act on them. In Cameroon, RoC and Honduras, the monitor's reports are peer reviewed by a reporting panel which acts as a buffer against vested interests as well as a platform to discuss the reports and assume joint responsibility. In Honduras, where the monitor is a local organisation, the panel includes civil society and the private sector as well as government officials, donors and the monitor.

IFM has worked best where long-term funding has been forthcoming, but this has not always been the case. Costs associated with setting up and implementing IFM are not high. Indicative costs for establishing and running an adequate IFM programme for a year, based on experience in Cameroon, have been estimated at around US\$630,000.³⁶ However, more funding enables more activities to be monitored as well as greater coverage of the forest estate and support for building capacity of civil society. The current programme in RoC costs around US\$1 million a year and includes regional capacity building workshops as well as civil society training (REM, 2009). As the monitoring system becomes established, revenues accrued from fines can more than cover the costs. Reducing illegality also helps to secure payments of tax and other revenues properly due.

As discussed above, a monitoring system for REDD must address, in addition to carbon, other issues including the drivers of deforestation and forest degradation, rights and social impacts, conservation of biodiversity and environmental integrity, and performance in implementing REDD. Understanding the drivers and how they change in response to REDD will be essential. IFM addresses one of the most important underlying drivers – governance – and brings to the table a decade of learning experience in countries facing various governance challenges. The experience gained through developing and implementing IFM at field level can inform both *what* should be monitored for REDD and *how*.

4.2 FLEGT Legality Assurance Systems

The FLEGT Legality Assurance Systems (LAS) to be established under the VPAs between the EU and timber producing countries provide a means to ensure that only legally-produced timber is licensed for export. Independent monitoring modelled on IFM is an integral part of these licensing schemes and considered necessary to maintain their credibility (see Box 3). To date, only two VPAs have been signed, one with Ghana and one with RoC. In RoC, the IFM programme, largely funded by the European Commission, is explicitly connected with the FLEGT process in its terms of reference. Technically known as 'Capacity Building in the Congo Basin and Independent Monitoring of Forest Law Enforcement and Governance in the Republic of Congo' (IM-FLEG), and implemented by REM and Forests Monitor, the general objective of this project is to monitor forest law enforcement and governance in the

36 Global Witness, 2009, Table 2. The costs are based on a budget prepared by Global Witness for establishing and running IFM in Cameroon in 2002 and have been adjusted for inflation.

Box 3: Independent monitoring under FLEGT

EU Voluntary Partnership Agreements (VPAs)

In order to address the problem of illegal logging and associated trade, the European Commission adopted a European Union Action Plan in 2003 for Forest Law Enforcement Governance and Trade (FLEGT). The Plan proposed the development of Voluntary Partnership Agreements (VPAs) between the EU and timber-producing countries to ensure that only legal timber is imported from those countries participating in the scheme. The agreements will establish a licensing scheme in the timber-producing country to identify legally produced timber. Only timber covered with a valid license would then be allowed entry into the EU. (EC Council Regulation No. 2173/2005, article 4.1)

- ***Independent monitoring as a component of the FLEGT licensing scheme***

The Plan includes the implementation of a legality assurance system (LAS) as a means to ensure that only legally-produced timber is licensed for export. Independent monitoring by a third-party is conceived as an integral element of the LAS, to provide assurance that the system is working as planned and maintain its credibility. A set of principles and criteria has been suggested as general guidance on the elements for effective independent monitoring (EU, 2007), which would be defined by the following features:

Level Details of the independent monitoring are to be defined in the VPA negotiations, which are currently underway in a number of countries. This means that the independent monitoring function will take shape and be implemented on a country basis. To date, Ghana and the Republic of Congo are the only countries to have signed a VPA. The agreement with Ghana, however, does not provide detail on the independent monitoring system (FERN, 2009).

Scope Monitoring will need to cover all the requirements that are agreed for the issuance of FLEGT licenses and address the entire supply chain, from permit allocation to export.

Institutional arrangements The Third-Party Monitor, a non-political and independent body, monitors implementation of the LAS and reports its findings to a Joint Implementation Committee (JIC). The JIC includes representatives of the partner country, the European Commission and Member States, and can also establish a Reporting Body as a subsidiary body. The Reporting Body objectively examines and validates the findings of the Third-Party Monitor before their release into the public domain. On the basis of the findings, it recommends actions to correct non-compliance or system failures, and checks whether subsequent implementation of these actions has been effective.

Mandate The Third-Party Monitor works on the basis of a contract or agreement with the partner country. The agreement is to specify what needs to be monitored and is expected to give the monitor freedom from interference in its work, access to company and government information and access to the forest estate and relevant facilities. Although the monitor decides the final content of its reports, it is not yet clear under the EU's general guidance whether all findings will be made public.

Funding To be defined – it is expected that development assistance will in part cover funding.

framework of the VPA signed in May 2009 between RoC and the European Union (REM, 2007). It is expected that IM-FLEG 'will feed into and/or become part of the monitoring systems identified in VPAs' (REM and Forests Monitor, 2007).

As IM-FLEG evolves it could provide useful lessons for developing guidance for independent monitoring of REDD, together with the principles and criteria for independent monitoring under VPAs that have been developed by the EU (Box 3; EU, 2007). Experience under FLEGT could serve to inform both national monitoring systems being developed through REDD strategies in countries where preparations for REDD readiness are already underway as well as the formulation of policy, standards, guidance and procedures at international level.

4.3 British Columbia Ombudsman

British Columbia provides an example from an Annex I country of how the role of an ombudsman has been used for monitoring purposes in the forest sector. The Forest Practices Board combines the roles of ombudsman and auditor to assess how well the government and the forest industry are adhering to British Columbia's Forest Practice Code, and can hold both of them publicly accountable for forest practices. The Board commissions audits, investigates complaints, reviews legal decisions and special investigations, and makes recommendations to government and industry. During its first six years, the Forest Practices Board made over 270 recommendations in over 120 reports, the majority of which have been implemented by the government and industry (Global Witness, 2005).³⁷ Other Annex I countries could benefit from establishing similar systems.

4.4 Clean Development Mechanism (CDM)

Under the Kyoto Protocol, the CDM allows countries with emission reduction commitments to reach their targets by supporting projects in developing countries that reduce emissions. Such projects can earn developing countries certified emission reduction (CER) credits, which can be purchased by Annex I parties to offset their domestic greenhouse gas emissions. The mechanism is supervised by an Executive Board made up of 10 members from parties to the Kyoto Protocol, which is accountable to the COP/MOP. Afforestation and reforestation (A/R) are the only forest-related activities available under the CDM. The 'operational entities' which evaluate and verify the activities have to be accredited by the Executive Board (see Box 4).

The implementation of A/R projects under the CDM has not been considered a success. Only six are currently registered, meaning only 0.27% of the CDM registered project activities relate to afforestation and reforestation.³⁸ Reasons for this apparent failure include the lack of forestry expertise in the preparation of A/R projects (Schoene and Netto, 2005), the difficulty in proving additionality, and high transaction costs, which especially affect small-scale projects (Karsenty, 2005). These difficulties have in turn been related to the problem of proving ownership and of quantifying emissions reductions (Rosales, 2009). A study of experience with attempts to implement A/R projects under the CDM and the functioning of operational entities could help to inform the development of systems for REDD.

³⁷ More information on the Forest Practices Board and forestry in British Columbia can be found at www.fpb.gov.bc.ca/ and www.bcforestinformation.com/PDFs/FSA-013-E.pdf.

³⁸ CDM statistics, available at: <http://cdm.unfccc.int/Statistics/Registration/RegisteredProjByScopePieChart.html>.

Box 4: Auditing under the CDM

Operational entities

The Kyoto Protocol provides for 'operational entities' to be designated by the COP/MOP. These operational entities are independent domestic entities or international organisations that: (i) validate proposed CDM activities through an independent evaluation of the activity against the requirements of the CDM, and (ii) verify and certify emission reductions of registered CDM project activities. This process consists of an independent review and ex post determination of the monitored reductions in emissions resulting from a registered activity during the verification period, and a written assurance that the verified reductions have been achieved. In this sense, their role in the CDM can be compared to that of an auditor. Operational entities must provide a verification report to be made publicly available.

Level Being a project-based financing mechanism, the monitoring function focuses on specific projects.

Scope Operational entities only look at the net reduction in emissions achieved since the start of the project.

Institutional arrangements Operational entities are accredited by the Executive Board according to established accreditation standards (UNFCCC, 2008).

Funding Sources of funding will vary. However, for an operational entity to be accredited, it not only needs to demonstrate to the Executive Committee that it has the financial stability and resources required to carry out its functions, it also needs to generate confidence that its financial status will not compromise its impartiality (UNFCCC, 2009a).

4.5 Extractive Industries Transparency Initiative (EITI)

Lessons on design of national REDD systems, particularly concerning multi-stakeholder engagement, verification and trust building, can be drawn from the Extractive Industries Transparency Initiative (EITI).³⁹ The EITI is a coalition of governments, companies, civil society, investors and international organisations which aims to strengthen governance by improving transparency and accountability in the extractives sector (oil, gas and minerals) (Global Witness, 2008).

The process is overseen by representatives from government, companies and national civil society. Implementation takes place at national level, with the EITI Board and the EITI International Secretariat overseeing the process. Civil society groups participate both directly (they have a seat on the Board) and through Publish What You Pay (PWYP), a coalition of over 350 NGOs in 50 countries (Global Witness, 2008).

To achieve EITI compliant status, a country must complete an EITI Validation. Validation is carried out by an independent validator selected and overseen by the multi-stakeholder group (Global Witness, 2008). A similar system involving multi-stakeholder oversight could be developed in REDD for the verification of emissions reductions and GHG removals.

There has been a general recognition amongst the EITI coalition that civil society's involvement has been effective not just in raising transparency levels but also in promoting discussion of data disclosure and its implications, and building trust between stakeholders in an area that, similar to the forest sector, has historically featured relatively adversarial relationships (Global Witness, 2008).

Box 5: Multi-stakeholder participation in EITI

The following elements of EITI are designed to ensure multi-stakeholder participation:

- Civil society groups from the South (where most resources are) and the North (where most investment comes from) have a seat on the EITI Board along with implementing country governments, extractive companies, investors, and supporting country governments.
- A candidate country must commit to working with all stakeholders. A national multi-stakeholder group must be established, and a work plan published documenting how the country intends to achieve EITI compliance. The plan must be discussed with, and agreed by, key stakeholders.
- Civil society must play an active role in the process, both operationally and in policy terms, independent of other stakeholders; must continue to monitor and evaluate the process after its inception; and must be free to voice its independent opinion without fear of reprisals.
- The government must address capacity constraints of civil society organisations and be seen to help and communicate with civil society and other stakeholders through regular meetings and media outreach.
- The multi-stakeholder group selects the independent validator and oversees the Validation Process.

EITI in Liberia

In May 2007, following lobbying by the Liberian PWYP NGOs, the Government of Liberia announced that forestry would be included as one of the sectors covered by the Extractive Industries Transparency Initiative in Liberia (LEITI). The LEITI was validated in October 2009.⁴⁰ To date, Liberia is the only EITI implementing country to include forestry in its scope.

⁴⁰ <http://www.leiti.org.lr/>.

5. Designing a REDD monitoring system

5.1 Scope and characteristics

REDD will be implemented nationally, but in terms of scale it is an international initiative. Irrespective of the nature of the REDD mechanism and the funding provisions eventually agreed, its success or failure will hinge on the robustness of the monitoring system and the extent to which REDD can provide strong incentives for good forest governance. To enable international institutions (including UN-REDD, the FCPF and UNFCCC), as well as national implementing authorities, to review the performance of REDD, and to improve its implementation, a broad-based integrated system will be needed for monitoring REDD at both national and international levels, with mechanisms for cooperation at regional level to prevent leakage. The monitoring system should address a wide range of information needs, including on safeguards and drivers, and incorporate performance indicators, while also being transparent, robust, independent, inclusive, and based on multi-stakeholder engagement (see Figure 4 for the proposed scope and characteristics of a monitoring system). The system should be fully integrated vertically and horizontally, i.e. from local to international level and at the national level ensuring synergies with other monitoring needs. It should be consistent with the wider system for monitoring and compliance developed under the new climate regime, particularly with respect to NAMAs, but should be capable of addressing the specific needs of REDD. It should be designed to build trust, to deliver the information needed in a timely way, and to provide feedback to improve implementation on the basis of regular international independent review and early warning to enable action to detect and correct failures.

Inevitably, the monitoring capacity in different countries will vary. This is anticipated in the multi-speed phased approach to REDD. To avoid discriminating against developing countries with low capacity for monitoring, a flexible scheme has been called for (CIFOR, 2008). Nevertheless, while all countries should have the opportunity to benefit from REDD, a robust and broad-based monitoring system, which incorporates independent

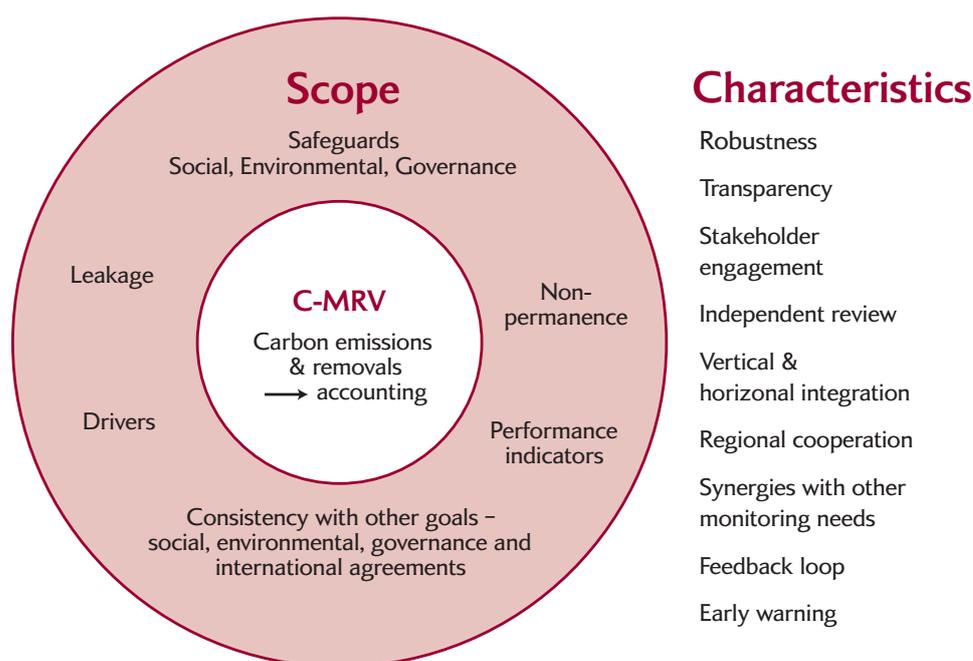


Figure 4: The scope and characteristics of a REDD monitoring system

monitoring and draws on lessons to be learned from both within and outside the forest sector, should be in place before substantial funds are transferred in phases 2 and 3.

5.2 Engagement of stakeholders

Experience with IFM and EITI indicates that stakeholders should be engaged as early as possible in the design of national monitoring systems as well as the wider REDD mechanism. Stakeholders should include, among others, civil society, indigenous peoples and local communities, the private sector and relevant enforcement agencies (i.e. police and other agencies as well as forest authorities). Experience with the implementation of other multilateral environmental agreements (MEAs) such as the Montreal Protocol and CITES indicates that if enforcement officers are involved in the design of systems, unintended outcomes such as the rise of new types of environmental crime and the use of fraudulent permits can be anticipated and, to a certain extent, avoided.⁴¹ Engaging enforcement agencies which are tackling environmental crime through cooperative enforcement such as Interpol and the Lusaka Agreement Task Force (LATF – a regional inter-governmental enforcement agency based in Kenya) would help to minimise the risks of carbon fraud and other forms of criminality.⁴² Furthermore, since the drivers of deforestation are often outside the forest sector, all relevant sectors should be engaged from an early stage. Experience with EITI indicates that civil society engagement at ‘board level’ (i.e. through participation in national REDD entities, including the implementing authority) would build trust as well as transparency in what is often an adversarial setting. The UN-REDD Policy Board, in which representatives of civil society and indigenous groups are fully engaged, sets an example which could be followed both at national level and at international level for REDD implementing institutions.

5.3 Appropriate systems with low tech methods

A national monitoring system needs to be appropriate for the national context and does not have to rely solely on expensive technology, or ‘high tech’, methods. Examples of effective ‘low tech’ monitoring systems can be found in other sectors, notably the fisheries sector. A donor-funded project in Guinea trained local fishermen in the use of GPS units and radios and linked them with surveillance stations of the national centre for fisheries surveillance and protection (CNSP), which deployed a patrol boat when trawlers engaged in illegal activities were spotted. Over two years, illegal incursions by industrial trawlers into inshore fishing grounds dropped by 60%. The project, the entire budget for which was only US\$20,000, also fostered more trust between the fishermen and the CNSP, and resulted in more efficient searches at sea (Reeve, 2007). In the Philippines, a similar low tech system has been developed but without outside funds. Nearly 900 fishermen coordinate through text messages using mobile phones donated by Filipino sources, alerting the authorities when they observe illegal dynamite and trawl fishing (Vincent, 2007). Examples can also be found in the forest sector. In Brazil, innovative methods that could be replicated in other REDD countries have been developed using the internet for monitoring and enforcement by providing access to information on illegally converted land and effectively blacklisting it for economic activities.⁴³

41 In the negotiation of the Montreal Protocol on Substances that Deplete the Ozone Layer, an unanticipated outcome was the rise in illegal trade in ODS (ozone depleting substances) following the implementation of measures under the Protocol. Under CITES, methods have had to be developed to deal with permit fraud and exploitation of loopholes in the treaty.

42 Interpol has begun to examine the potential for carbon crime through its Climate Crimes Project under the Pollution Crimes Working Group, while the Lusaka Agreement Task Force, established under an African regional agreement to tackle illegal cross-border trade in wild fauna and flora, is uniquely positioned to address carbon crime in Africa.

43 Tasso Azevedo, personal communication (2008). See www.florestal.gov.br.

6. Independent Monitoring of REDD (IM-REDD)

'Political commitment and motivation must be expressed at the highest level before investment in national monitoring systems. This is because, many examples exist where national monitoring efforts have been implemented without such political support – experience shows that the efforts could not be sustained' (UN-REDD, 2009a)

6.1 Rationale: building confidence through an integrated and coordinated system

Establishing national systems which engage civil society in independent monitoring of REDD (IM-REDD) and incorporating them into an integrated monitoring system would build trust and confidence in REDD and help to ensure on-going good governance and implementation at national level. (Figure 5 illustrates how IM-REDD would fit into an integrated system). In effect, IM-REDD would be part of the governance MRV framework envisaged by UN-REDD.

The national circumstances of REDD countries are extremely diverse. Successful implementation of REDD will depend on the capacity of national institutions carrying out REDD activities (Streck et al, 2009). Strong institutions will be needed to govern fund mobilisation, allocation and disbursement. These institutions will need to demonstrate the effectiveness, responsiveness, environmental integrity, and fiduciary accountability necessary to gain the confidence of investors, civil society and other stakeholders. Monitoring institutional development in the early phases of REDD will be essential to build confidence and demonstrate that the institutions are performing equitably, transparently and accountably. IFM monitors institutional performance. A system for IM-REDD modelled on IFM can serve the same function and help to ensure that REDD ultimately delivers results in the form of emissions reductions and removals.

National IM-REDD systems would need to be based on minimum standards (see Box 6, below) developed at international level on the basis of experience gained from existing systems such as IFM and independent monitoring being developed under FLEGT (IM-FLEG). To maximise the effectiveness and benefits of IM-REDD, there should be an international coordinating body which would look at the bigger picture, analyse reports and draw comparisons among countries, identify problems and draw them to the attention of institutions responsible for REDD implementation at the international level, as well as national REDD implementation authorities. To avoid a proliferation of institutions, the proposed international coordinating body for IM-REDD should preferably be established within an existing institution.

A coordinated IM-REDD system would strengthen and build confidence in national REDD monitoring systems, including C-MRV. As more responsibilities are devolved to national institutions over time, IM-REDD will help to ensure the continued delivery of services and adherence to standards. In the same way that IFM is official but independent, IM-REDD would need to be separate from national monitoring systems but run closely in parallel and be part of the institutional framework (see Figure 5). The same importance should be attached to its findings and recommendations as those emanating from national systems. Experience with IFM indicates the need for a national multi-stakeholder peer review body - a reporting / review panel - that would review all reports by the independent monitor (the equivalent under FLEGT being the proposed reporting body). The panel could also fulfill other functions such as reviewing national communications and inventories for submission to the UNFCCC, and selecting verifiers and overseeing verification of emissions reductions and removals (similar to the oversight of validation under the EITI).⁴⁴

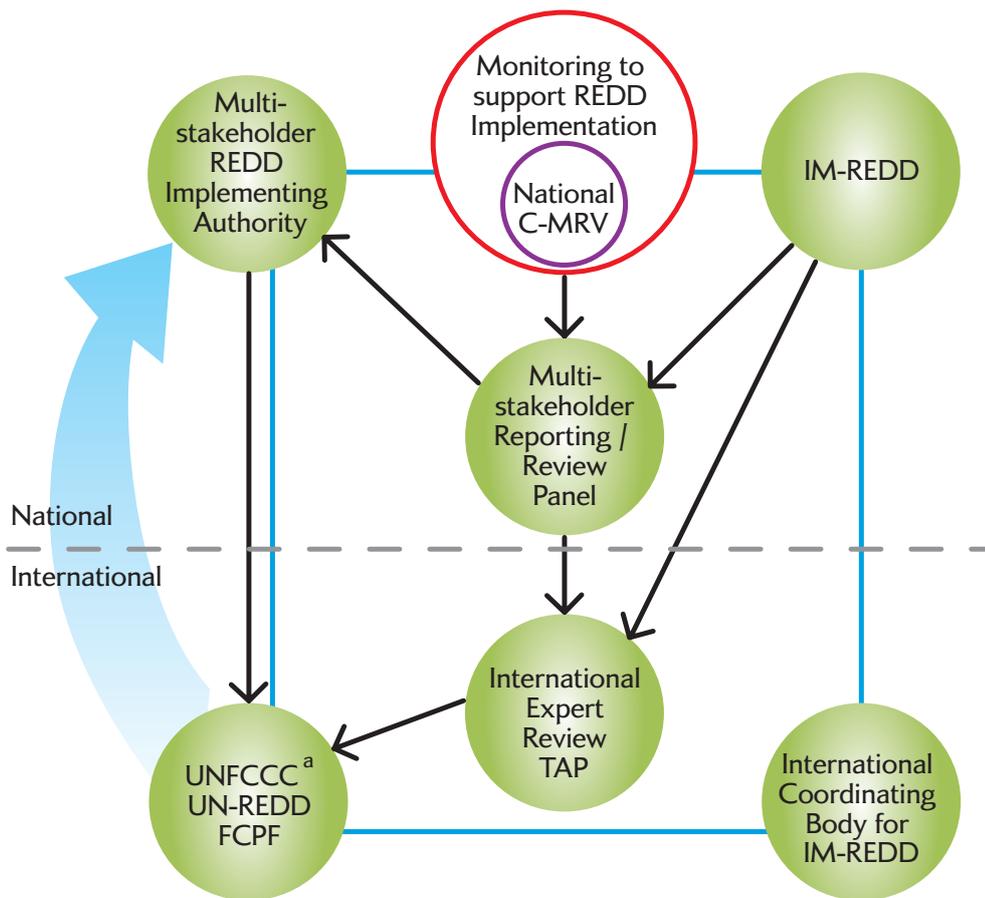


Figure 5: Proposed system for monitoring REDD

- information flow
- ↪ feedback loop to inform REDD implementation
- linkages between institutions

a all international funding and implementing institutions will need to be engaged in monitoring in a coordinated way

Experience with IFM indicates that, in order to inform the design and implementation process, the earlier national IM-REDD systems can be established the better. IM-REDD should therefore be incorporated into national strategies currently under development through the FCPF and UN-REDD, as well as into capacity building programmes in phases 1 and 2. To reduce the risk of corruption and misappropriation of funds, the earlier a national IM-REDD system can be established and functioning the better.

6.2 Applying lessons learned from IFM to designing IM-REDD

6.2.1 Participation and transparency

National IM-REDD systems need to be transparent and participatory, and bring all actors together in a similar way to IFM. To achieve this, a trust building process is an essential preliminary step, as well as the establishment of a reporting / review panel that reviews, validates and takes ownership of the monitor's reports. It should include a balanced representation of all stakeholders to discuss progress, difficulties and actions. The system should ensure regular meetings in order to protect against their cancellation at the behest of vested interests.

Participation can also be enhanced by creating effective synergies, coordinating work and sharing information among all stakeholders. Moreover, coordination, information sharing and cross-pollination among countries would make the overall IM-REDD system more robust and effective. A single IM-REDD website hosted by an international organisation (which could be a newly established international coordinating body for IM-REDD or an existing institution such as UN-REDD) could be a starting point to this end. This website would include all IM-REDD activities in the various countries – something akin to the REDD web platform on the UNFCCC website – thereby providing an important learning resource for independent monitors in different places. It could include regular updates of activities, as well as progress (or lack of it) in following-up reported cases. In this respect, the case-tracking system developed for Cameroon through the IFM programme could provide useful insights.⁴⁵ Lessons could also be learned from the web-based systems being developed in Brazil for enhancing transparency and access to information and strengthening law enforcement.⁴⁶

6.2.2 Mandate and monitor

IM-REDD, like IFM, will only be as good as its design allows, presenting the first main challenge. Needing to change an already established, but flawed, design would result in wasted resources and time, so it is essential to achieve a good design from the outset. This is the foundation for a well functioning IM-REDD system and would help to build international confidence in the national REDD readiness process.

Ideally, a national implementation framework for REDD would incorporate independent monitoring in a similar way to the FLEGT Legality Assurance Systems. Years of thinking and development have been invested in FLEGT, which should be drawn on to inform REDD. Experts on FLEGT should be engaged in the design of IM-REDD systems, and in REDD design more broadly.

IM-REDD would need the same official but independent status as IFM, made explicit through a contract with the relevant authority in the country. This will ensure access to information and to the field, and importantly, it will grant official recognition and enable the monitor to uphold its findings and help to ensure that the government acts on them. Field investigations are at the centre of IFM and should be for IM-REDD. Field missions are generally best conducted jointly with the forest authority, enabling the sharing of skills and abilities with others and building trust and motivation.

An independent monitor could undertake a myriad of activities under REDD, necessitating a system of prioritisation. A first step to this end would include understanding the country's context (laws, enforcement, burning issues and politics), as this would provide pointers and allow for the identification of potential issues of concern. IM-REDD could start with a simple approach that addresses fundamental questions and gradually build more components into its work.

An IM-REDD system should be established in every country engaged in REDD. This would likely result in a variety of organisations undertaking monitoring activities in different countries, necessitating a set of minimum standards to ensure the quality of monitoring systems. Experience in implementing IFM has shown the need for a set of minimum standards for IM-REDD that are non-negotiable. Proposed minimum standards are summarised in Box 6.

Box 6: Minimum standards proposed for IM-REDD⁴⁷

IM-REDD should be realised through an official agreement with the host institution in the country. The following minimum standards are recommended for inclusion in the agreement.

- Right of access by the monitor to relevant **information** held by the national REDD implementation authority, as well as to relevant information held by the forest authority and other relevant ministries and authorities, without the need for prior approval.
- Right of **movement and access** by the monitor to any part of the country in order to carry out field missions.
- Establishment of a multi-stakeholder reporting / review panel to **peer review** reports and act as a **buffer** between the monitor and stakeholders; once approved the reports must be published by the host institution.
- Right of the monitor to **publish** reports as soon as they are approved and publish any unapproved reports after a pre-determined length of time (e.g. 30 days).
- Right of the monitor to **observe** meetings between the relevant enforcement agency and suspected infractors, for example, involving cases of carbon fraud.

As is the case with IFM, IM-REDD providers should have a proven track record of independence, credibility, rigour and objectivity. Monitors should be selected through transparent processes, possibly including some form of bidding. IM-REDD teams should be multi-disciplinary, including a combination of scientific, technical, social development, economic and legal expertise, along with administrative and financial management.

6.2.3 What should be monitored?

As described above, the R-PP template developed by the FCPF has identified two types of information requirements for a monitoring system: a) related to emissions and removals of GHGs, and b) concerning rural livelihoods, conservation of biological diversity, governance factors directly pertinent to REDD implementation and the impacts of REDD in the forest sector (FCPF, 2009). Similarly, work under the UN-REDD programme on MRV has identified two types of information requirements for REDD implementation: a) related to carbon, and b) information on goods; ecosystems and other services; uses and users of such services; socio-economic, livelihoods, food security and poverty indicators; and land tenure (UN-REDD, 2009b); as well as governance (UN-REDD, 2009c).

Both types of information requirements include a range of goods and services that, along with the application of safeguards, should be subject to regulation, enforcement, and therefore independent monitoring. In addition, the establishment of the rules – new laws, regulations, procedures etc – and their implementation and enforcement should be monitored.

⁴⁷ Based on Global Witness, 2005.

During the earlier phases, there will need to be an increased emphasis on monitoring to support the implementation of REDD. This will involve monitoring the process by which the relevant rules are established and implemented. In subsequent phases, enforcement of those rules will also need to be monitored, as well as their outcomes in terms of carbon and the other benefits and impacts of REDD.

Table 3: Key monitoring questions for REDD implementation

	REDD implementation	Examples of key monitoring questions
Policy and regulations	New policy and regulatory frameworks required to regulate and implement REDD, and enable application of safeguards	Are ownership, access and use rights clear? Are they being implemented as intended? How are conflicts being resolved? Are policies to address all drivers of deforestation and forest degradation in place and implemented, including those beyond the forest sector? Are safeguards adequately addressed? Are policies consistent with relevant international conventions and agreements and are they being complied with?
Transparency, engagement and accountability	Access to information through proactive provision of information by authorities, and stakeholder engagement in decision making processes; authorities held accountable; cross-sectoral engagement; engagement of enforcement agencies	What are the information flows? Who is informed? Who is participating in the REDD process? Are stakeholder engagement rules credible and working as intended? Are other relevant sectors and enforcement agencies engaged?
Enforcement	Compliance with established frameworks	How are the rules being implemented? Are safeguards being applied and adhered to? What are the obstacles to implementation? Which breaches occur, where and by whom? Does non-compliance result in legal cases against violators?
Goods and services	Provision of goods and services under REDD: reduced emissions, stored carbon, ecologically sustainable timber and non-timber forest products, biodiversity, water and soil conservation, cultural and spiritual values, etc.	Which are being produced, and by whom? How are they quantified and valued? How are they being traded?
Revenue, benefit distribution and rights	Equitable distribution within and among countries; respect of rights	Who is paying what to whom, for what products and services? Is money reaching the intended beneficiaries? What rules exist for taxes on these products and services? Are these being implemented? Are rights respected?

Policy and regulations

Implementing REDD, including the application of safeguards, is likely to require profound changes to policy and legislation in many of the participating countries. This raises important questions about which new policy and regulatory frameworks will be required, and how existing ones can be assessed to ascertain whether they are complete, unambiguous, clearly expressed and fair.

These new policies must ensure REDD does not become part of the problem and yet another flawed forest-related policy which accelerates deforestation and forest degradation. Providing strong incentives for good governance is fundamental to safeguard against such an outcome. Furthermore, in applying safeguards, regulations will need to address specific issues such as leakage, permanence, preventing the conversion of natural forests, the protection of biodiversity, and additionality.

IM-REDD would scrutinise the implementation of the existing and new legal and policy framework to ensure it is being implemented effectively and achieving the ultimate goal of protecting natural forests while respecting the rights of indigenous peoples and forest-dependent communities. It would report breaches as well as weaknesses or inadequacies of these provisions. Furthermore, it would support and inform reform and improvement of the framework over time.

Since tenure and use rights over the forest are often poorly defined in developing countries, resource ownership must be addressed to ensure equitable distribution of funds and other benefits and the protection of indigenous peoples' rights. Questions such as *who owns the forest and therefore has the right to make decisions about its management and use, what is the role of customary rights or who can legitimately exercise rights over the carbon in the trees, or services provided by the forest* will affect fundamental aspects of REDD such as its financing needs and costs, the allocation and distribution of payments, the establishment of responsibilities, risk of conflict, and the overall effectiveness of the system.

IFM experience shows that a system of independent monitoring can make a positive contribution to issues of resource ownership by: (i) providing information on how land and carbon rights are defined, (ii) clarifying tenure rights, (iii) assessing whether institutions are strong enough to defend these rights, (iv) assessing the liability arrangements for the violation of these rights, (v) assessing the impact on forest communities of land / carbon rights use or arrangements and (vi) assessing how conflicts over rights are resolved.

Transparency, engagement and accountability

One of the main successes of IFM has been improved transparency regarding information and decisions in forestry, and increased engagement of forest-dependent communities in decisions affecting forest use and management. Transparency and engagement are as important to REDD as they have proved to be for good forest management and targeting illegality. IM-REDD would need to assess whether minimum requirements to ensure a transparent and participatory process are met, and to address questions such as *what are the information flows, who is informed, and who is participating in the REDD process*.

IM-REDD would play an essential role in ensuring transparency and civil society participation, which in turn builds trust among actors. REDD is viewed with hope but also with suspicion by those who will be most affected by it, and only by engaging these actors and placing them at the centre of decision making will REDD be accepted and have a chance of succeeding.

Transparency starts with ensuring access to information. IM-REDD would be key to achieving this. It would provide independent scrutiny of REDD implementation, which

would be made public. Since many potential REDD countries suffer from a lack of information about what is happening in the forest this function is particularly important. Streamlining up-to-date information would support civil society in ensuring that theory is translated into practice, and in holding authorities accountable when it is not.

Transparency is not enough; it must be part of a system which ensures accountability. In Ghana and Liberia, for example, it could be argued that with the increased availability of information everyone can be an independent monitor, taking the pressure off a single monitor. However, this is insufficient – the independent monitor needs to have a seat at the table and be incorporated into the institutional framework so it cannot be easily ignored. This is very different from a free press. Other participatory processes, such as the EITI, have understood the importance of being part of the discussions, not only to provide public critique about what is being talked about behind closed doors.

Engagement needs to extend to other relevant sectors, e.g. agriculture and land management. Moreover, as discussed above, all relevant enforcement agencies need to be engaged sooner rather than later in REDD design and implementation. Trust and cooperation need to be built between civil society and enforcement agencies, something which IM-REDD, if modelled on IFM, would be uniquely situated to support.

Enforcement

Assessing legal compliance, and providing observation and guidance on official forest law enforcement systems is at the core of IFM. IFM identifies those laws, regulations and procedures that affect the use and management of forests, analyses their impact, and identifies weaknesses and limitations in their implementation. It does not judge, but rather provides rigorous, objective information on the state of the forest sector. As such, it is also a means for the country's authorities to strengthen control over the forest estate and to improve their credibility.

REDD initiatives need to be aware of broader implications of law enforcement and understand and manage potential risks. A useful study by Kishor and Rosenbaum presents an 'extended though preliminary list of illegalities and associated indicators' for a range of 14 classes of illegal activity and corruption which could inform REDD (Kishor and Rosenbaum, 2003). Karsenty, meanwhile, considers that the rapid expansion of illegal exploitation in the forest sector '*can only be understood by reference to three emerging dynamics: the introduction of attempts to regulate exploitation through management plans ... over-capacities of processing ... [and] the increased use of the informal route of wood supply for domestic use.*' (Karsenty, 2003). This analysis suggests that better law enforcement under REDD may actually stimulate the paying of higher bribes because increased scrutiny makes companies' collusion with officials more difficult. A stronger market in bribes may then draw in people who were otherwise champions of reform, which could be seen as a form of leakage in the REDD context. Thus an effective anti-corruption strategy and programme, engaging all relevant enforcement agencies, must also be an essential element of governance reform.

IM-REDD would aim to address fundamental questions relating to law enforcement. These include how well rules, including on safeguards, are being implemented and the obstacles to their effective implementation, as well as uncovering evidence of fraud, laundering, misrepresentation, circumvention, double-counting, corruption and other illicit practices.

Accountability is a prerequisite to ensure effective enforcement. It reduces the space for deviation from responsibilities, and, with it, corrupt practices. IM-REDD would address accountability of those governing the REDD system, and answer questions concerning mechanisms to hold them to account, for instance in the case of non-permanence of emissions reductions or circumvention of legal provisions. It would observe how often and participatory accountability arrangements are, what incidences of administrative failure or illegal activity have been recorded, and what actions have been taken (or not) in order to address them.

Goods and services

Implementing REDD can be seen as a provision of goods and services. While the main focus of REDD is on protecting and enhancing carbon stocks and ensuring reduced emissions, REDD should also ensure the delivery of biodiversity, water and soil conservation, the protection of cultural and spiritual values, and make sure that the production of timber and non-timber forest products is genuinely ecologically sustainable.

Key questions to be addressed include which of these goods and services are being produced, by whom, and how they are being quantified. Where relevant, tracking them through a process not dissimilar to chains of custody of other commodities will be required; such a system would need to provide information about whether and where goods are being transported, whether they are being traded, who are the sellers and buyers, what transactions are agreed, and what is the final destination.

The central objective of REDD is to achieve actual and lasting emissions reductions. Verifying this will eventually require information about existing stocks and changes in all five carbon pools (including soils) identified in the IPCC guidelines (IPCC, 2003 and IPCC, 2006) in the whole forestry sector, as well as in any other selected land-use and land-use change sectors (i.e. it is anticipated comprehensive carbon accounting using a stock change approach will eventually be required). As well as data from remote sensing, localised information on the changes of carbon stocks in ecosystems will be needed, although an interim C-MRV system will likely rely on proxy-based results from forest activities and land-use and land use change categories included in the scope of REDD. In both cases, ground-truthing will be needed to ensure reliable information. Joint field missions by an independent monitor and those engaged in carbon accounting could lower transaction costs.

As already noted, discussions to date have focused on methodology for measuring emissions reductions and GHG removals. Determining whether they have actually occurred involves several actors. While improvements in the use of satellite imagery and carbon accounting will provide data about where reductions and removals have (or have not) happened, regulatory authorities will provide information on who was behind this action and an IM-REDD system similar to IFM would provide a report based on ground-truthing on the quality of information and the performance of the actors involved in supplying it. It would provide a systemic solution – helping implementing authorities to correct their systems to avoid the recurrence of inaccuracies and irregularities.

Protecting forests through REDD ought to result in enhanced biodiversity and water and soil conservation. But while REDD has the potential to deliver on these, it cannot be assumed that it will do so. If REDD is poorly designed, or a safeguard to prevent

conversion is not applied, there is a risk it could lead to conversion of natural carbon-dense forests to biodiversity-poor plantations. There is also a risk of displaced pressures, whereby protecting high carbon forests leads to additional pressure to convert or degrade other ecosystems that may be important for biodiversity or flood regulation, such as wetlands (UN-REDD, 2009d). A well-functioning integrated monitoring system should provide a means to pick up and report these risks as early as possible. IM-REDD would in effect provide an early warning system to detect risks to biodiversity and other ecosystems, reporting cases where REDD is failing, and how.

Natural forests often entail fundamental cultural and spiritual values for the people living in and around them, values which are often responsible for keeping the forests standing in the face of economic pressures to convert them to other uses. These values are closely related to land and use rights and need to be respected and maintained if REDD is to succeed. IM-REDD could (and should) assess whether rights are being respected and cultural and spiritual values maintained or eroded as REDD design and implementation progresses, and provide at least one channel through which the concerns of indigenous peoples and forest-dependent communities could be heard and addressed.

Revenue, benefit distribution and rights

REDD is expected eventually to generate vast revenue flows to forest-rich nations. The ways in which these resources are distributed both within and among countries and the provision of non-monetary benefits such as access to services will determine the equity of any REDD mechanism.

External oversight and auditing of national REDD funds will need to be agreed with each country using internationally accepted processes. IM-REDD could provide an additional means of independent oversight by monitoring the distribution of REDD payments and addressing the issues of: who is paying what to whom and for what products and services; whether the money is reaching the intended beneficiaries; what rules exist for the generation and redistribution of taxes on these products and services, and how well they are being implemented.

As discussed above, IM-REDD could (and should) also report on whether rights are being respected as REDD design and implementation progresses, particularly those of indigenous peoples and forest-dependent communities. It could also assess whether indigenous peoples who operate outside national economies with a non-monetary value system have or have not benefited from REDD.

6.2.4 Funding

The levels of financial flows foreseen through REDD are unprecedented in a forest sector context. This reflects an acknowledgement of the importance of this issue but comes with considerable risks. To guarantee lasting impact, a long-term, sustained financial mechanism would be needed for IM-REDD. The costs of establishment and maintenance should be included as a budget line in national REDD programmes; IM-REDD should be as permanent as REDD itself. Adequate funding should, therefore, be provided to train monitors to work professionally, objectively and rigorously and to enable the monitor to deliver a well functioning and high quality service. Funding needs to be determined by the level of monitoring required to assure the credibility of REDD,

not the other way round. The costs associated with setting up and implementing IFM systems are not high. Indicative costs for establishing and running an effective IFM project for a year, based on experience in Cameroon, have been estimated at around US\$630,000.⁴⁸ However, if more is invested, broader coverage of the forest estate can be achieved and enhanced capacity building incorporated. The overall cost of the IM-FLEG project in RoC, which incorporates civil society training, is around US\$1 million a year (REM, 2009). Meanwhile, experience has shown that over time improvements in enforcement lead to an increase in fines, which if collected can more than cover the costs of IFM. Among the achievements of REM's work in Cameroon is a steady increase in the government's capacity to recover fines related to illegal forest activities.⁴⁹

Systems of 'independent monitoring of chain of custody', as operated by Société Générale de Surveillance (SGS) in Liberia and elsewhere, cost approximately US\$1 million per year (Hoare et al, 2008). But these timber-tracking systems are more intensive with respect to technology and human resources than IFM since they are intended to control all timber flows. IFM conducts spot-checks so can be implemented at a lower cost. Nevertheless, the costs of establishing IM-REDD would likely be higher than IFM given the additional technical expertise needed in the monitoring team and more complex capacity building needs.

Hoare et al suggest three categories of costs to establish REDD: (i) mechanism costs (calculation of a baseline, monitoring, issuing credits etc); (ii) developing a national strategy for REDD; and (iii) implementing the strategy. The study indicates that independent monitoring, as one aspect of enforcement, should fall into the third category. Experience shows, however, that it is more effective if the monitor is able to start early (perhaps by providing interim or short-term input), enabling its findings to inform the strategy and system design. Thus costs for independent monitoring should be built into the earliest phase possible of REDD design and implementation.

Experience shows that granting millions of dollars in aid is not necessarily followed by progress. Without governance reform and effective anti-corruption measures, the risk that money will be captured by corrupt elites and exacerbate rather than mitigate the problem is high. Several countries with very poor track records in governance, transparency and accountability have been selected as pilot countries under the FCPF and UN-REDD (see Figure 1 and Table 2). Close monitoring of funding, money flows and distribution will be as important as agreeing on the amounts and mechanisms for delivery.

6.3 The added value of IM-REDD for MRV and review

IFM was originally designed to work in poor governance scenarios with fragile democracies and weak or ambiguous laws undermined by widespread illegality, systemic corruption and state capture. The parallels are clear, the same issues IFM addresses are relevant for REDD. For example, it is not hard to see how carbon as a commodity could be substituted for timber. It will have a value, so there will be forces at play to capture the benefits. Governments providing financial support for REDD and investors from the private sector will have greater confidence in countries which establish well functioning systems for independent monitoring of REDD implementation, which check, as part of their mandate, that those doing the MRV (whatever its scope) are performing and delivering adequately and whether minimum requirements for REDD implementation,

48 See, Global Witness, 2009, *A Decade of Experience*, Table 2.

49 See www.rem.org.uk for a more comprehensive list of achievements by REM.

including safeguards, are being met. Attention would be drawn to areas that require improvement. Based on experience in designing and implementing IFM, the following describes ways in which IM-REDD could support MRV and review.

Measurement and Reporting It is anticipated that countries implementing REDD initiatives will be expected to measure progress using indicators and report on their performance. IM-REDD could support measurement and reporting by:

- *Participating in the programmes that will be needed to build the capacity of officials, civil society and local communities* to undertake adequate measurement and reporting and ensuring that capacity building is an on-going activity. Capacity building has been a core activity of IFM, and one that has paid dividends (Global Witness, 2009). Law enforcement has improved as a result, not only because of improvement in officials' skills but because it has increased awareness of the critical role of fieldwork activities, and in particular rigorous measurement. This in turn has increased the motivation of staff and convinced governments to invest resources to strengthen fieldwork.
- *Assisting, observing and assessing the collection of data in fieldwork.* The impartial eye of a third party provides assurance that the information is being collected in an appropriate and comprehensive way.
- *Supporting the processing of information, its analysis and presentation* in a way that will make it useful (i.e. accurate, complete, comparable and transparent). It is anticipated that guidance for MRV will be developed, so complying with it will be a necessary step towards successful reporting.
- *Providing recommendations and guidance* on how to improve the reporting protocols and guidelines. This is necessary to strengthen the value of reporting and allow meaningful comparisons; assessing the success or failure of REDD will only be possible if the relevant information is presented in the appropriate way.

Verification IFM provides a similar element of independent oversight in forest governance, but moves beyond the technical exercise which characterises verification. No matter how robust the information is technically and scientifically, its value is only as good as the use which is made of it; IFM draws attention to this through follow-up work. As has been the case with IFM, an IM-REDD system would help by:

- *Corroborating objectively that information provided reflects the reality on the ground.* This could be done either by presenting independent reports or by analysing the official reports produced and commenting on their adequacy. The publication of independent reports has typically been done by many NGOs around the world with varying degrees of success. However, under a model similar to IFM, the independent monitor's information would be treated as official, and therefore acknowledged and more likely to be acted upon.
- *Adopting a backstop supporting role.* Once the MRV system is fully operational and working smoothly, the monitor can work more intermittently, carrying out spot checks to corroborate that the system continues to function. The intensity of the work can be linked to the results of the missions; the more robust the system proves to be, the fewer resources will be needed for third-party monitoring.

Review Reports from an independent monitor would provide a valuable tool with which to assess national performance in designing and implementing REDD, assisting both the TAP review process and any mechanism for international independent expert review established under the UNFCCC.

As a rule, all monitoring activities including MRV should be open to public scrutiny. This will provide credibility to the system as information will be accessible for triangulation, analysis and verification by anyone, including local civil society groups, international observers, bilateral and multilateral donors and other donor organisations.

A national IM-REDD system similar to IFM would add considerable credibility to REDD as a whole. By including fieldwork as a core activity in its mandate, it would incorporate ground-truthing in a way that an international review system similar to the one existing for Annex I parties would be unable to accomplish. It would also identify systemic failures and recommend solutions. In this respect, its role would go beyond that of a simple checklist verifier to assessing that those implementing MRV are performing and delivering adequately. It would focus on ensuring that governments at a national level are measuring and reporting with transparency, consistency, completeness and accuracy.

The proposed international IM-REDD coordinating entity would enable cross pollination among countries through sharing experiences. Experts could be deployed from one country in another, or meetings hosted to bring together national-level monitors. This would strengthen the international efforts to make REDD a success story.

6.4 A regional approach to address leakage

Described as the 'displacement of emissions' or increase of emissions in one geographical area resulting from mitigation activities in another area, leakage⁵⁰ is an important concern in the negotiations since it has the potential to undermine the overall effectiveness of REDD (Fry, 2008). Leakage can occur within a country or across borders. For instance, in those countries where conversion to agriculture is an important driver of deforestation and forest degradation, it is easy to see how forests preserved in one place would create more pressure to clear land elsewhere.

There is increasing awareness about leakage and extensive discussion on how to address it. The challenge in the absence of data is finding solutions to a problem which to date is theoretical. However, as REDD initiatives are implemented around the world, leakage will need to be monitored closely and anticipated to the extent possible.

Although not named as such, leakage has been encountered in IFM implementation. In Cambodia, following greater reporting of illegality, a moratorium was imposed on commercial logging, which resulted in a shift in illegal activity from large concessions into other areas and into neighbouring countries (Global Witness, 2009). In Central America, there is growing recognition that illegal logging is a regional problem and not country-specific. As a result, some initial exploratory work has been carried out with a view to regionalising IFM, which would build on the existing initiatives in Honduras and Nicaragua and include other countries in the region. Regional capacity building undertaken by REM in the Congo Basin also recognises the importance of a regional approach.

To address the risk of leakage in REDD, a regional approach to IM-REDD could be considered and piloted. Since Central America is a relatively small region compared to others, it could serve as a test case for regional approaches elsewhere.

50 The Glossary of CDM Terms defines leakage as 'the net change of anthropogenic emissions by sources of greenhouse gases (GHG) which occurs outside the project boundary, and which is measurable and attributable to the CDM project activity'. See http://cdm.unfccc.int/Reference/Guidclarif/glos_CDM_v04.pdf.

7. Conclusions and Recommendations

A robust, well integrated system for monitoring REDD implementation from local to international level is needed to build confidence in REDD, reduce reputational risk, enable implementing institutions to review performance, and ensure that REDD ultimately delivers on its objective to reduce emissions from deforestation and forest degradation. This system needs to be broad (addressing a wide range of information needs, including on safeguards and drivers), transparent, independent, inclusive, based on multi-stakeholder engagement, incorporate performance indicators, and be able to provide early warning to detect and correct failures. Such a system should be in place before substantial funds are transferred in phases 2 and 3. Moreover, mechanisms for cooperation at regional level will be needed to prevent leakage and a system of independent international expert review to enable feedback to improve implementation. Measuring, reporting and verifying emissions reductions and removals of greenhouse gases is an essential element of a monitoring system, but given the governance and forest law enforcement challenges that exist on the ground in REDD countries it will not be enough on its own to ensure that REDD delivers lasting and permanent benefits, that safeguards are applied and adhered to, and that adverse social and environmental impacts are avoided.

All relevant stakeholders should be engaged in the design of national REDD monitoring systems, including civil society, indigenous peoples and forest dependent communities, the private sector and all relevant enforcement agencies. Government authorities from other related sectors should also be engaged from an early stage. Experience from IFM and the EITI, as well as from regulatory MEAs such as the Montreal Protocol and CITES, dictates that the earlier civil society and enforcement agencies are engaged in the design process the better. This not only builds trust and transparency, but by involving agencies such as Interpol and the Lusaka Agreement Task Force which are engaged in international cooperative law enforcement, the risks from new forms of environmental crime such as carbon fraud can be minimised and means to tackle corruption and misappropriation of funds can be addressed. Meanwhile, the engagement of civil society and indigenous peoples in the UN-REDD Policy Board provides a model for implementing institutions, both at national and international level.

National REDD monitoring systems should be appropriate and not rely only on expensive 'high tech' methodology for monitoring but also employ inexpensive low tech methods. Examples from other sectors such as fisheries should be explored and applied, for example, the creation of networks linking local communities with enforcement agencies by making use of GPS, mobile phones and the internet. Lessons can also be learned from innovative web-based methods being developed in Brazil.

The importance for REDD of a broad-based monitoring system that goes beyond carbon to implementation and addresses governance as well as other safeguards, benefits and impacts cannot be overstated. This has been recognised and acted upon by both the FCPF and UN-REDD, and is most recently manifested in the R-PP template. The inclusion in the template of guidelines on monitoring other benefits and impacts as well as carbon, and the provision for an assessment of land use, forest policy and governance (including law enforcement) to identify key drivers of deforestation and forest degradation as well as promising approaches for REDD strategy are the result of an iterative learning process. In effect, through their policies, procedures and regular meetings the FCPF and UN-REDD are monitoring REDD in phase 1 and developing parameters for national monitoring systems for phases 2 and 3. The UNFCCC, however,

is lagging behind. Negotiations have so far failed to produce draft text for a REDD framework that reflects the progressive policies on monitoring being developed through the FCPF and UN-REDD. The facilitator's draft text on REDD produced in Barcelona which will provide the basis for negotiations in Copenhagen not only fails to adequately address monitoring needs beyond the MRV of carbon in phase 3, its provisions on monitoring are incoherent. Although safeguards are elaborated, including on governance as well as permanence, leakage, rights and environmental integrity, the lack of any means to monitor those safeguards diminishes their value. Furthermore, with the exception of a provision on independent review of systems as well as results, the draft Decision on methodologies produced by the SBSTA in June is similarly narrow in scope. These profound failures of the UNFCCC with respect to designing the framework for a REDD monitoring system need to be fixed in Copenhagen, not only to avoid a roll-back of progress achieved through the FCPF and UN-REDD but to ensure the integrity of REDD implementation throughout the three phases as well as the delivery of the ultimate objective of reducing emissions. And if consensus cannot be reached on an appropriate and effective framework, a process should be initiated to develop such a framework rather than agree to provisions that are regressive and inadequate.

A decade of experience with IFM shows that properly designed and implemented systems for independent monitoring of REDD at a national level could assist with addressing governance issues and building the confidence of donor governments as well as private investors and civil society. The incorporation of IFM into FLEGT Legality Assurance Systems is a testament to its value. The provision of evidence-based, ground-truthed independent information through IM-REDD systems modelled on IFM would contribute to building effective national REDD programmes. The earlier such IM-REDD systems are established the more effective they can be, helping to shape the design as well as implementation of REDD at national level. Ideally, they should be incorporated into national strategies already being developed in the readiness phase through the FCPF and UN-REDD, with a well functioning IM-REDD system in place before substantial funds begin to flow in subsequent phases. The inclusion of a provision in R-PPs for addressing independent monitoring and review, involving civil society, is a good start.

Concerns have been expressed that IM-REDD would be expensive. However, experience shows that independent monitoring is cost effective. As the system becomes more established, revenues accrued from fines can more than cover the costs. It should also reduce corruption and illegality and lead to improved tax and other revenue flows to the state. Moreover, there are non-monetary benefits through improved governance, assurance of the delivery of goods and services and the provision of an early warning system which could help to prevent perverse or unintended outcomes or avert conflict and therefore reduce the long-term costs of correcting failures.

A system reliant on UNFCCC processes alone will not be adequate to monitor REDD. A robust system for international independent oversight may not emerge from the UNFCCC negotiations. Even if a system for independent expert review of REDD similar to the one operating currently for Annex I parties is established it would only provide a certain degree of oversight. The existing system is limited in its ability to truly verify reported information (a process similar to the FCPF TAP review is potentially more useful in a REDD context, though should not substitute a process under the

UNFCCC). Furthermore, desk-based reviews of national communications submitted by governments and periodic, short in-country visits would not provide in-depth information on issues extending down to field level or provide early warning of risks and failures. Moreover, if national communications are only submitted every 6 years as is currently proposed, they will be of little value for monitoring REDD implementation. Similarly, verifying results (in terms of carbon and forest cover) and auditing national REDD funds will not provide the broad-based information needed for monitoring REDD implementation. National IM-REDD systems modelled on IFM would help to make up for some of these anticipated shortcomings while providing a means to address governance and engage civil society in monitoring. Inevitably, there will be persistent challenges in governance which will change over time as unscrupulous and criminal elements devise new ways to exploit the value of carbon. It is not good enough to set up systems and then assume they will run smoothly. The systems need to be monitored on a regular basis, with IM-REDD as a permanent component of the checks and balances.

Some parties in the UNFCCC negotiations have stated that systems for monitoring REDD should not go further than systems established for monitoring the obligations of developed countries to comply with targets for emissions reductions. There is some justification in this position given attempts on the part of certain Annex I parties to undermine compliance provisions in a new climate agreement. But instead of engaging in what could become a race to the bottom, both developed and developing countries need to accept robust and transparent systems. For a start, systems similar to the British Columbia Ombudsman could be established in other developed countries. Inevitably when it comes to elaborating national systems and systems for independent oversight issues of sovereignty are raised. However, REDD raises the prospect that billions of dollars will eventually flow from developed countries into developing countries with profound governance challenges and high risk business climates. International and investor confidence needs to be built, rights need to be respected and safeguards need to be applied. Robust and transparent national monitoring systems that go beyond MRV of carbon and incorporate IM-REDD will help to achieve this. These systems should not just be a hoop to jump through in order to receive REDD funds but should be considered beneficial to governments in their own right.

To ensure consistency and the application of best practice, guidance on minimum standards for designing and implementing IM-REDD systems should be elaborated at international level. This should not fall below best practices and minimum standards already in use (see Box 6 for proposed minimum standards for IM-REDD). IFM brings to the REDD negotiating table a decade of experience in designing and implementing independent forest monitoring systems that involve civil society. The lessons applied in this report and further elaborated in *A Decade of Experience: Lessons Learned from Independent Forest Monitoring to Inform REDD* are ready to be put to use to inform the development of standards and systems for IM-REDD. Those standards should also take into account the principles and criteria proposed for independent monitoring under FLEGT and experience gained by REM from implementing IM-FLEG. Another useful tool for informing the development of national IM-REDD systems is *A Guide to Independent Forest Monitoring* produced by Global Witness (Global Witness, 2005). There may also be lessons to learn from experience with verifying afforestation and reforestation projects under the CDM using operational entities.

REDD presents an unprecedented opportunity to reduce deforestation and forest degradation and institute far reaching reforms, but is accompanied by a commensurate level of risk if it is designed and executed poorly. There are great expectations for REDD. Fulfilling these expectations, minimising risk, and building confidence and trust will rely in part on a robust and transparent monitoring system that addresses governance and will enable us to see beyond carbon to effective REDD implementation. Incorporating IM-REDD into this system would help to ensure that REDD becomes part of the solution to climate change rather than yet another failed attempt to save the world's remaining forests.

ANNEX: Coface risk ratings⁵¹

1. Country ratings

Based on:

- macroeconomic financial and political indicators
- expertise on business environment (score is based on internal and external sources)
- microeconomic expertise drawing on Coface databases covering 44 million companies worldwide and 50 years experience with payments made in trade flows guaranteed by Coface

A1	The political and economic situation is very good. A quality business environment has a positive influence on corporate payment behaviour. On average, corporate default probability is very low.
A2	The political and economic situation is good. A basically stable and efficient business environment exists, nonetheless it leaves room for improvement. Corporate default probability is low on average.
A3	Changes in generally good but somewhat volatile political and economic environment can affect corporate payment behaviour. A basically secure business environment can nonetheless give rise to occasional difficulties for companies. On average, corporate default probability is quite acceptable.
A4	A somewhat shaky political and economic outlook and a relatively volatile business environment can affect corporate payment behaviour. Corporate default probability is still acceptable on average.
B	Political and economic uncertainties and an occasionally difficult business environment can affect corporate payment behaviour. Corporate default probability is appreciable.
C	A very uncertain political and economic outlook and a business environment with many troublesome weaknesses can have a significant impact on corporate payment behaviour. Corporate default probability is high.
D	A high-risk political and economic situation and an often very difficult business environment that can have a very significant impact on corporate payment behaviour. Corporate default probability is very high.

⁵¹ Information from www.trading-safely.com/sitecwp/ceen.nsf/vwCRO/B655C3E2E5B6241DC1256AE900523D7E

2. Business climate ratings

A new rating intended to assess overall business environment quality in a country. More specifically, it reflects whether corporate financial information is available and reliable, whether the legal system provides fair and efficient creditor protection, and whether a country's institutional framework is good for companies. The core of the new rating rests on the Coface experience with the quality of information available on companies and the legal protection given to creditors.

A1	The business environment is very good. Corporate financial information is available and reliable. Debt collection is efficient. Institutional quality is very good. Transactions between companies ('intercompany transactions') run smoothly in environments rated A1.
A2	The business environment is good. When available, corporate financial information is reliable. Debt collection is reasonably efficient. Institutions generally perform efficiently. Intercompany transactions usually run smoothly in the relatively stable environment rated A2.
A3	The business environment is relatively good. Although not always available, corporate financial information is usually reliable. Debt collection and the institutional framework may have some shortcomings. Intercompany transactions may run into occasional difficulties in the otherwise secure environments rated A3.
A4	The business environment is acceptable. Corporate financial information is sometimes neither readily available nor sufficiently reliable. Debt collection is not always efficient and the institutional framework has shortcomings. Intercompany transactions may run into appreciable difficulties in the acceptable but occasionally unstable environments rated A4.
B	The business environment is mediocre. The availability and the reliability of corporate financial information varies widely. Debt collection can sometimes be difficult. The institutional framework has a few troublesome weaknesses. Intercompany transactions run appreciable risks in the unstable, largely inefficient environments rated B.
C	The business environment is difficult. Corporate financial information is often unavailable and when available often unreliable. Debt collection is unpredictable. The institutional framework has many troublesome weaknesses. Intercompany transactions run major risks in the difficult environments rated C.
D	The business environment is very difficult. Corporate financial information is rarely available and when available usually unreliable. The legal system makes debt collection very unpredictable. The institutional framework has very serious weaknesses. Intercompany transactions can be very difficult to manage in the highly risky environments rated D.

References

- Breidenich, C. and Bodansky, D. (2009), *Measurement, Reporting and Verification in a Post-2012 Climate Agreement*, Pew Centre on Global Climate Change. www.pewclimate.org
- CIFOR (2008), *Moving ahead with REDD. Issues, options and implications*. p.7. Edited by Arild Angelsen. Bogor, Indonesia. http://www.cifor.cgiar.org/publications/pdf_files/Books/BAngelsen0801.pdf
- EC Council Regulation No 2173/2005 of 20 December 2005 on the establishment of a FLEGT licensing scheme for imports of timber into the European Community. http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=en&type_doc=Regulation&an_doc=2005&nu_doc=2173
- EU (2007), *FLEGT Briefing Note No. 7. Guidelines for Independent Monitoring*. http://ec.europa.eu/development/icenter/repository/B2_Flegt_BR7_2007_en.pdf
- FCPF (2009), *Forest Carbon Partnership Facility (FCPF) Readiness Preparation Proposal (R-PP) Template, R-PP v.3* (September 4, 2009).
- FERN (2009), *Update report on FLEGT Voluntary Partnership Agreements*, EU Forest Watch.
- Fry, Ian (2008), *Reducing Emissions from Deforestation and Forest Degradation: Opportunities and Pitfalls in Developing a New Legal Regime*, RECIEL Vol. 17, no. 2, August 2008.
- Global Witness (2005), *Guide to Independent Forest Monitoring*. London, UK. <http://www.globalwitness.org/pages/en/ifm.html>
- Global Witness (2008), *Honest Engagement – Transparency and civil society participation in REDD*. http://www.globalwitness.org/media_library_detail.php/759/en/honest_engagement_transparency_and_civil_society_p
- Global Witness (2009), *A Decade of Experience: Lessons Learned from Independent Forest Monitoring to Inform REDD*, London, UK.
- Hoare, A., Legge, T., Nussbaum, R. and Saunders, J. (2008), *Estimating the cost of building capacity in rainforest nations to allow them to participate in a global REDD mechanism*, Chatham House and ProForest, UK. http://www.occ.gov.uk/activities/eliasch/Chatham_House_cost_of_building_capacity.pdf
- IPCC (2003), *Good Practice Guidance for Land Use, Land-Use Change and Forestry*. National Greenhouse Gas Inventories Programme. <http://www.ipcc-nggip.iges.or.jp/public/gpglulucf/gpglulucf.html>
- IPCC (2006), *Guidelines for National Greenhouse Gas Inventories*. http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_01_Ch1_Introduction.pdf
- Karsenty, A. (2003), *Underlying causes of illegal exploitation of tropical timber*, International Forestry Review, 5(3).
- Karsenty, A. (2005), *The architecture of proposed REDD schemes after Bali: facing critical choices*, International Forestry Review, 10(3).
- Kishor, N.M. and Rosenbaum, K.L. (2003), *Indicators to monitor progress of forest law enforcement and governance initiatives to control illegal practices in the forest sector*, International Forestry Review, 5(3).
- Reeve, R. (2002), *Policing International Trade in Endangered Species: the CITES Treaty and Compliance*, The Royal Institute of International Affairs (Chatham House) and Earthscan, London, UK.
- Reeve, R. (2007), *Enforcement: Challenges and Lessons Learned*, background paper for Workshop on the Growth and Control of International Environmental Crime, Chatham House, 10–11 December 2007.
- REM (2007), *Termes de Référence. Observateur Indépendant de la mise en application de la loi forestière et de la gouvernance en République du Congo*, validated version of 8 July 2007. <http://www.observation-congo.info/TdR.html>
- REM (2009), personal communications from senior members of REM staff.
- REM and Forests Monitor (2007), *Capacity building in the Congo Basin and implementation of Independent Monitoring of Forest Law Enforcement and Governance (IM-FLEG) in the Republic of Congo*. http://www.forestsmonitor.org/en/capacity_building_congo
- Rosales, J. (2009), *Uncertainty and REDD: an Ethical Approach to this Nagging Problem*, in ClimateEthics.org. <http://climateethics.org/?p=95>
- Schoene, D. and Netto, M. (2005), *The Kyoto Protocol: what does it mean for forests and forestry?*, in Unasylva – No. 222 – Forests, Climate and Kyoto. <http://www.fao.org/docrep/009/a0413e/a0413E02.htm>
- Streck, C., Gomez-Echeverri, L., Gutman, P., Loisel, C. and Werksman, J. (2009), *REDD+ Institutional Options Assessment: Developing an Efficient, Effective, and Equitable Institutional Framework for REDD+ under the UNFCCC*, Meridian Institute. www.REDD-OAR.org
- UNEP (2007), *Compliance Mechanisms under Selected Multilateral Environmental Agreements*, UNEP, Nairobi.

- UNFCCC (2007), *Bali Action Plan*. UNFCCC Decision 1/CP.13, Bali, 3-14 Dec 2007.
http://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action.pdf
- UNFCCC (2008), *Procedure for Accrediting Operational Entities by the Executive Board of the Clean Development Mechanism (CDM)*. http://cdm.unfccc.int/DOE/cdm_accr_01.pdf
- UNFCCC (2009a), *Annex 2 – CDM Accreditation Standard for Operational Entities*.
http://cdm.unfccc.int/Reference/Manuals/accr_stan01.pdf
- UNFCCC (2009b), *Draft text for a decision on methodological guidance for activities relating to reducing emissions from deforestation and forest degradation in developing countries*, Annex to *Reducing emissions from deforestation in developing countries: approaches to stimulate action. Draft conclusions proposed by the Chair*, 10 June 2009. FCCC/SBSTA/2009/L.9. <http://unfccc.int/resource/docs/2009/sbsta/eng/l09.pdf>
- UN-REDD (2008a), *UN Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD): Framework Document*, FAO, UNDP, UNEP, 20 June 2008.
- UN-REDD (2008b), Report from the Workshop *Monitoring, Assessment and Verification*, convened by the UN-REDD Programme, 16-17 September 2008: UN-REDD Programme Working Paper 2, 2008.
- UN-REDD (2009a), *Measurement, Assessment, Reporting and Verification (MARV): Issues and Options for REDD*, draft discussion paper for 1st UN-REDD Policy Board meeting, 9-10 March 2009.
- UN-REDD (2009b), *Framework for Action 2009-2014 on Measurement, Reporting and Verification (MRV), Concept Note*, 29 May 2009.
- UN-REDD (2009c), *Scope of Work: Towards a "Governance and MRV Framework"*, UN-REDD Programme, draft, 1 June 2009.
- UN-REDD (2009d), *Multiple Benefits: Issues and Options for REDD*, UN-REDD Programme, 28 May 2009.
- Vincent, A. (2007), *Use your thumbs – text messaging is changing the face of marine conservation*, Conservation Magazine, vol. 8, no. 3, Jul-Sep 2007.

About Global Witness and Independent Forest Monitoring

Founded in 1993, Global Witness investigates and campaigns to prevent natural resource-related conflict and corruption and associated environmental and human rights abuses.

Global Witness has over a decade of experience in designing and implementing Independent Forest Monitoring in various countries. Based on a contract between the monitor and the relevant government authority and cooperation with civil society and the private sector, IFM was developed to monitor logging, legal compliance and forest law enforcement. Through the provision of publicly accessible, objective information on the control of activities in the forest sector, IFM addresses governance and transparency and supports forest law enforcement. IFM is, in effect, a form of systems or governance monitoring. The inclusion of IFM in Legality Assurance Systems being established under the EU Forest Law Enforcement, Governance and Trade initiative (FLEGT) illustrates the value of IFM and the international recognition it has gained.

London Office:
Global Witness
6th floor, Buchanan House
30 Holborn
London EC1N 2HS
UK
Tel: +44 20 7492 5820
Fax: +44 20 7492 5821

US Office:
Global Witness
529 S Street NW
Suite 1085
Washington, DC 20045
US
Tel: +1 202 621 6665

Email: mail@globalwitness.org



global witness