

**Result cases of the Learning from REDD+:  
An Enhanced Global Comparative Analysis  
2013-2015**

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## Module 1: From Policy Outputs to Policy Outcomes

### *No REDD+ without tackling underlying causes of deforestation, research flags!*

#### INTRODUCTION

Research is a crucial factor in the REDD+ policy arena as it keeps reminding REDD+ policy actors that halting deforestation effectively means transformational change far beyond the forestry sector and requires decisions away from business-as-usual (BAU) of forest exploitation, extraction and conversion.

#### WHY

##### **Moving from business-as-usual to transformational change**

The main driver of deforestation in most countries remains large-scale conversion for agricultural production, e.g. for cattle, oil palm, or soy ([De Sy et al. 2015](#), [Hosonuma et al. 2012](#); [Lambin et al. 2001](#)). While there is much rhetoric across multiple actor groups, including state and business, acknowledging this evidence, business-as-usual interests are still powerful and policy makers seem to shy away from tackling the underlying causes of deforestation ([Brockhaus et al. 2014](#), [Salvini et al. 2014](#)). In addition, civil society engaged in REDD+ pursue their own agendas, but also seem to miss out on action to tackle the drivers of deforestation ([Di Gregorio et al. 2013](#)). Hence, countries struggle with the design and implementation of coherent policies and measures to reduce emissions from deforestation and forest degradation ([Korhonen-Kurki et al. 2014](#), [Minang et al. 2014](#)). Evidence on which factors and configurations are crucial to make progress towards these challenging policy objectives will be helpful for decision makers and practitioners at all levels involved in REDD+.

#### WHAT

##### **Investigating politics and power**

CIFOR's research over the past 21 years has shown how powerful economic actors have benefited from the conversion of forests to non-forest uses and have created power structures that drive the status quo. Transformational change, namely a shift in discursive practices, economic incentives and power relations, is crucial to realise the overall objective of REDD+: halting deforestation and forest degradation. "Institutional stickiness" (the tendency for institutions to maintain the status quo) and actors' material interests, ideas and information can hinder or enable such transformational change ([Brockhaus and Angelsen 2012](#)).

To support champions for change in state, business and civil society, research can make a difference, as it informs and influences decision makers and decision making processes through the provision of sound evidence of what is and what can be, and empowers, if designed well, those that have been marginalized through new knowledge and awareness - without prescribing what should be.

Hence, in CIFOR's policy research we take a political economy approach and investigate the institutional context in which REDD+ is supposed to emerge, discursive practices, and power in policy networks in a comparative analysis ([Brockhaus and Di Gregorio 2012](#)). Results show the degree to which changes do occur in policy arenas. Comparative analysis enables us to identify which factors have enabled transformational change – or not, and rather hinder change.

#### RESULTS

##### **It's the politics, stupid!**

Our findings show that the overall progress with REDD+ is slow, countries are stuck in the REDD+ readiness phase, but some progress is visible ([Korhonen-Kurki et al. 2014](#), [Brockhaus et al. 2015](#)). We see new agents of change and new coalitions, as well as new incentives, and new discourses emerging for the value of standing forests ([Brockhaus and Angelsen 2012](#); [Brockhaus et al. 2014](#), [Luttrell et al. 2014](#)). However, BAU actor coalitions are still the most powerful and the REDD+ policy arena is characterized by power struggles everywhere, horizontal, vertical, within between ministries, sectors, within and between old and new institutional settings and the involved organisations ([Babon et al. 2014](#), [Bushley 2014](#), [Dkamela et al. 2014](#), [Gebara et al. 2014](#), [Gallemore et al. 2014](#), [Moeliono et al. 2014](#), [Pham et al. 2014](#), [Rantala and Di Gregorio 2014](#), [Brockhaus and Di Gregorio 2014](#), [Brockhaus et al. 2014](#)). Finally, and most importantly, the underlying causes of deforestation are not yet tackled, instead we see lots of 'old wine in new bottles' in proposed policies and measures ([Angelsen and Rudel 2013](#), [Salvini et al. 2014](#)).

These key findings of our comparative analysis provide guidance to REDD+ countries as to which enabling conditions need to be strengthened to facilitate an effective, efficient and equitable REDD+ policy formulation and implementation. Through our engagement and outreach approach within the researched countries (e.g. through knowledge sharing events, workshops with key stakeholders (see for example the [key messages from Indonesia](#) workshop in August 2015), and social media (for example through blogs to highlight that [deforestation drivers are not yet tackled](#))) we highlight the often critical findings, and also challenge those that hold the key for change to stimulate a critical debate and reflection.

## **LESSONS LEARNED**

### **Integrity, credibility and relevance is crucial, and facilitating agents of change is costly!**

In addition to generating scientific evidence, capacity building of, and engagement with, those that hold the key for change is necessary to enable the uptake of new and sometimes challenging knowledge and to ensure evidence-based decision making. At CIFOR, we are continuously designing and providing capacity building activities that are tailored to the partners within the larger research network (ranging from theory and methods trainings to very practical support, for example introducing peer review to partners that have not yet published). Integrity, credibility and relevance are what we consider as core values in such engagement. A key objective in the research-to-policy pathway is to support ownership of in-country partners over the evidence, as country partners are central vectors in the impact pathways who carry evidence into national and subnational decision making arenas. While trust is the pre-condition for successful engagement, time and financial resources need to be appropriately budgeted for, something we all tend to underestimate.

## ***The Government of Vietnam recognizes equity as an element of national PES and REDD+ programs***

### **INTRODUCTION**

CIFOR contributed to the Government of Vietnam's consideration of equity concerns in its revision of current PES policy and the development of a new REDD+ benefit sharing mechanism, by producing quality and objective research and consistent engagement through its Global Comparative Study on REDD+.

### **WHY**

Vietnam is the first country in Asia that has implemented a national Payment for Environmental Services (PES) policy. The national program started in 2008, generates around US\$ 60 million annually, and has significant achievements in terms of establishing institutional and legal frameworks, and generating political commitment. Yet, implementation has been impeded by inadequate financial management, lack of grievance mechanisms, weak monitoring and evaluation systems, and inequitable benefit sharing ([Pham et al. 2013](#), [Pham et al. 2014](#), [Yang et al. 2015](#)).

### **WHAT**

Since 2011, CIFOR has conducted numerous studies on PES in Vietnam and produced a significant body of work on PES and REDD+ policy discourses, multi-level governance in land and forest, and detailed research on how the PES is functioning as an incentive program for protecting forests and supporting local livelihoods.

CIFOR's research has had a direct impact. The Ministry of Agriculture and Rural Development (MARD) picked up on the work and translated CIFOR's publications into Vietnamese and published the Vietnamese versions in their Vietnam Forest Protection and Development Fund (VNFF) newsletters to disseminate widely to the provincial and local level staff. Based on CIFOR's study findings on the lack of proper monitoring, reporting and verification of PES financial transaction across multiple levels and on lack of equity considerations in benefit sharing, VNFF has placed these as priorities for the national PES program to address these policy gaps. MARD has gone further by directly donor agencies to finance these research recommendations.

Crucially, CIFOR's research findings on PES have been used by VNFF and MARD in their revision of the National PES policy and in their consideration of REDD+ benefit sharing policies. The research findings have also influenced the donor community in Vietnam, particularly by the World Bank FCPF in their planning for REDD+ project activities and JICA in their design and implementation of their REDD+ technical assistance program. In addition,

the provincial partner in Son La has taken up ownership of these findings and solicited direct funding from Oxfam and USAID to implement elements of the research recommendations.

## RESULTS

CIFOR's collaboration and engagement with a diversity of boundary partners, including MARD, enabled the project to be well situated to inform the drafting of relevant policies in Vietnam. The Government of Vietnam has come to realize through CIFOR's body of research that the PES policy needs to be revised to incorporate practices that would improve both the effectiveness and equity outcomes of the program. This was directly linked to research findings about the need for a proper grievance system, monitoring of fund distribution and consideration of local equity concerns to be placed as policy priorities. These contributions are apparent from comparison between drafted policies and CIFOR research papers (EC 2015).

## LESSONS LEARNED

Factors that enabled success included CIFOR's high-quality independent research and publications, timely research interventions to address crucial (and sometimes controversial) policy questions, and a consistent and engaged outreach strategy with clear boundary partners from government at all levels, research and civil society. The presence of a country office with a highly engaging and well respected local scientist is crucial.

## Module 2: REDD+ Project Activities

### *Recognition by UN-REDD of tenure as a key policy issue for REDD+*

#### INTRODUCTION

By producing high-quality independent research on tenure and REDD+, CIFOR contributed to the UN-REDD Programme's decision to adopt land tenure in its strategy framework in 2014.

#### WHY

**Tenure insecurity is pervasive in tropical forests and must be resolved for REDD+ to function properly** ([Sunderlin 2014](#)). The UN-REDD Programme supports dozens of REDD+ country governments in preparing national REDD+ strategies, developing monitoring systems, assessing multiple benefits and engaging stakeholders. Despite a focus on multiple benefits and safeguards, land tenure was not explicitly addressed in the UN-REDD strategy framework prior to June 2014.

#### WHAT

**CIFOR produced a large body of credible evidence highlighting the importance of land tenure security in REDD+, and shared it widely**

Through research module 2 of its Global Comparative Study (GCS) on REDD+, CIFOR has produced a large body of scientific evidence on the importance of land tenure security for fulfilling the climate change mitigation goals of REDD+, and protecting local rights and livelihoods. These publications are based on global research ([Larson et al. 2012](#); [Larson et al. 2013](#); [Sunderlin 2014](#); [Sunderlin et al. 2014](#)), and research in specific REDD+ countries, such as Cameroon ([Awono et al. 2014](#)), Tanzania ([Dokken et al. 2014](#)), Brazil ([Duchelle et al. 2013](#)), and Indonesia ([Resosudarmo et al. 2013](#)), and were disseminated widely through CIFOR's web-based communications platform: <http://www.cifor.org/gcs/modules/redd-subnational-initiatives/tenure/>

CIFOR's research results were used as input to an external evaluation of UN-REDD which recommended that the programme increase its attention to land tenure. CIFOR's findings were taken seriously by UN-REDD, as they were seen by UN-REDD to be credible, academic and non-partisan ([Young & Bird 2015](#)). Land tenure was adopted as a central issue in the UN-REDD logical framework and core strategy. In 2014, FAO's representative on land tenure and REDD+ invited William Sunderlin to give a presentation to the UN-REDD Policy Board.

## RESULTS

**UN-REDD included land tenure in its strategic framework for application in dozens of REDD+ countries**

CIFOR could influence UN-REDD to incorporate tenure as a factor in its logical framework and core strategy based on the strength of its GCS-REDD research. Although tenure has been a priority research theme in GCS-REDD since its inception in 2009, the uptake of the tenure findings by UN-REDD was an unintended outcome. CIFOR clearly

contributed to this result. The external evaluation recommendation for UN-REDD to increase its efforts related to tenure and REDD+ was ratified by the UN-REDD Policy Board only after a presentation by the Rights and Resources Initiative. A range of research focused on land tenure and REDD+ (namely that of CIFOR, which was considered a catalyst for the decision) was influential in this outcome. While UN-REDD has adopted the policy to prioritise tenure in its strategy framework, it is unclear how this will translate into practice (Young & Bird 2015).

#### **LESSONS LEARNED**

Success factors included CIFOR's high-quality independent research and publications, and extended outreach. Also, the 'policy entrepreneurship' of CIFOR scientists who serve as trusted advisors to policy actors (in this case William Sunderlin), contributed to the positive result (ODI 2015).

### **Module 3: Measurement, reporting and verification systems**

#### ***A stepwise approach for developing REDD+ reference levels***

##### **INTRODUCTION**

Forest reference level (FRLs) and forest reference emission levels (FRELs) are most commonly used as a business-as-usual (BAU) baseline to assess a country's performance in implementing REDD+ (UNFCCC 2011). FRELs/FRLs are needed to establish a reference point or benchmark against which actual emissions (and removals) are compared. These reference points are used to define emissions reductions, and the process is needed to assess performance and effectiveness of REDD+ policies and activities. FRELs/FRLs can also form the basis to set benchmarks for payments in a result-based REDD+ mechanism.

##### **WHY**

Despite their critical importance, there are a number of challenges in developing FRELs/FRLs. First, there is a critical lack of data and the reliability of the few data that exist is often questionable. Second, reference levels are future scenarios, which are inherently uncertain. Factoring in uncertainty therefore becomes a key aspect of setting RLs. Third, there can be incentives among actors to bias the estimates, as donors, governments and project proponents, for example, may all have an interest in high reference emission levels, which will make the impact of any policy or project look more favourable. Financial interests are even more pronounced in a results-based REDD+ mechanism.

##### **WHAT**

One way to deal with the three challenges of data, uncertainty and interests is a stepwise approach with steps of increasing improvement/sophistication, i.e. building up the reference levels and the capacity to handling them in stages, with increasing quality of data, precision, accuracy and geographical coverage. This approach aims to better structure and deal with the variety of RL methods that exists, the variability in data and their quality, uncertainties and varying country circumstances. The framework should help stimulate broad country participation in estimating RLs, and provide a starting point, even with limited data, from which to improve RL setting as countries progress through the REDD+ implementation phases and build their capacities.

The stepwise approach is summarized in the following table ([Herold et al., 2012](#)):

	Step 1	Step 2	Step 3
Activity data/area change	Possibly IPCC Approach 1 (national net change) but also 2 (national gross changes) or 3 (national gross changes spatially explicit)	IPCC Approaches 2 or 3 (to estimate gross changes)	IPCC Approach 3 (spatially explicit data required)
Emission factors/carbon stocks	IPCC Tier 1 (defaults) but also 2 and 3 (national data) if available	Tier 2 or 3 (national data)	Tier 2 or Tier 3 (national data)
Data on drivers and factors of forest change	No driver data available or used	Drivers at national level known with quantitative data for key drivers	Quantitative spatial assessment of drivers/activities; spatial analysis of factors
Approaches as guidance for developing reference levels	Simple trend analysis/projection using national statistics, based on historical data	Country-appropriate methods for interpolation/extrapolation using historical data and statistical approaches	Potential to use options such as spatially explicit modelling and other stat. methods for considering both drivers and other factors of forest cover change
Adjustments/deviation from historical trend	Simple rules (in technical terms)	Assumptions and evidence for adjustments key drivers/activities	Analysis and modelling by drivers and activities
Scale	National or subnational	National or subnational	National (required in REDD+ Phase 3 for results-based payment)
Inclusion of REDD+ activities	May focus on only 1 or 2 activities with a need to consider emissions, i.e. deforestation and/or degradation	Aims to focus on all five REDD+ activities but emissions (deforestation and degradation) to be considered as minimum	Aims to focus on all five REDD+ activities but emissions (deforestation and forest degradation) to be considered as minimum
Omission of pools and gases	Focus on key category pools and gases with conservative omissions	Focus on key category pools and gases with conservative omissions	Aim to consider all pools and gases in context of full IPCC key category analysis
Uncertainty assessment	No robust uncertainty analysis possible; use of default uncertainties and/or conservative estimates	Modelling to accommodate uncertainties and testing using available data	Independent and quantitative uncertainty analysis possible, sensitivity analysis and verification using available data

## RESULTS

An external analysis amassed evidence that CIFOR contributions were central to UNFCCC implementing a stepwise approach for countries to developing reference levels for forests and emissions that reflects each countries' national circumstances and levels of capacity. This approach was initially promoted by CIFOR, and was taken up as a UNFCCC decision at COP17 of the UNFCCC in Durban in 2011 (Decision 12/CP.17). With this, CIFOR has also indirectly influenced the Warsaw Framework (2013). The stepwise approach has been directly integrated into MRV planning documents in Ethiopia and Guyana (through CIFOR partners). The concept is also being applied in other contexts, e.g. it is discussed for safeguards (<http://www.cifor.org/library/5199/further-guidance-for-redd-safeguard-information-systems-an-analysis-of-positions-in-the-unfccc-negotiations/>).

Detailed evidence of the steps leading from CIFOR's work to this decision is provided in the [assessment report](#) of CIFOR's Global Comparative Study in REDD+, conducted by ODI.

The result described above was the intended outcome of our work; yet the quick adoption by COP17 was more than expected. The draft proposal was circulated among and discussions were held by key REDD+ negotiators during COP17. The development of the proposal was rather quick, but underpinning it were several years of research on MRV and reference levels.

## **LESSONS LEARNED**

Research underpinning the stepwise approach proposed a simple framework that addressed an important topic in the UNFCCC negotiations. The stepwise approach provided a simple solution to the challenges related to the huge variation in data availability and quality, and national capacity. As such, it provided an answer to a problem raised by key stakeholders – how they could develop their national MRV capacity in reliable and trustable ways.

## ***Quantification of tropical deforestation drivers provide new insights***

### **INTRODUCTION**

In many developing countries emissions from land use, and land use change, are the largest contributors to GHG emissions. Progress on reducing anthropogenic emissions from land use change is difficult if REDD+ countries are not able to monitor these land use change emissions and attribute them to human activities. Several research activities were performed to quantify land use change and drivers of deforestation and related carbon emissions. Our studies quantified land use following deforestation across the tropics.

### **WHY**

#### **Quantification of deforestation drivers is needed for REDD+ strategy development**

The long-term viability of REDD+ depends on changing business-as-usual activities in sectors currently driving emissions from forests. Consequently, identifying land use, land-use change and forestry activities in REDD+ countries, in particular those that are linked to the drivers of deforestation and forest degradation, is an essential component of any REDD+ strategy. Although agricultural expansion has been identified as the key driver of deforestation in the tropics, drivers vary regionally and change over time. Assessment of direct and indirect drivers and their interaction on the national level are just starting to emerge and are often generic and incomplete. Analyses of drivers have largely been based on local or regional case studies or on coarser assessments on the continental and global scales with less focus on the national level. Monitoring drivers (e.g. deforestation by agricultural expansion, fuelwood extraction, etc.) for REDD+ puts an emphasis on monitoring and tracking human activities, where remote sensing has an important role.

### **WHAT**

#### **Remotes sensing assessment of land use and related carbon losses following deforestation**

Our study quantified proximate drivers of deforestation in 27 tropical countries from 1990 to 2005, their spatiotemporal dynamics and related carbon losses at continental and national scales using a comprehensive, systematic remote sensing analysis. Deforestation areas were derived from the 2010 global remote sensing survey of the FAO Forest Resource Assessment. To assess proximate drivers, land use following deforestation was determined by visual interpretation of high-resolution satellite imagery. Gross carbon losses from deforestation were estimated using Tier 1 biomass levels per country and eco-zone combined with the deforested area for South America. In addition, this project capitalised on newly available remote sensing information on above-ground live biomass density and tree cover at similar spatial resolutions, in order to improve carbon emission factor estimates by using these spatially and temporally consistent high resolution remote sensing datasets, and by incorporating the carbon stock of the land use following deforestation.

### **RESULTS**

#### **Spatially explicit quantitative information on tropical deforestation drivers**

This project achieved better quality proximate driver data on national and regional levels, as compared to what countries are reporting in their REDD+ readiness documents (see [Hosonuma et al, 2012](#)). Agriculture is the most dominant land use following deforestation in the tropics, but the dominance of specific agricultural land uses differed per continent. In South America, pasture was the most common post-deforestation land use, with commercial crop a distant second. In Africa, deforestation is often followed by smallholder crop, with a smaller role for pasture. In Asian countries, tree crops are the most dominant agricultural follow-up land use, and smallholder crop is second. The findings for the Amazon region and for South East Asia are in line with previous studies that identified agribusinesses, increasingly producing for international markets (cattle ranching, soybean farming and oil palm plantations), as the main drivers of deforestation since the 1990s. In contrast, deforestation in most of Africa is still largely due to small-scale subsistence agriculture. Small-scale subsistence agriculture is also an important factor in deforestation in the Andean region and parts of the Asian region (Vietnam, Cambodia and Lao PDR). Our results also revealed that, especially in Africa and Asia, deforestation is often followed by scrubland with no clear visible follow-up land use.

The research article ([de Sy et al, 2015](#)) was published in December 2015. It has already been downloaded more than 1,000 times from the journal webpage. We will complete a full tropical analysis within the next year.

The research is motivated by the need for national-level quantitative data on drivers of tropical forest change. This data supports the development of national REDD+ interventions and forest monitoring systems, and provide valuable input for statistical analysis and modelling of underlying drivers of deforestation. The methodology is suitable for operational (sub-)national monitoring of drivers because we used a low-technology approach (visual interpretation) which uses mostly freely available datasets and imagery (Landsat, Google Earth). In addition, there is no need for intensive (pre-)processing of satellite imagery and the systematic sampling design reduces costs and time for analysis. This all makes our methodology accessible for countries with various levels of technical capacities.

The results were somewhat expected and highlight the need for time-series of spatially explicit and quantitative data on proximate drivers of deforestation area derived from remote sensing. However, our results also showed that average forest carbon stocks across an eco-zone do not accurately represent the specific forest areas that have undergone deforestation, which can introduce substantial uncertainties in carbon stock and emission estimates. Deforestation often occurs in forest with lower than average carbon stocks. Our estimates of the carbon stock of live woody vegetation still present after deforestation indicated that not all woody vegetation is cleared, or that regrowth occurs. For example, up to 20% of the forest carbon stock can remain after forest conversion to smallholder cropland. Forest clearing for mechanised agriculture, associated with commercial crops, typically involves a more thorough removal of biomass than clearing for pasture and small-scale agriculture. Our results do not fully support this for all eco-zones show this for most eco-zones. However, whether forest conversion to commercial crop or to pasture has a higher emission factor depends more on the spatial dynamics of both land uses and the initial biomass of the forest.

#### **LESSONS LEARNED**

Our results showing that deforestation is often followed by no clear land use may partly be due to the methodological limitations, because small-scale and dispersed land uses such as subsistence activities (crop, fuelwood collection) and nomadic grazing are not always identifiable by visual interpretation of satellite imagery. Here, our dataset would benefit from more local data and knowledge of land use dynamics, for example from field campaigns or community monitoring. Aside from this, unclear follow-up land use also exposed land use dynamics that are interesting from a policy perspective, such as the misuse of subsidies for establishing palm oil plantations in Indonesia, for example. Infrastructure, such as road and urban expansion, contributed little (in area) as proximate drivers of forest area loss.

### ***INCAS - a national MRV platform for REDD+ in Indonesia***

#### **INTRODUCTION**

The Indonesian National Carbon Accounting System ([INCAS](#)) has been developed with CIFOR support to account for GHG emissions and removals annually from all of Indonesia's forest and lands for REDD+ activities. The INCAS has produced results nationally and individually for all 34 provinces in Indonesia.

#### **WHY**

The INCAS has been developed to help Indonesia meet its MRV requirements for REDD+.

#### **WHAT**

**CIFOR's INCAS Program of Support has supported the Government of Indonesia in developing an advanced national MRV system for REDD+.**

The INCAS Program of Support has been assisting the Indonesian Ministry of Environment and Forestry's Research, Development and Innovation Agency (FORDA) to develop the INCAS. This includes the provision of technical, policy, coordination and financial assistance provided by CIFOR in partnership with the Australian Government.



## RESULTS

**A detailed account of annual GHG emission and removals from REDD+ activities on all of Indonesia's forest and peatlands.**

The project supported the Indonesian Government to complete phase one of INCAS development. INCAS is [a national level MRV system, accounting for annual GHG emission and removals from REDD+ activities on all of Indonesia's forest and peatlands](#). This includes emissions from biological oxidation in peatlands, and from fire. Results are presented nationally and for all 34 provinces in Indonesia. The project also developed a [standard method](#) for estimating greenhouse gas emissions from forests and peatlands in Indonesia.

This system did not exist prior to the program. The long term and intensive capacity building program by CIFOR and Australian government's assistance was central to the successful implementation. Resources were provided by the Indonesia Government but a significant amount of external funds were contributed through the INCAS Program of Support.

## LESSONS LEARNED

The development of advanced MRV systems for REDD+ in developing countries is possible. Capacity building efforts are most effective when they are long term and intensive. Risks included potential unsustainability of the system after the project finishes. This was addressed by ensuring that the development of the system was led entirely by Indonesian official and experts to give it the best possible chance of continuation as an ongoing function of government. Despite this, misperception continue that the INCAS was a temporary donor-funded project.

## *Research shows that forest monitoring skills are on the rise*

## INTRODUCTION

As a large number of tropical countries had limited capacity in the past to implement national forest monitoring systems for REDD+ MRV, we assessed the current status and recent changes in national forest monitoring and reporting capacities in 99 tropical countries, using the Food and Agriculture Organization of the United Nations (FAO) Forest Resources Assessment (FRA) 2015, 2010 and 2005 data.

## WHY

**Reliable systems are needed to accurately monitor forest cover and carbon stocks and changes for REDD+ implementation.** As a large number of tropical countries had limited capacity to implement such a system, capacity building efforts are now ongoing to strengthen the technical and political skillsets necessary to implement national forest monitoring at institutional levels. It is important to assess, in regular intervals, the status and changes in national forest monitoring and reporting capacities, to indicate which areas need to be further improved in the future.

## WHAT

**Assessment of status and changes in national forest monitoring and reporting capacities in 99 tropical Non-Annex I countries for the years 2005, 2010 and 2015.** The aim of this study was to assess the capacity status and the changes in national forest monitoring and reporting capacities in 99 tropical Non-Annex I countries for the years 2005, 2010 and 2015, using the FAO FRA data. Three indicators "Forest area change monitoring and remote sensing capacities", "Forest inventory capacities" and "Carbon pool reporting capacities" were used to assess the countries' capacities for the years 2005, 2010 and 2015 and the change in capacities between 2005-2010 and 2010-2015. The specific objectives are to explain the change in forest monitoring and reporting capacities and to investigate the effectiveness of capacity building initiatives for improving national forest monitoring systems. Additional objectives are to assess the effect of increased capacities on the area of tropical forest that is monitored with accurate and reliable data and methods, and to assess the effect of increased capacities on reported FRA numbers of net change in forest area for similar time periods.

## RESULTS

**The research shows that forest monitoring skills are improving and that changes can be attributed to the implementation of successful capacity building programs.** In particular the forest area change monitoring and remote sensing capacities improved considerably between 2005 and 2015.

The total tropical forest area that is monitored with good to very good *forest area change monitoring and remote sensing capacities* increased from 69% in 2005 to 83% in 2015, which corresponds to 1,435 million ha in 2005 and 1,699 million ha in 2015. The total tropical forest area that is monitored with good to very good *forest inventory capacities* increased from 38% in 2005 to 66% in 2015, which corresponds to 785 million ha in 2005 and 1,350 million ha in 2015. Carbon pool reporting capacities did not show as much improvement and the majority of countries still report at Tier 1 level.

The results builds confidence and encouragement to international and national stakeholders that the capacity development efforts to improve national forest monitoring capacities in tropical countries show success. Many countries have now a better understanding and quantitative data on their forests, carbon stocks and changes.

The results re-emphasize our hypothesis that targeted capacity building programs are effective for building national forest monitoring capacities. Despite good progress, some capacity gaps remain in some countries and for areas (i.e. carbon stock reporting) and the capacity development efforts should continue to fill those. Knowing that progress can be achieved in reasonable time-levels should encourage that current activities and approaches, and lessons learned should well underpin the future efforts in that area.

## LESSONS LEARNED

We found that there was a positive change in the net change in forest area reported between two reporting years for a similar time period. In other words, countries with lower capacities (in the past) tended to overestimate the area of forest loss, which would imply that potentially the total area (in the 1990 and 2000) of net forest loss is lower than currently reported. So, low-capacity national reporting does result in major differences that can add up and also lead to biased pan-tropical estimations of net forest loss. Thus, it is important for countries to develop higher-level MRV capacity and update their inventories on a regular basis.

## Module 4: Carbon management at the landscape scale

### *Improved multi-stakeholder processes through knowledge sharing in Vietnam*

#### INTRODUCTION

CIFOR contributed to multi-stakeholder uptake of research findings on benefit sharing strategies in Vietnam by strategic engagement throughout the research-for-development process.

#### WHY

##### **Understanding multilevel governance challenges of land use and benefit sharing**

Advancing effective and equitable REDD+ in Vietnam requires understanding the complex institutional and governance arrangements that influence land use as well as existing benefit sharing mechanisms such as the payment for forest environmental services (PFES) scheme. Hence, the goal was to assure that lessons learnt from the research contribute to the design of REDD+ policies and processes and related benefit sharing mechanisms, such that outcomes for forests and for the livelihoods of forest communities would improve and be more sustainable.

## **WHAT**

### **Building multi-stakeholder engagement**

The multilevel governance study specifically was based on a nested, comparative case study in two provinces of Vietnam: Nghe An and Dien Bien. The study involved 100 interviews with actors from the national, provincial, district, commune, and village levels, including government and non-government actors associated with eight cases of land use change. Five of these cases included benefit sharing mechanisms. CIFOR's project strategy was to engage in the early stages with key partners (NGOs, JICA, and government) to develop the project methodology, to receive feedback and exchange knowledge, and select appropriate research regions. We developed an MoU with the government research institute Vietnamese Academy of Forest Sciences (VAFS) to maintain our working relationship for, and beyond, the project. We also worked with a PhD student from the Hanoi University of Agriculture. Research partners responsible for implementing the research/data collection were selected based on previous partnerships and their experience in the selected regions. Through our early scoping study we developed good relationships at subnational level. To further build capacity and knowledge, the research team included government partners who were staff of the Dien Bien and Son La Forest Protection and Development Fund. We collaborated closely with JICA as a key knowledge partner that also works on both the national and provincial REDD+ action plans.

## **RESULTS**

### **Uptake of research results through multi-stakeholder processes**

CIFOR co-hosted and organized a national knowledge sharing workshop in Hanoi with Transparency International and the Vietnam Forest Protection and Development Fund (VNFF). The first day over 50 people participated in a knowledge sharing event with CIFOR and other partners presenting global and national findings. The following day consisted of a technical meeting, hosted by the Ministry of Agriculture and Rural Development (MARD). About 20 participants, from national and subnational government, donors, NGOs and CSOs, collaborated to develop national policy options for REDD+ Benefit Sharing Mechanisms.

In addition, JICA invited CIFOR to co-chair and lead the discussions on PES in their Final Technical workshop in Hanoi. They also invited CIFOR to their project sites in Dien Bien to share our lessons learnt with their beneficiaries from province, district, commune, village and working partners (Dien Bien Department of Agriculture and Rural Development).

Additional research evidence produced that could influence the policy process so far also include:

- Co-authored legal review (CIFOR and VAFS): The distribution of powers and responsibilities affecting forests, land use, and REDD+ across levels and sectors in Vietnam: A legal study
- CIFOR Published info brief: Lessons from the perceptions of equity and risks in payments for forest environmental services (PFES) fund distribution – Distributed at the JICA National workshop
- JICA national REDD+ workshop 2015 – CIFOR presented two studies: on PFES and equity, and multilevel governance and forest land use decisions related to forest land allocation.
- Collaborative authorship (VAFS, univ of Hanoi, CIFOR) on national synthesis report titled: “Analysing multilevel governance in Vietnam: lessons for REDD+ through land use change and benefit sharing in the provinces of Nghe An and Dien Bien” based on two regional reports from the study provinces (in review).

## **LESSONS LEARNED**

CIFOR's Vietnam office has developed essential partnerships with both government and non-government actors who are involved in land use policy decision, projects, programs and research in related to Vietnam's forests. Prior CIFOR research and partnerships laid the foundations for engagement. Existing networks and access were also facilitated by purposeful selection of field researchers with previous working experience in the regions. The project's government partners were important in facilitating government permissions to access the study sites, but also to raise capacity and awareness within government. Furthermore, CIFOR is perceived on the national stage in Vietnam as a relevant source of objective evidence.

## **Module 5: Knowledge Sharing**

### ***Taking REDD+ stories from the forest to the globe***

## **INTRODUCTION**

Thousands of people engaged in REDD+ have gained insights into the realities of REDD+ as it is practised on the ground, thanks to a comprehensive casebook resting on salient and legitimate research on case studies, and disseminated through a global communications program by CIFOR.

## **WHY**

### **Sharing lessons about the realities of REDD+ helps guiding future decisions**

From the forests of the Peruvian and Brazilian Amazon, to the Congo Basin and Tanzania, to Vietnam and Indonesian Borneo, more than 330 subnational REDD+ initiatives have emerged since 2009, each of which sought to put the idea of REDD+ into practice. In 2010, CIFOR's Global Comparative Study on REDD+ began to collect data on 23 of these subnational sites – a sample covering half the global area under REDD+ projects -, with the aim of helping all stakeholders understand what works and what doesn't during implementation – what factors help move REDD+ along and what factors get in the way. By 2014, CIFOR and its partners had amassed a rich body of evidence on these initiatives' experiences and their early lessons for REDD+ – so it was timely to share that knowledge with those engaged in REDD+ policy and practice, in order to inform future decisions on ways to curb emissions from deforestation and forest degradation. For this research to serve its ultimate function of informing policy, CIFOR focused not only on gathering and organising the information, but also on presenting it in accessible formats and sharing the evidence through its established and effective channels.

## **WHAT**

### **Comprehensive and timely publication shared through established global communications program**

A small army of researchers, editors, graphic designers and web programmers worked together to gather and present the research findings in a 24-chapter book: "REDD+ on the Ground: A Case Book of Subnational Initiatives across the Globe". The publication was released not only in traditional book format (with a limited print run), but also in a specially designed digital version, online PDF and e-book. The Executive Summary was also released in Spanish and Portuguese.

The release was part of a comprehensive communications plan, which made use of the extensive communications infrastructure that CIFOR has built over several years. A journalist was commissioned to write an article about the book, based on an interview with one of the lead authors, as well as three articles focusing on REDD+ initiatives in Brazil, Indonesia and Tanzania.

These four articles were published on Forests News, CIFOR's virtual news site. Another of the lead authors, William Sunderlin, presented key findings to the full room at "REDD+ Emerging?", an official side event at the UNFCCC COP20 in Lima, and elements of the results were presented by many others on many other occasions, most recently in a session at the Asia-Pacific Forestry Week in February 2016 in the Philippines. An article on the side event and a video interview with Sunderlin were also published on Forests News and on YouTube. These dissemination efforts were further supported by the combined strategic use of direct email lists, two special "REDD+" editions of CIFOR's newsletter sent out during COP20, media outreach and social media.

## **RESULTS**

### **Thousands of people across the world have been able to learn lessons about challenges and opportunities for REDD+ in practice**

By the end of 2015, a year after "REDD+ on the Ground" was first published, the [HTML version](#) had been viewed more than 22,000 times by 5,600 users, and the book had been downloaded in PDF format more than 2,500 times. The Forests News articles had garnered a total of nearly 4,000 views.

The broad readership of this publication not only suggests high demand among those in the REDD+ sphere for evidence of this kind – it can also be attributed to the effectiveness of CIFOR's digital communications strategy, which was launched at the beginning of the Global Comparative Study on REDD+. The strategy uses a mix of communications tools in various combinations – the Forests News blog, newsletters, direct emails, videos, multimedia, social media, media partnerships, events – to effectively reach out to a wide audience. A survey of the audiences, conducted by ODI as part of its assessment of the Global Comparative Study on REDD+, found that CIFOR is reaching its target audiences (national research partners, national proponents, national practitioners, national policy-makers, international research partners, and international policy actors), and that most of CIFOR's audiences are using its work, even in countries where there is no country office.

By deploying a high volume of high-quality and diverse science communications materials created based on CIFOR's research, the approach to communications made it possible for CIFOR to grow its audiences for dissemination and knowledge sharing. As a result, by the time "REDD+ on the Ground" was released, CIFOR had a large audience following its digital communications channels and receptive to the work released.

### **Publications**

- REDD+ on the Ground: A Case Book of Subnational Initiatives across the Globe.  
<http://www.cifor.org/redd-case-book/>  
*Source for statistics: Google Analytics*
- Informing REDD+ policy: an assessment of CIFOR's Global Comparative Study (ODI):  
[www.odi.org/publications/9932-informing-redd-policy-assessment-cifors-global-comparative-study](http://www.odi.org/publications/9932-informing-redd-policy-assessment-cifors-global-comparative-study)