# Analyzing multilevel governance in Vietnam

Lessons for REDD+ from the study of land-use change and benefit sharing in Nghe An and Dien Bien provinces

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# **Abbreviations**

BSM Benefit sharing mechanism

CERDA Center of Research and Development in Upland Areas

CIFOR Center for International Forestry Research

CPC Communal people's committee

DARD Department of Agriculture, Environment and Rural Affairs

DiARD Division of Agriculture and Rural Development
DiONRE Division of Natural Resources and Environment
DONRE Department of Natural Resources and Environment

DPC District people's committee
DPCl District people's council

DPI Department of Planning and Investment FCPF Forest Carbon Partnership Facility

FLA Forest land allocation
FMB Forest Management Board

FPDF Forest Protection and Development Fund

FPIC Free, prior and informed consent FSSP Forest Sector Support Partnership

GCS Global Comparative Study
GoV Government of Vietnam
GSO General Statistical Office

HPP Hydropower plant

JICA Japan International Cooperation Agency
LEAF Lowering Emissions in Asia's Forests Project

LED Low emission development

MARD Ministry of Agriculture and Rural Development

MOF Ministry of Finance

MONRE Ministry of Natural Resources and Environment

MPI Ministry of Planning and Investment
MRV Monitoring, reporting and verification

NGO Nongovernmental organization NRAP National REDD+ Action Plan

PFES Payment for forest environmental services
PFMB Protection forest management board

PPC Provincial people's committee

REDD+ Reducing emissions from deforestation and forest degradation and the role of

conservation, sustainable management of forests and enhancement of forest carbon

stocks in developing countries

SFE State Forest Enterprise

SNV Netherlands Development Organisation
UNDP United Nations Development Programme

UN-REDD United Nations Programme on Reducing Emissions from Deforestation and Forest

Degradation

USD United States dollar

VAFS Vietnamese Academy of Forest Sciences

VND Vietnamese dong<sup>1</sup>

VNFF Vietnam Forest Protection and Development Fund

VNForest Vietnam Forestry Administration

VRG Vietnam Rubber Group

<sup>1</sup> USD 1 = VND 22,455

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# **Executive summary**

International strategies to reduce deforestation and forest degradation like REDD+ (reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries) have emerged with the aim of transforming the way land-use decisions are made by providing incentives for lower carbon emissions from forests and land-use change. This report presents the analysis of a nested, comparative case study in two provinces of Vietnam: Nghe An and Dien Bien. The study involved 102 interviews with a subnational focus at the provincial, district, commune and village levels, including government and nongovernment actors, associated with eight cases of land-use change. Five sites were characterized as promoting forest protection and afforestation, such as the national payment for forest environmental services (PFES) scheme; and three sites were associated with deforestation and degradation, including rubber plantations and hydropower plant development. Insights from these cases provide the basis for a consideration of the limits and opportunities for REDD+ and other strategies to reduce carbon emissions.

Multilevel governance is discussed in relation to influences over land use and forests in order to identify who makes decisions, how those decisions are made, and the interaction between multiple levels and sectoral offices of government. The government system in Vietnam has been deconcentrated since 1994 with established lower-level governments – provincial, district and commune – largely carrying out national directives. Forests fall under the responsibility of the Ministry of Agriculture and Rural Development (MARD), while natural resources and land are the responsibility of the Ministry of Natural Resources and Environment (MONRE). However, there are conflicting interests and weak coordination between agencies, as well as conflicting objectives between the agriculture and forestry sectors. Evidence from Dien Bien in particular highlights the incompatibility between national government priorities and programs focused on economic development, on the one hand, and forest protection on the other. In both provinces, external actors such as the private sector (e.g. hydropower plants) and international actors (e.g. JICA) also play an influential role in land-use change.

Direct drivers of deforestation and degradation such as agricultural and rubber plantation expansion, logging practices, hydropower plant development as well as migration and swidden farming practices are the most often recognized deforestation and degradation drivers, yet it is apparent that many indirect drivers have been pivotal to land-use change in both regions. Findings indicate that the conversion of forests to rubber plantations resulted in negative impacts on smallholder livelihoods due to food insecurity and delayed benefits, leading smallholders to clear other forests to cultivate subsistence crops. Proximate drivers of deforestation and degradation – smallholders – are the most often recognized drivers in Vietnam. They are paid more attention than the important underlying drivers, such as apparent loopholes in the legislation that allow local governments to classify lands as eligible for conversion to rubber production when reclassified as "degraded", the conflicting interests and weak coordination between agencies and between sectors, and inconsistent land use planning. Hydropower development was also perceived to drive forest loss both directly, due to clearance for construction and associated infrastructure, and indirectly, due to the relocation of households.

Findings from the study identify the provincial government as a key decision-making body in relation to the commune and district. The province sets out overall land-use planning, subject to central government approval, while commune and district governments are important for identifying and resolving accountability issues related to land-use decisions. The commune government acts as an intermediary for higher-level government decisions, as well as being mandated to make the voices of local people heard at the district level. Nevertheless, the ability of lower-level governments to perform these functions is constrained by weak capacity and technical skills, limited human and financial

resources, and a limited ability to influence decisions taken at the higher government levels, both in terms of implementation and resolving local concerns.

The research suggests that the outcomes of forest and land-use policies are strongly driven by (i) the will, interest and attitudes of influential actors in relation to promoting forests over other landuse goals; (ii) the effectiveness of coordination and coalitions among those actors and between them and local communities; and (iii) local people's understanding of the pros and cons of these land uses and their confidence and right to accept or reject the land-use changes. In Muong Pon Commune in Dien Bien District, local people reported that higher levels of government worked with the private sector to facilitate the establishment of a rubber plantation without adequately explaining the likely consequences to them, thus compromising the legitimacy of the initiative and the equity of its outcomes. In contrast, communication between the Dien Bien provincial government and local people was proven to be effective in the SUSFORM-NOW REDD+ pilot project and in PFES in Hua Ngai Commune, which were also generally perceived as improving forest management practices and sustainability. The rubber plantation case had low procedural equity (referring to decisionmaking processes), whereas participatory and responsive grassroots processes were in place in the REDD+ project and smaller afforestation enterprises. Although land-use change to the detriment of forests illustrates how the influence of more powerful land-use actors can encourage or even force smallholders to convert forests as alternative livelihood strategies, findings indicate that smallholders did not always agree or succumb to external pressures, sometimes refusing to accept the intentions of the other land interests, particularly when well informed about the associated burdens.

The equity of land-use change decisions and activities at a local level is important for both efficiency and effectiveness goals in terms of how they influence the motivation and support of local actors and mitigate disputes and conflict. Both direct cash benefits and nonmonetary benefits are shown to be important incentives to enhance equity in benefit sharing mechanisms (BSMs) and were perceived to be successful ways of encouraging behavior changes. Yet such incentives could also be seen to change behavior in the form of planting cash crops at the expense of forests. Direct cash benefits are also associated with two distributional equity concerns: (i) the size of payments, which some considered to be unfair relative to the costs incurred; and (ii) how the payments are distributed. In the case of the rubber plantations, the economic burdens are apparent due to the time lag between the initiation of rubber cultivation and the rubber being ready for extraction (~3 years) (Phuc and Nghi 2014), resulting in food insecurity. In forest protection and development, the compensation offered was perceived to be low and often delayed. For PFES, the annual payments for forest protection activities could be as low as VND 35,000 (1.25 USD)/household/year. Decisions on the type of benefits were often imposed by the government and external actors without any procedure in place to seek inputs from the local people and assess their interest.

The Vietnamese national government has demonstrated its strong commitment to and support for REDD+. The National REDD+ Strategy was approved in 2012 and is now moving from phase 1 to phase 2, implementing policies and measures. REDD+ actions so far reflect project-driven development approaches, e.g. UN-REDD in six provinces, the Forest Carbon Partnership Facility (FCPF) in the central coast, CERDA in Thai Nguyen, and pilots by SNV in Nghe An Province and JICA in Dien Bien Province. Lessons learned on procedural and distributive equity in different projects can help policy makers design more effective, efficient and equitable REDD+ policies and projects. Since smallholders are seen as the main drivers of deforestation, current REDD+ policies and measures are aimed at activities and alternative livelihoods for local people.

This fails to address other key drivers such as rubber and hydropower companies, however, as well as government commitments to expand rubber plantations and underlying problems such as land tenure. Hence current efforts that focus on capacity building for all actors and alternative livelihoods generated by REDD+ are not enough to tackle deforestation on their own. Other obstacles identified by actors interviewed include difficulties in measuring carbon stocks (e.g. MRV), identifying

beneficiaries, high transaction costs, misuse of monetary benefits, low capacity, the complexity of current forest-related policies and the current reliability of forest data.

Multilevel governance conditions surrounding different land-use decisions in Vietnam explored in this study illustrate that approaches vary across sites and scales. Moreover, different respondent perspectives and actions are formulated behind different agendas, with varying notions of what is "fair." For REDD+ to move ahead, we conclude that three dimensions of equity have to be addressed:

### Contextual equity

Unclear and insecure land tenure is a major challenge for REDD+ in Vietnam, as it is for many developing countries. Forest land allocation (FLA) is still incomplete and at different stages across the studied case sites due to inaccurate and out-of-date forest inventory data and the limited financial and technical capacities of district and commune government agencies. The classification (or reclassification) of forest land should follow free, prior and informed consent (FPIC) and the demarcation of forest boundaries should be clarified to local land managers. Conflicts between private companies and local people over land tenure and benefit sharing arrangements have also impeded effective implementation of forestry policies.

### **Procedural equity**

The importance of equitable decision making was demonstrated in all cases. In BSMs that demonstrated participatory approaches the land-use interventions were perceived more favorably. Enabling and incentivizing commune-level government actors to take more influential roles to enable effective communication between the local people and upper levels of government can allow policymakers to be better attuned to the local pressures on forests and people's livelihoods. Involving non-state actors – including actors behind drivers such as hydropower plants and rubber companies – in both land-use planning and the design of benefit sharing mechanisms is also crucial in terms of tackling drivers of deforestation and deforestation. The overlap of responsibilities across sectors would justify the need to enhance working relations and policy implementation in order to assist in reconciling developmental and environmental objectives.

### Distributive equity

All land-use decisions incur some sort of benefits and burdens for different 'types' of land managers and/or land-use decision makers. The outcome of forest protection activities will be determined by the way in which the incentives, benefits, rights and responsibilities generated by land-use planning and management and by forest protection activities are shared among the different-level government agencies, among communities, between external actors and local communities, and even between the private sector and government agencies. Cash benefits were often found to be problematic and it is clear that REDD+ and PFES cannot meet the opportunity costs of alternative land uses. Nonmonetary benefits (co-benefits such as tenure security, legitimacy, inclusive decision making, access to information, etc.) can positively influence perspectives, governance and land-use behavior. Distributive equity incorporates elements related to eligibility, distribution timing and benefit type, as well as transparency and accountability, all of which are essential to ensure effective forest policies, including REDD+.

# 1 Introduction

In the past decade, there has been increased global attention on greenhouse gas emissions from landuse change and on forests as key components of climate change mitigation strategies. International strategies to reduce deforestation and forest degradation such as REDD+ (reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries) have emerged with the aim of transforming how land-use decisions are made. However, it remains poorly understood how these new global initiatives alter or are mediated by existing institutions at multiple levels, and especially how they interact with the *politics* of land use. Furthermore, it is important to understand how the benefit sharing mechanisms involved in these initiatives shape people's motivation, engagement and support regarding participation and compliance. We can understand if benefit sharing mechanisms are working or not by whether they are 'successfully' incentivizing land-use behavior to conserve or manage forests. The purpose of this study was to explore these multilevel governance institutions and identify the benefits and burdens of land-use change and related benefit sharing mechanisms in order to examine how they mediate decision making around land use.

The importance of participatory and collaborative decision making in sustainable environmental policy design and implementation has been frequently cited as important in enhancing decisions and outcomes (Ribot 2003; Ribot et al. 2006; Pham et al. 2013b). For REDD+, effectiveness is defined by success in reducing carbon emissions and will likely be compromised if the associated processes and decisions are not seen as legitimate (Larson and Petkova 2011). As a result, policy makers and researchers have focused on multilevel governance and decentralization to understand a broad range of stakeholders. Land-use decisions inherently involve both direct and indirect multilevel decision making from a range of actors across scales and sectors, yet the different interests and levels of power among land-use actors often remain poorly understood (Kowler et al. 2016). Multilevel governance (MLG) can be considered as the "processes and structures of public policy, decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose" (Emerson et al. 2012, 2).

In public policy, the central government usually determines the type and extent of powers and responsibilities that will be transferred from the central to local levels. Forestry decentralization, for example, should allow local governments to take on greater decision-making roles with the intention of providing more targeted and informed decisions (Larson and Petkova 2011). Yet decentralization efforts are often limited by ongoing centralized controls, followed by heavy bureaucratic burdens (Larson et al. 2007; Yang et al. 2015a). The expectation from more centralized systems is that policies will be rolled out and implemented more uniformly.

REDD+ presents an opportunity to encourage a "bottom up" design and therefore involve more actors in forest governance. Larson and Petkova (2011) highlight, however, that REDD+ also risks driving power further into the hands of the elite, often to the detriment of forest-dependent communities, through inequitable benefit sharing mechanisms (BSM) or land grabs, for example. Benefits from a BSM can be both direct (monetary) and indirect (e.g. in-kind benefits, training, capacity building etc.). Equally, burdens can be both direct and indirect, but are usually broken down into financial costs (e.g. lost opportunity costs), transaction costs and reduced access to natural resources (Luttrell et al. 2013).

This report reflects findings from a country study in Vietnam that focuses on multilevel decision making around land-use interventions in order to draw lessons for REDD+ or other initiatives aimed at low emissions development. The idea is to reveal the role of the different actors and decisions

## Box 1. Defining the 3Es.

Effectiveness: the ability of an initiative to meet its goals.

Efficiency: the ability to achieve a greater "output" for a given "input" (Mandl et al. 2008).

**Equity:** categorized into three groups: *procedural, distributive, and contextual. Procedural* equity refers to decision-making capabilities; *distributive* equity relates to the costs and benefits; and *contextual* equity reflects the pre-existing conditions that determine the ability to participate or not participate in the initiative (McDermott et al. 2013).

Source: Yang et al. 2015b

regarding land uses and interventions that either positively or negatively affect forests. The study links with two CIFOR modules in the Global Comparative Study (GCS) on REDD+: a research module focusing on actors, policies and institutions relevant to REDD+ at the national level; and a module that focuses on livelihoods and household-level impacts of REDD+ projects; it is part of a cross-country study that includes Peru, Tanzania, Indonesia and Mexico (see Myers et al. 2016 for Indonesia, Kowler et al. 2016 for Peru and Kijazi et al. 2017 for Tanzania). For REDD+ to become an internationally accepted mitigation mechanism, it needs to comply with at least three criteria, also known as the "3Es" (See Box 1).

In Vietnam, both the government structure more generally and forestry sector more specifically have been evolving over the last 30 years. Following reforms in 1986, the Vietnamese governance system has been shifting from a central mono-unitary structure to a more decentralized structure with the emergence of lower government at the provincial, district and commune levels (Trung et al. 2015). This report is based on an analysis of multilevel land-use decision making with a focus on the subnational level. Data was collected between 2014 and 2015 in two provinces, Nghe An and Dien Bien, located in the northwestern and central regions of Vietnam. Two districts and four communes were selected from each province to explore land-use actors and outcomes in greater depth. A complete overview of all land uses was not investigated as the focus was rather on land uses directly perceived as influencing forests. This case study approach enables a unique examination of decision making at various levels, particularly from the subnational to the local, to inform land-use options and future land-use decisions in Vietnam and globally.

The report begins with an overview of the study's aims and methods (Chapter 2). The majority of the report is based on primary data collected from semi-structured interviews with key informants at multiple levels, focusing on the land-use decision processes and their practical implications both for forests and peoples' livelihoods. Chapter 3 discusses land-use changes in the two study regions, outlining drivers of deforestation and of forest improvement via attempts to change forest loss trajectories. While the selected provinces and cases have many features in common with other parts of the country in terms of deforestation drivers and land-use change dynamics, the demographic, geographic, socioeconomic and ethnic heterogeneity of Vietnam makes broad generalizations difficult. The fourth chapter looks at decentralization in Vietnam and the role of multiple actors in forests and land-use change according to law and in practice. Chapter 5 uses the case studies to examine procedural and distributive equity, while Chapter 6 examines REDD+ in the two provinces and outlines both obstacles and opportunities for future REDD+ efforts. This is followed by the conclusions. Annex 1 presents short summaries of the different cases by province.

# 2 Methods

This research aims to learn lessons from multilevel governance for REDD+ and other efforts to change deforestation and land-use trajectories. It examines existing REDD+ approaches and other initiatives aimed at reducing deforestation and degradation, as well as land-use interventions that have led to deforestation and degradation. The methods include secondary data collection and a literature review alongside primary data collection based on key informant interviews at multiple scales. The secondary data collection involved a review of legal and policy documents related to Vietnam's forestry sector and other relevant land-use sectors. The review focused specifically on the distribution of powers and responsibilities affecting forest, land use and REDD+ across levels and sectors in Vietnam. The report contains a summary of the key legal and policy information required to understand and frame the primary data on multilevel governance of land-use change and benefit sharing (see Trung et al. 2015).

The second and core stage of the research required primary field data collection. Two research teams were trained together in a methods workshop. The teams were assembled and assigned to one of the two study regions.<sup>3</sup> All interviews were conducted between May 2013 and August 2013. We used interview instruments that were developed for use across the study countries (Ravikumar et al. 2015), including key informant, land-use history and benefit-sharing interviews. The researchers combined and adapted the interview guides as appropriate in order to conduct open-ended, semi-structured interviews with multiple actors. Overall, interviews were aimed at understanding the actors involved in land-use decision making, the relationships among actors, the processes leading to land-use changes, agreements to distribute benefits and the results of land-use decisions. The research team also interviewed key informants from provincial- and district-level governments for all sites in order to capture their involvement in decision-making on land use, their coordination with other levels of government and their knowledge of REDD+ and other such initiatives. Table 1 illustrates the number of interviews (n =102) conducted in each province at multiple levels, from provincial to local.

Table 1. Number of interviews conducted at multiple levels for each study region.

Province	Province	District	Commune/local	Total interviewees
Dien Bien	7	9	33	52
Nghe An	9	11	30	50
Total	16	20	63	102

In order to capture a diversity of governance arrangements and land-use interventions, we used a nested comparative case study approach in two provinces, then with two districts and four communes in each province. Focusing on the different scales – provincial (N=2), district (N=4), commune (N=8) – allows for cross-comparisons and the assessment of MLG interactions and land-use outcomes both vertically and horizontally in order to identify where patterns and nuances emerge. In Vietnam,

<sup>3</sup> The Nghe An province interviews were conducted by field researcher Tien Nguyen (Agricultural University of Hanoi) and team, while in Dien Bien province interviews were carried out by Trung le Quang (Vietnam Academy of Forestry Science) and team.

the provinces of Dien Bien and Nghe An were selected based only on secondary data reflecting the following criteria:

- 1. Presence of a REDD+ project site (either past or ongoing), and other government low emissions development programs.
- 2. Presence of Vietnam's national payment for forest environmental services (PFES) scheme.
- 3. Diverse ethnic group populations.
- 4. High forest cover (>50% of total land cover).
- 5. Prior working relationships.

Initial key informant interviews held at the provincial level provided information on significant drivers of deforestation and degradation, as well as the key actors involved in land-use change within the province. This information contributed to site selection of the districts and communes, as shown in Table 2.

Table 2. Summary of cases by selection criteria.

Criteria	Dien Bien	Nghe An
Current REDD+ initiatives ("decreasing emissions site")	1	O a
Initiatives likely to lead to lower emissions (not REDD+) ("decreasing emissions site")	2	2
Initiatives associated with deforestation and forest degradation ("increasing emissions site")	1	2

a The REDD+ project had ended by the time the research began.

For the study site selection at the commune level, the following selection criteria were applied:

- 1. Significant land use or land-use management changes within the last 20 years.
- 2. At least two land-use activities associated with deforestation and degradation drivers (perceived as "increasing carbon emissions" sites).
- 3. At least two land-use activities (BSMs) aimed at stopping/slowing deforestation and degradation (potentially decreasing carbon emissions).
- 4. Accessibility and feasibility.

The eight study sites explored at the commune level were defined as either "increasing" (i.e. driving deforestation) or "decreasing or stable" carbon emissions sites. These assessments were based on the identification of initiatives with BSMs promoting sustainable and improved forest management, or alternatively land-use activities perceived as driving forest exploitation. This range of sites formed the starting point for understanding the multilevel governance assemblages that comprise the study. Notably, the actual emissions level of the sites were not measured in the study, but rather classified as such based on the perceptions/observations of respondents. Hence these terms should be considered only as shorthand for site selection and not necessarily indicative of actual emissions or the goal of associated actors.<sup>4</sup>

The site selected in Dien Bien province as an "increasing emission site" was classified as such due to rubber plantation initiatives found in Muong Pon Commune. Nevertheless, the REDD+ pilot site in Muong Muon Commune is a project in its early stages, as at the time of the study it was also perceived as an increasing emission site (it is listed as a REDD+ site in Table 1). The other two sites selected in Dien Bien Province classified as "decreasing emission sites" included Hua Ngai Commune, a PFES site, and Muong Nhe Commune, which is involved in the government afforestation programs. In Nghe An province, the two sites classified as "increasing emission" (the Chi Khe and Yen Na communes) included hydropower plant (HPP) developments. The other sites considered to have "decreasing

<sup>4</sup> Furthermore, each commune experiences both forest loss and forest gains due to a diversity of land uses among actors and villages.

emissions" included afforestation BSMs from private business enterprises in Luc Da Commune and government afforestation programs in Thach Giam Commune. There were no REDD+ initiatives in Nghe An at the time of the study, although one had recently ended.

The interview data was stored, managed and analyzed using a qualitative data analysis software (NVIVO 10). Data was coded using a heuristic node tree based on an initial literature review. The codes were also updated and adapted according to the data compiled. The coding process was iterative, allowing the coding tree changes to be data-driven. Coding was specified within a coding guide and spot verified by a single coder. Queries were then conducted in order to assist in finding patterns for data analysis (Ravikumar et al. 2015).

The analysis presented below is largely based on interview data from the eight case studies. All of the cases are summarized in Table 3 (see Appendix for a more complete summary). The summaries include descriptive information on the area involved in the selected commune (ha), proportion of forest (%) and forest tenure status; the perceived carbon emission trend; the time frame of the activities; the main actor proponents; the funding/financing of the land-use change; the incentives to promote change; and the formality of the agreement (formal or informal). The commune case sites will be referred to throughout this document by the name of the land-use intervention.

Table 3. Summary of case sites.

District	Nghe An Province				Dien Bien Province			
	1	2	3	4	5	6	7	8
	Con Cuong		Tuong Duong		Muong Cha		Dien Bien	
Commune	Chi Khe	Luc Da	Thach Giam	Yen Na	Hua Ngai	Muong Muon	Muong Pon	Muong Nha
Case Name	Hydropower plant (HPP) development	Afforestation business (smaller enterprise – private company)	Afforestation – government program	HPP development	Payment for forest environmental services (PFES)	JICA REDD+ pilot project	Rubber plantation	Government forest protection and development programs
Area (ha)	14.09 for HPP and 500 for reservoir	40	127	700	2966	NA	600	618
Proportion of forest (%)	54.5	80.8	67	45.8	64.9	NA	7.6	6.6
Forest tenure status	FLA incomplete	FLA complete	FLA incomplete	FLA complete but tenure still insecure		FLA complete and secure tenure	FLA incomplete	Not legally defined, but mostly secure tenure
Site type (assumed C emission trend)	increasing emissions	decreasing emissions	aimed at decreasing emissions	increasing emissions	decreasing emissions	aimed at decreasing emissions	increasing emissions	decreasing emissions
Time frame	Construction since 2009	2008 onward	2010 onward	1997–1999 was for surveying and drilling. Plant construction started in 2003. Resettlement began in 2004.	2014 onward	2013 onward	2006 onward	Indefinite
Main proponent	Hydropower company and national government	Private company and smallholders	National government	Hydropower company and national government	National government and buyers (e.g. HPP company)	Bilateral – national government and JICA	Private company and national government	National government and smallholders
Funder/ investor	Hydropower company	Paper company and smallholders	Government and smallholders	Hydropower company	Hydropower plant (e.g. buyers)	JICA – Japanese government	Rubber company	Public funds

District	Nghe An Province				Dien Bien Province			
	1	2	3	4	5	6	7	8
	Con	Cuong	Tuong	Duong	Muo	ng Cha	Dien	Bien
Incentives for land-use change	The local government informs local people of the planned hydro power plant (HPP) development area, negotiates compensation for land.	The government (and/or private company) provides seedlings and fertilizer and local households provide land to plant acacia.	The government (and/or private company) provides seedlings and fertilizer and local households provide land to plant acacia.	The local government informs local people of the planned HPP development area, negotiates compensation for land.	All villages agree on sharing benefits from PFES. Equal payments per ha are distributed.	REDD+ pilot project provides in- kind assistance to support sustainable livelihood activities.	The rubber company and local government offer villagers a percentage of the rubber profits and other incentives to convert land to rubber.	Government offers in-kind and cash incentives, encouraging communities and individuals to provide forest protection and afforestation services.
Formality of agreement	Contract required.	The private company had formal agreements (contracts), but smallholder enterprises involved informal agreements.	Yes, community and individual contracts.	Contract required.	Yes	No – the local people/ village can cease to participate at any moment.	Yes, this is the province's legal policy.	Community agreement on benefit sharing and forest protection.

# 3 Land use and land-use change in Dien Bien and Nghe An

Hosonuma et al. (2012, 1) stated that "understanding drivers of deforestation and degradation is fundamental for the development of policies and measures that aim to alter current trends in forest activities." Vietnam underwent huge forest losses during the period 1976 to 1990, with an estimated loss of 1.4 million ha of its natural forests due to conversion for agricultural use (Phuc and Nghi 2014). However, following the launch of the policy reform known as the "Doi Moi" policy, government policy shifts from 1986 are argued to have triggered a forest cover transition. By 2012, the total forest area in Vietnam had increased to 13.86 million ha (4 million ha more than in 1986), covering 41% of the total area (MARD 2013b) compared to 28% in 1990 (De Jong et al. 2006). Yet increases in forest cover are largely due to production forest (monoculture plantations) and therefore characterized by increased quantity, while the overall quality and area of natural forest in Vietnam remain in decline (Meyfroidt and Lambin 2009; Phuc and Nghi 2014).

Both Dien Bien and Nghe An have a high proportion of forest cover (Figure 1), ranging from 58–67%. According to statistics from the Ministry of Natural Resources and Environment (MONRE), in 2014 Nghe An had 963,000 ha of forest cover while Dien Bien had 637,000 ha. The proportion of agricultural land is also relatively similar in the two provinces at 15–17% (Vietnam GSO 2015).

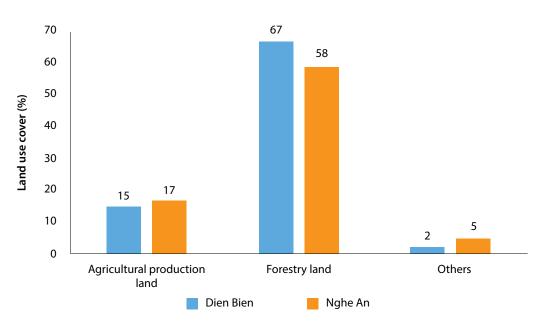


Figure 1. Percentage of land-use cover in 2014 in Dien Bien and Nghe An provinces. Source: Vietnam GSO 2015<sup>a</sup>

#### Note:

a According to the Minister of Natural Resources and Environment's Decision No 1467/QD-BTNMT dated July 21 2014.

According to government statistics, in the period 2008–2013 forest cover decreased in 2009 and 2010 in Dien Bien Province, but recovered again in 2012 (see Figure 2). In contrast, Nghe An experienced a steady increase in forest cover, of 92,700 ha, in the same period (GSO Vietnam 2014). However,

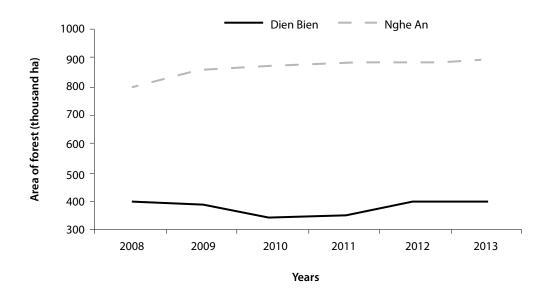


Figure 2. Total area of forest from 2008 to 2013 in Dien Bien and Nghe An provinces.

Source: Vietnam GSO 2015

#### Note

The government statistics for total forest area (in text, from MONRE) are different to the total forest area in Figure 2 due to inconsistent forest classification methods between ministries (Hoang et al. 2010; see also Pham et al. 2012).

the reliability of national forestry datasets is questionable, as identified by respondents (NA #12; DB #16, 6) and further recognized in Vietnam's forestry sector evaluation report (FSSP 2013). The FSSP report highlights the poor accuracy of forest data and forest maps as a critical issue that leads to further problems with forest classification and allocation policies (FSSP 2013).

In both provinces, key informants identified major drivers of deforestation, such as agriculture, illegal logging, rubber plantations and hydropower plant development, as well as migration and swidden farming practices (Pham et al. 2012). As for drivers of forest improvement, various government programs have been put into effect, including national parks, government forest protection and development programs (e.g. the National Forest Development Program) and a national afforestation project (Program 327 and Project 661). In addition, the national PFES scheme has also been implemented across both regions. This is a mechanism that mobilizes external financial sources to the forestry sector and encourages the engagement of forest users in forest protection via financial incentives (Pham et al. 2013a).

# 3.1 Drivers of deforestation in selected provinces

In both provinces, land use has changed dramatically over time as a result of increasingly competing land-use options. The following sections outline the main drivers of deforestation, followed by drivers of forest improvement, as identified by respondents.

### 3.1.1 Agriculture

Forest conversion for agriculture was often described as a key driver of deforestation in both study regions. It was reported that in Nghe An Province 7000 ha of forestland were converted to agricultural

<sup>5</sup> Program 327 was implemented in 1992–2000 to re-green barren lands in hilly and mountainous areas. Project 661 (or the "5-Million Hectare Reforestation Program") was implemented in 1998–2010, focusing on the protection of existing forest areas, the promotion of reforestation and natural regeneration, and the development of fruit trees and industrial crops.

land (see NA #12, #14 and #48). It was frequently claimed in interviews that local people were driving forest loss for agriculture, mostly through swidden practices, with added pressure from increasing populations and migration (NA #40; DB #29).<sup>6</sup> Yet the wider literature suggests forest cover changes cannot be explained by population growth and highlights many factors that can influence forest cover beyond simplistic linkages with changing population densities (Clark et al. 2012; DeFries 2010; Hecht et al. 2015). Hosonuma et al. (2012) explain that there is a common separation between proximate/ direct and underlying/indirect causes, with the latter more difficult to establish links to and therefore often overlooked by policymakers.

In Nghe An Province, land-use change was said to be driven by land-use planning and provincial and central government priorities, particularly those of the Provincial People's Committee and the ministry departments responsible for forests (Department of Agricultural and Rural Development, or DARD) and land use (Department of Natural Resources and Environment, or DONRE), as well as the Department of Trade and Investment, which is responsible for approving land-use proposals (NA #48). Another respondent corroborated this point, explaining that land-use planning led to the conversion of agricultural to industrial lands in the province's central lowland areas, with shifting cultivation occurring in forests in the mountainous districts (NA #12). Thus top-down decisions such as these are arguably displacing agricultural activities to forested areas.

Shifting cultivation is seen as an unfavorable land-use activity, as the Vietnamese government considers it a deforestation driver. Therefore, in 1998 it imposed a national ban. The government has since promoted "fixed cultivation and sedentarization" through forest plantation and protection policy interventions, including forest land allocation (FLA) (Phuc et al. 2013). These government efforts further aim to improve local livelihoods by encouraging production on allocated land, contributing to poverty alleviation (Phuc et al. 2013). While it is unclear whether banning shifting cultivation has reduced deforestation and degradation, it has, at least in some cases, had a detrimental effect on livelihoods. Evidence from Nghe An indicates that FLA interventions led to lower rice yields due to land restrictions and reduced fallow times (Jakobsen et al. 2007; Nguyen et al. 2011). Overall, while smallholders are linked to deforestation, the following findings suggest that forest losses are frequently impelled by competing land-use claims and policies driven by more powerful actors.

### 3.1.2 Rubber plantations

Rubber plantations are acknowledged to be compromising existing forest cover in Vietnam (Pham et al. 2012; Phuc and Nghi 2014; Costenbader et al. 2015). Similarly, in our study, key informants in both provinces recognized rubber plantations as one of the primary causes of forest loss (DB #18, #22, #23 and #48; NA #12). Promoted by national plans, plantations have rapidly expanded across northwest Vietnam (MARD 2008). For instance, the Prime Minister approved a post-2015 strategy<sup>8</sup> aimed at increasing rubber plantations to 800,000 ha by 2020, in order to produce 1.2 million tons of latex and earn an estimated USD 2 billion in exports (Phuc and Nghi 2014). Rubber expansion has since surpassed the expectations laid out in the national Rubber Development Strategy, as the 2020 target for rubber was already exceeded in 2012 with an estimated 910,500 ha already established (Phuc and Nghi 2014). Rubber expansion also illustrates the risks to smallholders of top-down interventions that allow for the conversion of "unproductive agricultural land and degraded natural forest lands which are suitable for rubber trees" (Prime Minister's Decision No. 750/QD-TTg dated June 03, 2009). This is often open to interpretation by local authorities (See Box 2).

<sup>6</sup> For example, in Dien Bien Province the population was said to have increased by 67,000 since 2006, with around 16,000 farming households newly established during that time (see DB #29). Six respondents noted influxes of migrants mostly from the Hmong ethnic group during the 1990s, coinciding with forest losses in the province.

<sup>7</sup> Prime Minister's Decision No. 661/QD TTg Hanoi of 29 July 1998 on Objectives, Tasks, Policies and Organization for the Establishment of Five Million Hectares of New Forest.

<sup>8</sup> Prime Minister's Decision No. 750/QĐ-TTg.

### Box 2. Rubber expansion and forest loss.

Rubber expansion is driven by policy priorities together with readily made conversion licenses and a lack of monitoring and evaluation or accountability (Phuc and Nghi 2014). The direct conversion from forest to rubber can be linked to policy loopholes that allow conversion based on forest quality assessments according to the volume of trees (with a diameter >8cm) (Phuc and Nghi 2014). In addition, decisions to convert poor natural forests can be made at the provincial rather than the central level if the planned area of land is less than 200 ha. As assessments are open to interpretation, there are reports in the local media that the establishment of rubber plantations is occurring in areas that technically should not qualify for conversion (Phuc and Nghi 2014). In Dien Bien, it was estimated that from a third to a half of all rubber plantations were established on areas of natural forest (DB #6). In contrast, a respondent from the rubber plantation companies denied this, arguing that they "do not clear forest for rubber plantation" and that "the company only uses shifting cultivation areas or land after cultivation for rubber plantation" (DB #48). Such areas, whether natural forest or not, are still likely to contain regrowth forests.

Equally, rubber plantations also put smallholder livelihoods and 'natural' forests at risk, as agricultural lands are converted to rubber, and leakage was identified as an issue in the Moung Pon commune. As local people made an agreement with the rubber plantation companies to convert their sloping cultivation areas, findings indicated that farmers were facing land and food shortages due to the time delays in rubber benefits (see DB #18, #22 and #23). Consequently, food security issues meant that smallholders were being driven into forest areas to cultivate food crops. These findings support those of Phuc and Nghi (2014), indicating a negative relationship between the growth of rubber plantations and natural forest cover as a consequence of these effects on local people's livelihoods.

Rubber plantations have been on the increase in Dien Bien and Nghe An provinces. In Nghe An, the provincial government aimed to expand 25,000 ha of rubber over the next five years. The Nghe An rubber development investment joint stock company planned to covert forestland into rubber plantations with the approval of the Provincial people's committee (PPC) (NA #12). In 2012, Dien Bien had 3474 ha of land converted to rubber, with 3000 households providing land and 266 people hired by the rubber companies (MARD 2013c<sup>10</sup> Phuc and Nghi 2014). The provincial government and the state-owned Vietnam Rubber Group (VRG) have an agreement to plant 15,000 ha of rubber trees in Dien Bien in 2007–2020 (Provincial Government of Dien Bien 2006). According to one interviewee (DB #48) working for a rubber company in Dien Bien, the company was said to be facing difficulties in mobilizing investment due to poor results from business activities. The VRG has now lowered its target to about 7500–8000 ha. Rubber plantations in Muong Pon Commune in Dien Bien Province were perceived as increasing carbon emissions in the area.

## 3.1.3 Hydropower development

The development of hydropower plants (HPPs) in an effort to build up Vietnam's energy sector is further recognized as a national driver of deforestation and degradation (Pham et al. 2012). In both provinces HPP developments were also identified by numerous respondents as a cause of forest losses due to the construction of the plant and the reservoirs (NA# 12, #13, #14, #16, #23, #24, #29, #34, #41 and #42; DB #4, #6, #9, #38 and #46). HPP development has been ongoing in Vietnam since 1945 and 118 hydropower plants and projects were operational by December 2012 (UNDP 2013). Hydropower in Vietnam is estimated to generate approximately 40% of the country's energy needs

<sup>9</sup> According to the 2014 Nghe An Resolution.

<sup>10</sup> Report No 1374/BC-BNN-TT, MARD 2013.

(ADB 2015).<sup>11</sup> According to MARD (2012), 19,792 ha of forest have been cleared nationally for 160 hydropower projects from 2006 to 2012 (UNDP 2013). These figures greatly underestimate true forest losses, as the environmental impact assessments are said to exclude both land required for resettlement and further environmental costs through landslide and flooding risks (UNDP 2013). Findings from the same study also indicate that in Nghe An Province alone an estimated 5000 ha of forest land had reportedly been converted for HPP construction (NA #12).

There are 41 hydropower plants in Nghe An, mainly located in the Tuong Duong, Con Cuong and Ky Son districts (NA #13). The Tuong Duong district has 10 hydropower projects, which occupy more than 10,000 ha of forest area (NA #14). Meanwhile, Dien Bien province falls within the catchment areas of three large-scale hydropower plants that were constructed in neighboring provinces (Hoa Binh, Son La and Lai Chau), but also contains five small-scale hydropower plants. One government interviewee in Dien Bien claimed that:

"... [The] construction of hydro plants has led to the destruction of forests directly and indirectly. A thousand hectares of forest have been destroyed for preparation of water storage or converted into food cultivation land for people who lost their cultivation land for the plant construction. Timber needs [increased] for the construction of hydro plants and house construction for local people who lost their house/land because of hydro plant construction, which has also led to the destruction of forests. Forests have been destroyed by the Son La Hydro Plant and some small-scale hydro plants. Currently, Lai Chau Hydro Plant is continuing to destroy more forests." (DB #9a)

Both direct and indirect forest loss following HPP construction and the relocation of local people are acknowledged here. This latter point also emphasizes the risk of leakage and further forest loss as local people are displaced. In Nghe An Province two key informants claimed that overall forest quality had been degraded for the purpose of socioeconomic development such as HPP (see NA #3 and #16). Two of the "increasing emission" case study sites in Nghe An Province, the Yen Na and Chi Khe communes, contain HPPs. A village deputy head (NA #41) in Yen Na Commune said that there were many big trees before the HPP was built, but people cut them all down and sold them when the HPP came (NA #41). An elder of a village in the commune further stated that forests were destroyed to construct roads and houses for workers (NA #29).

## 3.1.4 Logging

Logging is estimated to account for 70% of forest degradation in (sub)tropical Asia, with fuel wood collection and charcoal production as less prominent drivers (Kissinger et al. 2012). Logging is also seen to be driving forest loss in Vietnam a result of both legal and illegal activities for domestic use and export. In Nghe An, 25 respondents recognized logging as a key driver of deforestation and degradation in the province, particularly around national parks (see NA #14). A member of a commune forest protection unit claimed that improved accessibility to province areas, through the Ho Chi Minh Road, for example, had also increased logging in natural forests (NA #14). In Dien Bien Province, logging activities were intensively carried out in the 1990s by government agencies such as the state forest enterprises (SFEs) and other state organizations (DB #45). A former government official from the DARD stated that the government was driven by economic gains from timber such as *Fokienahodginsii* L., which had a high sale price (DB #45).

<sup>11</sup> Prior to 1995, Vietnam's power sector was owned by the central government, with the Ministry of Energy (MoE) responsible for three power companies (ADB 2015). After 1995, the three companies were merged into a single company known as VietNam Electricity (EVN). The regulatory powers then came under the jurisdiction of the Ministry of Industry and Trade (into which the MoE was merged) with smaller dams (with a capacity of less than 30 MW) managed by the local governments.

Today illegal logging in the regions is perceived as an outcome of poverty, with people extracting timber for income due to a lack of food and jobs. In both provinces, external demand led to contracts between local people and timber contractors when rice cultivation activities were not enough to support livelihood needs (see NA #13, #14 and #20; DB #1a, #10 and #45). Needs were often greater, increasing logging, during the months of August and September, when children start school, and near the Vietnamese Tet New Year festival, when people need to earn extra money (NA # 12). Domestic demands for timber were also recognized as influencing forests over the last 15 years, mainly for house construction among both lowland and upland people (see NA #3, #19 and #22). Legally, local people have to apply for permission to harvest timber for housing, but it was noted that they often fail to do so (DB #45). Yet timber used for domestic consumption was perceived to be a small amount compared to what is sold to external buyers.

# 3.2 Interventions for improving forest management

Both Nghe An and Dien Bien provinces have a history of government and nongovernment programs and projects (including BSMs) aimed at improving forest management practices, including PFES, REDD+, and protected areas. In addition, in line with national plans to promote production forests, both provinces promote the establishment of forest plantations via support from afforestation programs. The impacts of these interventions are uncertain, although government forest data indicates that Dien Bien's forest cover has increased more substantially than Nghe An's. The following sections reveal informant perceptions of key interventions aimed at improving forest management and awareness and helping to drive forest improvements in the regions.

#### 3.2.1 REDD+

A number of REDD+ projects are being implemented across Vietnam, with local-level pilot activities. Both study provinces have been targeted for REDD+ pilot activities, although activities have already ceased in Nghe An, while they are ongoing in Dien Bien. The SUSFORM-NOW REDD+ pilot project, <sup>12</sup> aimed at sustainable forest management in the northwest watershed area and featuring a strong livelihood development component, began in 2010 in Dien Bien Province. The Japan International Cooperation Agency (JICA) is providing technical and financial support through cooperation with the Dien Bien provincial government and the central government (JICA 2014). The project implemented pilot activities in 50 villages across 12 communes of Dien Bien, including Muong Muon Commune, one of the study sites. Respondents familiar or involved with the project associated it with improved FLA practices, in addition to promoting livelihood activities to relieve pressure on the local forests (see DB #11, #19 and #34). In Muong Muon, SUSFORM-NOW activities began in 2013, hence it was still too early to observe impacts on livelihoods and forests at the time of the study.

### 3.2.2 Government forest protection and development policy and programs

National government programs aimed at "forest protection and development" have been increasingly implemented in Vietnam over the last two decades. As mentioned previously, forests covered 28% of the land in Vietnam in 1990 but have since increased to almost 40% (Trung et al. 2015). Reforestation measures included plantation development, the recategorization of forests, tenure reforms and enhancing natural forest regeneration. The government's shifting priorities in forest protection and development were also visible in the launch of large-scale national initiatives to promote forest protection.

<sup>12</sup> The project's pilot activities focus on promoting forest development in combination with agricultural activities in order to improve the incomes of people whose livelihood depends on agricultural cultivation on sloping lands.

<sup>13</sup> The central government (National Assembly) and ministries responsible, such as the Ministry of Planning and Investment, the Ministry of Finance and the Ministry of Agriculture and Rural Development, have authorization to distribute national budgets to several national programs related to land and forest use and management (Trung et al. 2015).

Program 661 – known as the "5-million hectare reforestation program" – was implemented between 1998 and 2010 under MARD management, with a total investment of USD 2 billion. This was followed by the Forest Protection and Development (FP&D) Program, which started in 2011 and will continue until 2020, with an annual investment of USD 71 million. Other programs include the national forestry monitoring inventory, which is undertaken every four years, and social programs such as the Rapid and Sustainable Reduction of Poverty<sup>14,15</sup> program that targets support to poor mountainous and rural populations.

In both Dien Bien and Nghe An, respondents noted that positive forest developments were a result of government activities and projects, such as Program 661 (DB #3, #7, #10, #11, #13 and #18; NA # 3 and #42). In Nghe An Province, numerous forestry programs were also recognized as having helped local people improve their livelihoods and forests (NA # 28, #40 and #42), providing poor households with seedlings and livestock. The National Afforestation Program (Program 147) has been implemented since 2007 and provides support to local people in the form of seedlings for *Melia azedarach* and acacia trees such as *Acacia mangium*, as well as rice provisions (NA #40 and #28). Program 147 has been widely implemented across Nghe An, with a forestry company responsible in eight communes and four communes managed by the Forest Management Board (NA#3). The study site in Thach Giam Commune in Nghe An was acknowledged to have increased its forest area as an outcome of the national government afforestation programs.

In Dien Bien, Program 661 was also recognized as having increased forest areas. Interviewees suggest that the motives for FP&D are linked to government regulations and incentives programs in which the government provides payments to local villages (DB #3a and #10). According to respondents in Dien Bien (DB #5, #6, #16 and #20a), the construction of irrigation systems as an output of government programs had positive impacts on forests. Beneficiary households could cultivate two wet rice crops per year using rotational cultivation practices, producing sufficient rice for consumption. Hence, as observed by a village head, these practices allowed for forest regeneration (DB #30b). In Dien Bien Province, the Muong Nha Commune site was recognized for its sustainable forest practices, largely as an outcome of government forest protection and development programs.

Another government effort aimed at forest protection and development is being implemented via the Protection Forest Management Board (PFMB), which is responsible for the provincial forest protection and development plan (DB #10). This board promotes forest protection activities in each village through forest protection contracts with the village's representatives. After signing the contract, villagers organize and allocate forest protection and development activities among themselves. They formulate their own forest protection and development regulations and these rules are then enforced by locally assembled forest patrol teams (DB #10).

# 3.2.3 Payment for forest environmental services

The national payment for forest environmental services (PFES) scheme is one of the key policy BSMs for forest protection in Vietnam and is implemented across both of the study provinces (Trung et al. 2015). The total national annual revenue raised from PFES was about VND 1,120 billion (or USD 53 million) between 2011 and 2013 (VNFF 2014). PFES provides values for ecosystem services such as soil conservation, water regulation, watershed protection, coastal protection, biodiversity conservation and carbon sequestration. It also frames a relationship between the provision and payment made by

<sup>14</sup> Under the responsibility of the Ministry of Labor, Invalids and Social Affairs.

<sup>15</sup> Various development programs have targeted mountainous areas and focused on the construction of electricity distribution systems, irrigation systems, schools and roads. These include the Poverty Elimination Project (phases 1 and 2) and the Project on Socioeconomic Development for Extremely Difficult Districts (commonly known as Program 30a).

eco-service providers and users. Further information on PFES and laws and regulations are outlined by Trung et al. (2015) based on Decree No. 99. 16

The Dien Bien provincial government established the Fund for Forest Protection and Development (FPDF) in March 2012. The FPDF is an intermediary body that collects payments from users of forest environmental services, such as HPPs and water supply companies, and then distributes them to eligible forest owners. According to FPDF calculations (DB #21), Dien Bien Province has about 393,340 ha of provincial forest land located in the watershed areas of established HPP and/or water supply companies. Forest owners with forest land within these catchment areas are eligible to receive PFES payments. According to a report from the Dien Bien FPDF, VND 403.4 billion were received from the forest environmental service users between 2011 and 2014. The fund has made payments of VND 116.2 billion to villages (DB #21). The Nghe An FPDF reports the total amount received from PFES as VND 94.837 billion, paid up to April 2014 (Nghe An Fund Report 2014). However, in Nghe An the payment had so far only been distributed to state forest owners, organizations and SFEs, while individuals, households and community forest owners had not yet received any payments. The main delay in payments to households in both provinces was due to incomplete or poor FLA implementation, as forest owners were not yet legally recognized as land owners and therefore as "sellers" (DB #21; NA #24).

Evidence of effectiveness and improvements to forest management practices in both regions remains weak, as benefits have either been too small to serve as an incentive for forest protection or have not yet been received (DB #1b, #2b, #23a and #30b). Equally, the monitoring and evaluation of PFES remains inadequate, making it difficult to ascertain whether forest protection activities have been successful or not (Pham et al. 2013a). Nevertheless, PFES is still widely recognized as an important instrument for conserving forests by raising awareness of forest protection among local people in the Hua Ngai Commune study site, as well as in other areas of Dien Bien and Nghe An.

## 3.2.4 National parks

Nghe An province is home to one of Vietnam's largest national parks, Pu Mat, which covers an area of 91,000 ha in three districts: Tuong Duong, Con Cuong and Anh Son (Pu Mat National Park 2009). There were various reasons why the protection activities were perceived to be effective in Pu Mat, although that was not always the case. For example, Pu Mat National Park reported that in 1997 there were 237 cases of illegal logging and hunting, compared to only 61 cases in 2005 and 15 in 2012 (NA #15). A villager from Luc Da Commune (NA #36) said that this was due to the absence of valuable trees due to previous deforestation activities, stating that "only low-quality timber" was left. Another explanation for forest improvements was effective rule enforcement. One smallholder claimed this was partly due to fear: "no one dares enter because if Pu Mat [national park management] and the protection teams find out, they will apply heavy punishment. For example... they can apply a fine of

Government Decree No. 99/2010/ND-CP of 24 September 2010 on PFES Policy. These regulations have been in effect since 1 January 2011 and were implemented nationwide following pilot operations in 2008 in Son La and Lam Dong. Since then there have been numerous revisions of the legal documents related to its operation and implementation.

<sup>17</sup> To date, the provincial fund has obtained money due to being within the water catchment areas of five hydropower plants, including two large hydro plants in Hoa Binh and Son La provinces, and due to three small-scale hydro plants and water supply companies (DB #21).

<sup>18</sup> Specifically, it received VND 57.2 billion in 2011, VND 42.8 billion in 2012, VND 143.4 billion in 2013 and VND 160 billion in 2014.

<sup>19</sup> Specifically, the FPDF received VND 88.462 billion from hydropower plants and VND 28.037 million from clean water companies.

<sup>20</sup> The Pu Mat National Park is located along the border between Vietnam and Laos and was created by merging two independent special-use forests. However, it was not officially established until 2001 through Central Government Decision No. 174. The park is currently under the management of a state enterprise unit directly under the Provincial people's committee (PPC).

several million, so people are fearful. Sometimes they even take your buffalo, which take several years to grow" (NA #36). "Forest protection contracts" between the park and the local people are another feature of the park. According to an agricultural extension staff member, the national park pays VND 5 million per household contracted for forest protection and patrolling (NA #44). The park also has contracts with a group of households that have forest land near the national park, so forest protection activities are given high priority (NA #44). Dien Bien has no designated national park areas.

In conclusion, smallholders – particularly shifting cultivators – are the most often-recognized drivers of deforestation and degradation in Vietnam, while less attention is paid to important underlying drivers. The ban on shifting cultivation has sometimes resulted in reduced food security and therefore more forest clearing to mitigate this introduced vulnerability. Other important direct and indirect drivers include conversion to rubber plantations and hydropower development and the government policies associated with their promotion. These investments, which have also sometimes been detrimental to local livelihoods, occur in the context of PFES, REDD+ and national park policies aimed at recovering forests. These apparent contradictions will be explored below.

# 4 Multilevel governance and land-use decision making

Although the Vietnamese central government defines institutional structures and provides regulations and guidelines for the lower governments and land users, forestry policy outcomes vary at the local level. This section analyses the history of decentralization and of the forest and land-use powers of lower governments in Vietnam, focusing on the two study regions and the factors that determine who holds power and influence across levels. We assess multilevel governance by outlining the key actors in forestry decentralization and then analyze the strengths and weaknesses of the decentralization process in Vietnam. This is followed by a discussion of actor influence on deforestation as identified by case study respondents.

# 4.1 Decentralization of forest and land-use powers to lower governments

Forests in Vietnam have undergone a major transition. A period of centralized control in 1975–1986 coincided with a natural forest loss of 1.7 million ha (Xuan et al. 2009, 84-97). Government claims over forests dismissed the rights of an estimated 25 million local people, including mostly ethnic minorities who lived in or near forested areas (Sam and Trung 2003, 15). In 1986, the legal system was gradually revised, with management responsibilities for land and forests transferred to lower levels of government (Trung et al. 2015). Since 1994, the government system in Vietnam has been divided into two parts: (i) central government; and (ii) local government (provincial, district and commune levels). Each of these government units remains under the control of the central state in a form of administrative decentralization known as "deconcentration," with established lower governments still largely following national directives. For more information on the roles of each government level, see Trung et al. 2015.

The Ministry of Agriculture and Rural Development (MARD) manages forest sector policy in Vietnam. At the provincial level, forests are under the remit of the Department of Agriculture and Rural Development (DARD) within the provincial people's committee (PPC), and responsibilities are further delegated to the district-level divisions. Below the district level, the commune people's committee (CPC) is accountable for forest management and protection on the ground. Forest protection monitoring is conducted by the communes' forest rangers, who are mandated to enforce the Law on Forest Protection and Development within their territory. Forest rangers cooperate with local forest protection groups at the village level. Each village has an assigned "village head," selected by the community, who acts as a liaison between the commune government and the community. In 1992, following the issuing of the Forest Protection and Development Law and its subsequent revisions, the central government began forest land allocation (FLA), providing increased rights and responsibilities to communities, households and individuals.

The Ministry of Natural Resources and the Environment (MONRE) is another key land-use ministry, responsible for natural resources, including "land" itself and national land-use planning. MARD shares the responsibility for REDD+ coordination with MONRE, the divided duties having been outlined by the Prime Minister in 2011<sup>21</sup> (Pham et al. 2012). The Prime Minister also approves provincial land-use

<sup>21</sup> The Prime Minister of Vietnam issued Guideline No. 282/VPCOQHQT on 13 January 2011.

plans developed by the provincial and district people's committees (DPCs).<sup>22</sup> The central government provides the guidelines on how land-use plans should be developed and MONRE is mandated to prepare national land-use plans on behalf of the central government. At the provincial level, the DONRE is mandated to prepare and implement provincial land-use plans. Land-use planning is critical to land use decisions, as the way in which local governments decide to classify land affects its protection and management status (for more information see Trung et al. 2015). Thus decision-making power over land-use plans at the provincial level arguably provides the provincial government with a strong instrument through which to influence land-use decisions.

Furthermore, as part of the planning process, the classification of forests – as production or protection, for example – is vital in terms of determining land holders' rights of access and use, which implies socioeconomic impacts for forest-dependent smallholders. Any oversights or mistakes may therefore lead to conflict between the local government and local people.<sup>23</sup> A respondent who works in land-use planning and classification admitted that there are risks when the land-use plan is developed without local inputs (NA #13): "… [such] land-use planning is not suitable for [local] realities. Top-down planning is not practical."

# 4.2 The roles of lower government in practice

Forest protection and development are key features of Vietnam's land policy and structural reforms, leading to attempts to further include lower government and local people in the forestry sector. Respondents were asked to explain their perceptions of decentralization, including the relationships between different government levels, their relative strengths and weaknesses, and whether decentralization had been effective.

Respondents across both provinces agree that decentralization has occurred to the extent that the central government has allowed. By its very nature, the Vietnamese central government has overall authority, with a number of respondents concurring that lower governments were mostly fulfilling central directives (DB #10, #12, #13, #14 and #15). However, a forest ranger said, "lower governments ... have to carry out more tasks. And, they are required to operate effectively.... Decentralization has brought more power to leader[s] of each level of government" (DB #5). The roles of the three lower government levels were summarized by a commune government respondent in the following way: "the provincial government has the power to make decisions on how activities should be implemented," whereas the district- and commune-level governments "have to carry out activities given [to them] ... Generally speaking, ... [they] serve as facilitators" (DB #3b). This point illustrates that the provincial government has relatively more decision-making power, but that all local governments are primarily implementers. Nevertheless, some respondents emphasized that the policy and governance changes have resulted in perceived increases in power to all levels (DB #5 and #29).

The provincial government was recognized as having "more power in taking decisions on how to make use of resources and how to develop the province" (DB #10). It was further perceived that alongside increased responsibilities there was an increase in burdens, as "these clearer duties have required the local governments to work harder" (DB#10). Some respondents claimed that these challenges were the same among the three levels of local government (DB #10, #12, #13, #17 and #20a), while others highlighted a variation among the levels. For instance, "at the provincial level... [there are] enough

<sup>22</sup> One of the differences with Land Law 2013 is that there is no requirement for the planning and preparation of land-use plans at the commune level (Trung et al. 2015).

<sup>23</sup> Forests were classified into three categories – special-use, protection and production – each with differing rights according to the type of user group, as defined in the 1991 Forest Protection and Development Law (De Jong et al. 2006). In early 2013, it was estimated that of Vietnam's 13.66 million ha of forest, 2 million ha were classified as special-use, 4.68 million ha as protection and 6.96 million ha as production forests (MARD 2013b).

power and resources to...[act] effectively, but at the district and commune levels [there] are not enough. This needs to be changed" (NA #11).

Respondents were specifically asked whether decentralization had been effective. In terms of the government objective for the forestry sector, 'effectiveness' was interpreted as improvements in forest protection and development, as the objective of devolving forestry management has been to promote local government and local people as protectors and managers of forest resources (Trung et al. 2015). Hence, benefits from decentralization of the forestry sector were recognized, but 10 respondents in the study did not answer the question.<sup>24</sup> This was as a result of both not knowing what to say and issues with the question itself. As one interviewee stated, it is very difficult to analyze the strength of each level of government (DB #1a and #16). Another respondent argued that there is "no accurate data on forests," and it is therefore "very difficult to analyze the effectiveness of decentralization" (DB #16).

A fairly common perception was local people's improved awareness of forest protection, largely as a result of lower government efforts to promote forest protection and development (DB #1, #3, #4, #8, #23, #25, #26, #27, #34 and #35; NA #40 and #44). But it is unclear how increased awareness translated into improved forestry practices, as there were varying examples of both good and bad forest management across the study sites.

Analyzing the respondents' perceptions of decentralization reveals a broad consensus that, while theoretically implementing the central government's mandates, the provincial governments in fact have considerable influence and are consequently important centers of political negotiation around land use. The key benefit of decentralization in the forestry sector has been raising public awareness on forest protection. Overall, however, the obstacles to and weaknesses of decentralization were much more notable in the findings.

### 4.2.1 Obstacles to effective decentralization

There is apparent variation in how responsive communes and districts are to local needs, along with widespread agreement among respondents – especially local people – that responsive communes can have positive impacts on procedural equity in land use. Despite achievements in decentralizing the forestry sector, however, respondents commonly felt that, in addition to inherent constraints, efforts were hampered by a number of factors, namely capacity, human resources, unclear guidance and budget. For example, government officials themselves frequently commented that "local governments do not have good human resources, suitable budgets or good instructions for implementing their tasks effectively" (DB #10). The ability of actors to make and implement decisions at the different levels seemed to be impeded by both the distance of higher-level decisions from local reality and the capacity of the lower levels (particularly at the district and commune levels).

The findings, however, were not unanimous. Opinions varied across the different levels and case study sites, with capabilities and resources improving in one place, for example, but constrained in another (DB #2a, #38 and #5; NA #10, #12, #13, #14 and #17). The obstacles identified reflect the common views of government respondents. The following sub-sections describe the summarized weaknesses and challenges in lower government efforts in the forestry sector as identified by respondents.

#### i. Unclear policy guidelines

Unclear policy guidelines were identified as a barrier to lower government effectiveness in implementing policies in practice (DB #5, #6, #10 and #45). Respondents argued that the policy documents do not mention financial arrangements and human resources in their implementation; therefore, local governments have difficulties implementing the policy, compromising the quality of their work (DB #45). This statement highlights the relationship between weak guidance in the policy

<sup>24</sup> DB #1, #2, #13, #14, #17, #20, #30, #36 and #37; NA #36.

documents and a lack of incentives for lower governments to carry out their job effectively. A member of the Division of Agriculture and Rural Development (DiARD) recommended the need to "create clearer, more transparent procedures for implementing mandates" in addition to enhancing the "monitoring and evaluation of the implementation of the planning and plans of all governments" (DB #6). Clement and Amezaga (2009, 458) also argue that "discrepancies between policy intentions and outcomes are partly linked to the relative freedom provinces have to interpret and adapt policies during the implementation stage." There is a thin line between local government discrepancies in decision-making and upward accountability. Thus whilst decentralization should allow freedom for local authorities to interpret policy and adapt to their circumstances, in the absence of accountability (both upward and downward) these efforts can be problematic or ineffective. Commune and district accountability to the provincial government could work towards strengthening lower government competencies, but also define responsibilities to develop and monitor performance toward targets.

ii. Poor cooperation and coordination between government levels and sectors Poor cooperation, and indeed "poor communication," between the different levels of government and organizations was also a barrier to decentralization (DB #5, #18 and #39; NA #47). Respondents explained that their own roles in land management and protection depended heavily on the cooperation with other actors, including the CPC, the DPC, local people, the DARD, the forest ranger station and the DONRE. Nevertheless, poor cooperation was believed to have influenced the quality of land-use plans prepared by different government levels, as well as FLA (DB #10). One respondent said "there is inefficient collaboration among the agencies in implementing allocated tasks. Land conflict is an increasing trend, particularly...in forest land areas" (NA #47). A forest ranger from Muong Cha Commune noted that "the DONRE does not collaborate with the district's forest ranger station in implementing FLA. Moreover, it does not inform the forest ranger station of its results" (DB #39). These points suggest a need to build cooperation among government levels and sectors, as well as within the sector, to ensure effective information exchange.

### iii. Limited lower government resources

# a. Weak technical skills

It was fairly consistently stated in the interviews that weak capacity was a key issue in policy implementation and one of the biggest hurdles to "effective" decentralization (DB #8, #15, #17, #33, #34 and #46; NA #5, #10, #12, #13 and #40). This was not consistently associated with all local government levels and was mostly an issue for the district and commune levels. A member of a commune people's committee (CPC) admitted that "officials of district and communal governments do not understand their mandates or responsibilities. They do not know how to carry out their assigned tasks. They also lack the capacity to carry out the assigned tasks" (DB #15). This is a sweeping statement, and capacities undoubtedly vary. Nevertheless, numerous respondents from both provinces agreed that a lack of knowledge, education and technical support were common challenges at the village, commune and district levels (NA #5).

### b. Lack of human resources

The lack of human resources in lower government was also cited as an issue for decentralization (as noted by 26 respondents across both provinces). Insufficient human resources were linked with unrealistic policy expectations from higher-level government. For example, the central government expects forest rangers to patrol large areas of forest with small budgets, which is perceived to be unrealistic by a number of rangers. A Dien Bien forest ranger (DB #13) claimed that "one ranger is in charge [of managing] only 1000 ha of forests, [but in practice] one ranger is in charge of managing an area ranging from 5000 to 10000 ha of forests." Similarly, a forest ranger in Nghe An province explained that there were not enough staff to patrol assigned areas, thus hindering the ability to monitor forests effectively (NA #16).

#### c. Lack of financial resources

Oates (1998) argues that a centralized funding mechanism can be unfavorable to the establishment of integrated and responsive local policy making. The issue of insufficient budgets was commonly noted as a weakness for lower-level government in both provinces (DB #2, #10, #11, #13 and #14; NA #15). One DARD member felt that "MARD and MONRE do not provide a suitable budget for implementing the master plans, although they approve the master plans" (DB #11).<sup>25</sup> This suggests that the central government is aware of the magnitude of the work requested, but still allocates inadequate resources. Land laws and laws on forest protection and development, for instance, require local governments to allocate forest land to local households, communities and so forth. However, there is no regulation regarding the budget, human resources and other resources to implement these allocation activities, leading to poor or incomplete FLA, as evident in study communes. It was also argued that budgets for forest protection programs and payments to local people were also insufficient. A member of the Forest Inventory and Planning Group (NA #12) noted that the "protection management fee...of VND 200,000/ha/year is not [enough to] encourage local people to protect forests; they have to look for alternative income from the forests." This respondent pointed out that forest protection and development policies will be challenged if the incentives given cannot provide for peoples' livelihoods.

#### iv. Lack of political will

This study's interviewees observed political will to decentralize powers and resources to local people. At the same time, however, both sites show a lack of political interest to work with authorities that aren't linked to monetary resources.

In summary, respondents – particularly the provincial authorities – often cited lower-level government capacities as major concerns. Nevertheless, they were less likely to recognize underlying factors that limit the effectiveness of decentralization polices, such as conflicting interests or the political vision of central government, as will be seen below.

# 4.3 Multiple actors' influence on forests

Actors at different levels were identified as having varying influences on forests and forest land, as well as both complementary and conflicting interests within and among levels. In the eight case study locations, key land-use change actors included state companies (the HPP in the Chi Khe and Yen Na communes and rubber plantations in Muong Pon Commune) supported by the national government, an international organization that has a bilateral agreement with the government (the JICA REDD+ project in Muong Muon) and state-led initiatives (the national park, PFES and afforestation programs in the Thac Giam, Hua Ngai and Muong Nha communes). The private sector (a paper mill company) and small business enterprises (focused on afforestation activities) were also important in Luc Da Commune. All of these interventions and actors have impacted smallholder livelihoods and forests to varying degrees.

Land-use change to the detriment of forests illustrates the influence of more powerful land-use actors that can encourage or even force smallholders to convert forests as an alternative livelihood strategy. Respondents frequently cited HPP companies as highly influential, and as drivers of deforestation and degradation as mentioned previously (NA #3 and #30).<sup>26</sup> The larger HPP stations must first have approval and support from the national government, under the Ministry of Industry and Trade, and then from the provincial government. Furthermore, each government level is responsible for identifying and planning the location of the HPP, as well as evaluating and regulating the HPP's environmental impacts (NA #8; Trung et al. 2015). While each government level has a responsibility for HPP

<sup>25</sup> The Forest Protection Sub-department of the Department of Agriculture and Rural Development, Dien Bien province.

<sup>26</sup> They were linked with deforestation 22 times in the interviews conducted.

development, the provincial government has substantial decision-making power. In Yen Na Commune, the HPP recovered land from households for dam construction and then flooded the area. Complaints were made to the commune and district government, and a commune government employee admitted he "did not understand why those people had not yet been compensated" and that his office had "raised the issue several times" (NA #42). This implies that those at the commune level are aware of the local impacts of these interventions but still have little decision-making power, in this case to compensate the people affected. Equally, the commune government has the role of voicing local people's concerns at higher government levels, and findings indicate that this occurred in practice (Trung et al. 2015). Village heads who were interviewed commonly described the most frequent communication as being between the CPC and communal forest rangers (DB #1; NA #8). Yet communication between local people and the commune government demonstrates this may be ineffectual if the district and provincial governments ignore their responsibility to address local-level concerns.

The provincial government was recognized as being one of the most influential land-use change actors. A respondent from the Nghe An PPC said that this was because it has the ability to change "approximately 20,000 hectares of forest land, converting protection forests into production forests" (NA #6). In other words, the provincial government can change the classification of natural forest, which has heavy restrictions on production, in order to increase use rights and allow harvesting. Nevertheless, the central level still has a critical role to play, as all land-use plans, including these, must be approved by the Prime Minister (NA #6; Trung et al. 2015).

Both environmental and development programs fall under the responsibility of a multitude of ministries and agencies, which often have overlapping roles (Pham et al. 2015). A World Bank report (2011, 12) stated that this was an issue at a national level: "lack of inter-sector cooperation by MARD and MONRE in land use and development planning, and the lack of an agreed-upon [...]forest and land use classification, threatens the attainment of overall forest sector policy goals." One key informant from the DARD also observed the same difficulties between the DONRE and the DARD at the provincial level "because each department has its own management regulations" (NA #11). He also argued that the DONRE was in fact more influential than the DARD, as the former is responsible for land-use plans and therefore makes the more authoritative decisions. Analyzing these perspectives together with the legal context of land-use governance in Vietnam, it appears that the agricultural sector has considerable freedom to facilitate the establishment of plantations, while the environment sector has limited scope for challenging such decisions and rarely even attempts to do so.

Evidence from Dien Bien in particular highlighted the incompatibility between national government priorities and programs focused on economic development, one the one hand, and forest protection on the other. For example, MARD is a leading agency for rubber development activities that, along with the Vietnam Rubber Corporation (VRC), proposed an increase in rubber plantations from 50,000 ha to 100,000 ha in northwest Vietnam (Phuc and Nghi 2014). In Dien Bien, the promotion of rubber was ongoing and promoted as economically valuable, yet government respondents frequently recognized trade-offs for forests and people's livelihoods (Dien Bien People's Committee 2011, 2014; DB #9a, #23b and #45). This proposal is contrary to central government and MARD goals for promoting forest protection and development, and they acknowledge rubber's role in driving deforestation (Phuc and Nghi 2014). Nevertheless, rubber and infrastructure development are politically supported by the central government with the aim of ensuring Vietnam's global prominence. Provincial authorities in both provinces also support those investments in order to increase revenues from taxes and private sector investment.

The role of government in land-use decision making does not mean, however, that local people have no influence. In a number of examples, smallholders refused to bow to external interests. For example, a villager in the Chan Nan hamlet of Nghe An rejected offers from the HPP (NA#31), while local people in Muong Pon were aware of the risks of rubber and refused to convert their land in spite of encouragement from both the rubber company and the local government (DB #23b). In a more exceptional example, one commune authority attempted to seize illegally-harvested timber

but local people refused to hand it over, threatening violence (NA #24). Although these examples are more exceptions than the rule, they demonstrate that in some cases smallholders could influence the direction of change.

Pham et al. (2012) found that policies that withdraw productive assets from local people often put those already marginalized, such as the poor, at a further disadvantage by failing to offer viable alternatives. Overall results from this study indicate that local people were often associated with deforestation and degradation as a result of: 1) a lack of livelihood options or incentives; 2) agricultural lands being converted for HPP or rubber plantations (thus other indirect forces are evidently at play); 3) the government's failure to provide clear land rights and access to forests, as well as weak forest monitoring and inventory; and 4) a lack of legitimacy in procedural and distributive outcomes in BSMs and other government programs. Yet smallholders were also widely recognized for their positive influence on forests, being linked with forest improvements on 72 occasions. Four of the case study sites – including PFES, government afforestation programs and the REDD+ pilot project<sup>27</sup> – illustrate how BSMs focused on local people could be effective in promoting forest protection and development.

### 4.4 Conclusions

Decentralization, in the form of deconcentration, has increased the responsibilities of lower levels of government in Vietnam. Lower-level governments largely implement higher-level government policies, but provincial governments are now seen as having important influence over decisions about land and land use, particularly through the land-use planning and classification process. Although these plans must be approved by the central government, provincial governments are seen as playing an important role, at least, in determining *how* policies will be implemented locally. If policies from the central government are contradictory, this suggests that provincial governments may have a very important influence on forests and local livelihoods.

Other levels of local government are more limited in terms of both their decision-making power and their technical, human and financial capacities. Nevertheless, commune governments have a mandate to voice local people's concerns at the district level and are seen as intermediaries for higher-level government decisions (Trung et al. 2015). Commune and district governments are crucial for delivering and implementing policy, as well as bridging government accountability to local people. However, their ability to do this will remain constrained if they are afforded scarce power to influence such decisions, as will be seen in the next section.

With regard to coordination between and among levels of government, there are calls for clearer policy guidelines from the higher to the lower levels, while leaving room for local discretion to adapt policies appropriately – in other words, for greater upward and downward accountability. There are also calls for greater collaboration and information exchange and more effective land-use planning.

Behind these collaboration problems, however, are underlying differences in interests – and in the power to act on those interests – among different actors across sectors and levels. This can be seen in the relative influence of these actors on forests and in the contradictory central government mandates on rubber and HPP, on the one hand, and forest protection and development, on the other, and how these play out in practice on the ground. The environment sector, communes and smallholders are clearly most often the weaker players.

<sup>27</sup> Case study communes recognized as sites of decreasing carbon emissions.

# 5 Procedural, distributive and contextual equity

For REDD+ and other LED options to be effective it is crucial to consider equity. A BSM that overlooks procedural, distributive or contextual equity can further perpetuate existing inequalities and power imbalances (McDermott et al. 2013; Tjajadi et al. 2015). Facilitating procedural equity enables a sense of ownership, increasing commitment and support, which can enhance an intervention's overall effectiveness (Sommerville et al. 2010). Distributive equity, determining the costs and benefits associated with the BSM or land-use intervention, will further shape performance and sustainability, reflecting who should benefit<sup>28</sup> and under what conditions (with what type of burdens) (Luttrell et al. 2013). A clearer understanding of both procedural equity and distributive equity and the implications of certain process and benefit-sharing arrangements are needed at early policy stages of REDD+, PES and other such initiatives. Contextual equity links the other two dimensions, accounting for pre-existing political, economic and social conditions such as tenure security, which may facilitate or hinder people's engagement with the BSM (McDermott et al. 2013).

All land-use decisions incur some sort of benefit and burden for different land managers and/or land-use decision makers. Benefits are both direct (monetary) and indirect (e.g. in-kind benefits: training, capacity building etc.). Burdens can also be both direct and indirect, but are often equated with financial costs, such as lost opportunity costs and transaction costs, in addition to reduced access to natural resources. Distributive equity incorporates elements of eligibility, distribution timing and benefit type, as well as transparency and accountability, which also reflect procedural equity. The benefits and burdens associated with each of the case studies have been summarized (see Box 3). Research questions from this study aimed to identify the benefits and burdens and the procedural and distributive equity conditions of the arrangements across the eight case sites, as summarized in Table 4.

## Box 3. Benefits and burdens in the case study sites.

Direct monetary benefits are provided in six of the commune case sites (those with HPP development and rubber, as well as PFES, and forest protection activities). The construction of the HPPs in the Yen Na and Chi Khe communes provided direct payments (as a one-off lump sum) as one of their two compensation options, with relocation and rehousing as the other option. PFES compensates forest owners with ongoing cash payments for continued forest protection activities. Similarly, the government's forest protection program in Muong Nha also provides merit-based compensation for village forest patrolling activities. In all cases in which direct payments are made, calculations are based on the number of land/forest hectares eligible, and are also dependent to varying extents on the quality, number of trees and land classification. In certain sites "indirect monetary" benefits are also possible but not guaranteed, as determined by the land-use change outcome. For instance, in relation to afforestation efforts payments are only made for the timber once the trees reach maturity and are only legal on land classified as "production forest."

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Based on different normative principles of distributive equity such as egalitarian, merit-based, need-based or libertarian (Pascual et al. 2010; Luttrell et al. 2013).

#### Box 3. Continued

Indirect benefits are provided in all the cases involving non-monetary (in-kind) benefits such as job ticreation, capacity building, infrastructure and facilitating tenure security, among others. Jobs have been created in relation to certain land-use change activities, such as in the rubber industry, but in many cases these often provide only temporary employment for initial land clearing or planting activities. For more permanent jobs, PFES has created employment within the local government via the FPDF and also via the hiring of forest protection teams. The SUSFORM-NOW project also indirectly creates job opportunities mainly related to project implementation (DB #19). A larger feature of the SUSFORM-NOW project is capacity building and training, targeting lower-level governments and local people. Infrastructure development was uncommon, but was offered by the Ban Ve HPP, which built a road and also housing for relocated locals (NA #29). The SUSFORM-NOW project supported the construction of certain facilities, etc. but household investments were required involving subsidized purchases via the project and village fund microcredit loans. Strengthening and allocating land rights via FLA were also important benefits provided by the PFES and SUSFORM-NOW BSMs.

Burdens identified varied in type and magnitude across the study sites. Rubber plantations and HPPs were associated with the highest burdens on local people. Both of these land-use activities are associated with deforestation, as well as issues related to procedural and distributive inequity. In the case of the rubber plantations, the economic burdens are apparent due to the time lag between the start of cultivation and the rubber being ready for extraction (approximately 3 years) (Phuc and Nghi 2014). In the meantime, local people were unable to maintain their livelihood activities as their agricultural land had been converted, leading to food insecurity. In relation to forest protection and development, labor was often perceived as insufficiently compensated. In most case sites, the compensation offered was perceived as low and often untimely. For PFES, the annual payments for forest protection activities could be as low as VND 35,000/ household/year (DB #21). Furthermore, afforestation efforts involved risks as profits were not guaranteed due to the survival rates of the seeds and saplings, as well as the condition and accessibility of the markets for selling products. For instance, in the case of the Tan Hong Paper Company in Luc Da, local people were not compensated as agreed in their contracts due to the company's unforeseen bankruptcy (NA #10 and #25). "Environmental burdens" are subjective, with perceptions varying depending on whether respondents see the provision of ecosystem services as a benefit to themselves or alternatively a burden due to forgone opportunity costs. Local people perceived HPP construction as a cause of poor water quality (NA #29), whereas a respondent from an HPP claimed the opposite (NA #7).

One component of achieving procedural equity is free, prior, and informed consent (FPIC), in which timely and comprehensive information on both the potential benefits and burdens (risks) provides land users with the basis for making informed decisions (Colchester and Ferrari 2007; Sikor et al. 2010). Yet as McDermott et al. (2013) recognize, FPIC procedures can be meaningless if there are unaddressed sociopolitical disparities at play. If implementing authorities go through the motions, with tokenistic representation, outcomes will still be determined by the more powerful decision makers. FPIC is not in itself a participatory engagement, negotiation or consultation: it is the establishment of the circumstances for people to exercise their right to negotiate terms and conditions and the balance between benefits and burdens (RECOFTC 2011).

According to the case study findings, consultation with local people has been largely a "tick-box exercise", resulting in disproportionate benefits and costs being allocated largely to the disadvantage of local people. Such sites include rubber plantation interventions and HPP in Yen Na Commune. In both cases, FPIC was weakly applied with insufficient information provided and consent arguably given under coercion. In comparison, in SUSFORM-NOW and in the smallholder afforestation enterprises, participants appeared to be more informed, with inclusive and participatory procedures. It is important to share complete information with stakeholders to avoid unrealistic expectations and to mitigate potential risks and burdens. Findings also indicate that benefit distribution for PFES, rubber and HPP is largely predetermined, with little flexibility to adjust the type or amount of benefits to the needs and interests of local people. Although compensation prices were adjusted to reflect changing market

Table 4. Land-use initiative characteristics of each commune case site.

		Nghe Ar	Nghe An Province			Dien Bien Province	rovince	
Commune site	Chi Khe	Luc Da	Thach Giam	Yen Na	Hua Ngai	Muong Muon	Muong Pon	Muong Nha
Case name	Hydropower plant (HPP) development	Afforestation business (smaller enterprise – private company)	Government afforestation program	Hydropower plant (HPP) development	Payment for forest environmental services (PFES)	JICA REDD+ pilot project	Rubber plantation	Government forest protection and development programs
Perceived forest status	Negative	Positive	Stable	Negative	Positive	Both positive and negative	Negative	Positive
Land-use arrangement	Local government informs local people of planned HPP development area. The HPP produces compensation agreements with local households and negotiates compensation.	Private company has agreement with smallholders who plant and cultivate acacia trees and sell them to the company once mature. Smaller enterprises required agreements with smallholders to plant acacia.	Government provides seedlings and fertilizer to local households to encourage the planting of acacia trees.	Local government informs local people of planned HPP development area. The HPP produces compensation agreements with local households and negotiates compensation.	Agreement with FPDF and forest owners. PFES payments are provided by the HPP and paid as compensation for the protection of allocated forest land.	JICA-funded project, facilitated by the local government. Provides in-kind support for livelihood improvement to smallholders.	Agreement between rubber company and each targeted smallholder.	Agreement between government and village communities and individuals to provide forest protection and afforestation services.
Contract	Contract required.	The private company had formal agreements (contracts), but agreements were informal (verbal only) if managed by a small business enterprise.	Yes, community and individual contracts.	Contract required.	o O	No. The local people/ village can stop participating at any moment.	Yes, legal policy of the province.	Both formal and informal.
Benefits								
Direct monetary	Yes, a monetary payment is one of the compensation options.	Not directly, but can be received from the sale of acacia.	Not directly, but can be received from the sale of acacia.	Yes, a monetary payment is one of the compensation options.	Yes (paid per ha of forest providing ecosystem services in the villages).	Not directly, but micro loans are available from supplemented village funds.	Yes, people are provided a percentage of the rubber profits (10% of annual profits).	Yes, payments are made for forest protection activities.

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Table 4. Continued

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		Nghe An	Nghe An Province			Dien Bien Province	rovince	
Commune site	Chi Khe	Luc Da	Thach Giam	Yen Na	Hua Ngai	Muong Muon	Muong Pon	Muong Nha
Jobs	No, except for the facilitation role of the village leader.	Mostly voluntary labor for planting and maintenance – although payments are also sometimes provided for labor activities via small business enterprises (e.g. putting up fencing, clearing the land, etc.).	Voluntary labor for planting and maintenance.	No, except for the facilitation role of the village leader.	Yes, government jobs (e.g. FPDF staff) and also the forest protection team.	Yes, in government and for local people, e.g. biogas construction.	Yes, in some cases villagers can be hired to clear land and for planting, etc.	No, except for the forest protection team.
Capacity building	Ö	Possible, but not a strong component (unclear, legacy of government program).	Possible, but not a strong component (unclear, legacy of government program).	Ö	Yes, training and information provided on forest protection activities.	Yes. Technical support and capacity building for government staff and local people.	Yes, farmers supported through rubber cultivation techniques.	Possible, but not a strong component (unclear, legacy of government program).
Infrastructure	Relocation and housing is one of the compensation options.	Ö	Some smallholders provided their land to develop a road to connect the main road to the plantations.	Relocation and housing is one of the compensation options; a new road was also built providing access to the HPP.	Ö	Loans can provide support for biogas construction and livestock rearing, etc.	Z	Ž
Land tenure security	No, FLA currently No, but already incomplete.	No, but already secure.	No, but already secure.	No, complete but still insecure.	Yes. FLA was facilitated prior to compensation – people can only be paid once rights are secure.	Yes. The project facilitated FLA process.	No. Land-use certificates are a prerequisite for having a contract.	No, but already secure (FLA complete for 8,693 ha).
Access to land	Households that choose relocation will be provided with land.	Continued access for land owner – for forest production purposes.	Continued access for land owner – for forest production purposes.	Households that choose relocation are provided with land.	Continued access for land owner – for forest production and protection purposes.	Continued access for land owner – for forest production and protection purposes.	Yes, but only for rubber planting.	Continued access for production and protection activities only.
							3	continue to next page

		Nghe An	Nghe An Province			Dien Bien Province	rovince	
Commune site	Chi Khe	Luc Da	Thach Giam	Yen Na	Hua Ngai	Muong Muon	Muong Pon	Muong Nha
Provision of equipment/resources	No.	Seeds and fertilizer.	Seeds and fertilizer.	No.	No.	Seedlings, cooking stoves, livestock and fingerlings etc. (not all are free – some items are subsidized by the project and provided under micro-credit arrangements).  Forest MRV equipment provided to local government.	, Ö	No.
Access to natural resources	Land will only be provided if they are relocated.	Continued access for land owner – for forest production purposes.	Continued access for land owner – for forest production purposes.	Land will only be provided if they are relocated – some households have illegally returned to HPP site to access forest land.	Depends on forest classification, but will restrict timber use – although weakly enforced.	Ö	Rubber resource.	Continued access for land owner – for forest production purposes.
Environment	Ö	Forest ecosystem services.	Forest ecosystem services.	No. HPP director (NA #7) claimed better conditions for livestock, aquaculture and climate.	Forest ecosystem services.	Yes. Reforestation activities and improvement of households' hygiene and waste disposal with biogas and better conditions for livestock.	Depends. Rubber is also considered as reforestation (production forest) by the authorities.	Forest ecosystem services.
Other	Local people are consulted and can choose monetary compensation or relocate to new settlement area.	In some cases local people transfer land rights to other small enterprises for monetary compensation or (possibly) to profit from grown trees	I	Local people are consulted and can choose monetary compensation or relocate to new settlement area.	Facilitates village meetings and formulates village forest regulations and agreements.	Microfinance is provided via a village fund, but local people are expected to pay back.	The province pays farmers incentives to facilitate rubber development.	Local governance is strong with effective dissemination of information.

**Table 4.** Continued

		Nghe An	Nghe An Province			Dien Bien Province	rovince	
Commune site	Chi Khe	Luc Da	Thach Giam	Yen Na	Hua Ngai	Muong Muon	Muong Pon	Muong Nha
Burdens								
Reduced land tenure security	Varies. Some people have lost land and not been compensated, while others have been relocated and provided with secured land rights.	No difference, although some smallholders may have transferred their ownership rights under agreements with other smallholders.	Ö	Varies. Some people have lost land and not been compensated, while others have been relocated and provided with secured land rights. Some land was reclaimed by the government and declared a community asset, uneligible for compensation.	No.	No.	No, but leakage effects may result in illegally cultivated forest areas.	No.
Reduced access to land	Yes.	Remained the same.	Yes. People losing food security.	Yes. For compensated households, and in relocation areas it was less than what was agreed (20m²).	Yes.	ÖZ	Yes. People losing food security.	No.
Environment	Deforestation through HPP development.	Tree plants/ seedlings at risk of being exploited by other villagers and from grazing animals.	Tree plants/ seedlings at risk of being exploited by other villagers and from grazing animals	Deforestation, water pollution and landslides that caused people to displace further.	No.	No.	Yes. Cultivation displaced to other forest areas.	No.
Social	Issues with HPP not fulfilling contract obligations as land rights were not clarified. People were relocated but some were not compensated.	Low or delayed payments caused disagreements; the paper processing company closed and contract obligations were not met – local people were unsure how to proceed.	People were not compensated for forest development – there is a dispute resolution mechanism in place; conflicts between households over unclear land boundaries.	Compensation is based on the number of people in the household and not on the land areas. Some people were not compensated. Households affected by further displacement due to a landslide in the resettlement zone.	Excluded actors and low payments caused disagreements.	Disagreements over small benefits received; local people did not want to return the support they obtained to the system; some households wanted to participate in different interest groups at the same time; payments were made to village heads for their activities.	Ö	Ö
								00000 40000 0400000

Table 4. Continued

		Nghe Ar	Nghe An Province			Dien Bien Province	Province	
Commune site	Chi Khe	Luc Da	Thach Giam	Yen Na	Hua Ngai	Muong Muon	Muong Pon	Muong Nha
Economic	Low or delayed Low or delayen bayments have caused disagreements. Due to a delay The paper in payments, processing land market company cl prices increased during land obligations negotiations, but not met—lo the compensation fee was reportedly to proceed, increased as a result.	Low or delayed payments have caused disagreements. The paper processing company closed and contract obligations were not met—local people unsure how to proceed.	Delayed payments No payments or have caused delayed payments disagreements. Most households affected by the landslide still have not been offered satisfactory compensation.	No payments or delayed payment delayed payments. received for Most households time spent on affected by the forest protection landslide still have activities are too not been offered small, relatively satisfactory speaking.	Annual payments received for time spent on forest protection activities are too small, relatively speaking.	Villagers are expected to contribute 50% of the costs.	Food insecurity and a long-term wait for the benefits of rubber.	Some complain that payments were too small.

prices in some HPP cases (NA #49), this was an exception compared to the other sites, as even when people had complaints and concerns they were largely overlooked due to a lack of procedural means to voice or resolve disputes.

In addition, informal agreements between actors were shown to be successful, as in the cases of the afforestation enterprises among local people in Luc Da and the SUSFORM-NOW project. In such arrangements, negotiations and information exchange could be addressed efficiently at the local level, creating greater flexibility among actors (NA #9 and #35). In the case of smallholder afforestation enterprises, business leaders relied on face-to-face negotiations and information exchange. Uniquely, the trust between these local coalitions of smallholders meant formal contracts were seen as unnecessary. On the other hand, formal contracts were required to legitimize the agreement between the government and local people. In such cases, clear land ownership was a prerequisite for 'formal' eligibility and compensation. In the absence of formal rights, these formal agreements were often to the detriment of local land users, who both lost their land and were not compensated.

This section discusses the importance of FLA in establishing, or undermining, contextual equity. It then discusses contrasting experiences from the case studies, examining rubber plantations and hydropower plant developments, the SUSFORM-NOW REDD+ pilot project, and PFES. This is followed by the conclusions. Greater insights into the relative merits and risks of different types of benefit sharing arrangements at these sites can provide lessons for REDD+.

#### 5.1 Equity: Forest land allocation

Procedural and distributive equity issues can be predetermined in Vietnam by FLA, which provides the contextual conditions. FLA has been, and still is, the key mechanism for decentralizing forests, but is also crucial for determining eligibility for BSMs and the distribution of benefits (Trung et al. 2015). FLA involves multilevel decisions, starting with initial central decisions to decentralize forest management and use by allocating rights to local people through the local government, which decides what land is allowed for which actor (Trung et al. 2015). Yet the same issues that impeded decentralization – limited finances, human resources and lower government capacity – were also relevant for FLA, as noted by various respondents. As a result, a forest ranger argued that the FLA results in Dien Bien Province were "valueless and meaningless" (DB #16). A member of the forest inventory and planning group in Nghe An Province also recognized the same issue: "our organization's responsibility is to check and define forest areas within provinces. This work has been carried out for many years, but it is not yet finished because of the lack of funds" (NA #12).

Forest data is critical to the FLA processes. The accuracy of the forest allocation will largely be dictated by the quality and accuracy of forest data defining not only forest type, but also current ownership and usage. An official from the DARD in the Dien Bien province, explained that "most... forest land tenure certificates that have been given to local households and villages contain land area and location data that do not reflect the actual area and location of forest land that local households and villages have used or managed" (DB #6). If the FLA allocation processes fail to reflect the reality of local peoples' livelihood needs, this will automatically undermine the process. Furthermore, if people do not agree with or even understand the FLA process and outcomes, this can also put them unwittingly at risk of breaking the law. Participatory FLA approaches are required to improve the processes of identifying and negotiating land boundaries and forest cover with local people in order to enhance procedural equity.

The identification and classification of forest land is another important element of FLA that will define what access and use rights people will be allocated. These range from restrictive to no rights for areas classified as special use, while production forest user rights allow for plantations and the harvesting of timber and non-timber forest products (Trung et al. 2015). Alongside the difficulty of identifying forest owners, there is also the challenge of defining forest categories, between production, special-use

or protection forest (NA #11). This was an issue not only for government authorities, but also for local people, who struggle to distinguish between the three types, each associated with different rights and regulations (Trung et al. 2015). The differing outcomes for FLA and clarity over forest boundaries and types reflect the differing capabilities and resources at the different levels of government, which may be sufficient in one area but constrained in another. Some communes exhibited good practices in terms of securing tenure and being perceived as satisfactory by the local land users. For example, a village head felt positive about the FLA process in Hua Ngai in Dien Bien Province and said that in 2014 the DPC had allocated the land to the local users, providing them with the power to protect the forests (DB #36).

Land-use plans, forest classifications and the allocation of "temporary rights" are all ways in which the government can reassert its 'overall' power over forest resources at any point. Evidence also highlights that this overall government control is still practiced, with allocated land being revoked by the authorities. One smallholder complained that the government had assigned him "three hectares of forest land issued with the Green Book<sup>29</sup> (the agricultural land ownership record), which was then withdrawn, as they said to replace it with the Red Book<sup>30</sup> (the forest land ownership record)," even though he had yet to receive the Red Book (NA #36). The government ultimately influences FLA access and rights, which puts local people at risk especially in relation to more powerful land-user interests, i.e. commercial interests such as rubber and hydropower.

FLA is a major component of PFES, with only legally-recognized forest owners eligible to receive payments. PFES implementation in both Dien Bien and Nghe An provinces has been slow compared to what was expected, mainly as a result of incomplete FLA (DB #21).<sup>31</sup> In other PFES cases, the BSM was recognized for facilitating FLA. A villager from Muong Muon Commune said "before 2013, there was no boundary between villages.... Under the PFES implementation there are clear boundaries and [villagers] cannot come to cultivate on the land of other villages" (DB #34b).

Beyond clarifying tenure and forest classifications, another concern with FLA is the allocation process, which has aggravated land disputes when done poorly. For example, conflict occurred in relation to the Pu Mat National Park as the FLA was perceived as inequitable, largely because the government allocated prime forest land to the Con Cuong district forestry company to manage and maintain the forest area, but not to the local community. This has led to an ongoing dispute between local people and the government over its right to allocate the park's buffer land to the company (NA #44). However, one lower-government respondent argued that the dispute had been resolved (NA #45). It was perceived, at least, that tensions had lessened with the introduction of a benefits/incentive mechanism that provided local people with payments for forest protection (NA #44).

One important obstacle to the FLA are the actors opposing it. Lambin and Meyfroidt (2010) highlight the role of state forest enterprises (SFE), which until the 1990s were responsible for all aspects of forestry management and are thus powerful actors in the forestry sector. They play a central role in the political apparatus, and their ability to generate provincial income is also likely to play a role in delaying FLA to individuals and households (Lang 2001; Clement and Amezaga 2009).

<sup>29</sup> The Green Book refers to a land-use certificate provided by the state forest enterprises (SFEs) that leases the forest land to households for 50 years. It can be used for production purposes, with rights to sell and transfer.

<sup>30</sup> The Red Book refers to a land-use certificate provided by the government with no time limit (except in special cases in which the government needs to withdraw the land-use rights – in which case right holders are offered compensation).

In one exception forest owners have been identified in Chi Khe commune and have the right to obtain PFES payments from the provincial fund, but the HPP is not yet in operation so payments to households have been delayed.

#### 5.2 Rubber plantations and hydropower plant developments

In the case study communes with rubber (Muong Pon) and HPP (Yen Na), procedural approaches were perceived as mostly inequitable for smallholders, and even government respondents voiced their dissatisfaction and ongoing grievances. Smallholders with land eligible for rubber or HPP conversion were similarly approached by a company staff member and lower government representatives (DB #24a). Household representatives were asked to attend a village meeting to learn of the purpose, activities and the benefits available to local people if they agreed to convert their land. This at least theoretically implied that local people must provide voluntary consent. One village head reported that "the local government cannot carry out its activities without the agreement of local people" (DB #46). In two villages (Co Chay and Tin Toc), the villagers were against the plans, but the "the rubber company, provincial people's committee and district people's committee still want to enlarge the area of the rubber plantation. However, villagers do not support this attempt. They refuse to contribute their land to the rubber plantation" (DB #40). Yet in cases where villagers withheld consent, company and lower government staff employed continued pressure and coercion. Four respondents reported that, even after initial refusal, numerous village meetings and 'propaganda' were applied, convincing local people to accept (DB #4, #20b, #22 and #24a). These actions suggest that coercion was used as a tactic to obtain consent. In another, more extreme, example, one villager stated that even without consent their land was converted. A deputy village head reported, "in 2009, [the] rubber company took over the sloping cultivation areas of six households in the village and converted them to rubber plantations, although these households did not agree to the conversion" (DB #35a). However, further evidence suggests smallholders are not passive bystanders. The director of the Dien Bien rubber company claimed locals had retaliated "violently" against rubber expansion. He argued that direct action was used: "for example, local farmers attacked company workers, cutting rubber trees, pouring boiling water to kill trees" (DB #48).

When recognized as forest owners, local people officially have the legal right to refuse land-use interventions on their land. However, evidence from this study illustrates that they are still often persuaded to comply. One commune official argued that they do have a choice: "local people have more power in making decisions relating to land use and forest management... local governments cannot prevent the expansion of swidden cultivation by local people. At the same time, [the government] cannot convert any area of forests into rubber plantations if local people do not agree" (DB #18). This admission is supported by evidence that people have successfully rejected rubber cultivation proposals (DB #20b). In the case of the HPP, one land manager also refused the contract due to inadequate compensation (NA #31). However, these cases are perhaps unusual, and more often than not local people eventually consent to government requests. The same commune official who said that local people can have influence, also admitted that "because of [the] discourse of benefits of rubber plantations from the provincial people's committee, district people's committee and rubber company, local people have agreed and converted their swidden land into rubber plantations" (DB #18).

In the instances in which local people were able to successfully contest land-use decisions, this could be as much to do with the commune government's apathy as with its sympathy. In the case of illegal logging for domestic use, for example, officials indicated sympathy, commenting that inaction was largely because they recognized the need of local people to sustain their livelihoods. Though harder to detect, apathy and interest are equally likely to play a role in the reaction of government actors from the commune, district and provincial levels.

In the case of rubber, conflicts appeared to be largely unresolved, which is also true of conflicts with the HPP in the Yen Na commune. The slow distribution of benefits was a noted grievance in both types of land use, which appeared to have had severe short-term impacts on people's livelihoods. For rubber, different types of benefits are available during the different stages of intervention. For

example, they receive compensation reflecting different planting arrangements, <sup>32</sup> although this is dependent on the contract and FLA status, and then a set amount is paid per hectare. Compensation is paid from the Dien Bien PPC budget. <sup>33</sup> In addition, the farmers can be contracted by the company for site clearing, soil preparation, and rubber tree planting and tending. <sup>34</sup> Yet the most significant benefits will only be provided once the rubber reaches maturity. It is this time lag – the number of years before rubber reaches maturity<sup>35</sup> – that causes the most significant burden to participating smallholders, and respondents acknowledged that they were facing food shortages (DB #20b, #22, #24 and #31) (Phuc and Nghi 2014). As a consequence, forests in remote areas were being cleared for food cultivation, as described by one villager: "After contributing their sloping cultivation area for rubber plantation, various households have realized that they lack land for cultivation. People from these households have gone to high mountainous and remote areas, far away from the village, to clear forests and cultivate agricultural crops" (#20b). Overall, rubber and HPP initiatives across the communes have had negative effects on both forests and livelihoods due to land and food shortages, as well as the delay in benefits.

#### 5.3 The SUSFORM-NOW REDD+ pilot project

Procedural equity and FPIC have been more convincingly applied in other case study sites, such as the SUSFORM-NOW REDD+ pilot project. This project's key implementing agencies include JICA, MARD, VN Forest, the Dien Bien province's DARD and the Dien Bien Provincial People's Committee (DB #19). The project aims to reconcile poverty challenges with suitable forest management in Vietnam's northwestern region. The idea is to achieve this by reducing carbon emissions through support for livelihood development and capacity building among local people and governments for better forest management and monitoring through the implementation of the provincial REDD+ action plans (PRAPs) (JICA 2015). The project also engages district and commune people's committees, as well as local people in the pilot areas whose livelihoods are dependent on agricultural cultivation on sloping land (DB #19). Up to 2014, activities had been implemented across 12 communes and wards and in 50 villages of Dien Bien Province (DB #19).

Procedural equity is demonstrated by the free, prior and comprehensive information provided to local people, allowing for informed consent (or refusal). In Muong Muon Commune, 10 villages decided to participate and one decided not to, because villagers were concerned about losing their right to use their land for agriculture (DB #19 and #28a). In those villages that decide to participate, informal agreements are made between the locals and the project staff, allowing participants to opt out at any point if they wish. This flexibility is important in generating trust among the smallholders, while also providing a form of accountability, as the project must demonstrate sufficient benefits to counteract the burdens and ensure participants stay committed. In addition, if villagers agree to participate, they will develop five-year and one-year livelihood development and forest management plans for the village in conjunction with project facilitators (DB #19). This is an important feature of the project, as it also provides the community with decision-making powers to shape and tailor the project activities to their own interests. After early consultation meetings, households can individually select livelihood activities according to their own preferences, as far as possible. In this respect, a respondent from Muong Muon Commune stated that "households are allowed to select activities that are suitable to

<sup>32</sup> Such as VND 7.6 million/ha for areas being cultivated with long-term purposes (for instance, fruit tree plantation); VND 6 million/ha for areas with tree plantation invested in by farmers; VND 4.5 million/ha for areas with food crop farming; and VND 2 million/ha for land under fallow or land being protected for forest restoration.

<sup>33</sup> Dien Bien PPC's Decision No. 16/2011/QD-UBND.

<sup>34</sup> The payment for site clearing is VND 2-5 million/ha, depending on the condition of the ground vegetation. Payment for hole digging for one working day is VND 142,006, while farmers who contribute their land for rubber plantation will receive 10% of the total annual profits from the rubber latex harvested on their land area (DB #48).

Which could be at least eight years (Phuc and Nghi 2014).

their conditions and interests. To date, 27 households in the village have received a Lao-type firewood-saving stove, while 9 households have received fingerlings for their fish-raising activities. Sixteen households have received fruit tree seedlings (10 seedlings per household)" (DB #23a). Based on these meetings, the project divides local people into different interest groups (fish farming, livestock, crop production, etc.) and then makes final agreements with the villagers and line organizations (DB #19). In the SUSFORM-NOW project, the provision of microcredit to community members on request is a decision made by the village, also demonstrating the crucial links between procedural and distributive equity.

Dispute mechanisms were also put in place in the project and used to address complaints about the proposed benefits. For example, the burden of attending the numerous consultations required by the project led certain villagers to suggest that project benefits did not correspond to the time commitment involved (DB #23b, #33a and #34). The SUSFORM-NOW project was able to address grievances and other conflicts through negotiation methods and transparent information exchange. For instance, the project director reported that "to resolve disagreements... village meetings were organized. And local facilitators had to explain [to] the local people that support from the project was limited. ... Local people were also allowed to discuss any ways that could help them with the effective utilization of limited support. Finally, they were asked to vote for the way they thought would be best to use this limited support" (DB #19). The project mechanisms for resolving disputes were perceived to be effective, demonstrating the strength of having an approach in place during the project's early planning stages to mitigate potential disagreements and misunderstandings further down the line.

#### **5.4 PFES**

Approaches to payments for forest environmental services (PFES) varied across the communes and had mixed feedback from respondents. PFES was in different phases of implementation across several of the case study sites. In some, PFES payments were being withheld because FLA was incomplete, while in others forest owners had already been identified and payments distributed. For FPIC, the most variable aspect is information, as in some cases people said they were well informed and had a "greater awareness of forest protection," as frequently documented in Hua Ngai and Muong Mon (NA #2b and #22a). However, in Luc Da Commune in Nghe An Province, coordination between PFES and other governmental projects and programs has been weak, resulting in poor understanding at the local level (NA #44).

The policy procedures for PFES implementation involve set standards, with decisions on payment calculations per ha and FLA to forest owners decided by the lower government (Trung et al. 2015). The PFES-related decision-making power afforded to local people is first of all whether to participate, followed by how PFES village funds should be distributed and the organization of forest patrol activities (DB #1b). During the initial stages, the FPDF visits the villages that own forest lands (within the HPP catchment area) and introduces the fund and PFES policies. Then the villagers meet to discuss whether or not to participate, with consent most often provided.<sup>36</sup> If most villagers agree, then a contract is signed with the FPDF. As the representative of the village, the village head is required to sign a contract on forest protection with the FPDF and then re-sign annually (DB #22a). The agreement confirms that the villagers are going to protect the forest in order to provide environment services, though in fact the Forest Law and other legislation already prohibit people from converting forest land for other purposes, regardless of the PFES agreement (Trung et al. 2015).

The next step is for villagers to prepare their village regulation, outlining how to protect the forest, share their benefits, exchange information, monitor activities and resolve conflicts. The village regulation requires the preparation of a form with the signatures of representatives of all the village's

Nevertheless, a respondent from Muong Cha stated that villagers had refused PFES because they were worried they would not be able to convert the forest for agricultural activities if needed (DB #2b).

households, which is then approved by the CPC (DB #21). These efforts indicate bottom up procedural legitimacy, as villagers formulate their own village's regulation on forest protection and development (DB #10). As one village head claimed, "the current PFES distribution arrangement is fair enough, because it is agreed by all villagers" (DB #23a). The procedures following the signing of the PFES contract commonly involve the villagers meeting to decide on, organize and allocate their forest protection activities and formulate their regulations (DB #2 and #26). A key informant from the CPC noted that "all villages in Hua Ngai Commune have organized village meetings to discuss and make agreements to divide into two parts the amounts they obtain from the provincial forest protection and development fund. The first part – around 85% to 95% – is equally divided [among the] households in the village. The second or remaining part is put into the village's fund, which is used for forest protection activities, such as ... tools or uniforms for the village's forest protection team..." (DB #2b). Local-level decision-making autonomy on PFES benefit distribution promotes a sense of ownership over those activities.

In relation to PFES payment distribution, however, there were complaints from many of the case sites that the benefits were insufficient. Though actual payments made per hectare of forest indicate the BSM is arguably merit based,<sup>37</sup> some felt that the fixed equal payment per hectare was an equity issue (DB #22a). Firstly, as the payments were seen as insufficient in some cases, "villagers have realized that they have to spend more time and manpower to protect the forests, but the amount paid to them is small" (DB #22a). Secondly, there were complaints about equal payments irrespective of the effort involved, i.e. for those who have forests nearby and those with forests in remote areas. Meanwhile, others claimed that PFES benefit distribution was fair, as payments are distributed equally among households (DB #12, #23, #36, #41 and #43). And thirdly, some criticized the eligibility criteria for PFES, with uneven payments according to the catchment area involved and HPP energy generation, in addition to other forest owners being excluded if they were outside the catchment area.

#### 5.5 Conclusions

The comparison of the case studies shows the contrast of different types of approaches and different procedural equity outcomes. Overall, procedural equity was strongest in projects where decision making was taken at the local level.

McDermott et al. (2013, 424) argue that "interventions designed solely to distribute payments for ecosystem services, without attention to local decision-making inputs, access to resources, and power relations, are unlikely to have equitable consequences." In almost all cases, decisions on the type of benefits were often imposed by the government and external actors without a procedure in place to seek inputs and assess the interest of local people. Alternatively, where procedural equity has been encouraged in certain case sites, this has in turn promoted distributive equity in terms of implementing more acceptable conditions and benefits for those who shoulder the burden. Burdens should not be greater than the financial and labor inputs and opportunity costs, while accountability is required to ensure participants stay committed.

Key elements for achieving legitimacy include: an emphasis on procedures and processes such as FPIC, timely distribution of benefits, transparency and accountability reflecting procedural equity. Furthermore, contextual equity, such as effective FLA, needs to be examined to assess and address preconditions that may perpetuate existing inequalities. For example, information on different forest types and data on forest ownership and usage must be accurate and of good quality. Moreover, in order to be eligible to receive certain benefits such as PFES, forest owners must be legally recognized, meaning that PFES encourages land tenure security for smallholders.

<sup>37</sup> The annual amount each village receives from the provincial fund depends on the area of forest and, at least theoretically, the results of the forest protection activities (DB #2b and #13). Further factors relate to the hydropower energy production, capacity etc. as well a "K factor."

Conversely, in cases where equity is overlooked, this has only heightened feelings of resentment among those affected. For example, in the SUSFORM-NOW REDD+ pilot project, villagers were free to decide whether or not they wanted to participate, whereas in cases such as the Muong Pon rubber plantation, pressure and coercion were employed to convince local people to participate. In the latter, villagers who consented to plant rubber on their lands were not fully informed that they would not be able to produce subsistence crops in the same area, or their needs were not taken into account in the planning stages. Overall, FPIC will remain ineffective if people are not equipped and empowered to communicate their interests and concerns, which requires information, time, capacity and the forums in which to do so (Szablowski 2010; McDermott et al. 2013).

# 6 REDD+ policy and practice

This section provides a short overview of national developments relevant to understanding the progress of REDD+ in Vietnam, followed by REDD+ developments in the two corresponding study regions.<sup>38</sup> The perceptions of REDD+ in the provinces are summarized based on respondents' knowledge and perceptions of what its goals should be (See Box 4). A summary of lessons relating to opportunities and obstacles for REDD+ in Vietnam is then presented, followed by the conclusions.

#### 6.1 National REDD+ efforts

The Vietnamese government has a strong commitment to tackle climate change and promote REDD+ through several international initiatives (Pham et al. 2012). For example, Vietnam began participating in the UN-REDD Program in 2009. This program aims to address deforestation and forest degradation through capacity building at national and local levels (The REDD Desk 2015). A national REDD+ network has been established, with the first phase of the UN-REDD Program completed in October 2012. This has been followed by an agreement for the second phase aimed at reducing emissions in six provinces, working with provincial, district and commune authorities; local communities; and the private sector (UN-REDD 2015).

REDD+ initiatives have been integrated into a number of policies in Vietnam to target climate change adaptation and mitigation. Consequently, there is a legal basis for REDD+ implementation at a central level. A number of technical guidance documents have been prepared and sub-working groups established focused on areas such as forest governance, MRV and benefit sharing mechanisms, etc. (UN-REDD 2015). Vietnam has also issued a National REDD+ Action Plan (NRAP)<sup>39</sup> and National Green Growth Strategy, 40 which are key legal documents for REDD+ implementation. Among other points, the NRAP<sup>41</sup> stipulates that the REDD+ action plan shall be formulated and pilot-implemented at the provincial level between 2011 and 2015 (JICA 2015). In December 2015, an NRAP progress review was conducted by the government with financial support from UN-REDD. The review marks out some significant progress on MRV and capacity building among government agencies, but also highlights urgent issues such as a lack of clear policies and measures to address drivers of deforestation and degradation, as well as the lack of monitoring and evaluation systems for REDD+ policies and the NRAP. In December 2015, the government also approved the PRAP guidelines and approved piloted benefit sharing mechanisms in six provinces under UN-REDD. The UN REDD+ pilot activities include trial attempts at accounting for emission credits, benefit sharing mechanisms, forest monitoring and safeguard systems. The PRAP has already been produced in Dien Bien province with support from JICA, which developed the plan with the local government through the SUSFORM-NOW project. To date, several PRAPs have been prepared and several communal REDD+ plans developed. Nevertheless, REDD+ implementation faces a number of challenges such as costeffectiveness, compensating for the opportunity costs of alternative land uses, forest and land tenure, effective forest monitoring systems, and the sustainability of the global carbon market, as well as international emission reduction commitments (Pham et al. 2012). Pham et al. (2012) also highlighted the uncertainty and skepticism of provincial authorities with regard to REDD+.

<sup>38</sup> With a stronger focus on Dien Bien province due to the status of its ongoing REDD+ pilot activities.

<sup>39</sup> Decision No. 799/QD-TTg of 27 June 2012 on the National REDD+ Action Plan.

<sup>40</sup> Decision No. 1393/QD-TTg of 25 September 2012.

<sup>41</sup> Decision No. 799/QD-TTg dated 27 June 2012 issued by the Prime Minister Nguyen Tan Dzungs

With REDD+ activities ongoing, the key discussion of REDD+ implementation focuses on the action plan, what is needed at the communal level, and how to differentiate between REDD+ action and current forest protection plans. It also centers on the system for benefit distribution among forest owners and REDD+ cost-effectiveness, as the benefits will follow a result-based payment system (Pham et al. 2012).

#### 6.2 REDD+ in Dien Bien and Nghe An

REDD+ was implemented in the Con Cuong district of Nghe An Province by the Netherlands Development Organization (SNV) under the Lowering Emissions in Asia's Forests (LEAF) Project. The project continued for a short period, from 2011 to 2013, aiming to help local people improve their livelihoods and reduce firewood consumption (NA #3 and #14). However, respondents noted that the expected outcomes of this REDD+ pilot project were unrealized, as the local people received little to no benefits (NA #3 and #10). For example, one element of the project provided them with stoves, but it was noted that they were of poor quality and broke soon after use (NA #3). It was also argued that the stoves were not conducive to traditional local customs, so overall the project failed to receive local support. In addition, three respondents further identified problems with the capacity and training of local project staff as compounding factors (NA #45, #6 and #13).

In contrast to Nghe An, REDD+ efforts in Dien Bien Province have evidently been more successful. The REDD+ project known as "Sustainable Forest Management in the Northwest Watershed Area" (SUSFORM-NOW) was implemented between August 2010 and August 2015. So far, REDD+ efforts, driven by JICA, have succeeded in building engagement with the lower government and local people.<sup>43</sup> The project developed a Provincial REDD+ Action Plan (PRAP) which, as mentioned above, was approved and implemented by the Dien Bien PPC. Based on project progress so far, JICA will disseminate the PRAP to three neighboring provinces in the northwest in order to scale up the initiative (DB #19; JICA 2015).<sup>44</sup>

As the project's livelihood development activities only began in 2013, actual project impacts on forest cover and livelihoods were still uncertain at the time of this research. However, in terms of project inputs and outputs, poor households were said to have received in-kind support valued at VND 4 million (USD 160), with about a third to a half of the poor households supported (#19). 45, 46 The project evaluation report states that by 2015 they had held 627 training courses for local villagers and 48 with government officials (JICA 2015). Training for government officials focused on facilitation and planning skills, livelihood development and the provincial forest monitoring system, while training for villagers focused on a range of livelihood development activities such as animal raising and fruit tree cultivation (JICA 2015). The project was perceived to have improved villagers' awareness of forest management, stimulating local people's participation in forest protection and development activities (DB #19; JICA 2015). Respondents (DB #23a and #33a) noted that, in combination with other programs, forest management and protection had improved: "Now, I believe that villagers can carry out good forest protection activities. Before the arrival of the initiatives, I did not believe in

<sup>42</sup> The LEAF project provided stoves to local people with the aim of reducing firewood consumption. However, the quality of the stove was poor and they reportedly broke after use. The stoves were also unsuitable for local traditional use and practices as the Thai people like to have the traditional stove lit throughout the day and night in their houses, especially in winter.

Two pilot sites were added in 2013: Muong Muon Commune and Muong Phang Commune.

To assist in furthering the PRAP's widespread implementation, an additional project agreement was signed in 2015 among JICA, MARD, MONRE and five provincial people's committees corresponding to Dien Bien, Lai Chau, Son La, Hoa Binh and Lam Dong (JICA 2015).

<sup>45</sup> It was noted that this was not 100% due to project budget constraints.

<sup>46</sup> Further project outcomes are summarized in JICA's implementation guide (JICA 2015).

#### Box 4. Perceptions and knowledge of REDD+.

Overall discussions on carbon rights in Vietnam are still not very well developed (Pham et al. 2012). REDD+ concepts and terminology are abstract and difficult to translate into local languages. REDD+ was originally conceived as a market-based global governance instrument for reducing carbon emissions from deforestation and forest degradation (Humphreys 2008), but has in practice taken a variety of forms. In the two selected provinces, the REDD+ projects themselves do not follow the 'traditional' carbon credit models. Both pilot project activities however are/were aimed at achieving sustainable forest management in addition to livelihood support and poverty reduction (NA #11, #12, #13, #14 and #48). Consequently, respondents that had heard of REDD+ believed it had the dual functions of carbon reduction and supporting people's livelihoods. In Dien Bien, 5 respondents shared this perspective at the provincial level, 14 at the district level and 3 at the commune level. In Nghe An Province, about 50% of respondents said they had not heard of REDD+, and the local people's awareness of REDD+ was limited.

The diversity of knowledge on REDD+ appeared to relate to actor types, in terms of the level of government and location, e.g. those that had been directly involved or not involved with REDD+ projects. The understanding of REDD+ is considered to be greater at the central level, largely because it is seen as a very "technical term" for local levels and therefore avoided, particularly in communes and villages. Interviews at the provincial, district and commune levels showed that while the government had mostly heard of REDD+, it was not well known at the village (local) level (NA #1 and #4). Villagers interviewed in Muong Muon, the site of the SUSFROM-NOW project, knew of REDD+, but village respondents from the Hua Ngai and Muong Nha communes did not (DB #24). In general, local people across all the sites understood the concept of forest protection, especially due to the legacy of government policy, laws and forest-related programs, such as PFES.

this, because villagers did not pay attention to forest protection; everyone just tried to clear forests for agricultural cultivation" (DB #23a).

#### 6.3 REDD+ obstacles and opportunities

Obstacles and opportunities for REDD+ were found not only in the case sites with REDD+ activities, but also in the other land-use interventions and BSMs.

#### 6.3.1 REDD+ obstacles

Study respondents identified the following key obstacles for REDD+:

- i. Measuring carbon stocks. A member of Nghe An's FPDF noted that "the goal [of REDD+] is correct but it is difficult to practice" (NA #4). In the interview, he felt the issue was the ability to monitor and measure carbon stocks, including the high transaction costs: "The objective of REDD+ is difficult to carry out in reality... it must be checked and monitored. Carbon payments will be difficult to pay because of payments based on the CO<sub>2</sub> outcome/results and high-cost measurement of carbon stock. It should be calculated as with PES, measured according to the forest area or deforestation" (NA #4). This issue is well documented in the literature on discourses around MRV (Gupta et al. 2012; Jagger et al. 2014).
- ii. Misuse of monetary benefits. Another issue is the introduction of monetary payments to communities and the risk of misuse. This was a concern noted by respondents in both provinces, leading project facilitators to question how beneficiaries should invest their payments once received. One government respondent argued that new money may not bring the intended livelihood benefits and may lead to other social problems (NA #4). In relation to PFES, there was also a concern that local people would spend received funds on short-term interests rather than more long-term livelihood investments. Yet arguably, if benefits are too small to provide any

meaningful contribution to peoples' livelihoods, such long-term investments may not be possible in the first place. Moreover, even when more significant amounts of money are paid to individuals, there are ethical questions that should be asked, such as whether project implementers should influence decisions on how those monetary benefits are spent. If people are being compensated for an activity, do they not have the right to decide how that money should be spent? If cash payments remain a concern, however, nonmonetary benefits are another alternative for BSMs that could also respond to the interests of the community (Wong 2014).

- iii. Local-level capacity. Another challenge for REDD+, observed by an NGO staff member from Nghe An, was the capacity of both local people and lower government to implement REDD+ (NA #6). Respondents perceived capacity issues as a key obstacle in lower government efforts to implement forestry policies more generally. Capacity building was an essential feature of the SUSFORM-NOW REDD+ project in Dien Bien and also appears to be a critical element in its success. Thus capacity challenges should be addressed through REDD+ interventions to ensure institutions are strengthened as a prerequisite.
- iv. Complexity of current forest-related policies. Another challenge is the complexity and inefficiency of existing forest policies. Two government respondents argued that forest policy was too complex with overly bureaucratic procedures and rules, making implementation difficult for both government employees and land users. For instance, one communal forest ranger felt that "the content of these laws and policies is very complicated. These issues have led to the problem that [local] people cannot remember and understand what they are allowed to do and what they are not allowed to do" (DB #17). Another forest ranger also agreed that the system was currently too complex (DB #16). Therefore, REDD+ should look to complement existing programs rather than start from the beginning and add to the already complex forestry system that is in place.
- v. Addressing key underlying drivers of deforestation. For REDD+ to be effective, it is also necessary to recognize the underlying drivers of deforestation in order to ensure that the key causes are being addressed (Kissinger et al. 2012). As Kissinger et al. (2012) emphasize, the long-term success of REDD+ will hinge on altering the "business as usual" activities in sectors driving emission increases. In both study regions, smallholders are mostly blamed for deforestation and degradation, despite the recognition that other actors have been promoting land-use initiatives that are displacing local livelihoods. Thus a huge challenge is how REDD+ can act as an incentive or impetus to motivate policy change from business as usual and, moreover, how to address major underlying deforestation drivers such as agricultural commodities like rubber, as well as hydropower interventions supported by powerful government actors (Pham et al. 2012). Central government has a crucial role in developing balanced incentive-disincentive mechanisms to ensure sustainable growth without trading off forests or smallholder livelihoods.
- vi. Poor quality of forestry data. The current available forest statistics in Vietnam provide an unreliable overview of forest cover change (DB #6). A key informant acknowledged that forest data was misleading, highlighting both the need to use forestry data with caution and the opportunity for REDD+ to provide the right conditions to ensure better quality monitoring and evaluation systems. There is also the possibility that political interests are behind the lack of forest monitoring in order to paint a positive or vague picture of current forest dynamics.

#### 6.3.2 REDD+ opportunities

REDD+ could address existing contextual conditions to provide more equitable contexts in terms of knowledge, tenure security, etc. and positive foundations for project activities to succeed. In challenging environments with insecure tenure, high deforestation rates and competition for land were shown to be addressed through the SUSFORM-NOW project activities by reducing carbon emissions by means of support for livelihood development and capacity building for both the government and

local people. The same project also provided the opportunity to increase capacities through workshops at both the lower government and local levels, which can be mutually beneficial for both REDD+ and wider forest policy effectiveness. This is part of the "no regrets" policy<sup>47</sup> for REDD+ outlined by Seymour and Angelsen (2012). The external project agencies, particularly JICA, provide a supportive rather than central role to pave the way for the project's sustainability while providing ownership to both government and local actors at multiple levels. Project activities that emphasize training and capacity address essential gaps in the forestry sector at the lower government level. Alongside financial support, external REDD+ actors/donors can offer capacity building, training and knowledge exchange, which are fundamental benefits that can support significant progress in enhancing governance and environmental outcomes.

At a local level, existing knowledge and awareness about forest protection is advantageous to REDD+. Although it has mixed success and longevity, Vietnam's legacy of forest protection and development programs can still provide existing arenas to develop new activities. For PFES, it is commonly acknowledged that people's awareness of forest protection has been heightened. Furthermore, existing forest protection groups, village regulations (established by local people with the support of the forest protection and management boards) and village fund mechanisms (already utilized in the SUSFROM-NOW project to regulate micro loans) all provide institutions and mechanisms upon which REDD+BSMs can build.

#### 6.4 Conclusions

Knowledge and perceptions of REDD+ vary according to experiences with REDD+ projects and also by actor types. Since REDD+ is considered an abstract "technical term" by local people, actors at a central level tend to have a better understanding of it.

Despite the efforts to integrate REDD+ initiatives into policies in Vietnam in order to mitigate the effects of climate change, REDD+ activities often face obstacles. The difficulty in monitoring and measuring carbon stocks, insufficient capacities among local people and lower governments to implement REDD+, unreliable data on forest cover change, and the need for REDD+ to address the key underlying drivers of deforestation make it difficult to realize certain REDD+ pilot projects such as the LEAF project implemented by SNV in Nghe An. This affects the way in which REDD+ is perceived, especially when burdens seem to outweigh the benefits for local people.

However, REDD+ efforts may also shape positive perceptions if carried out in ways that improve equitable land-use tenure security, address deforestation and degradation drivers, and improve knowledge contexts. Projects like SUSFORM-NOW that engage with the local community and the government, in which support is given for capacity building to better assist the REDD+ process, may also shape positive perceptions.

<sup>47</sup> This refers to actions that can be taken under the REDD+ umbrella for the good of forests and livelihoods, whether or not future funding for REDD+ materializes.

## 7 Conclusions

The Vietnamese national government has demonstrated its strong commitment and support for REDD+. After approving the National REDD+ Strategy in 2012, the country is now moving from Phase 1 to Phase 2 of implementation. REDD+ actions so far reflect project-driven development approaches (e.g. UN-REDD in six provinces, Forest Carbon Partnership Facility FCPF in the central coast, CERDA in Thai Nguyen, and pilots in both Nghe An Province – by SNV – and Dien Bien Province— by JICA). From a multilevel governance perspective, the legal framework, the overall country awareness of the importance of forest protection, and the involvement of both state and non-state actors at different government levels provide opportunities for REDD+ to move towards more equitable and sustainable forest management. Despite this, a NRAP progress review emphasizes the importance of a monitoring and evaluation system for REDD+ policies and for the NRAP itself.

The assessment of the multilevel governance related to land-use decisions across multiple scales reveals the degree to which actors surrounding land-use change have influenced different outcomes with regard to forest cover and equity. Different perspectives are formulated behind different agendas, alongside different notions of what is 'equitable.' This study offers important insights from an array of actors at different scales to unravel the complexity around the multilevel governance of land-use decision making. These results have important implications for REDD+ and any other similar low carbon emissions development strategy that must face the existing governance challenges and opportunities in order to build, ensure and support equitable and effective outcomes for both forests and livelihoods.

Smallholders are currently seen as the major drivers of deforestation and therefore the policies and measures in place are aimed at designing activities and alternative livelihood incomes for local people as part of REDD+. This study highlights how drivers of deforestation and degradation can come from external actors (e.g. hydropower and rubber companies), state programs (e.g. national policies to expand areas of rubber plantation until 2020) and the problem of unclear land rights, as well as the perverse effects of policies limiting access to forests. One of the biggest challenges to REDD+ effectiveness is to provide benefits that shape those behaviors responsible for such key underlying drivers of deforestation, thus acting as an incentive to drive policy change away from business as usual. This will require central government efforts to create the incentive and disincentive mechanisms to manage the interests and actions of powerful actors and to address the state's own contradictory goals.

The comparative analysis of the case study sites shows a unique contrast of different types of approaches with variations of procedural equity. Each of the studied land-use changes requires forest users to alter their current land-use practices. Smallholders can be persuaded and even forced to convert forests as alternative livelihood strategies by pressure from powerful actors. REDD+ projects and programs will often require a change in current or planned land uses, providing a certain amount of additionality to acquire a reduction in carbon emissions (RECOFTC 2011). As is also evident in the case studies, such interventions have the ability to affect people's livelihoods, welfare, income, cultural norms and values (RECOFTC 2011), as well as potential future land-use interests. Therefore, forest-dependent communities' interests and concerns need to be integrated into the program design to avoid nurturing improbable expectations and to mitigate possible burdens and risks, which is a process that should include holistic free, prior and comprehensive information sharing. Lower governments should then also be able to shape relevant project activities to the community's actual needs, leading to positive impacts on procedural equity and land use. If benefits outweigh burdens and accountability is ensured, participants are more likely stay committed in the long term. Cases in which equity is overlooked generate feelings of resentment and negative perceptions among those affected.

Both of the REDD+ efforts in Dien Bien and Nghe An illustrate that ensuring an equitable BSM requires sufficient incentives, whether nonmonetary or as cash compensation for any burdens incurred. The heaviest burdens to local people were associated with the HPP and rubber case study sites, where the financial benefits came late and were considered to be small. The land users also considered the payments for REDD+, forest protection and afforestation programs to be insufficient or delayed. Despite some projects' current efforts to provide in-kind benefits for all actors and alternative livelihoods generated from REDD+ (e.g. through capacity building and training for both the local government and local people), these are not enough to tackle deforestation.

Lessons learned on how procedural and distributive equity should be set up in different projects can help policy makers design more effective, efficient and equitable REDD+ policies and projects. However, as our analysis has shown, having multiple actors at different levels with conflicting interests can also lead to deforestation, as illustrated by the incompatibility between the forest protection goals and programs in Dien Bien and the national government's priorities focused on economic development. Moreover, inconsistent approaches, unclear policy guidelines, and weak coordination and communication among different government levels and sectors can also mean high transaction costs and confusion for local governments and people regarding which practices should be adopted. Land-use decisions would benefit from an effective land-use planning model to be used by all sectors and levels of the government. But underlying this problem are overlapping roles and disparities in decision-making power, such as between MONRE and MARD, with agrarian decisions predominating over environmental ones.

Other obstacles to REDD+ identified by the actors interviewed include: difficulties in measuring and monitoring carbon stocks (e.g. MRV), identifying beneficiaries, high transaction costs, the misuse of monetary benefits, insufficient capacities (financial, technical, human resources) at the local level, the complexity of current forest-related policies, and addressing key underlying drivers of deforestation beyond smallholders. There is also a need to improve the quality and accuracy of forest data so that it sets clear forest boundaries and defines forest types and ownership usage. Inaccurate forest information hinders the FLA processes, as it fails to reflect the reality of local households' livelihood needs.

The outcomes of forest and land-use policies appear to be driven by: (i) the will, interest and attitudes of influential actors in relation to promoting forests over other land-use goals; (ii) the effectiveness of coordination and coalitions among those actors and between them and local communities; and (iii) local people's understanding of the pros and cons of these land uses, and their confidence and right to accept or reject the land-use changes. Although decentralization in Vietnam has given more decision-making power to the provincial government in the context of an important platform for land-use negotiations, the real power still lies in the hands of the central government. The district government and commune are principally implementers of top-down decisions. However, lower government actors were shown to have an understanding of the local impacts of the interventions as well as the needs of the local people, thus having the potential to promote local relevance and needs within their work – but they lack the power to make key decisions.

Our research shows that projects in which decision making was taken at the local level had the strongest overall procedural equity. A crucial mechanism for decentralizing forests is through FLA, which faces the same constraints as decentralization itself, although these can be overcome if the influential actors have the willpower to promote forest conservation over other land uses. FLA provides tenure security for land users who can therefore be empowered to protect the forest and participate in more meaningful ways. It is also key to determining eligibility for benefit sharing mechanisms, as only recognized forest owners are qualified to receive PFES payments. The FLA process needs to address contextual equity in order to mitigate preconditions that may aggravate inequalities and lead to disputes, especially with non-participant individuals.

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2013	Dien Bien Statistical Office.
2013	Tuong Duong Department of Agriculture, Environment and Rural Affairs.
2013	Thach Giam Commune People's Committee.
2010	Con Cuong People's Committee.
2012	Hua Ngai Communal People's Committee.

# **Appendix**

#### Case study sites

This appendix presents a basic introduction to the eight case study sites. Each case study overview provides a background of the district regions and commune level and then a general description of the key land-use activity investigated. For each commune site there is a description of local-level interviewees' perspectives on land-use change, the institutional arrangements, the procedural equity and the outcome of land use changes. More extensive descriptions of the case study sites, communes, districts and provinces are available in the internal CIFOR reports from Nghe An province (Nguyen and Yang 2015) and Dien Bien province (Trung et al. 2015).<sup>48</sup>

This section starts with a description of Muong Cha District in Dien Bien Province, before examining the Hua Ngai and Muong Muon case study communes, the former focused on the payment for forest environmental services (PFES) scheme and the latter on implementation of the SUSFORM-NOW REDD+ pilot project. This is followed by an overview of Dien Bien District and descriptions of the Muong Pon and Muong Nha study communes, which are focused on rubber plantations and government forest protection and development programs, respectively. We then move on to outline the case studies from Nghe An Province, starting with an overview of Con Cuong District and the selected communes of Chi Khe, a hydropower plant (HPP) site, and Luc Da, characterized by afforestation enterprises. Finally, there is an overview of Tuong Duong District in Nghe An and the selected communes of Yen Na, which has the Ban Ve hydropower plant, and Thach Giam, which has government afforestation programs.

#### A Dien Bien Province

#### A1 Muong Cha District

Muong Cha District is located in the middle of Dien Bien Province and contains the two selected study site communes: Hua Ngai and Muong Muon. Muong Cha is characterized by high sloping mountains and has a total land area of 119,942 ha, covering 12.54% of the province. The district has a large population (41,800 people) and high ethnic diversity, with a total of 21 different ethnicities, predominantly the Hmong ethnic group followed by the Tai, Kinh and Kho Mu, among others. Overall, the district has a high poverty rate, with 67.8% of households classified as poor and an average monthly income per person of at least VND 400,000 (USD 18).<sup>49</sup>

Muong Cha district government statistics for 2014 show that 10,925 ha of district land was used for cultivation (e.g. hill rice cultivation, cassava and maize). However, a respondent from the Muong Cha district government argued that official land cover statistics were unreliable and that in their opinion the actual cultivation area corresponding to farming households ranged between 30,000 and 40,000 ha, as each farming household has to use at least 1 ha of sloping land for hill rice cultivation annually (DB #46). It was also claimed that the majority of the population (6,800 farming households) is mostly engaged in subsistence agricultural activities (DB #46).

<sup>48</sup> Available on special request.

<sup>49</sup> All commune statistical data is from the Muong Cha DiONRE (2014).

This analysis coincides with the results of a national survey in 2011, which revealed that each farming household in Muong Cha used an average of 1.46 ha of agricultural land, with the main purpose being hill rice cultivation.

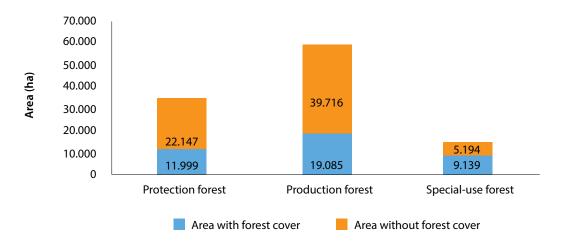


Figure A-1. Forest Protection and Development Plan for 2012–2020 in Muong Cha.

Source: Muong Cha Protection Forest Management Board 2012

At least according to the available statistics, most of the land in Muong Cha is classified as forest land. The district's Forest Protection and Development Plan for 2012–2020 states that 107,281 ha are being destined for forest development (34,146 ha will be classified as protection forests, 58,801 ha as production forests and the remaining 14,333 ha as special-use forests – see Figure A-1). Following a central government decision, most of the forest land area will have a water maintenance function for the Hoa Binh and Son La hydropower plants, with forest owners allowed to obtain PFES from the two hydropower plants.

#### A1.1 An overview of Hua Ngai Commune

Hua Ngai Commune was established in 1958 and originally had a total area of 26,000 ha, which has been reduced to 10,451 ha<sup>51</sup> following administrative boundary changes. It has an estimated 571 households, of which the vast majority belong to the Hmong ethnic group. <sup>52</sup> People in the commune mostly depend on agricultural activities, including hill and water rice cultivation for household consumption in combination with small-scale animal breeding and the collection of non-timber forest products (DB #26, #27, #36 and #37).

Land-use change between 1958 and 1990 led to severe forest exploitation following the conversion of an estimated 10,000 ha of forests for agriculture and both legal and illegal timber extraction. A national survey in 1995 indicated that only 1000 ha of forests remained (see Figure A-2). After this period, however, forest protection was increasingly emphasized, especially with the implementation of the government's national afforestation project known as Program 327 (the National Five Million Hectare Afforestation Program), which continued to invest in forest regeneration and tree plantation in Hua Ngai. Under such support, one respondent noted that "villagers have stopped...carry[ing] out illegal logging activities" (DB #25b). In addition, local people began to apply rotational shifting cultivation to replace free shifting cultivation. Whether or not indicative of forest protection and

In 2014, the administrative area of Hua Ngai was divided into two, affecting the ability to compare historical land cover changes. Classifications have also changed, providing further difficulty in terms of comparing forest data over time.

All data was obtained from the district statistical office of the Muong Cha DiONRE (2014).

Due to the high selling price for timber species such as *Fokienia hodginsii* and *Chukrasia tabularis*, carried out by State Forest Enterprise (SFE) and the local people.

<sup>54</sup> Vietnam GSO 1996.

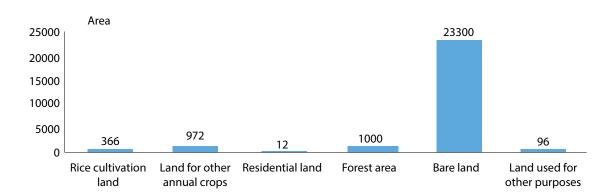


Figure A-2. Land-use status in Hua Ngai Commune in 1995.

Source: Vietnam GSO 1996

development efforts, the commune's forest area increased by 4564 ha in 2014, despite a split in the territory.<sup>55</sup>

There are different forest management results across the villages in the commune. According to two interviewees, five out of nine villages were perceived to have improved forest management, while another four had continued deforestation (DB #13 and #36). A number of respondents acknowledged that Hua Ngai Commune had good forest management practices in comparison to other communes. One village head noted that "Hua Ngai is a commune that has very large areas of natural forests with rich biodiversity in comparison to other communes in Dien Bien Province" (DB #36). Thus, Hua Ngai commune is considered to be a decreasing carbon emissions site.

#### Case study 1: Payment for forest environmental services (PFES) in Hua Ngai Commune

Hua Ngai's whole territory is in the Da (Black) River watershed, a key water supply system serving agriculture in the Tonkin (Red) River delta and providing power generation for the nation as a whole. Thus, forest owners in Hua Ngai have a right to obtain PFES from the forest protection development fund (FPDF) that is distributed at the provincial level (MARD 2012). To benefit from PFES, the FPDF issues a contract to legally-recognized forest owners, meaning that FLA is a pre-requisite for benefit distribution. Officially, households in the commune manage 3777 ha of land, of which 2964 ha are forests. The commune's remaining area is under the management of the Hua Ngai CPC. Although the people of Hua Ngai are managing the land, they were not provided with legal land rights certificates. It was only in April 2014 that, based on forest inventory results provided by the provincial Dien Bien PPC, the Muong Cha district DPC made the decision to recognize nine of the commune's villages as the forest owners of 2964 ha of forests, enabling them to obtain PFES. Hence, representatives of villages and the provincial fund signed a contract on forest protection for PFES, following which villagers have organized and allocated forest protection and development activities among themselves. Villagers also formulate their villages' forest protection and development regulations.

The annual amount each village receives from the provincial fund depends on the area of forest and, at least theoretically, the results of its forest protection activities (DB #2b and #13). A key informant noted that in Hua Ngai "all villages... have organized village meetings to discuss and make agreements

Data from the Hua Ngai Communal People's Committee, 2012; Muong Cha DiONRE, 2014.

<sup>56</sup> Including 1497 ha of production forest and 1467 ha of protection forest.

for the amounts they obtain from the provincial fund for forest protection and development to be divided into two parts. The first part of around 85% to 95% is equally divided among households in the village. The second, or remaining, part is put into the village's fund, which is used for forest protection activities in the form of tools or uniforms for the village's forest protection team, for example..." (DB #2b). Benefit sharing arrangements are made within the village by the local people. There were said to be occasional disagreements with the payment arrangements. For instance, one respondent identified that "some villagers want to form forest protection teams and only share the payments among the team members; some villagers want to be paid every three months, because they want to use the money obtained to buy rice... [But]...the fund [makes a]...payment once a year; the fund wants to make payments directly to households" (DB #21). Attempts have been made to resolve these issues during village meetings with participants and related actors. Negotiations are held, for example, in relation to the members of the forest protection core team who are compensated for their efforts, which is decided each time the village receives the payments. The remaining amount of each payment is divided and distributed equally to every household (DB #21).

Determining the rate of payment per hectare is, however, decided by the provincial government. In Dien Bien, PFES payments were differentiated with slightly higher payments for natural forests compared to plantations, with a respondent from the provincial FPDF stating that "The baseline for identifying these two values consists of analyses that see natural forests as being able to play better roles in maintaining water, controlling soil erosion..." (DB #21). Respondents noted in general that the scheme's key strengths included the local people's increased awareness of forest protection, while it also helped the government prioritize the need to complete FLA for the local people. Caveats to the scheme that were mentioned were the complexity and the time required for local people to follow the PFES policies. Equally, the amounts paid to many villages, households or individuals could be quite small (in one case, VND 35,000/ household/ year – DB #21), representing a rather insignificant contribution to their livelihoods. Two interviewees (DB #20a and #21) also argued that the benefits were insufficient compared to the manpower and time invested in forest production activities (e.g. for forest patrolling). In other villages where participants received relatively higher amounts, the payment was perceived as fair, particularly as those in the village would receive an equal share.

#### A1.2 An overview of Muong Muon Commune

Muong Muon Commune was established in 2007 with a total area of 13,445 ha. Before its establishment, the administrative area of Muong Muon was a part of Na Sang Commune. The population of Muong Muon Commune is estimated at 3687, belonging to four ethnic groups: the Hmong, Kinh, Kho Mu and Tai. The population is distributed in 11 villages across the commune. Most of the commune's 652 households are classified as poor (59.7%), with 117 (17.9%) classified as near-poor. Muong Muon is located in the south of Muong Cha District and is characterized by mountains and hills with a high altitude and complex terrain. Most of Muong Muon's territory is also within the watershed of the Da (Black) River and local forest owners are therefore also eligible for the PFES payments made by the Hoa Binh and Son La hydropower plants.

Land use in the area was characterized by rotational shifting cultivation, with water rice cultivation widely applied among households of the Tai ethnic group. A villager from Huoi Vang explained that "Huoi Vang village was established in 2000. The villagers of Huoi Vang are Kho Mu and Tai people from other villages of Muong Muon Commune and new migrants, who are Hmong people. The Kho Mu and Tai people used to maintain themselves with rotational shifting cultivation on sloping land, while the Hmong people used to practice shifting cultivation" (DB #34a). It was perceived that these practices led to the decline of natural forests in the area. Poor and incomplete FLA has also been an issue in the commune. Consequentially, land conflicts are still occurring, further aggravated by increases in the local population due to inward migration (DB #23b). Since the end of 2013, natural

<sup>57</sup> All data was obtained from the District Statistical Office of the Muong Cha DiONRE (2014).

forest allocation activities began to be reimplemented by the Dien Bien PPC. The actual area of forests has been calculated in the field and the Muong Cha District People's Committee took decisions on FLA for the local village based on this data. One villager noted that "before 2013, there was no boundary among villages and villagers could carry out their cultivation in many places. Under PFES implementation, there are clear boundaries among villages and villagers from one village cannot come to cultivate on the land of other villages" (DB #34b).

The main current drivers of deforestation were acknowledged by several respondents to be: (1) conversion of forest land into land for swidden cultivation; (2) rubber plantations; and (3) the poor practicing of forest management policies (DB #12, #14, #15, #23, #28, #33 and #34). It was further noted that despite efforts to promote forest protection, this had largely failed, with the development of rubber plantations causing further forest losses:

"In 2009, 137 ha of village forests and sloping cultivation areas changed into rubber plantations. Pung Giat 1 is the village in Muong Muon Commune that has lost the biggest area to rubber plantations. This forest clearance has created water shortages not only for daily consumption, but also for cultivation. Households that have lost their sloping cultivation areas have gone to more remote places and clear land for food production" (DB #33a).

Deforestation is also blamed on poor enforcement by communal rangers, communal officials and the Muong Cha Protection Forest Management Board (DB #14). Due to the history of land-use change and the numerous drivers that are contributing to forest loss in the commune, this site was selected as an increasing emissions site.

#### Case study 2: SUSFORM-NOW REDD+ pilot project in Muong Muon

In 2012, Muong Muon was selected as a pilot commune for the SUSFORM-NOW project due to its serious ongoing deforestation. It was chosen with the idea of building a model for REDD+ activities that support both sustainable livelihood development and sustainable forest management (DB #14). To obtain its objective, SUSFORM-NOW provides in-kind benefits for people in Muong Muon to develop their livelihood while also promoting tree plantation and the protection of existing natural forests.

The project is funded by the Japan International Cooperation Agency (JICA), which had been piloting REDD+ activities in other communes in Dien Bien Province. It aims to reduce carbon emissions through support for livelihood development and capacity building among local people and governments for better forest management and monitoring. The project engages a number of actors such as the DARD, the district and commune people's committees and local people in the pilot areas (DB #19). It also adopts participatory approaches when identifying local people's support needs, prioritizing poorer households.<sup>58</sup>

Under JICA coordination and with the cooperation of line organizations (DARD, district and commune people's committees, and villages in the pilot areas), all households in a village have a right to participate in the project's activities. Households are allowed to select those activities that suit their own conditions and interests. As reported by a respondent in Muong Muon Commune (DB #23a), various meetings were organized in all of the commune's villages. All of the households sent representatives to the meetings, were informed about the project, and were given the opportunity to voice their concerns and vote on project activities, the selection of support activities, village regulations and so forth. Based on the meetings, the project divided the proposed support of local people across the different interest groups (fish farming, livestock, crop production, etc.) and made a final agreement on project benefits (DB #19). The project does not have any contracts with the local communities.

Poor households have received in kind-support valued at about VND 4 million (USD 160), with about one third to a half of the poor households supported, due to the limitations of project resources (DB #19).

Capacity building within the government is also one of the project's indirect benefits. Together with district officials in charge of agricultural management and workers of the Muong Cha Protection Forest Management Board (PFMB), communal officials responsible for land management, agricultural extension and communal rangers receive training courses on facilitation skills and the preparation of village and communal livelihood and forest development plans. Under the facilitation of project staff, the local government officials help villagers discuss and identify their village's forest; discuss and learn about the role, benefits and contribution of forests in the context of climate change; and develop the project's policies and participation agreement. Ten of the villages in Muong Muon have agreed to participate in the project. One decided not to because villagers were concerned about losing their right to use their fallow land for agricultural cultivation (DB #23a). After consultation meetings, those that did agree to participate in the project prepared five-year and one-year livelihood development and forest management plans with the help of trained officials (DB #19).

The SUSFORM-NOW project's emphasis on the participation of local people has helped them obtain a better understanding about livelihood supports, responsibilities and practices for obtaining benefits (DB #19). However, frequent consultations can be quite time consuming and the support provided by the project can be perceived as small. People have complained that the benefits provided by the project do not correspond to the time and labor they have to invest for their participation (DB #34). However, where disagreements with the benefit sharing arrangements and distributions were identified, they have been resolved through the dispute resolution mechanisms that were put in place. For instance, after some negotiating with the local people it was decided to compensate village heads who invested time and labor into organizing project activities for four working days a month (DB #19).

#### A2 Dien Bien District

Dien Bien District is in the south of Dien Bien Province and contains the two study site communes of Muong Pon and Muong Nha. The district has a total of 193,926 ha, covering 17.14% of the province's natural area (Dien Bien DONRE 2014). This district has high mountainous areas in the north and the south, with a valley in the middle, which is favorable for rice cultivation. Dien Bien District has a population of 112,500 people from 21 ethnic groups, of which the Tai ethnic group is the largest (53% of the district's population), followed by the Kinh, the Hmong, the Kho Mu and the Laos.

Most people are dependent on agricultural activities for their livelihoods. According to data from the Dien Bien Statistical Office (2013), farming households account for 92% of the district's population. In 2013, a total of 22,771 ha of district land was used for cultivating annual crops, such as water rice (8993 ha), hill rice (2646 ha) and cassava and maize (11,119 ha). Such cultivation activities are for both self-consumption and commercial purposes. Like Moung Moun, Dien Bien District also has a high rate of poor households, with 56.27% classified as such.<sup>59</sup>

Forest land covers a large proportion of Dien Bien District. As stated in a provincial decision, <sup>60</sup> 121,548 ha (or 74.15% of the district's natural areas) are going to be used for forest development purposes, of which 73,973 ha are for protection forest development, 35,715 ha are for production forest development and the remaining 11,860 ha are for special-use forest (see Figure A-3).

#### A2.1 An overview of Muong Pon Commune

Muong Pon is located in the north of Dien Bien District. Like Muong Muon, the commune contains mountains and hills with high altitudes and steep slopes. Its residents belong to four ethnic groups:

According to current policies in Vietnam, a household with an average monthly income lower than VND 400,000 per capita is classified as poor, while a household with an average monthly income lower than VND 600,000 per capita is classified as pro-poor.

<sup>60</sup> Provincial Decision No. 714/QD-UBND of 16 September 2013 on revision of the provincial plan on forest protection and development.

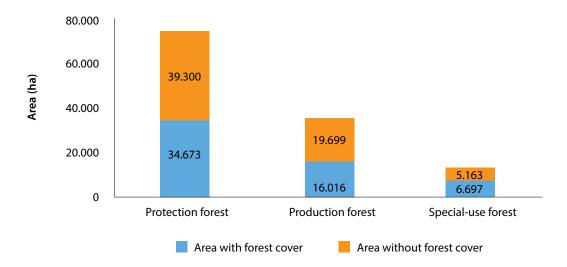


Figure A-3. Forest Protection and Development Plan for 2012-2020 in Dien Bien District.

Source: Dien Bien DARD 2013

Hmong, Kinh, Kho Mu and Tai. Administratively, the populated areas of Muong Pon are divided into 11 villages with 3687 people and 652 households. Like other communes in Dien Bien, the main livelihood activities include cultivation – of water and upland rice, for example – combined with animal breeding, while only a small number of people are employed by the local government and education sector. Overall, the poverty rate in this commune is lower than in the other selected communes.

Muong Pon Commune was established in the middle of the 20th century and has seen considerable land-use change, according to our respondents. It was claimed that the Tai people used to cultivate water rice, while the Kho Mu and Hmong people used to practice shifting cultivation to produce food for consumption. People in Muong Pon started to clear natural forests for hill rice cultivation during the period 1993–1996, arguably because of poor forest management by the local authorities.

At the end of the 1990s, in order to prevent land conversion practices, the district government began to allocate agricultural land to local households, including water rice fields and agricultural cultivation areas on sloping land. In the early 2000s, the district government implemented FLA to local households. However, because the process did not meet the requirements of central government policies, the results of the FLA activities were rejected and ignored by the local people.

Later in 2012, the Dien Bien PPC decided to reimplement FLA activities in Muong Pon alongside attempts to implement PFES and reduce deforestation. The calculation of actual forested areas was conducted by the DPC, which then decided on the allocation of natural forests to each village in Muong Pon. Following this, the Dien Bien FPDF and representatives of 10 villages (as one Hmong village cannot obtain PFES, due to its lack of forests) signed a contract on forest protection for PFES.

The land-use data on the commune currently estimates that 2159 ha of land is used for food crops, including 330 ha of water rice fields, 187 ha of hill rice and 1642 ha of annual crops, while 661 ha are used in the commune for long-term plantations (including 602 ha of rubber plantations). A big proportion of the commune is still covered by forests, despite the reduction in the early 1990s. However, due to the expansion of rubber and the subsequent leakage activities for the expansion of cultivation areas, this commune was perceived to be an increasing carbon emissions site.

#### Case study 3: Rubber plantations in Muong Pon

Since 2006, Moung Pon Commune has been targeted for the expansion of rubber plantations due to the favorable planting conditions there. According to the provincial plans on rubber plantation for the period up to 2020, the main purpose of the expansion is to create more jobs and income for local people. Rubber companies have become one of the key land users in Muong Pon since 2006 (DB #23). They also provide financial benefits to provincial, district and communal governments and have thus concluded contracts and converted into plantation areas a total of 602 ha of sloping cultivation areas and natural forests belonging to people in Muong Pon.

To promote rubber plantations in Muong Pon, rubber company<sup>62</sup> staff visited targeted villages accompanied by personnel from the provincial, district and communal governments. Representatives of the village households were invited to join village meetings where they were told of the project's purposes and activities and the benefits available. One respondent noted that many villagers initially did not agree to convert their agricultural land to rubber plantations (DB #23b). Another villager (DB #20b) said that "in 2009, the rubber company took over the sloping cultivation areas of six households in the village and converted them to rubber plantations, although these households did not agree with the conversion." When asked if they viewed the outcomes as satisfactory, he said "our concerns related to agricultural land have clearly been ignored." However, while villagers initially refused, they were convinced to accept following numerous village meetings led by the rubber company and officials.

There are different opinions regarding how rubber plantations are legitimized and implemented. A village head (DB #46) said that people had decision-making capabilities and "the local government cannot carry out its activities without the agreement of local people," stressing that the local people have the final say. In two villages (Co Chay and Tin Toc), it was said that the villagers were against plans to enlarge rubber plantations: "The rubber company, provincial people's committee and district people's committee still want to enlarge rubber plantation areas around Co Chay 1. However, the villagers are not supporting this attempt. They refuse to contribute land for rubber plantation" (DB #40). Another villager claimed that people were "inclined" to comply with the government: "Local people have agreed because of the discourse of the benefits of rubber plantations given by the provincial people's committee, district people's committee and rubber company" (DB #23).

In villages where consent was obtained, there still seems to be general dissatisfaction with both the legitimacy and actual land-use outcomes. Furthermore, it seems that people are forced to cultivate further areas of forest in order to compensate for land lost to rubber. A respondent from the commune government (DB #23) admits that rubber plantations risk food security in the area: "Yes, local people really worry about their future food security and benefits obtained from the rubber company. Many people did not want to convert their swidden land into rubber plantations. However, given the discourse of local officials, they had to agree with conversion." Hence villagers were facing food insecurity with shortages of land for food crop cultivation, which could also lead to further forest loss. As described by one villager, "after contributing their sloping cultivation area for rubber plantation, various households have realized that they lack land for cultivation. People from these households have gone to high mountainous and remote areas, far from the village, to clear forests and cultivate agricultural crops" (DB #20b).

#### A2.2 An overview of Muong Nha Commune

Muong Nha Commune is also in the south of Dien Bien District and has a total area of 15,902 ha. This commune has just been moved from the national list of high mountainous communes with extreme difficulties, being acknowledged for its improved accessibility. Most of the commune population has a

<sup>61</sup> Provincial Government of Dien Bien 2006.

We have not revealed the company's identity for reasons of confidentiality.

below average annual income level. The whole territory of Muong Nha lies within the watershed of the Ma River, which rises in Dien Bien and flows down to Vietnam's north-central coast.

The commune's total population is 3502 (716 households), with its residents from six ethnic groups, including 1,324 Hmong people and 1,306 Tai people. Some of the population migrated to Muong Nha from neighboring provinces (Son La, Lai Chau) and from other districts in Dien Bien Province (Dien Bien Dong, Tuan Giao, Dien Bien Phu), while others came from Laos. The Muong Nha commune is divided into 14 villages, 9 of them located along the newly-constructed border road. Farming is the main livelihood activity of commune households, the exception being those of Kinh ethnicity, whose livelihoods depend mostly on small business enterprises (Muong Nha CPC 2014). There are 308 poor and pro-poor households in Muong Nha (43% of the total number of households in the commune), with the remaining ones mainly from average-level income classes.

Findings on Muong Nha's land-use history suggest that forest cover improved over the last 20 years and so this commune was considered a decreasing carbon emissions site in this study. A number of respondents noted that government programs and initiatives have been responsible for this change. One perceived the improved sustainable forest management to be the result of the villagers having been "paid for forest management from government-funded projects, such as 327 and 661. People in these villages have left their sloping cultivation land for forest regeneration and they have to protect the existing forest" (DB #18). Respondents admit that different villages have different forest management results. Specifically, according to interviewees in Muong Nha, 5 out of 14 villages have obtained improved forest cover, while another 6 showed no improvement and 3 have notable deforestation (DB #38).

It is said that forest cover improvements could be attributed to good forest management practices encouraged by the national forest protection and development program and projects, such as the investment in and implementation of Program 327 and Project 661. As Muong Nha is located in the Ma River watershed, it provides water for hydropower plants and the daily consumption of people in Son La and Thanh Hoa provinces. However, PFES has not yet been implemented in Muong Nha Commune because the amount paid to forest owners in Dien Bien's Ma River watershed is too small. Meanwhile, deforestation is blamed on the land shortages of neighboring communes.

Statistics on land use in the commune (DB #3a) show that 1193 ha are used for food crops, such as rice, and 5113 ha are covered by natural forests, including 1300 ha of production forests and 3813 ha of protection forests. A total of 194 ha are used for nonagricultural purposes. A large proportion of the land area (5103 ha) is classified as unused land, of which 4198 ha have been designated for forest development purposes.<sup>63</sup>

#### Case study 4: Government forest protection and development initiatives in Muong Nha

A number of forest protection and development projects and initiatives have a presence in Muong Nha, including Program 327 and Project 661. Program 327's main purpose in Muong Nha was to plant trees on bare land and hills, while Project 661 was mainly aimed at regenerating natural forests and protecting existing ones for environmental protection purposes.

The Dien Bien PFMB is the implementer of the provincial forest protection and development plan in Muong Nha (DB #10). This project management board promotes forest protection activities in each village by providing a forest protection contract and having it signed with village representatives. After signing the contract, villagers organize and allocate forest protection and development activities

<sup>63</sup> The term "land use" is used differently by the DONRE and the DARD, with forest land as a sub-category of agricultural land in the DONRE.

among themselves. These efforts indicate procedural legitimacy as villagers also formulate village forest protection and development regulations (DB #10).

Generally speaking, the villages of Muong Nha have obtained payments for their forest protection activities. Annual amounts depend on the budget provided by the central government, the area of the villages' forests and the results of forest protection and development activities. After receiving the payment, each village organizes a meeting to discuss the mechanism for distributing the money they have obtained (DB #3a). The villagers come to an agreement for equal distribution to each household, and then each household contributes a small amount for the activities of the village protection team. They also contribute to other common forest protection and development activities (e.g. responding to outbreaks of fire).

As noted by the commune chairman (DB #3a), 3 of the commune's 12 villages (Phi Cao, Hoi Huong and Khon Ken) have poor forest management as there are limited paddy field areas and local people lack land for crop cultivation. In contrast, the other villages in the commune have better conditions for water rice production and the support of government forestry programs (327 and 661) in assisting natural regeneration and protecting existing forests, so the forests are better managed.

#### **B Nghe An Province**

#### **B1 Con Cuong District**

Con Cuong is one of mountainous districts in the western region of Nghe An Province and is divided into 12 communes. In 2014, the total population of Con Cuong was roughly 66,000, mainly from the Kinh, Thai, and Tho (Danlai) ethnic groups. Rice farming, forest plantations, livestock and tea production are the main sources of income for local people.

Con Cuong covers an area of 173,831.12 ha, of which 10,145 ha is agricultural production land and 154,262 ha is forest land,<sup>64</sup> which covers most of the district (Con Cuong People's Committee 2010). Annual crop areas, including paddy rice, beans and sweet potatoes, occupy around 7275 ha. The district's total paddy rice area is 1917 ha, mostly located in the Mon Son and Luc Da communes. In the Chi Khe, Cam Lam and Lang Khe communes, shifting cultivation is a common practice.

#### B1.1 An overview of Luc Da Commune

Luc Da Commune was established more than 200 years ago (NA #45) and has a total land area of 12,275.4 ha, with forests covering 9918.1 ha. There is reasonably good accessibility between Luc Da and the town of Con Cuong due to the good quality of the roads in the south of the district. The commune has 12 villages (hamlets), located close to the forest areas of the Pu Mat National Park. The population was estimated at 7766 in 2011, with a total of 1795 households. The commune's dominant population is the Thai ethnic group (7024 people), followed by the Dan Lai (278) and Kinh (464) groups.

Luc Da is considered a poor commune with a poverty rate of over 51.3% (NA #45). It has therefore been supported by the government in numerous government programs, such as Program 135 (the Vietnam government's poverty reduction program) and Project VIE028, established in 2006, which

<sup>64</sup> Production forest land accounts for about 35% of the district's total natural land use. Special-use forest land covers 74,268 ha and protected forest land 19,134 ha.

<sup>65</sup> Luc Da People's Committee 2011.

aimed to help local people with agricultural production (NA #45).<sup>66</sup> REDD+ was also implemented here by SNV under the LEAF project. This project continued for a short period (2011–2013), aiming to help local people improve their livelihoods and reduce firewood consumption (NA #3 and #14). However, respondents noted that this REDD+ pilot project's expected outcomes were not achieved, as local people received little to no benefits (NA #3 and #10).

Luc Da implemented a ban on shifting cultivation in the commune in 1998, but changes in land use occurred in 1999 when the commune implemented FLA. Post FLA, local people had to stop cultivating upland rice. It is noted that forest protection has been promoted in the commune alongside incentives to promote agricultural productivity to ensure food security, reducing the pressures on the forest (NA #45). Luc Da Commune has a high proportion of forest cover (80.8%) compared to the other communes in the district.<sup>67</sup>

In 2000, around 200 ha of primary forest were classified as part of the Pu Mat National Park buffer zone and placed under the authority of the Con Cuong Forestry Company<sup>68</sup> (Castella et al. 2012), so this forest area has been under SFE management since 2000. Different users currently manage Luc Da's forest land: the Pu Mat National Park manages the commune's 3330.8 ha of special-use forest; the protected forest area is managed by the Con Cuong protection forest management board (PFMB) (which reports having co-management agreements with villagers on approximately 400 ha in the Yen Khe commune); and the 2932.6 ha of production forest areas are managed by individual households. The people of Trung Chinh village contested the Con Cuong Forestry Company's right to the 400 ha, despite the offer of co-management, claiming that the land was unjustly taken from them (NA #44). This led to a conflict between villagers and the company and Pu Mat National Park and it was claimed at the time of the study that a solution was still being sought from the higher government.

#### Case study 5: The Tan Hong Paper Company's afforestation in Luc Da

In 2010, the Tan Hong paper processing company in the town of Con Cuong invested in planting acacia trees in Luc Da Commune. Tan Hong invested about VND 1.6 million in seedlings and fertilizers, which it provided to local households for them to plant acacia. This company had acacia plantation contracts with local households and invested in seedlings and fertilizers for 40 ha of forest land in the commune (NA #44 and NA #45). In order to begin its activities and locate in the district, the private Tan Hong Paper Company had to submit its proposal to the Nghe An People's Committee for approval.

The company made contracts with local households to plant acacia and the company leader facilitated the contracts by holding meetings with local people along with representatives of the commune government. In terms of benefits, the households would plant and maintain acacia in their forest land and then after five to seven years, when the trees were mature enough to harvest, the company would buy their products at a fixed price (NA #44).

However, the company closed, went bankrupt and stopped investing in acacia plantation, although local farmers continued to plant acacia without any investment from the company. Despite the company's bankruptcy, the local farmers did not sell their acacia to anyone else because they believed it would come back to buy the trees, as the contract says they have to sell to that company. Thus, although their acacia trees have now reached maturity, they are afraid they will be penalized by the company even though they have heard about its closure (NA #44).

The VIE028 Project helped local people to plant rattan. Mr. Thuat (NA #2), a smallholder supported by the project, planted rattan in a high area, but overall the pilot did not work well as the rattan failed to grow as expected.

<sup>67</sup> Con Cuong People's Committee 2014. Report on Social-Economic Development of Con Cuong 2014.

<sup>68</sup> The company employs a total staff of 89 people. It was originally established as a state forest enterprise in 1955 to exploit timber, but was reestablished as a limited liability company in July 2010 and belongs to the Nghe An Provincial People's Committee (PPC).

Smallholders in Luc Da have also invested in acacia plantations, as identified in two cases. The first involved one household that bought land from other households in order to plant mainly acacia, as well as other tree species (NA #2 and #9). They currently manage a total land area of 30 ha, part of which was bought from seven neighboring households in the commune. The landowner says he has been buying land from other households in the village since 2002, when the price was VND 5 million/ha (the equivalent of USD 250/ha). They have invested an estimated VND 250 million to buy land from other households, as well as seedlings and fertilizer for the acacia plantations. The acacia is currently in its fourth year after planting. This small business enterprise buys land and hires laborers to plant the trees. The second case in the commune applies a different business model and form of investment. The business owner (NA #35) provides acacia seedlings and fertilizers to households that have land to plant the trees. He has invested about VND 200 million (the equivalent of USD 10,000) in 16 households in the commune, covering an area of 30 ha. The acacia is currently five years old and ready to be harvested. However, according to the managing smallholder, the price of acacia is very low and so local people have delayed harvesting in the hope of achieving a higher price in the future.

#### B1.2 An overview of Chi Khe Commune

Chi Khe is a mountainous commune in Con Cuong District. Like Luc Da, Chi Khe is relatively easy to access, as it is located along the highway to the Lao People's Democratic Republic. The commune currently has a total land area of 7384.6 ha, of which forest land accounts for an estimated 63.8%. In 2012, it had an estimated population of 6187 in 1510 households and 13 villages. Most of the commune's population belongs to the Thai ethnic group (75%), followed by the Kinh people (20%), and other ethnic groups such as the Kho Mu and Tho.<sup>69</sup>

Before 2000, shifting cultivation was commonly practiced in the commune. Following FLA in 2000 and the ban on slash and burn activities, local people have cultivated land allocated to them and areas previously used for shifting cultivation have (arguably) been converted to secondary forests and production forests (NA #7). The FLA process officially began in 1999 and continued for several years, as it took a long time to implement (NA #46). After FLA, each household received an area of production forest. The FLA process divided the forest land based on geographic characteristics. Initially, households were also supported in terms of receiving forest land based on the land-use legacy. However, if the household owned a large forest area, part of that land was transferred to other households (NA #46). As a result of FLA in the commune, each household should have its own forest and not violate the forest corresponding to other households.

Between 2010 and 2013, the paddy rice cultivation area grew from 98.56 ha to 160.8 ha, by a 62.24 hectare increase (Chi Khe Commune People's Committee 2014). The change was based on communal land-use plans to convert annual crop areas and long-term plantation crop lands to expand paddy rice cultivation areas. The area of forest land therefore decreased, but only by a very small amount, i.e. 28.7 ha. The lack of production land has also led people to search for other work (NA #7). Many younger commune members are said to emigrate to find work and send remittances home (NA #7 and #49).

Like Luc Da, Chi Khe borders the Pu Mat National Park and most of the forest area is located in the park's buffer zone. According to a report from the Chi Khe Commune People's Committee in 2014, the total forest-land area was 4794.4 ha, with a protected area of 2329 ha. Plantation forest activities mainly include acacia plantations, although key informant interviews state that cassava provides a higher income. Other activities include collecting bamboo shoots and honey, but these activities are currently limited by forest degradation caused by shifting cultivation and other plantation activities as there is little or no natural forest (NA #7).

<sup>69</sup> Source: Chi Khe Commune Peoples Committee, 2014.

#### Case study 6: Hydropower plant development in Chi Khe

An estimated 500 ha of Chi Khe Commune lie within the Ca River's water catchment area. In 2009, the Nghe Tinh Energy Company received permission to build a hydropower plant in the area. Chan Nan and Lam Khe are the two villages inside the area affected by the HPP, which covers a total of 34 ha (including the reservoir). As a result, 23 households in Chan Nan and 13 in Lam Khe have received compensation (see Figure A-4). The Nghe An DARD approved the land-use change, which was then given final approval by the Nghe An PPC. The total land area affected by the HPP was said to be more than 34 ha (NA #49), causing the loss of a certain area of forest.

After the DONRE's monitoring and approval of the HPP construction and environmental impact plans, the HPP informed the affected local people of the development plans. A meeting was organized in the commune to inform inhabitants about the plan and the district then formed a compensation committee and promulgated decisions on land return. The members of the committee included a representative of the DPC; officers from various departments; the commune chairman; and the village head, the village secretary and cadastral officers from each village (NA #8). The HPP representatives also met three times with local people to discuss the plans to build the plant. All meetings were organized in the village leader's house (NA #8 and #31). It was the choice of each individual household whether to accept the offer from the HPP. The study found one household in the Chan Nan village that considered the compensation to be too small and therefore rejected the offer, so the HPP plant did not take the land (NA #31).

It was perceived that all the households that agreed to the HPP initiative have received compensation for their land. However, the land used for the HPP reservoir has not yet been compensated. Figure 4 illustrates the compensation offered in 2012 for land, houses, trees and the relocation of the Chan Nan and Lam Khe villages. The compensation the local people received for forest land was three times the price originally offered by the PPC (VND 12,000/m² compared to VND 4,000/m²) (NA #49).

However, opinions vary among smallholders in terms of their satisfaction with the compensation. For example, one smallholder (NA #51) in the Chan Nan village said he was originally satisfied with the compensation, but now worries about the future as his children will grow up without any land to cultivate. Another issue is that the compensation process has been implemented differently, affecting the land prices offered. Delays in compensation payments meant that the land prices increased (NA #31). For example, compensation was originally offered at around VND 2,800/m², but some people later disagreed with this as they wanted to sell at a higher price, meaning that the HHP would have to pay VND 8,400/m².

#### **B2** Tuong Duong District

Tuong Duong District is in Nghe An's western mountainous region and covers 280,743.6 ha.<sup>71</sup> The total population was estimated at 75,993 in 2014, corresponding to the following ethnic groups: Thai (54,815 people), Kho Mu (8979), Kinh (7803), Hmong (3083), O Du (604) and Tay Poong (549), as well as some other smaller ethnic groups. The district's population is distributed across 17 communes and one town.<sup>72</sup> Because Tuong Duong is one of Nghe An's poorer districts, a number of projects and programs supported by NGOs and the Vietnamese government have been implemented there over the last 10 years.

The total compensation for land, trees and housing in Chi Khe was VND 9.2 billion (the equivalent of USD 462,000).

<sup>71</sup> Before 1945, Tuong Duong District included the Ky Son and Con Cuong districts. Con Cuong was separated from Tuong Duong in 1945 Ky Son was separated in 1961.

<sup>72</sup> Source: Tuong Duong DPC 2014.

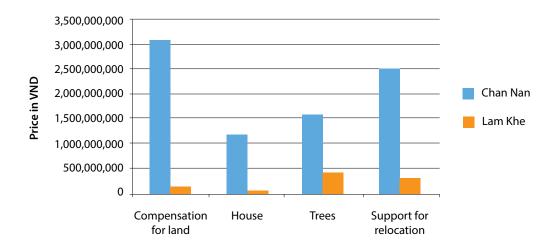


Figure A-4. Compensation for land by the HPP in the Chan Nan and Lam Khe villages in 2012.

Source: Chi Khe People's Committee 2012

Like the other districts in Nghe An, Tuong Duong has high forest cover and is located near the Pu Mat and Pu Huong National Parks. Forest land covers a total of 280,744 ha, of which about 37% (108,204 ha) are protected forest areas and 16% special-use forest areas, while production forests account for 47% (103,351 ha). Forest management owners in Tuong Duong include seven stakeholders, one of which is the PFMB, which manages 89,706 ha of forest land (mostly protected forest areas). The Pu Huong and Pu Mat national parks manage 15,257 ha and 24,032 ha of forest land, respectively, while households and communes occupy more than 118,000 ha of production forest areas in the district (Tuong Duong DARD 2014).

The Ban Ve and Khe Bo hydropower plants are both significant projects that contributed to the district's development. The Khe Bo HPP was built in 2011 and led to the conversion of 451.4 ha of production forest areas, while about 4.95 ha of protected forests were cleared to install the electricity line. Meanwhile, 101.6 ha of production forest land and 24 ha of protected forests were cleared for road construction for the Ban Ve hydropower plant in 2004 (Tuong Duong DARD 2013).

#### **B2.1** An overview of Thach Giam Commune

Thach Giam Commune was established in the middle of 19th century and has a total area of 8794 ha. In 2013, it was estimated to have a population of 4334 people in 1131 households. According to respondents, in 1955 the forest was of good quality, being dense with large trees visible near their homes and a high level of biodiversity (NA # 21). The local population claimed that there has been increased immigration since then. For example, there were initially about five households of Thai people in the Me village, which were followed by another 15 households that migrated from other communes (NA #23). The Thai and Hmong people largely practiced shifting cultivation for subsistence, but in 1994 local people in the commune were prohibited from continuing practicing slash and burn in the forest as the result of a province-wide ban. Despite this, local people continued the practice until 2005 due to both weak enforcement and a lack of food. About 1650 ha of upland fields were managed for shifting cultivation in the commune in order to plant upland rice and maize, a practice that can still be observed in the Khe Chi, Me and Mac villages. More recently, however, it has been claimed that local people are cultivating in fixed areas (NA #19). In 2013, agricultural land covered 4549 ha, non-agricultural land 371 ha and unused land 3875 ha.

<sup>73</sup> Source: Thach Giam CPC, 2013.

From 1994 to 1998 (NA #27), the Thac Giam area suffered high levels of natural forest loss. Logging activities were abundant, with valuable wood such as *Cinamomum balancae* and *Michelia mediocris* being sought for exploitation. Thach Giam has only two types of forests: protection forests and production forests, with the latter occupying 3154 ha and the former 1,040 ha. FLA was implemented in the commune in 1998, but was only completed in 2006. Production forests are common partly due to the commune's location along the main road (Highway No.7). Its good accessibility has allowed plantation forests to develop further in recent years. This is also argued to have heightened forest degradation in the commune, because of improved access and the ease with which timber can be transported<sup>74</sup> (NA #18).

#### Case study 7: Government afforestation program in Thach Giam

Thach Giam has been a target for numerous reforestation activities, especially during the period of 2010-2011. The afforestation program in the commune is the result of different projects such as Program 147, the JICA project and the state forest enterprise (NA #18). Program 147<sup>75</sup> supported local people planting acacia in an area of 67 ha. The government afforestation program is implemented following the policy guidelines and promotes the involvement of multi-stakeholders under the responsibility of the DARD. This program supported aspects related to seedlings and technical elements for the planting of acacia and melia trees, in addition to which local people could receive 15 kg of rice/household/month. However, eligibility for participation is determined by secure land ownership (the bare land only) and only households with bare land areas larger than 0.5 ha qualified (NA #18 and #40). Hence, only five households in Thach Giam were found to be eligible under this criterion. The forest design, including measurements, terrain review and record preparation, is done by the forest ranger together with the communal forestry unit (NA #18).

There was previously an acacia plantation project, but local people did not plant it due to a drop in acacia prices, while melia trees were more profitable (NA #18). It was claimed each household could earn VND 10,000–20,000 or more from melia plantations. In 2013, around 30 ha of bare land and forest land in the Mac village were planted with melia trees, with about 800 *Melia azedarach* and acacia seedlings provided by the program that year (NA #27).

The idea was for the commune authorities to promote forest plantation activities that would be taken up by the local people themselves with minimal support. Local households can register to plant acacia, for which they receive partial support for seedlings. However, one smallholder interviewed said he had planted trees in about 3–4 ha, but had not yet received any support from the local government (NA #21). Reforestation efforts in Thach Giam have been implemented since 2008, but the results are not well recognized. The area of plantation forests is perceived to have increased only slightly despite government efforts. These outcomes are attributed to the restrictive eligibility criteria and/or unsuitable environmental and market conditions for the plantation species being promoted.

#### B2.2 An overview of Yen Na Commune

Yen Na Commune is located in the northeast of Tuong Duong District and has a total land area of 14,070 ha. Its population has increased slightly in recent years, from 5603 people in 2010 to 5900 in 2014. Yen Na is the one of the poorest communes in the district, with a poverty rate of 58.2%. It therefore receives government support from programs such as 147, 134, and 135.76 In 2014, an afforestation program aimed to promote the planting of melia and bamboo in production forest areas using the land allocated by Program 163 (NA #29).

The traders do not contract the local people to destroy the forest. The local people do that themselves and then sell the products to the traders (NA #18).

<sup>75</sup> Decision No. 147/2007/QD-TTg on a number of policies for development of production forests in the 2007–2015 period.

<sup>76</sup> Source: Tuong Duong PC, 2014.

From 1955 until 15 years ago, it was claimed that the forest areas were in good condition (NA #21). This changed in 1994–1998, as a large area of natural forest was cleared (NA #27). In 1994, there was a ban on shifting cultivation activities in the forest. According to respondents, shifting cultivation was the main source of income for local households in the commune, mostly practiced by the Thai people, who are the commune's main ethnic group. Logging continued with certain valuable species being targeted. Another significant period for land use was 1997–1999, following FLA. In 2001, the households in the commune received land titles for their forest land and paddy rice area. Before then, when the Red Book had not yet been issued, local people could freely cultivate. However, after FLA, respondents noted that households took care of their own territories (NA#27 and #30).

The second period of land-use change started in 2003 when the Ban Ve Hydropower Plant was built in the commune. Deforestation occurred from the moment HPP construction began (NA #29). An elder in the Ve village said that when the building of the Ban Ve HPP began, forests were lost for the construction of roads and houses for workers (NA #29). In 2004, more than 4400 ha – most of them forest lands – were transferred from Kim Da Commune to Yen Na due to reforms to the administration boundaries (NA #42). Yen Na currently has forest land estimated at 6445 ha, of which protection forest areas occupy 1699 ha and production forest areas 4764 ha (NA #42 and #40).

#### Case study 8: The Ban Ve Hydropower Plant in Yen Na

The Ban Ve HPP was built between 1997 and 2011 in Yen Na Commune, impacting both land cover and people's livelihoods. A total of four HPPs have been built in Tuong Duong, but the Ban Ve Hydropower Plant is the biggest in the district and an important power source for the central region of Vietnam, with a capacity of 320 MW (NA #34). One respondent said the process began with surveying and drilling in 1997, but it was not until 2003 that construction started and until 2011 that it began operating. The HPP was perceived to have affected the commune's land use because a large area of land was required to build the plant and reservoir (NA #29).

The Ban Ve HPP was approved by the Prime Minister because it features in the national energy program. However, the Nghe An PPC had to cooperate with the Tuong Duong DPC to develop the land-use plan for the plant. When the HPP came in, it announced the project policy to the DARD at the Tuong Duong District level. The Tuong Duong DARD also received the HPP planning documents from the provincial level (NA #34). Then the DONRE and DARD worked with the district level and cooperated with the commune staff to identify suitable areas for the HPP's development (an assessment that did not include the participation of the local people). The officers followed procedural guidelines and decided where to establish the HPP's boundaries.

Negotiations between villagers and the HPP only took place further down the line once the location had been decided. The households could agree to receive compensation from the HPP in exchange for their lands, based on the number of household members in the family and the area of land involved. Households could choose if they wanted to participate and which of the following compensation options they preferred: 1) relocation and the provision of new land and housing; or 2) a lump sum payment. However, there seem to be issues with both compensation options.

The first issue is the lack of clarity over the land ownership of participating households, which has created a loophole allowing the HPP not to provide the agreed-upon compensation. According to policies, households with the Red Book certificate are eligible to receive the compensation, but 48 households in the Ve village have not yet received compensation as the certificates were never issued (NA #29 and #41). Some households in the commune have now lost all of their land to the HPP and consequently do not have any left to cultivate. It was said that relocated households could resettle immediately, while those that relocated themselves after choosing the lump sum had more difficulty finding land and building their houses (NA #29).

Yet for those who chose to be relocated by the HPP to the Kho resettlement found themselves in a high-risk landslide area. The HPP project built the residential resettlement area for the people from two villages of Yen Na Commune. In 2004, it planned to move some commune households to the resettlement area and about 128 were taken: 82 to Khe Chong and 46 to Khe O. However, in 2010 a number of households were forced to leave the relocation area due a large landslide and the continued high risk of further landslides. Since the landslide, the authorities' reaction has been slow and left many people unsatisfied. As a result, 48 households from the commune (in Ve) do not have any land for production (NA #23, #29, #30 and #41). These 48 households had negotiated with the HPP to receive a house, but once houses in the relocation site had been destroyed by the landslide in 2011, they returned to their original village area. New homes were found for people whose houses had been directly destroyed by the landslide, but other households in the landslide area were not offered new homes or relocation to a safer area. A Yen Na commune officer said that he did not know the reason for the inaction and that he had raised the issues many times with the provincial government (NA #23 and #42). It was also noted that the complaint had been made and it was argued that the commune lacked the budget to reallocate the land, as all the land had been allocated to individual households.

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Who makes land-use decisions, how are those decisions made, and who influences whom, how and why? This working paper is part of a series based on research studying multilevel decision-making institutions and processes. The series is aimed at providing insight into why efforts to keep forests standing, such as initiatives like Reducing Emissions from Deforestation and Forest Degradation (REDD+), are still so far from altering development trajectories. It underlines the importance of understanding the politics of multilevel governance in forest, land and climate policy and practice, and identifies potential ways forward, while highlighting the role of conservation and sustainable management of forests for the enhancement of forest carbon stocks in developing countries.



This research was carried out by CIFOR as part of the CGIAR Research Program on Forests, Trees and Agroforestry (FTA). This collaborative program aims to enhance the management and use of forests, agroforestry and tree genetic resources across the landscape from forests to farms. CIFOR leads FTA in partnership with Bioversity International, CATIE, CIRAD, the International Center for Tropical Agriculture and the World Agroforestry Centre.

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