The context of REDD+ in Vietnam

Drivers, agents and institutions

2nd edition

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CIFOR

CGIAR RESEARCH PROGRAM ON
Forests, Trees and
Agroforestry

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Photo by Terry Sunderland/CIFOR
Villages in Vietnam.

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Abbreviations

5MHRP	5 Million Hectare Reforestation Program
AANZFTA	ASEAN–Australia–New Zealand Free Trade Area
AFTA	AEAN Free Trade Area
ACFTA	ASEAN–China Free Trade Area
ASEAN	Association of Southeast Asian Nations
BAU	Business As Usual
CDM	Clean Development Mechanism
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CPC	Commune People's Committee
CSO	Civil Social Organization
EAEU	Eurasian Economic Union
EIA	Environmental Impact Assessment
EU	European Union
FA/FLA	Forest Allocation/Forest Land Allocation Program
FCPF	Forest Carbon Partnership Facility
FDI	Foreign Direct Investment
FLEGT	Forest Law Enforcement, Governance and Trade
FMB	Forest Management Board
FORMIS	Development of Management Information System for Forestry Sector
FPD	Binh Dinh Forest Protection Department
FPDP	Forest Protection and Development Plan
FPIC	Free, Prior and Informed Consent
FREL/FRL	Forest Reference Level
FSC	Forest Stewardship Council
FTA	Free Trade Agreement
GCF	Green Climate Fund
GCS	Global Comparative Study
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GSO	General Statistics Office
HAWA	Handicraft and Wood Industry Association of Ho Chi Minh City
INDC	Intended Nationally Determined Contribution
LULUCF	Land Use, Land Use Change and Forestry
LURC	Land Use Rights Certificate
MARD	Ministry of Agriculture and Rural Development

MONRE	Ministry of Nature Resource and Environment
MPI	Ministry of Planning and Investment
MRV	Measurement, Reporting and Verification
NDC	Nationally Determined Contributions
NGO	Non-government Organization
NRAP	National REDD+ Action Plan
NRIP	National REDD+ Implementation Plan
NRSC	National REDD+ Steering Committee
NTFP	Non-timber Forest Product
NTP-RCC	National Target Program to Respond to Climate Change
ODA	Official Development Assistance
PAM	Policies and Measures
PES	Payments for Environmental Services
PFES	Payment for Forest Environmental Service
PLR	Policies, Laws and Regulations
PRAP	Provincial REDD+ Action Plan
RBP	Result Based Payment
REDD+	Reduced Emissions from Deforestation and Degradation
SIS	Safeguard Information System
SOE	State Owned Enterprise
SOI	Summary of Information
TPP	Trans-Pacific Strategic Economic Partnership
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNREDD	United Nation – Reduced Emissions from Deforestation and Degradation
USD	US Dollar
VAT	Value Added Tax
VICOFA	Vietnam Coffee and Cocoa Association
VIFORES	Vietnam Timber and Forest Product Association
VND	Vietnam Dong
VNFF	Vietnam Forest Protection and Development Fund
VNFOREST	Vietnam Administration of Forestry
VNTLAS	Viet Nam Timber Legality Assurance System
VPA	Voluntary Partnership Agreements
VRO	Vietnam REDD+ Office
WTO	World Trade Organization

Acknowledgments

Executive summary

Vietnam is acknowledged to be REDD+ pioneer country, having adopted REDD+ in 2009. The National REDD+ Action Plan (NRAP) was the first to be approved, in 2012. Since then, the contextual and institutional settings for REDD+ policies have been refined. This paper is an updated version of Vietnam's REDD+ Country Profile, which was first published by CIFOR in 2012 (Pham et al. 2012). It analyzed (i) drivers of deforestation and degradation; (ii) forest governance; (iii) macro policies and the political economy of deforestation and degradation; (iv) climate change and REDD+ policies; and (v) implications of REDD+ outcomes in terms of effectiveness, efficiency and equity. In this second version, the authors have verified and updated the 2012 findings on REDD+ policies and progress in Vietnam. We have captured changes between 2012 and 2017 based on a review of secondary data and interviews with stakeholders who have engaged in REDD+ policy development and implementation in Vietnam.

Drivers of deforestation and degradation. Our findings show that forest cover has increased since 2012, but enhancing, or even maintaining, forest quality remains a challenge. Drivers of deforestation and degradation in Vietnam, including legal and illegal logging, conversion of forest for national development goals (e.g. hydropower and infrastructure development), commercial agriculture, weak law enforcement and weak governance, have persisted since 2012 up to 2017. However, with a strong political commitment, the government has made significant progress in addressing major drivers, such as the expansion of hydropower plants and rubber plantations. Other drivers have been recognized by the government in the revised National REDD+ Program 2017, along with policies and measures (PAMs) to address them. However, the effectiveness of these PAMs depends on funding resources and cross-sectoral coordination to address drivers that are mostly driven by sectors outside of the forestry sector.

Forest governance. In the period 2012–2017, Vietnam witnessed major policy change in the forestry sector; for example, the new Forestry and Land Law. Since 2012, Vietnam has also signed important international treaties and agreements on trade, such as Voluntary Partnership Agreements (VPAs) through the European Union's (EU) Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan and the Free Trade Agreement. These new policies have enhanced the role of the forestry sector within the overall national economy and provided a strong legal framework and incentives for forest-user groups and government agencies to take part in forest protection and development. At the same time, new market rules and international trade patterns also pose significant challenges for Vietnam, where the domestic forestry sector is characterized by state-owned companies and a large number of domestic firms that struggle to comply with these new rules. Moreover, there is still a gap between policy and practice, as well as weak law enforcement remaining a major problem. Evidence also shows increasing efforts of government and international communities to ground forestry policies in a participatory decision-making processes. Policy documents have fully recognized the need to give civil society organizations (CSOs) and ethnic groups political space and include them in decision making. Yet, participation remains token. Government provision for tenure security and carbon rights for local households are still being developed, with little progress since 2012.

Political economy of deforestation and degradation. As in many other countries, addressing drivers of deforestation and degradation is a great challenge in Vietnam because they do not always align with national development goals. Despite a strong political commitment from the government to ban natural logging, along with the Communist Party's emphasis on how economic development should not come at the expense of the environment, national gross domestic product (GDP) is mainly

generated from exported agricultural commodities and furniture. This makes it difficult to transform political commitment into reality.

Climate change and REDD+ policies and progress. Vietnam has approved a national climate change strategy, as well as other sectoral climate change adaptation policies, since 2012. The national REDD+ strategy and REDD+ institutional setting has been refined and revised over time. The year 2017 marks a more comprehensive program, NRAP, that aims to directly tackle the drivers of deforestation and degradation, which were not well defined in the previous version of the NRAP. However, uncertain and complex international requirements on REDD+ and limited funding have weakened the government's interest in and political commitment to REDD+. REDD+ policies in Vietnam have shown significant progress in terms of its monitoring, reporting and verification (MRV) systems, forest reference emission levels (FREL), and performance-based and benefit-sharing mechanisms by taking into account lessons learnt from its national Payment for Forest Environmental Services (PFES) Scheme. Nevertheless, safeguarding mechanisms and consultation processes require further support to meet the requirements and expectations of both international and national stakeholders. Funding sources for REDD+ in Vietnam are expected to move from bilateral and international assistance to the Green Climate Fund.

3Es (effectiveness, efficiency, equity) outcomes of REDD+. The effectiveness of REDD+ policies in addressing drivers of deforestation and degradation has not be proven, even though the revised NRAP has recently been approved. However, the fact that drivers of deforestation and degradation are outside of the forestry sector and have a strong link to national economic development goals points to an uneasy pathway for REDD+. The business case for REDD+ in Vietnam has not been proven, due to an uncertain carbon market, increasing requirements from donors and developed countries, and high transaction and implementation costs. The progress on developing safeguarding policies in Vietnam between 2012 and 2017 affirms the government's interest in pursuing an equitable REDD+ implementation. However, equitable REDD+ policies also require a contextual, procedural and distributive setting, as well as a more inclusive decision-making process. These are not fully in place in Vietnam. Current efforts toward 3E outcomes of REDD+ could be enhanced by stronger political commitment to addressing the drivers of deforestation from all sectors, broader changes in policy framework that create both incentives and disincentives for avoiding deforestation and degradation, cross-sectoral collaboration, and committed funding from both the government and developed countries.

Introduction

For participating countries, many questions remain on how to effectively, efficiently and equitably formulate and implement REDD+. Drivers of deforestation and degradation are often highly complex, and can form part of dense networks of economic and political interests. Reducing emissions by preventing forest degradation and deforestation can be seen as a controversial approach in the context of national development paradigms and existing policy frameworks and objectives. What are the political implications of a REDD+ mechanism? How could it be implemented successfully at ground level? Understanding the complex relationships between drivers, agents and institutions within the national context is vital to ensuring effective implementation of REDD+.

The CIFOR's project Global Comparative Study (GCS) on REDD+, together with its country partners, is compiling profiles of 14 countries to better understand the socio-economic context in which REDD+ policies and processes emerge. The country profiles provide contextual analysis on conditions that affect the REDD+ policy environment in each country. They are based on reviews of existing literature, national and international data, legal reviews and selected expert interviews.

The country profiles examine five areas:
• drivers of deforestation
• institutional environment and revenue distribution mechanisms
• political economy of deforestation and forest degradation
• political environment of REDD+ (actors, events and processes)
• implications of each country's current REDD+ design for effectiveness, efficiency and equity.

The aim of the country profiles is to inform decision makers, practitioners and donors of the opportunities and challenges of implementing a REDD+ mechanism, and to support evidence-based REDD+ decision-making processes.

Vietnam is pioneering REDD+ country. It already has a REDD+ institutional setting in place, consisting of the State Steering Committee for the Target Program on Sustainable Forest Development and REDD+ Implementation, national REDD+ network and REDD+ sub-technical working groups. In 2012, Decision 799 approved the National REDD+ Action Plan; this was recently revised through Decision 419/QD-TTg issued on 5 April 2017.

In 2012, CIFOR first published its Vietnam REDD+ Country Profile (Pham et al. 2012), which documented and analyzed the context, actors and institutional setting for REDD+ in Vietnam from 2008 to 2012. However, since 2012, both the international and national REDD+ policy arenas have changed rapidly. This has greatly influenced and reshaped the implementation of REDD+ in Vietnam. Understanding these changes, as well as the underlying factors that led to them, is therefore important in the future implementation of REDD+. This second edition of the REDD+ Country Profile aims to capture the changes since 2012 and discusses the outcomes of REDD+ in terms of their effectiveness, efficiency and equitability. This edition follows the guidelines set out in CIFOR's GCS developed by Brockhaus et al. (2012). As this is the second edition, the authors will not repeat the findings published in first edition, but only highlight changes since our first report in 2012 and explain these changes and their implications for REDD+ outcomes.

Methods

A wide range of methods was used to update the 2012 Country Profile.

Legal review: Government policies related to REDD+, the overall forestry sector and macro policies introduced since 2012 were reviewed to capture changes over time (if any) in the REDD+ institutional setting in Vietnam.

Literature review: Reports from a range of sources, including government agencies, donors, international agencies, non-governmental organizations (NGOs), civil society organizations (CSOs), media and international journals, were analyzed to identify the progress, challenges and opportunities for REDD+ implementation in Vietnam since 2012.

In-depth interviews: Fifteen in-depth interviews were conducted with representatives of government agencies, donors, international and national NGOs, research institutes and CSOs in July and August 2017. The aim was to explore stakeholders' perceptions and experiences in relation to REDD+ progress, opportunities and constraints influencing REDD+ operation in Vietnam since 2012.

A consultation workshop: Twenty-four leading organizations working on REDD+ in Vietnam participated in a workshop in Hanoi. The aim of the workshop was to obtain feedback from stakeholders on the findings of this study.

1 Analysis of the drivers of deforestation and degradation in Vietnam

1.1 Forest cover and historical overview of forest-cover change

The total forest area of Vietnam increased gradually from 13,118,800 ha in 2008 to 14,415,381 ha in 2017 (Table 1). In 2017, 71% of forest area in Vietnam was natural forest and the rest was plantation. While the natural forest area of Vietnam has declined over time (Table 1), the plantation area has increased. Vietnam is thus one of the very few developing tropical countries that went through a forest transition, shifting from declining to expanding forests at a national scale (Matthews et al. 2014). Although the 5-Million-Hectare Reforestation Program (5MHRP), a national reforestation program began in 1998, ended in 2010, the National Forest Protection and Development Plan and other policies (see Chapters 2 and 4) have helped Vietnam to achieve net reforestation over the last 5 years. The majority of this impressive growth is the result of the expansion of large-scale timber plantations, which accounts for a quarter of all forest cover (FAO 2015). However, as Pham (2017) highlighted, despite the large area of forest plantation, forests that are certified by the Forest Stewardship Council (FSC) are still limited. By 2016, only 220,000 ha of plantation forests were certified, equivalent to 5.3% of the total planted area.

Figure 1 shows the forest cover of Vietnam from 1943 to 2017. Since our last Country Profile in 2012, the forest cover has increased from 40.10% to 41.45%. However, the quality of natural forests continues to decrease, through fragmentation and degradation. (UNREDD 2013). The natural forest area categorized as rich forest decreased by 10.2% in a period of 6 years from 1999 to 2005, and the amount of medium quality forest declined by 13.4% over the same period (Nguyen and Dang 2013). By 2012, rich, closed-canopy forests constituted only 4.6% of the total forest cover. Indeed, the biodiverse lowland forests, have mostly disappeared, particularly mangroves (UNREDD 2013). Forest-cover change, however, varied widely among regions due to specific socio-economic and environmental factors.

Table 1. Forest area of Vietnam by forest type (ha)

Year	Total forest area (1000 ha)	Natural forest area (1000 ha)	Plantation forest area (1000 ha)	New plantation forest area (1000 ha)
2008	13,118.8	10,348.6	2,770.2	342.7
2009	13,258.7	10,338.9	2,919.8	No data
2010	13,388.1	10,304.8	3,083.3	357.1
2011	13,515.1	10,285.4	3,229.7	377.0
2012	13,862.0	10,423.8	3,438.2	398.4
2013	13,954.4	10,398.1	3,556.3	396.0
2014	13,796.5	10,100.2	3,696.3	414.1
2015	14,0618	10,175.5	3,886.3	540.9
2016	14,377.6	10,242.1	4,135.5	No data
2017*	14,415.4	10,236.4	4,179.0	No data

Source: GSO (2017a); *MARD (2018a)
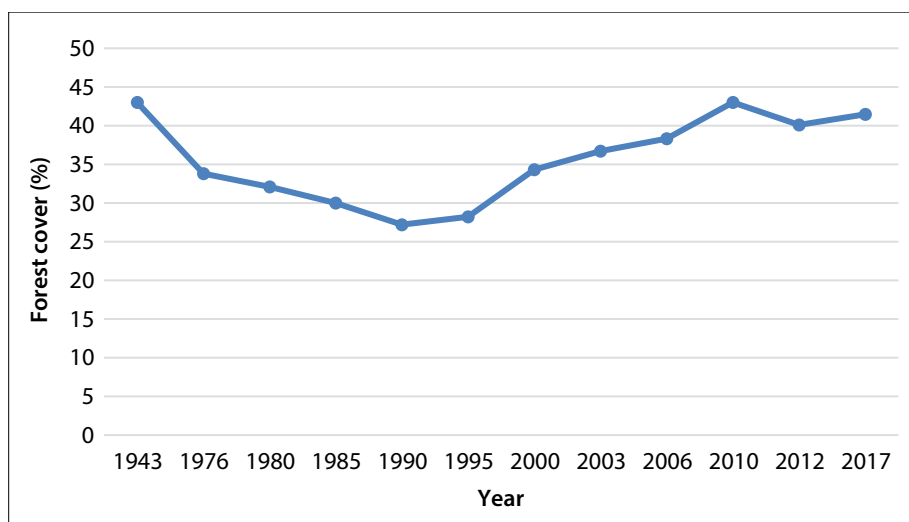
Figure 1. Forest cover of Vietnam from 1943 to 2017

Source: Bach Thanh (2017)

Natural forest regrowth was highest in the northern mountain provinces, especially over the period 1993–2003, while deforestation continued in the Central Highlands and Southeast Region. Forest plantations increased most in mid-elevation provinces. This is because the government gave significant support to reforesting bare land in the north, while the timber industry mainly harvested from the Central Highlands and Southeast Region, where forests were still rich. Natural forests increased in areas designated as national parks and protected areas, while natural forest outside these areas tended to decrease or stagnate (Cochard et al. 2016). Natural forest regeneration is difficult due to the isolation of the remaining rich natural forest patches. Therefore, the carbon stock enhancement in Vietnam is mainly due to forest plantations and regeneration of secondary forests programs, (UNREDD 2013). Yet, between 2010 and 2017, the forest area reserved for biodiversity conservation or special-use forests has increased, while protected forest decreased in 2016 (Pham 2017).

Between 2005 and 2017, the forest area managed by state forest enterprises was reduced by more than 1.2 million hectares in line with government strategies to reduce ineffective state-owned enterprises (SOEs) and allow more forest land for communities and households to leverage social support in forest protection and development (Table 2). While the forest area managed by communities in 2017 has doubled since 2005, the total area managed by communities and households is still far from the original plan in which the government wants to transfer areas managed by ineffective state-owned companies to households and communities. A large area of forest taken from state-owned forest enterprises has not been transferred to communities (Do 2015).

According to Do (2015), a large area of remaining forests is not yet allocated to any entity but currently managed by Commune People's Committees.

1.2 Review of the main drivers of forest-cover change

1.2.1 Direct drivers

In 2012, our first Country Profile (Pham et al. 2012) identified four main direct causes of deforestation in Vietnam: (i) conversion to agriculture (particularly to industrial perennial crops); (ii) infrastructure development; (iii) unsustainable logging (notably illegal logging); and (iv) forest fires. Most researchers from 2012 to 2017 reported similar findings and observed no positive changes in the occurrence and impacts of these drivers. For example, Vu et al. (2014), Do (2015) and Yang et al. (2016) found that logging (both legal and illegal), forest-land conversion for infrastructure development, including hydropower plants and aquaculture development, and commercial crops are still the major causes of forest loss in Vietnam.

Table 2. Forest area between 2005 and 2017

Forest categories	2005	2016	2017
Total forested area	12,616,700	14,377,682	14,415,381
I. By origin			
Natural	10,283,173	10,242,141	10,236,415
Planted	2,333,526	4,135,541	4,178,966
II. By function			
Special use	1,929,304	2,137,332	2,141,324
Protection	6,199,682	4,537,852	4,567,106
Production	4,487,714	6,672,056	6,765,936
Other	N/A	1,030,442	941,015

Source: MARD (2005, 2017 and 2018a)

Table 3. Land-use change in Vietnam, 2012–2017 (1000 ha)

Type	2012	2013	2014	2015	2016	2017*
Agricultural land	26,371.5	26,822.9	27,281	27,302.2	27,284.9	26,898.14
Agricultural production land	10,210.8	10,231.7	11,505.4	11,530.1	11,526.8	11,506.8
Paddy land	4,097.1	4,078.6	4,146.3	4,143.1	4,136.2	3,918.13
Forestry land	15,405.8	15,845.2	14,927.5	14,923.5	14,377.6	14,415.3
Aquaculture land	710	707.9	798.5	797.7	797.3	756.57

Source: GSO (2017a); GSO (2016)

Land conversion for agriculture

Agriculture is the main source of emissions and is responsible for as much as 38.5% of greenhouse gas emissions, half of which come from rice cultivation.

Between 2012 and 2017, the forest area slightly declined, mainly due to conversion of forest land to permanent trees (fruit trees) and infrastructure construction (roads) (Table 3). However, with Decision 419/QD-TTg dated 5 April 2017, the Prime Minister commanded the Ministry of Natural Resources and Environment (MONRE) to continue its review and adjust the land-use master plan and land-use plans to ensure the target of 16.24 million hectares of forest land was achieved by 2020.

Logging

Vietnam is increasing timber imports to meet domestic demand and export goals. The gross output of wood of Vietnam has slowly increased since 2003 (Figure 2).

Legal logging: Data from Vietnamnews.vn (2016b) shows that about 300,000 ha of natural forest was harvested during 2010–2014. However, logging in natural forests is mainly selective cutting. According to Bui Chinh Nghia (2018), only 18,000 m³ timber were harvested from plantation forest in 2017.

Figure 3 shows the gross output of wood by economic activity category from 2012 to 2016. The total gross output of wood increased from 5,251,000 m³ in 2012 up to 10,267,600 m³ in 2016. The highest proportion of timber is produced by non-state enterprises and other stakeholders, followed by state enterprises and then the foreign-investment sector. Total wood production has tended to increase steadily over time. The highest increase was production by non-state enterprises. In 2016, this production by non-state actors rose to 8,361,200 m³, up 141% on 2012 and 32% on 2015.

Illegal logging: Deforestation processes in the Central Highlands and Southeast Region were mainly driven by cash crop expansion (coffee, rubber) and associated growth of immigration
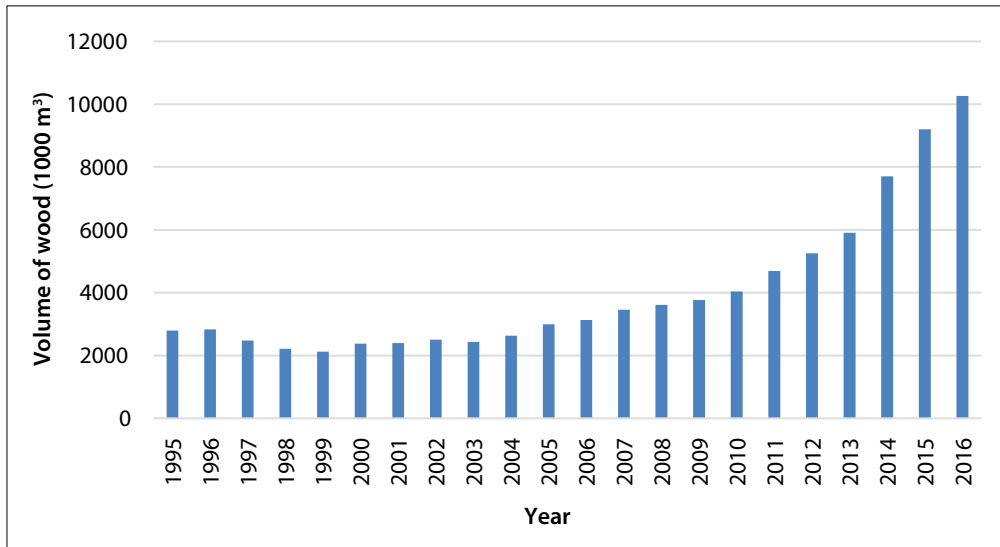
Figure 2. The gross output of wood of Vietnam

Source: GSO 2017b
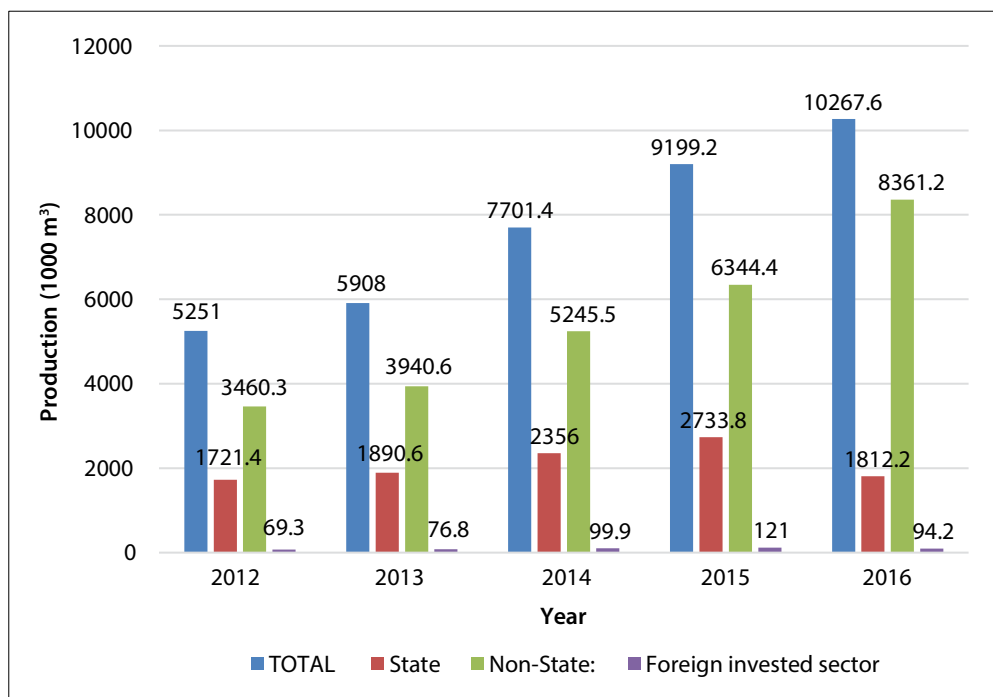
Figure 3. Gross output of wood by economic activity category, 2012–2016

Source: GSO (2017b)

and population. Recent data trends indicated limits to further forest expansion, and logging within high-quality natural forests reportedly remains a widespread problem (Cochard et al. 2016). The Vietnamese government has made some progress in tackling illegal logging and associated trade through agreements with Laos and Cambodia and ratifying voluntary partnership agreements

(VPA). However, there has been little progress in regulating illegal timber imports. After the Decision No.82/2006/NĐ-CP dated August 10, 2006, and Circular No.40/2013/TT-BNNPTNT dated September 5, 2013, the list of wild fauna and flora banned or limited for international trading with special conditions was updated in Circular 04/2017/TT-BNNPTNT, February 24, 2017.

Trade data discrepancies and analysis of trade flows indicate that illegal trade remains a serious problem in Vietnam (Saunders 2014). Although, in 2016, the Prime Minister requested that natural forests be closed, illegal logging is still rampant in the Central Highlands (Vietnamnet.vn 2017). Forest Trends (Sikor and To 2013) also found that despite the government's political commitment to reducing illegal logging and more effectively enforcing the law, illegal logging is still widespread in Vietnam with a range of actors from large-scale and powerful connected networks to small-scale operators carrying out these illegal activities.

Forest fire

In Vietnam, an average of 5,082 ha of forest was burned each year from 2002 to 2010. In general, the area of forest lost fluctuates but follows a downward trend. In 2016, about 3,320.8 ha of forest area was reported to have been lost to fire (Figure 4). Most of the fires occurred in plantation and production forests, where harvesting of non-timber forest products (NTFPs), mainly honey, inadvertently leads to fires. Slash-and-burn practices caused 60.8% of fires, and hunting, honey and wood collecting led to 18% of fires; 5% were caused by accident or negligence, and 11.2% had other causes (MARD 2010; Pham et al. 2012). While the forest area burned between 1995 and 2013 shows a gradual decrease over time, the area slightly increased between 2013 and 2016. According to provincial interviewees, this increase was mainly due to drier seasons and climate, and better data collection, with the application of improved technology that captures fire-damaged areas more clearly and precisely.

1.2.2 Indirect drivers

In 2012, Pham et al. (2012) found that indirect drivers of deforestation and degradation in Vietnam included the growing demand for forest and agricultural products, ineffective management of state forest enterprises, weak governance at local level, and weak land administration. These indirect drivers still operate, as confirmed by authors such as Van Khuc et al. (2018), Do (2015) and Matthews et al. (2014). Do (2015), however, added other indirect drivers, such as lack of recognition for local rights. The centrally managed forest governance system excludes local people from participating in the decision making, denies them access to forest rights and their forest-dependent livelihood (Ngo and Mahdi, 2017). Furthermore, the Government of Vietnam (2017a) highlighted problems of social conflict amongst households within communities, amongst neighboring communities, and weak monitoring and evaluation capacity.

Figure 4. Cleared forest area and burnt areas of Vietnam from 1995 to 2016

Source: GSO (2017b)

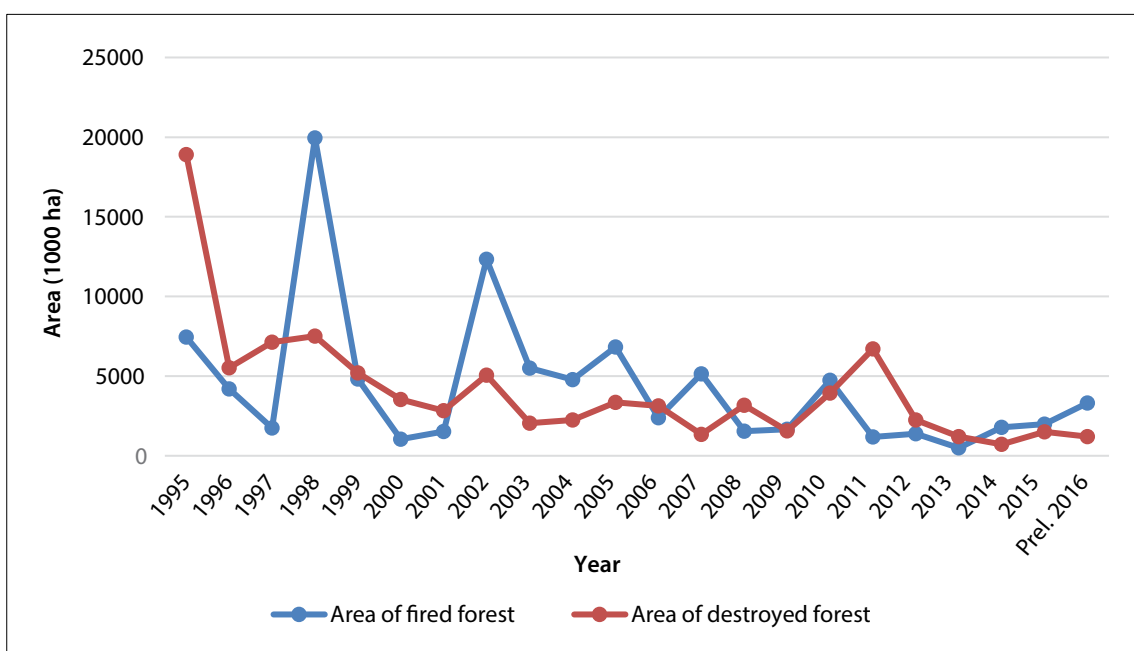In policy discourses, deforestation is often linked to 'poor' and 'ethnic minority' households and their unsustainable practices, such as the expansion of coffee production (and other agricultural activities) into forest areas. However, Trædal and Vedeld (2017) demonstrate no clear linkages between poverty levels and unsustainable practices. In fact, the poorest segments were found to deforest the least. The ways in which current PES and REDD+ approaches are designed do not provide appropriate solutions to address the underlying dimensions of these issues (Trædal and Vedeld 2017).

Furthermore, the changes in the Land Law 2013 have contributed to a lower level of land conversion, as other underlying economic drivers have remained constant. Three distinct trends in the political economy of land conversion in Vietnam have emerged since 2012 (Wells-Dang et al. 2016). First, the revision of the Land Law points toward a re-centralization of authority to rein in inconsistencies and shortcomings in Vietnam's land policies that were widely viewed as risking social stability. A second trend deals with changes in Vietnamese agriculture that place increasing pressure on smallholder farmers. A third external force, with more uncertain effects, is Vietnam's ongoing process of international and regional integration, in particular, its participation in trade and investment agreements. The combination of these trends suggests that the apparent stagnation in compulsory land requisition linked to the passage of the Land Law may be temporary in nature, and consequently land-related disputes are likely to remain a key feature of Vietnamese society for some years to come. The apparent slower pace of land conversion and other real estate transactions, even in a context of rapid economic growth, may thus be temporary as officials and business interests find their way around the law, and may possibly even result from a glut of land from past deals, given a less active market. If the market picks up again, unresolved problems, such as state-determined land prices and mechanisms for compensation and resettlement in cases of compulsory requisition, will again rise to the fore.

1.3 Mitigation potential

Vietnam's greenhouse gas (GHG) emissions are relatively low in the global context, but are increasing rapidly and will likely triple by 2030 if no mitigation options are undertaken. In 2016, Vietnam ratified the Paris Agreement on Climate Change to mark its commitment to reducing global GHG emissions and pursuing adaptation efforts (Box 1). Its Nationally Determined Contribution (NDC) under the Paris Agreement states that the country is working toward an 8% GHG emissions reduction compared to business as usual (BAU) by 2030, with the possibility of surpassing that benchmark to reach 25% with international support. Vietnam's national plan for implementation of its NDC identified 68 primary, cross-sector activities, which include both adaptation and mitigation efforts. In 2016, the government issued Decision No.2053/QD-TTg dated October 28, 2016, on the Plan for Implementation of the Paris Agreement on Climate Change. This decision is based on:

- International Treaty Law No. 108/2016/QH13 dated April 9, 2016
- Resolution No.24-NQ/TW dated June 3, 2013, by the 7th Session of the 11th Central Committee, on active response to climate change, enhancing resource management and environmental protection
- Resolution No.08/NQ-CP in January 23, 2014, by the government, on the program to execute Resolution No. 24-NQ/TW on active responses to climate change, enhancing resource management and environmental protection
- Decision No. 1393/QD-TTg dated September 25, 2012, by the Prime Minister, on approval of the Green Growth Strategy
- Notice No.13/TB -VPCP dated January 1, 2016, by the government, on the concluding remarks of Deputy Prime Minister Hoang Trung Hai on the National Target Program to Respond to Climate Change and Green Growth
- Official Letter No.191/VPCP-QHQT, dated February 1, 2016, on the Prime Minister's participation in Conference of the Parties (COP) 21, and the outcomes of COP21 in France and of visits to the Kingdom of Belgium and EU
- Notice No.69/TB-VPCP by the Government Office Conclusions of Prime Minister Nguyen Xuan Phuc at the 12th meeting of National Committee for Climate Change, dated April 24, 2016.

The National Communications conducted by MONRE explored 18 mitigation options, including 9 options for the energy sector, 6 for forestry sector and 3 for the agricultural sector (Table 4). The mitigation potential from forestry sector is **3,221.6 million tCO$_2$e** accounting for the largest percentage of overall national mitigation potential (Table 5).

Box 1. Five main components of Vietnam's plan for the implementation of the Paris Agreement

1. **Mitigation of GHG emissions**: Voluntary and compulsory mitigation activities in accordance with the requirements of the Paris Agreement to achieve emission mitigation targets listed in the Intended Nationally Determined Contribution (INDC) and to take advantage of the opportunity to develop the economy in a low-carbon direction.

2. **Adaptation to climate change**: Adaptation activities, as committed to in the INDC, to improve community resilience and conserve the livelihoods of citizens.

3. **Implementation resources**: Activities to develop human resources, develop and transfer technologies, and mobilize financial resources to ensure fulfillment of commitments determined in the INDC and to take advantage of opportunities for country development presented by the Paris Agreement.

4. **Transparency system (monitoring, reporting, verification (MRV) system)**: To monitor and supervise the mitigation of GHG emissions, adaptation to climate change and to ensure adequate implementation resources.

5. **Institutions and policies:** To develop and revise legal documents, provide technical guidance; define responsibilities of ministries, sectors and localities, and enhance coordination in handling regional and inter-sectoral issues to ensure good implementation of the Paris Agreement.

Table 4. Contribution to GHG emissions mitigation from 1 January 2021 to 31 December 2030

Type of contribution	GHG emissions reduction compared to the BAU

Coverage	The entire economy, including the following sectors:
	
	1. Energy
	    a. Fuel combustion:
	      – Energy industries
	      – Manufacturing industries and construction
	      – Transport
	      – Others: residential, agriculture and commercial services.
	    b. Fugitive emissions:
	      – Coal mining
	      – Natural gas and oil.
	
	2. Agriculture
	    • Enteric fermentation
	    • Manure management
	    • Rice cultivation
	    • Agriculture soils
	    • Prescribed burning of savannas
	    • Field burning of agricultural residues.
	
	3. Land Use, Land Use Change and Forestry (LULUCF)
	    • Forest land
	    • Cropland
	    • Grassland
	    • Wetlands
	    • Settlements
	    • Other land.
	
	4. Waste
	    • Solid waste landfills
	    • Industrial wastewater
	    • Domestic wastewater
	    • Human waste
	    • Waste incineration.

Table 4. Continued

BAU scenario	Vietnam's BAU scenario for GHG emissions was developed based on the assumption of economic growth in the absence of climate change policies. The BAU is based on 2010 (the latest year of the national GHG inventory) and includes the energy, agriculture, waste and LULUCF sectors.
	GHG emissions in 2010: 246.8 million tCO_2e Projections for 2020 and 2030 (not including industrial processes): • 2020: 474.1 million tCO_2e • 2030: 787.4 million tCO_2e
Unconditional contribution	With domestic resources, by 2030, Vietnam will reduce GHG emissions by 8% compared to BAU, in which: • Emission intensity per unit of GDP will be reduced by 20% • compared to the 2010 levels • Forest cover will be increased to 45% coverage.
Conditional contribution	The above mentioned 8% contribution could be increased to 25% if international support is received through bilateral and multilateral cooperation, as well as through the implementation of new mechanisms under the Global Climate Agreement, in which emission intensity per unit of GDP will be reduced by 30% compared to 2010 levels.

Source: Vietnam INDC (2016)

Table 5. GHG mitigation and cost identified in the Initial National Communication

Sector	Options	Mitigation potential (million tCO_2e)	Mitigation cost (USD/tCO_2e)
Energy sector	Developing solar energy	26.1	6.01
	Developing geothermal power	29.2	5.15
	Wind power stations	34	4.64
	Replacing coal-fired boilers in industry	10.2	3.65
	Replacing oil-fired boilers in industry	3.4	-3.65
	Improved coal cooking stoves	73	-4.15
	Lean burn engines in transportation	21.9	-6.78
	Improving efficiency of industrial motors	70	-7.19
	Replace incandescent light bulbs with compact fluorescent light lamps	16	-8.31
	Total	**283.8**	
Forestry	Short-rotation reforestation	445.8	0.85
	Long-rotation reforestation	496.1	0.61
	Planting protection forests and special use forest	325.8	0.6
	Scattered tree planting	278.7	0.29
	Combination of forest rehabilitation and delineation for regeneration	372.6	0.25
	Protection of forest	1302.6	0.07
	Total	**3221.6**	
Agricultural	Water management	105	13.12
	Producing processed animal feed	8	5.19
	Utilization of biogas	27.3	3.41
	Total	**140.3**	
Total		**3645.7**	

Source: GreenID (2014)

The government also issued Decision 419/QD-TTg, dated 5 April 2017, on approval of the National Action Program on the reduction of GHG emissions through reduction of deforestation and forest degradation, sustainable management of forest resources, and conservation and enhancement of forest carbon stocks (REDD+) by 2030. For the period 2017–2020, the plan aims to contribute to reducing GHG emissions through REDD+ activities; expand the forest cover to 42% and reach 14.4 million hectares of forest by 2020. For the period 2021–2030, the plan aims to stabilize the natural forest area to the same level as 2020, and increase forest cover up to 45% of the national territory, contributing to realizing the national target of reducing total GHG emissions by 8% by 2030 compared with BAU, as committed to in the Paris Agreement on Climate Change. This contribution may increase to 25% with international support.

Under umbrella policies, major GHG emission-related policies with different objectives and targets have been developed by different ministries: Ministry of Agriculture and Rural Development (MARD); Ministry Of Natural Resources and Environment (MONRE); Ministry of Planning and Investment (MPI) and sectors (see Table 4).

The GHG emission targets mentioned in the different legal documents are inconsistent. For example, the reduction target set by the Study on Management of Greenhouse Gas Emissions, Management of Business of Carbon Credits does not match with the Study on GHG Reduction in Agriculture and Rural Area (20% versus 16%). Moreover, the MPI is the lead on the Vietnam Green Growth Strategy, while the MONRE is the coordinating agency on GHG trade. By regulation, MONRE is the national focal point responsible for implementing the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol, and is in charge of coordinating the activities of all ministries, sectors and provinces in managing and implementing the National Target Program to Respond to Climate Change (NTP-RCC). NTP-RCC and the Vietnam Green Growth Strategy have different reduction targets but were both approved by the Prime Minister in the form of decisions and thus have high enforceability. Such a situation causes confusion that influences resource allocation. Clearly, there is a lack of coordination between these two ministries in GHG mitigation policies.

According to stakeholders' interviews, these three reduction targets developed by three ministries are inconsistent and based on a high uncertainty of GHG inventories (Table 6). Different reference levels are used for the same time period. No assessment of impact from implementation of GHG targets on national development as part of the target development has been made. The portfolio of actions to achieve the goals, however, is quite broad. These would be described in the program or plan and in more detail in a circular guiding the implementation. Relevant agencies and stakeholders have insufficient technical capacity to implement the portfolio of actions. Financing to implement these actions poses critical issues that greatly influence the feasibility of implementation. Although the national budget is an entry point, there is not yet a budget for this item. Additionally, there is no monitoring system in place to measure and verify implementation progress.

Table 6. GHG's targets developed by MPI, MONRE and MARD

	MPI target	**MONRE target**	**MARD target**
Target	Reduce GHG emissions by 8–10%; by 2030.	Reduce GHG emission by 20% by 2020	
Weaknesses	Targets are not in line with those of MONRE, and are actually higher than other sectoral targets for example target on energy efficiency.	Unrealistic, and some interviewees stated that it described reduction potential rather than reduction goals. In setting the target, 2010 was selected as the base year and only policies that were issued after 2010 were considered in setting reduction target. Targets by MONRE are set against the 2005 level and are therefore unrealistic.	Unrealistic and uncertain as a large reduction in GHG emissions is expected to come from increasing afforestation. Additionally, the baseline reduction target was set higher than that applied for Clean Development Mechanism (CDM) projects.

Source: Adapted from GreenID (2014)

The development of a reduction target of all three ministries has not involved consultation or participation of different government agencies and has not involved cross-sectoral collaboration.

The national GHG inventory is constrained by a lack of reliable of data and poor data collection processes. GreenID (2014) found that GHG inventories are broad and are associated with high uncertainty. There is a shortage of technical experts in GHG inventory at ministry and sector levels. According to our government interviewees, there is also a limited number of research, assessment and verification of country specific emission factors. A focal agency responsible for the national inventory's data collection, analysis, verification and updating has not been established or designated. No archiving system been has developed and there is no a quality control system in place.

2 Institutional environment and distributional aspects

2.1 Forest governance in Vietnam

2.1.1 International agreements

The Government of Vietnam has recently signed a large number of important international agreements (Table 7). While some see this as a sign of reform, Bach Thanh (2017) argues that it might be more due to politicians leveraging international trade agreements to advance their own policy preferences. Thus, some of the agreements might even be counterproductive.

Two types of international agreements have been signed: climate change agreements and trade agreements. Climate change agreements will be discussed later in this chapter and in Chapter 4, but we focus on trade agreement in this section and later in Chapter 3 for two reasons. First, these trade agreements have direct influence on drivers of deforestation and degradation, as outlined in Chapter 1. Second, it is not only the political economy of Vietnam but also the political economy of the partners in the different agreements that influences climate change.

Table 7. International agreements signed by the Government of Vietnam

Year	International agreements/treaties	Objectives
Nov 2011	Vietnam–Chile Free Trade Agreement (VCFTA)	Vietnam commits to dropping 87.8% the tariff rates (equivalent to 91.22% as of 2007) for Chile for 15 years. In exchange, Chile will eliminate tariffs on goods accounting for 99.62% of the export value of Vietnam as of 2007 within 10 years; 81.8% export value and 83.54% of tariffs would be eliminated immediately.
Aug 2014	The ASEAN–Australia–New Zealand Free Trade Area (AANZFTA)	The aim of AANZFTA is sustainable economic growth in the region by providing more liberal, facilitative and transparent market and investment regimes among the 12 signatories to the Agreement.
Mar 2015	Vietnam–Laos Trade Agreement	Apart from the Association of Southeast Asian Nations (ASEAN), Laos also benefits from reciprocal access under the trade agreement between Laos and Vietnam. There are 32 tariff lines with the 50% rate of the Common Effective Preferential Tariff Scheme for the ASEAN Free Trade Area (AFTA), while all other products are 0% rate, except for 155 tariff lines which fall under the General Exceptions List of Vietnam.
May 2015	Vietnam–Korea Free Trade Agreement (VKFTA)	Vietnam has committed to add 265 tariff lines, with an import turnover from Korea of USD 917 million. Korea's commitment includes 506 items, of which 4 items have a current most-favored nation rate of 0%. The other 502 items on which Korea has agreed to eliminate the tariff have a total import turnover from Vietnam of USD 324 million. Korea has pledged to provide eliminate tariffs and quotas for key export commodities of Vietnam, such as fishery products (frozen and canned shrimp, crab, fish), agricultural products (garlic, ginger, honey, red beans and sweet potatoes, tropical fruits) and industrial goods (textiles, garments and mechanical products).

Table 7. Continued

Year	International agreements/treaties	Objectives
May 2015	Vietnam–Eurasian Economic Union (EAEU) Free Trade Agreement	Vietnam has committed to open the market for about 90% of total tariff lines within a 10-year tariff reduction schedule. Tariff will be eliminated for products in the priority list of EAEU at the entry into force, including agricultural commodities (such as beef, dairy products and wheat flour). After 3–5 years, these will include processed meat and fish, electrical machinery, machinery used in agriculture. Five years after entering into force the products will include pork and chicken. For some special products, tariff elimination will be no earlier than 2027 for petroleum, and no longer than 10 years for iron and steel.
		EAEU will also eliminate the tariff rate for approximately 90% of all tariff lines. It will immediately eliminate 59% of total tariff lines. The import tariff rate will be eliminated on agriculture, forestry and fishery products of Vietnam (with a tariff quota of 10,000 tons) and some industrial goods, such as rubber products, wood and furniture.
Nov 2015	ASEAN–China Free Trade Area (ACFTA)	The Framework Agreement on Comprehensive Economic Cooperation between ASEAN and China (the ACFTA Agreement) includes provisions on economic cooperation. In November 2015, in a joint effort to move ASEAN–China relations to a higher level, Parties agreed to sign on the Protocol to Amend the Framework Agreement on Comprehensive Economic Co-operation and Certain Agreements thereunder between the ASEAN and the People's Republic of China (the Protocol).
2016	The Law on Signing, Joining and Implementing International Treaties or International Treaties Law	This affirms Vietnam's strict commitment to agreements that it has signed with other countries, international organizations and foreign parties.
Nov 2018	Trans-Pacific Strategic Economic Partnership (TPP)	By eliminating or reducing 18,000 tariff lines on industrial as well as agricultural products, the TPP will provide greater access to major markets, especially the United States and Japan, and will boost the export of some major product categories in which Vietnam enjoys comparative advantages including forestry products.
		The agreement elevates other TPP countries' commitments and brings them closer to those in the United States by ensuring measures are taken to prevent illegal logging and associated trade. The TPP's Environment Chapter includes commitments to combat trade in illegally harvested timber, including species protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), as well as any other species taken or harvested illegally, regardless of its source country. These commitments will be fully enforceable and subject to dispute settlement, including trade sanctions. Other TPP provisions establish commitments to fighting corruption, which is often a key factor in the failure of countries' forest governance schemes.
Oct 2016	Paris Agreement with Resolution No. 93/NQ-CP on 31 October	Vietnam plans to reduce GHG emissions by 8% by 2030 and, with adequate support from the international community, is aiming at 25% reduction.
May 2017	Voluntary Partnership Agreements (VPA)	In order to issue FLEGT licenses as required by the VPA, Vietnam will build on existing national initiatives in forest governance to develop a robust timber legality assurance system (VNTLAS). It commits to improving transparency, accountability, legislative clarity and other aspects of governance. VNTLAS will have the following elements: legality definition, supply chain controls, verification of compliance, FLEGT licensing, internal inspections and a feedback mechanism, and independent evaluation. The scope of the VPA covers all export markets, as well as the domestic market. Once the VNTLAS is operating as described in the VPA, Vietnam will issue FLEGT licenses to timber products it exports to the EU.

These international agreements brought both opportunities and challenges for the country's economy, as well as forestry sector.

Opportunities. Some of these agreements have helped to create legal reforms, improved legal clarity and improved the decision-making process to make it become more participatory. For example, MARD introduced a new circular on timber supply chain controls, which brought together previously scattered regulations into a more coherent framework. The VPA process also increased the level of public disclosure of information through the Vietnamese NGO FLEGT network, as well as policy dialogues between state, non-state actors and the private sector. These new international agreement have also helped Vietnam's exports increased fourfold from USD 45 billion in 2006 to USD 190 billion in 2016. Over the same period, merchandize trade as a share of GDP expanded from 127% in 2006 to 173% in 2016 (Busch 2017).

Challenges. While the overall economy might improve, Vietnamese enterprises, which lacked competitiveness, did not gain much from international agreements, such as WTO ascension (Busch 2017). The potential collapse of the TPP during early 2017 was a great disappointment domestically, as those pushing for further economic renovation had pinned their hopes on the commitments and assistance they could expect under the TPP. Over the past 15 years, Vietnam's private sector has struggled to compete as the economy has become more open internationally (Busch 2017). The lack of sufficient progress on tackling institutional and policy impediments, such as expanding financial inclusion or creating more effective land rights, has reinforced the trend. Vietnam's various FTAs and international trade arrangements also make it difficult for the government to extend subsidies or special treatment to its small and medium-sized enterprises (SMEs), for example. Export-oriented foreign investment has been attracted by an open trade regime and stable investment framework, but this has also limited incentives to build linkages to local suppliers and service providers. The productivity and share of domestic value of Vietnamese firms have actually declined as its economic integration has increased. Addressing this is the primary economic challenge for Vietnamese policymakers today (Busch 2017).

Vietnam's experience also underscores the potential downside of trade and investment liberalization without concomitant efforts to address domestic institutions and standards. Efforts must be made to ensure domestic players also capture a slice of the gains. Indeed, the TPP's focus on quality institutions and standards made the agreement appealing to Vietnam, despite the difficulty of complying with a host of commitments on labor, environmental protection and SOEs. Vietnam has a history of leveraging engagement with the international economic system – including joining the WTO and signing major FTAs – to support difficult domestic restructuring. These have been more pretext than driving force; many in Vietnam would note that far more laws and regulations were passed than were technically required to meet these international commitments (Busch 2017).

2.1.2 National forestry policies and legal framework

Since 2012, the Government of Vietnam has issued many new (forestry) policies that significantly change the governance of the forestry sector (Table 8).

The above policies and laws are important for guiding the implementation of REDD+ and emphasizing the need to avoid converting very poor natural forests to other land purposes, such as rubber and agricultural crops. In line with these policies, the Vietnamese government has allocated a budget for sustainable forest management, forest protection and development, reduction of deforestation and forest degradation, conservation and enhancement of forest carbon stock, as well as encouraging the legal timber trade and enhancing added value for forest products. These policies show the government's quick responses and political commitment for forest protection. As a result, violations of law and illegal logging have been reduced and the management and protection of forest has been strengthened. The number of violations of the state regulations on forest protection and development decreased by 21% in 2017, the damaged forest area decreased 71%, in comparison to 2016. However, the current forest policies framework still has major drawbacks.

Inconsistent policies. One persistent problem is the inconsistency among government policies, which impedes effective forest protection in Vietnam. For example, in 2016, the government issued a decision on the closure of forests. However, according to Ngo (2017), the forest

Table 8. Major forest policies in Vietnam

Years	Policies	Content and objectives
Apr 2012	**Decision No. 432/QD-TTg** on approving the Vietnam Sustainable Development Strategy for 2011–2020	The Decision regulates planning, determines the classification of three forest categories and combines conservation of biodiversity with the development of ecotourism and other environmental services.
Dec 2014	**Decision No. 2242/QD-TTg** scheme for strengthening management of natural forest exploitation for 2014–2020	The Decision mandates 'strict management of the exploitation of natural forest wood, restricting illegal timber exploitation, protection of the existing natural forest area as a response to climate change and protecting the environment and to improve the quality of natural forests'. The decision also indicates the necessity of creating good quality production forest that is sustainable enough to meet the demand for natural forest timber for domestic consumption. This decision also ends harvesting natural forest timber for state forestry enterprises, except for two FSC-certified state forest companies.
Jul 2015	**Decision No. 2810/QD-BNN-TCLN** approving the Action Plan for Sustainable Forest Management and Forest Certification 2015–2020	The Decision further states that by 2020 Vietnam will have about 150,000 ha of licensed natural forests and forests.
Sep 2015	**Decree No. 75/2015/ND-CP** Establishing the mechanism and policy for forest protection and development in relation to quick and sustainable poverty reduction policies for ethnic minorities 2015–2020.	This Decree provides mechanisms and policies to encourage forest protection, forest restoration, afforestation, development of non-timber products, policies associated with poverty reduction, sustainability and support of ethnic minorities for the period 2015–2020. It provides the target villages a share of the forest protection fees, which was increased from VND 200,000 (approximately USD 9) to VND 400,000 (approximately USD 18) per ha per year.
Jul 2016	**Government Office Notice No. 191/TB-VPCP**, July 2016, on the conclusion of the Prime Minister at the Conference on Sustainable Forest Restoration Solutions in the Central Highlands aimed at cope with climate change in the period 2016–2020.	The Central Highlands provinces should perform the following tasks: 1. Strictly prevent harvesting timber from natural forest according to Conclusion No. 97- KL/TW dated 9 May 2014 of the Politburo; 2. No change in the use of the existing 2.25 million hectares of natural forests, including those that have been approved but not yet implemented (except for national projects special rooms and security, as approved by the Prime Minister); and 3. No conversion of poor natural forests area into industrial crops.
Nov 2016	**Decree No. 147/2016/ND-CP** Amending and supplementing a number of articles of Decree No. 99/2010/ND-CP of 24 September 2010, on the policy on payment of forest environmental services charge	The Decree amends and supplements Clause 1, Article 11 for hydropower generation establishments. The rate of forest environmental services charges payable by hydropower generation establishments is VND 36 per kWh of commercial electricity.
Jan 2017	**Directive No. 13-CT/TW** released on 12 January 2017 of the Secretariat of the 12th Central Committee Communist Party on increasing Party's leadership for forestry management, protection and development	The Directive enhances the leadership of the Party toward management, protection and development of forests by "stopping the exploitation of timber from natural forests at nationwide, improving economic development, social and environmental efficiency of production forests and preventing deforestation status". The Directive also encourages incentives and participation of individuals and enterprises to protect and manage forests sustainably.

Table 8. Continued

Years	Policies	Content and objectives
Feb 2017	**The Prime Minister, in Official Dispatch No. 199/TTg-QHQT** on INDC implementation	This assigns MONRE to cooperate with other ministries, sectors and stakeholders to review and update Vietnam's INDC. Vietnam has pledged to reform its agricultural sector to cut GHG emissions by up to 25% by 2030, but it will need financial support.
Apr 2017	**Prime Minister Decision No. 419/QD-TTg**	The Decision approves the National Action Program on the Reduction of Greenhouse Gas Emissions through the reduction of Deforestation and Forest Degradation, Sustainable Management of Forest Resources, and Conservation and Enhancement of Forest Carbon Stocks (REDD+) by 2030.
Jun 2017	**Prime Minister's Decision No. 886/QD-TTg**	The Decision approves the program on sustainable forest development for the 2016–2020 period.
Nov 2017	**The Law on Forestry**	In comparison with the 2004 Law on Forest Protection and Development, the Law on Forestry has four new chapters focusing on forest products processing and trade, forestry related science, technology, international cooperation; forest valuation and investment, finance in forestry; state administration in forestry and forest protection organization (rangers). The new Forestry Law stipulates management, protection, development and use of forests along with processing and trade of forest products. The rights and responsibilities of forest owners have been further expanded and consolidated in the 2017 new Forestry Law, which encourages organizations and individuals to invest in poor forests. The new law also creates favorable conditions for forest product processing and business.
Dec 2017	**The Prime Minister's Decision No. 1857/QD-TTg**	This approves the establishment, the State Steering Committee for the Target Program on Sustainable Forest Development for 2016–2020.
March 2018	**Decision No. 823/QD-BNN-TCCB**	This decision establishes the State Steering Committee Office for the Target Program on Sustainable Forest Development for 2016–2020 and REDD+ implementation by merging the State Steering Committee Office for Forest Protection and Development Plan for 2011–2020 and the Vietnam REDD+ Office.

closure directives may conflict with earlier regulations such as Decision 2242/QD-TTg dated 11 December 2014, Approving the Strengthening the Management of Natural Timber Collection in the period 2014–2020 and Decision 2810/QD-BNN-TCLN dated 16 July 2015, Approving the Action Plan for Sustainable Forest Management and Forest Certification 2015–2020, which require Vietnam to have about 150,000 ha of licensed natural forests and forests by 2020. Moreover, the extended closure of forests might lead to a lack of timber for domestic consumption and the need to import timber to supply the wood industry. Moreover, while the government has issued many forest protection programs, the national plan on rubber and coffee expansion is still promoted.

Weak law enforcement. Despite the closure of natural forests in 2016, illegal logging and deforestation was widespread in 2016 and 2017 (Government of Vietnam 2017b; Nguyen et al. 2017; Nhat 2017; Quang 2017; Vu et al. 2017). Although the government has issued a decision to stop the expansion of coffee and rubber, the actual rubber plantation area in the Central Highlands in 2012 had already reached 83.8% of the planned area for 2020. The estimated rubber area in 2015 was expected to exceed the targets set forth in the master plan for 2015 and 2020 by 9% and 22.8%, respectively (To and Tran 2014). Natural forests and degraded forests are still being cleared for coffee and rubber production (Pham et al. 2018).

No linkages between adaptation and mitigation. Before Decision 499/QD-TTg, dated 5 April

2017, another persistent weakness was the lack of coordination between mitigation and adaptation policies in Vietnam, particularly with regard to REDD+. Policies for forest-based climate mitigation at the national and subnational level, as well as site-based projects, have yet to consider the adaptation needs of local communities, many of whom have been suffering from noticeable weather changes in their localities. In addition, there is insufficient discussion of how REDD+ activities could facilitate increased resilience (McElwee et al. 2016; Pham et al. 2014a).

2.2 Decentralization and benefit sharing

2.2.1 Forest management structure

The structure of forest management in Vietnam was regulated by the Forest Protection and Development Law (2004), now replaced by the

new Forestry Law of 2017. Compared to the Forest Protection and Development Law of 2004, the 2017 Forestry Law enhances the role, authority, obligation and responsibility of all government agencies for forest management. The most significant change between these two laws is the new vision of the importance of special-use forest and how it is managed, as discussed below.

Enhance the role, authority, obligation and responsibility of all government agencies for forest management

With the 2004 Law, the National Assembly only receives reports from the Government Office on the status of special-use forest. With the 2017 law, only the National Assembly can change the utilization of the special-use forest. Table 9 shows additional roles and responsibilities of ministries and provincial government agencies in forest management.

Table 9. Forest management structure and decision-making process

State actor	Agency	Forest Protection and Development Law 2004	Forestry Law 2017
National Assembly	National Assembly	• Promulgate laws. • The government shall periodically report to the National Assembly on the status and changes of forest resources (Article 32).	• Promulgate laws. • The National Assembly decides to change the use purpose of special-use forests, watershed protection forests and border protection forests of more than 50 ha; wind, sand-shielding, wave-shielding and sea encroachment protection forests of 500 ha or more; production forests of 1,000 ha or more (Article 20).
Government	Prime Minister	• Approve the national plans on forest protection and development, submitted by the Minister of MARD (Article 18). • Approve the establishment of protection forests and special-use forests, which are of national or inter-provincial importance and submitted by the Minister of Agriculture and Rural Development (Article 18). • Prescribe in detail the assignment of production forests (Article 24). • Prescribe the lease of natural forests to overseas Vietnamese, foreign organizations and individuals (Article 25). • Decide to change the use purposes of the entire or part of forests Prime Minister has established (Article 28). • The Government shall periodically report to the National Assembly on the status and changes of forest resources (Article 32). • Prescribe principles and methods for determination of prices of forests of all kinds (Article 33). • Prescribe in detail the calculation of the forest-use right value and the value of planted production forests (Article 35).	• Approve the change the forest category for forests established by the Prime Minister follow the proposal of the Minister of MARD (Article 18). • The Government shall regulate in detail the assignment of forest, lease of forests, conversion of forest types, conversion of forest-use purposes to other purposes, and recovery of forests (Article 23). • Approve the establishment of special-use forests, protection forests with national importance or located in many provinces (Article 25). • Deciding to close and open natural forests nationwide or in many provinces and cities under central authority (Article 31). • Unified state management of forestry throughout the country (Article 101).

Table 9. Continued

State actor	Agency	Forest Protection and Development Law 2004	Forestry Law 2017
State management agency	Ministry of Agriculture and Rural Development (MARD)	• Government focal point in exercising the state management over forest protection and development nationwide (Article 8). • Focal point for national forest protection and development planning and plans (Article 17). • Organize and direct the implementation of national forest protection and development planning and plans; inspect and evaluate the implementation of provincial/municipal forest protection and development planning and plans (Article 21). • Act as focal point but need to work with MONRE monitoring and synthesizing the annual forest statistical results and 5-year forest inventory results (Article 32). • Act as focal point and coordinate with MONRE and the Central Statistical Agency in prescribing the contents and forms and guiding the methods of forest statistics and inventory, as well as monitoring of forest resource developments (Article 32).	• Provide detailed regulations on the content of sustainable forest management plans; stipulating the order and procedures for developing and approving sustainable forest management plans (Article 27). • Develop criteria on sustainable forest management (Article 28). • Chair and collaborate with Ministry of Finance on submitting to the Prime Minister for consideration and decision support for forest owners when the Prime Minister's decision to close natural forests comes into effect (Article 32). • Organize and publicize the results of the National Forest Inventory every 5 years and the specialized themes; direct the implementation of provincial forest inventory (Article 33). • Regulate details and regulations of forest inventory; specify methods, procedures for forest inventory (Articles 33, 34, and 35). • Develop and manage national forest database (Article 36)
	Ministry of Natural Resources and Environment (MONRE)	• Coordinate with MARD in exercising the state management over forest protection and development (Article 8). Carry out annual forest monitoring and 5-year forest inventory cycle (Article 32).	• Coordinate with MARD in performing state management of forestry (Article 101)
Local management agency	The Provincial People's Committees	• Develop provincial forest protection and development planning (Article 17). • Approve district forest protection and development plan (Article 18). • Decide on the establishment of protection forests, special-use forests and production forests in their province (Article 18). • Organize and direct the implementation of forest protection, development planning and plans of respective localities; inspect and evaluate the implementation of forest protection and development planning and plans of the immediate subordinates (Article 21). • Decide on assignment and lease of forests to domestic organizations and overseas Vietnamese, and lease of forests to foreign organizations and individuals (Article 28). • Report on the results of forest statistics and inventory and forest resource developments to the MARD (Article 32). • Set specific prices for forests in their localities, submit them to the People's Councils of the same level for approval before decision and publication (Article 33).	• Plan for forest assignment, lease and change of forest-use purpose submitted by district People's Committees (Article 15). • Decide on the use of compensation fund for forest loss paid by hydropower plants to the provincial Forest Protection and Development Fund on how and where to replant forests (Article 21). • Approve forest allocation, forest lease, conversion of forest-use purposes to other purposes, and recovery of forests for organizations. • Approve for foreign-investment enterprises in Vietnam to lease land for production forests. • Decide on the establishment of special-use forests or protection forests. • Decide on the opening and closing of natural forests in their localities after the People's Councils of the same level approve the schemes (Article 31). • Submit to the People's Councils of the same level for consideration and decision support for forest owners when effecting the decision on the closure of natural forests by the presidents of the provincial People's Committees (Article 32). • Organize local forest inventories and publish results (Article 33). • Promulgate according to its competence, or submit to competent state agencies for promulgation, legal documents on forestry, deciding on programs and projects on sustainable forestry development in their respective localities.

Table 9. Continued

State actor	Agency	Forest Protection and Development Law 2004	Forestry Law 2017
	The District People's Committees	• Organize the elaboration of forest protection and development planning and plans of their respective localities (Article 17). • Approve forest protection and development planning of commune/ward/township People's Committees (Article 18). • Organize and direct the implementation of forest protection and development planning and plans of their respective localities; inspect and evaluate the implementation of forest protection and development planning and plans of the immediate subordinates (Article 21). • Decide on assignment and lease of forests to households and individuals (Article 28)	Carry out forest allocation, forest leasing, conversion of forest-use purposes and recover forests for households, individuals and the community (Article 23). a. Promulgate according to their competence, or submit to competent state agencies for promulgation, legal documents on forestry, decide on programs and projects for sustainable forestry development in their respective localities. b. Organize the implementation of legal documents on forestry, programs and projects on sustainable forestry development in localities. c. Organize the classification of forests and demarcate forests of different types in their respective localities according to the provisions of law. d. Assign forests, forest leases, conversion of forest-use purposes and recovery of forests for households, individuals and communities; set up local forest management records; organize substitute afforestation. e. Organize the implementation of forest inventory, inventory and monitoring of forest changes in localities. f. Organize forest management and protection; preserve forest biodiversity; organize fire prevention and firefighting. g. Propagate, disseminate and educate on forestry legislation in localities. h. Direct Commune People's Committees in formulating land and forest assignment for forests which have not yet been assigned or leased according to law provision. i. Inspect, examine and handle law violations; settle disputes, complaints and denunciations in the forestry domain according to the provisions of law (Article 102).
	The Commune/ Ward/ Township People's Committees	• Organize the elaboration of forest protection and development planning and plans of their respective localities under the guidance of the immediate superior People's Committees (Article 17). • Organize and direct the implementation of forest protection and development planning and plans of their respective localities (Article 21). • Declare forest statistical and inventory data for forest areas under their direct management, which have not yet been assigned or leased (Article 32).	a. Promulgate according to its competence, or submit to competent state agencies for promulgation, legal documents on forestry, to decide on programs and projects on sustainable forestry development, forestry, agriculture and fishery production, combination farming, cultivation and implementation organization in the locality. b. Manage forest area and boundaries; confirm the purpose of forest assignment or lease for organizations, households, individuals, communities according to the provisions of law. c. Organize the management and protection of forest areas not yet assigned or leased by the state. d. Organize the inventory of forests in their localities. e. Guide population communities in elaborating and implementing their forest protection conventions and rules in their localities in accordance with the provisions of law. f. Organize the activities of forest fire prevention and firefighting; to prevent and control violations of the forestry legislation in their respective localities; handle violations of the law; settle disputes, complaints and denunciations in the forestry domain in localities according to the provisions of law (Article 102).

New forest management approach

The new Forestry Law 2017 has adopted a new management approach and viewpoints through:

- **Placing a stronger emphasis on the need to protect natural forests**
- **Acknowledging, for the first time, religious and customary forests and the need to respect them.** The 2017 law ensures publicity, transparency and participation of local people, with no discrimination in terms of religion, belief and gender in forest assignment or leasing. It respects the living space, customs and habits of the community, gives priority in assigning forest to ethnic minorities, households, individuals and communities of people who have customs, traditions, culture, beliefs and traditions attached to forests. It also has conventions and regulations in accordance with law provisions.
- **Better clarification of forest ownership.** The 2004 Law only stipulated that forests belong to the people. The new law, on the other hand, clearly specifies the forms of forest ownership into two types (Article 7): (i) State forests, which include natural forests, planted forests invested in by the state; forests managed by people with the state as their sole representative; and (ii) planted production forests owned by organizations, households or individuals in accordance with Vietnamese laws.
- **Creating more favorable conditions for forest product processing and trading**. The law focuses on forestry development policies that will create favorable conditions to cooperate or to form joint ventures between enterprises and forest owners in order to apply advanced technology in forestry development. It prioritizes the development of allied industries required for forest product processing and support for human resources training. The new law introduces policies on the development of markets for forest products, facilitating the extension of preferential credit facilities to organizations and individuals that join in cooperatives or partnerships to purchase and sell forest products. The state will support forest product branding, trade promotion, market development and provision of information on domestic and international markets for forest products.
- **Promoting and supporting, for the first time, leasing of land to foreign-invested enterprises to plant production forests.** The new law clearly provides the rights and obligations of foreign-invested enterprises that are leasing land from the state to plant production forests in Article 89. In addition to the rights of forest owners specified in Article 73, they may own plants, animals and other assets on leased land areas in which they have invested. They may also harvest forest products in planted production forests. These enterprises have the obligations of forest owners, including: to manage, protect, develop and exploit forests in a sustainable manner under the regulations on forest management, this law and other relevant laws; to implement the regulations on monitoring of forest changes; to return their forests upon recovery by the state; to conserve forest biodiversity, plants and animals; to prevent and fight forest fire; and to prevent and eliminate forest pests; to adhere to the management, inspection, examination and handling of violations by competent state agencies; and to fulfill their financial obligations and other related obligations.

- **Promoting international cooperation in forestry.** Policies on international cooperation in forestry are specified in Article 99. Accordingly, the Vietnamese state encourages the expansion of cooperation in forestry with foreign countries, organizations and individuals to support the achievement of the SDGs, realization of commitments on environmental protection and response to climate change and other international commitments of Vietnam. The state encourages Vietnamese organizations and individuals to cooperate with foreign organizations and individuals in forest protection and development, forest product processing and trade, building capacity and improving the effectiveness of state management of forestry in accordance with Vietnamese and international laws. Favorable conditions will be created for foreign entities and overseas Vietnamese to invest in the training of human resources, scientific research and technology transfer for forest protection and development, nature conservation and forest product processing and trade in Vietnam. The state encourages cooperation with neighboring countries to prevent and fight forest fires, trans-boundary haze pollution, prevention and combat illegal trading in timber and specimens of wild plant and animal species.

2.2.2 Land management structure

The provincial role in land management has increased over time as some powers to allocate and manage land have been decentralized to local authorities (Government of Vietnam 2013; Alcaide Garrido et al. 2009; see Table 9). The Provincial People's Committees (local governments) can make decisions on land-use planning and related infrastructure development, land appropriation, allocation, conversion and leases to organizations and individuals. The District People's Committees have the same authority, but only for individuals and households. Commune authorities will manage community-land funds that retain 5% of agricultural land for common use. However, Yang et al. (2016) have found that although decentralization in Vietnam has given more decision-making power for land-use negotiations to the provincial government, the real power still lies with the central government. The law regulates district government and communes have discretionary power to promote local relevance but in reality they lack the power, financial resources and competence to make key decisions (Yang et al. 2016).

From the central government's point of view, policies need to re-concentrate authority at provincial and national levels, therefore discouraging local speculation and corruption. For instance, business analysts observe that the law sets out stricter requirements for developers (both local and foreign), who want to lease or obtain land from the government, and equalizes treatment of foreign and domestic investors, presumably to encourage greater foreign direct investment (Nguyen 2014; Vietnambriefing.com 2014).

Clarification of the land tax system also promises to contribute significantly to government revenue, although the main source of land tax revenue is non-agricultural land, rather than agricultural land taxes, which were more important in the past (Trinh and McCluskey 2012). Reflecting the central government's concern with state management, the new Land Law 2013 (GSO 2013) shifts the main authorized body for land-use planning from the commune up to the district. This change enables more centralized control, reins in communes that were not following procedure, fits in with other efforts to reduce commune authority more broadly, tackles disagreements between communes and districts, and acts to reduce tensions around land. With an average of 10–20 districts per province, it then becomes possible to manage land at the provincial level, which was not possible when responsibility was delegated to each commune.

Moreover, despite holding a great deal of information and maintaining extensive networks at local level, the commune's power over forest resources is not clearly defined by regulation and is weak in practice. Their main responsibility remains limited to raising awareness, preventing forest fires, reporting on illegal logging and assisting with forest-land allocation. Specifically, commune authorities do not have the power to monitor the fulfillment of contracts by private companies. For example, they are unaware of contractual arrangements for forest-land lease and do not know their rights and responsibilities regarding forest-land use and monitoring of land leased to private companies (UNREDD 2013).

Land consolidation processes have also been initiated. Although land consolidation might make land management in general more efficient, it might also create new winners and losers (CAP et al. 2013). Comparative research conducted by a group of Oxfam partners found that land consolidation is only sustainable and effective in areas with specific conditions allowing for cultivation of high-quality agricultural products and where farmers are treated fairly (Wells-Dang et al. 2016). In other cases, farmers were left worse off through consolidation as they were left with no role in signing contracts to lease land, determining land prices or distributing dividends (Wells-Dang et al. 2016).

2.2.3 Financial decentralization

In Vietnam, the fiscal decentralization regulated in Law on State Budget 1996 has enhanced and clarity throughout of revision of Law on State Budget in 2002 and now is the Law on State Budget 2015 (National Assembly 2015).

Law on State Budget. State budget revenues include revenues from taxes, fees and charges; revenues from economic activities of the State; contributions by organizations and individuals; aid; and other revenues as stipulated by law. State budget consists of central government budget and local government budgets. Central government budget and local government budget at each level have their own sources of revenue and obligatory expenditures (National Assembly 2015). Table 10 shows the fiscal decentralization assigned for both central government and provincial government according to the new Law 2015.

Table 10. Fiscal decentralization between central and provincial level

	Central government	Provincial government
Fully controls	Value-added tax (VAT) on imported goods, export tax, import tax, special consumption tax on import goods	Land and housing taxes, license tax, fee on land use, and others
Shared	VAT (except VAT for imported goods), corporate income tax, personal income tax, special excise tax, environmental protection tax (except environmental protection tax on imported goods)	

Although local government autonomy has not been acknowledged in the constitution and power is still within central government, Malesky (2008) has described acts of autonomy of local governments regarding their policy experimentation or innovations where regulations do not exist as 'fence breaking' or *de facto* decentralization. 'Fence-breaking' provinces are listed in Decision No. 1387 on 29 December 2005. This document lists those provinces violating the central government rules and regulations regarding incentive policies for investors and imposed punishments on fence-breaking local officials despite the fact that many policy experimentation and innovations at the provincial level have later been legalized on and become very successful. The high degree of *de facto* government autonomy at the subnational levels has intensified the conflicts between the central government and subnational governments and created intergovernmental competition for resources, especially private and foreign-invested capital, which is a means of building greater autonomy for local governments.

Initial fence-breaking efforts to introduce prices and markets were predominantly successful because they expanded the authority of local officials and affiliated SOEs. As a result, local interests played an important role in persuading central planners that their illicit trade and other prohibited activities could be safely sanctioned and successfully expanded without radically undermining the prevailing political economy. Today, however, analogous power structures may have different priorities. For example, as central planning receded, local governments acquired more responsibilities, which, because of budget constraints and a reliance on access fees, led to the empowerment of local SOEs to raise revenues, raise financing to develop infrastructure and other politically related projects (Busch 2017).

A new Law on Public Investment introduced in 2014 has instituted stronger controls on local government budgeting. Provincial governments now have debt ceilings, although they remain in control of how much and from where they can borrow outside this. The 2015 State Budget Law introduced a medium-term framework for public budgeting. Such measures raise the challenge of balancing the government's growth target with the need to improve the quality of public investment while continuing investment in economically important items such as infrastructure (Busch 2017).

Decree No. 45/2014/ND-CP was issued to replace the Decree No.198/2004/ND-CP providing for the collection of land-use levy. This Decree provides for the collection of land-use levy in the following cases: (1) the State allocates land with land-use levy; (2) the State permits the transformation from agricultural land or non-residential, non-agricultural land to residential land or commercial land for cemeteries or graveyards which are subject to a land-use levy; and (3) the State recognizes land-use rights for current land users that are obliged to pay a land-use levy. This Decree provides the basis for calculating the levies according to the type of land use and land user, establishes exemptions and reductions in land-use levies, and specifies how the levies are to be collected.

2.3 Rights: Ethnic minority rights and rights to carbon, land and trees

2.3.1 Forest-land allocation and forest-user rights

According to the Land Law (2013), all land belongs to the people, with the state acting as the owner's representative and uniformly managing land. However, the state shall hand over land-use rights to land users and protect the lawful rights to use land and land-attached assets of land users (Article 4 and 27). Land users may be allocated land or leased land, have land-use rights recognized by the state, or receive transfer of land-use rights in accordance with the Law (Article 5).

In line with the Land Law (2013), the new Forestry Law (2017), which replaced the Forest Protection and Development Law (2004), clearly specifies the forms of forest ownership: (1) forests, including natural forests, planted forests wholly invested by the state, planted forests recovered by the state, donated to the state or with their ownership transferred to the state, are owned by the people but the state stands as their sole representative; (2) planted production forests, including forests invested in by organizations, households, individuals or population communities, and forests transferred, donated or inherited from other forest owners, are owned by these entities (Vietnamlawmagazine.vn 2019). These two laws sanction the management of forests by local people and the private sector and allow legitimate title holders to lease, exchange, inherit, mortgage and transfer titles. The "Red book" or land certificates provide the land-use rights for different groups of users (Pham et al. 2012).

Moreover, although Vietnam was the first country in the world to pilot free, prior and informed consent (FPIC) process under the UNREDD program (Pham et al. 2012), most of our key informant interviewees claimed that the rights of ethnic minority people in terms of land-use decision making are often overlooked. The conflict between local people and forest companies (both state and private companies) is widely observed in many areas of Vietnam (Sikor and Cam 2016).

Furthermore, land-use planning and land allocation present one of the highest risks of corruption for REDD+ in Vietnam (Cao and Le 2013). Vietnamese citizens largely agree that bribes are required to receive land-use rights certificates (Cao and Le 2013). Between 2011 and 2013, and problems around land use, ownership, corruption and mismanagement remain pressing concerns as illegal logging activities and land-use planning or forest conversion are often authorized by political leaders (To et al. 2017a and Cao and Le 2013). There was barely any improvement in commune land plans from 2011 to 2013 (CECODES et al. 2014).

Devolution of rights in forestry sector in Vietnam is implemented through the Forest Land Allocation Program (FLA) and co-management initiatives. According to a recent government study, land policies have an important role to play in resolving poverty and social unrest among Vietnam's ethnic minorities (UNDP and CEMA 2012). A National Assembly Standing Committee report from 2012 indicates that there are still more than 300,000 poor ethnic minority households without access to residential and production land. Another report by UNDP, examining the impacts of the government's 135 poverty reduction programs, shows a staggering discrepancy in average per capita income and access to good quality land among members of ethnic majority groups (Kinh and Hoa) and other ethnic groups (UNDP and CEMA 2012).

The Vietnam Forest Development Strategy 2006–2020 sets out a clear target for forest-land allocation (Table 11). In 2016, actual implementation exceeded targets for contracting forest protection and job creation. However, the forest-land allocation process only meets 80.8% of target.

Kim Dung et al. (2016) found that the success of co-management in centralized states like Vietnam depends on the greater devolution of allocative power from central to district governments to facilitate horizontal networked collaboration with local communities. However, having multiple actors at different government levels with conflicting interests can also increase deforestation (Yang et al. 2016). Tu et al. (2014) studied the impact of decentralization in Bach Ma National Park (BMNP) in Vietnam and found that although the policy did create resource-use rights and allowed co-management activities, local people do not benefit from the implemented "decentralized" measures, shown by continuous illegal encroachment into the core zone of the BMNP. The main reason is that active participation of local people is absent, and policies do not fit the local needs and priorities (Tu et al. 2014).

FLA provides tenure security for land users who are therefore be empowered to protect the forest and participate in more meaningful ways. It is also key in determining eligibility for benefit-sharing mechanisms, as only recognized forest owners are qualified to receive Payments for Forest Environmental Services (PFES) payments (Yang et al. 2016).

There are three main forms of FLA: (i) forest-land allocation to state organizations, mainly forest companies; (ii) forest-land allocation to households, individuals and communities; and (iii) contract-based allocation of forest land to households and individuals (To and Tran 2014). Revision of the

Table 11. Targets of Vietnam Forest Development Strategy

Targets of Vietnam Forest Development Strategy	Target	As of 2010	As of 2016
Contract for forest protection (thousand ha)	1.500	2.507	6.166
Allocate and lease forest land	100%	84.25%	80.8%
Create jobs for local people (million laborers)	1.5	4.66	5.0

Source: Pham (2017)

Table 12. Comparison of forest area by owner entities between 2005 and 2016

Forest categories	2005	2016
Total forested area	12,616,700	14,377,682
By owner entities		
• SOEs	2,878,701	1,609,755
• Protection forest management boards	1,553,285	2,985,678
• Special-use forest management boards	1,625,046	2,043,019
• Joint venture	66,630	
• Non-state forest enterprise	-	266,443
• 100% foreign invested	-	15,963
• HHs, individuals	2,854,883	2,930,059
• Communities	559,470	1,128,096
• Armed forces	262,493	187,263
• Others		92,453
• People's Committee	2,816,191	3,118,952

Land Law in 2013 increased rights to trade land-user certificates, gave longer lease rights to farmers and reduced agricultural land taxes. The term for agricultural land-use right certificates (LURCs) was extended to 50 years (many of the initial 20 year agricultural LURCs were set to expire in 2013). More than 90% of agricultural land with LURCs has now been issued to households, which is a significant accomplishment. The government has increasingly sought to decentralize forest management by allocating forest land to households and individuals to improve livelihoods and increase forest cover (Table 12). However, priority for allocation has generally been given

to state forest organizations. This is clearly shown in distribution figures at the year 2014: 148 forest companies were allocated 2.2 million hectares of forest land, 82% of which is production forest land; 1.2 million households were allocated 4.46 million hectares, 70% of which is production forest land; and forest management boards (FMB) were allocated 4.6 million hectares, of which 0.8 million hectares was production forest land, 2 million hectares for protection forest land and 1.8 million hectares for special-use forest-land (To and Tran 2014).

Pham et al. (2012) discussed the mixed impacts of FLA throughout Vietnam revealing successes and failures. A study (Vu and Zouikri 2011) that analyzed the impact of various forms of decentralization on the quality of subnational governments across provinces in Vietnam also confirmed these findings by highlighting the mixed impacts and performance of decentralization. This was mainly due to different political, cultural and economic factors. Central government reverted to a more appropriate degree of legal decentralization. The degree of decentralization was determined by central government, and Vietnam is a highly decentralized country in terms of public spending (48% from subnational level). It gave local government officials a stronger incentive to trade off their private rent and effort, pursue social welfare goals and build efficient judicial institutions.

Dang et al. (2017) also found that the institutional capacity of FLA in Vietnam is rather low, although it varies from region to region. This happens due to the restricted and ambiguous codification of property rights, limited resource availability, deliberation on symbolic sites and the lack of openness of actors toward others' views in the policy process. However, REDD+ implementation has effectively facilitated increasing opportunities for upland villagers to strategically claim land titles (Red Books) from local authorities in the form of communal land certificates for forests (To et al. 2017a).

Some other issues related to FLA are listed below.

Inequity. The current FLA processes and policies also triggered many inequity issues. First, Decree 113 gives no limit to the size of forest areas that can be allocated for forest plantation, while the Land Law (2013) sets an upper limit for allocation to households of 30 ha. Furthermore, Decree 135 grants first priority for Forest Allocation/Forest Land Allocation Program (FA/FLA) to the staff of

state entities and their relatives, and not to local people. Priority has been given to the employees of State Forest Companies (SFCs) and FMBs, which has led to inequitable outcomes. Some households have been contracted for protection of relatively large areas (6–30 ha), exhausting the supply of eligible land. As a result, there is no remaining land available for interested low-income households. Second, criteria to select recipients of forest land through FA/FLA processes have sometimes excluded poor households due to requirements of permanent housing and sufficient labor to carry out forest protection/plantation duties. Third, in the contracting model for forest plantation or protection, poor households and women-led households were not considered to be priority recipients. In some cases, higher-income households with alternative livelihood options are not investing in forests and forest land allocated to them, resulting in degradation and effectively preventing lower-income households, who have limited livelihood options, from accessing forest resources.

Limited incentives and benefits for forest users. FA/FLA has limited financial benefits for households and communities. Natural forests allocated to households and communities, whether production or protection forests, are usually of poor quality, therefore, there is no possibility of timber harvesting for several years. In most provinces, the income from forest protection contracts is too low (about USD 8 per ha per year). The contracts confer no rights over forest resources or to a share of income from forest products or services. In some provinces (i.e. Ca Mau, Lam Dong and Binh Thuan), most of the forest-land has already been allocated to SFCs/FMBs, and then contracted out to households. The role of FLA in income generation is limited due to small allocation area per household (average 1.5 ha) (Nguyen et al. 2016).

Unintended impacts. In some provinces, part of allocated forest-land in production and protection forest areas is being converted for shrimp ponds and rice fields, particularly in Ca Mau province where up to 20% of an allocated forest area can be converted to other non-forestry purposes. Since the allocated forest-land tends to be of poor quality, there are low economic returns from keeping it as forest, leading to conversion. This indicates that the current arrangement and practices under FA/FLA are inappropriate. Significant areas of forest

in Bac Kan, Lao Cai and Ha Tinh provinces still remain unallocated as the process is too slow, and thus under the management responsibility of CPCs, but the management of these areas is lacking and in many cases forest degradation and deforestation are rampant (UN-REDD 2018).

Moreover, a study conducted by UNREDD (2018) has also revealed that the FLA/FA legal and policy framework has major limitations:
• Decision 178 on a benefit-sharing mechanism under FA/FLA only regulates benefit-sharing mechanisms from production forests but not from protection forests, while conflicts over protection forests are also prominent.
• No technical and financial supports are provided for forest users after they get LURCs.
• Customary rights are not recognized, leading to land-use and forest-use conflicts.
• Community forestry management guidelines are complicated yet unclear on how rights and benefits over forest products are defined and distributed.
• Circular 58/2009 of MARD allows conversion of well-stocked forest plots under 3 ha (defined as forests with a higher timber volume than the maximum allowed for conversion into rubber) to other land-use purposes. This provision has sometimes been abused, resulting in significant forest loss.
• Taxes on the timber trade are excessive, disincentivizing timber businesses and sustainable management.
• There is no effective mechanism to monitor the implementation of FA/FLA to ensure that due process is followed.

Corruption is one of the most burning issues regarding land in Vietnam (Wells-Dang 2013). At the same time, disciplining corrupt local officials is also seen as a means by which the central state has continued to maintain its control over local cadres (Sikor et al. 2012). At a micro level, studies suggest that even low level political connections play a significant part in affecting land improvement through investment (Markussen and Tarp 2014).

Under the 2013 Land Law, land acquired for public purposes such as national defense or public infrastructure, or land required for 100% foreign direct investment, can be acquired by obligatory purchase. In principle, land required by domestic private investors for commercial purposes is to be acquired by voluntary conversion, through

negotiation between the investor and landholder. In practice, compulsory acquisition has been applied in a number of cases of domestic, private investment for commercial purposes. Public authorities play an important part in negotiating and sometimes coercing agreements even in nominally "voluntary" arrangements (World Bank 2011). The line between public interest and private benefit is thus somewhat blurred, particularly as state officials are often understood to be serving the interests of investors vis-à-vis landholders (Han and Vu 2008). The 10 years between the enactment of the third and fourth land laws are characterized by a high level of contestation. Provincial officers were officially encouraged to finance their development plans by renting land to investors, which resulted in the creation of many economic and industrial zones and opening up of spaces for construction. To attract investors, some provinces completely changed their city plan in favor of oversized zones and infrastructure (Mellac 2014). Accessing justice on land-related issues is usually dependent on the intervention of the executive power and its "invisible" hand, the Party. Together with increasing pressure from donors and foreign NGOs, worsening land disputes have led to some adjustments from the government. These are reflected in the most recently enacted 2013 Land Law. The 2013 Land Law establishes a new (partially private) body at the provincial level that is in charge of defining land prices and approving land appropriations. Land shortage is a longstanding issue in Vietnam, and it has deep historical roots. The very low per capita availability of land has resulted in land shortages and landlessness, with the average farm size being well under half a hectare (Wells-Dang 2013). Of even greater concern is the social distribution of land and the forces for land concentration (Wells-Dang 2013). Landlessness and associated land struggles have a history in Vietnam that is closely connected with the country's political transitions. In the Central Highlands, ethnic minorities have lost land over past decades. This is partly due to state enterprises encroaching on fallows previously used for shifting cultivation, land encroachment by Kinh settlers in and near New Economic Zones, and land sales as certificates facilitated the buying and selling of land. These displacements also contribute to further encroachment on forest lands by shifting cultivation as poor families are displaced by those encroaching on, or otherwise acquiring, land to grow

coffee (Meyfroidt et al. 2013). Resistance to land conversion and negotiation over compensation have become ubiquitous in Vietnam. There is limited political space for expressing different views from government (Labbé 2011; Labbé and Musil 2013).

2.3.2 Carbon rights

Carbon rights have been a debated in Vietnam since 2012 (Pham et al. 2012) due to unclear and inconsistent policies over land tenure and tenure rights (Nguyen 2014). The legal framework on carbon rights in Vietnam is weak and there has been limited discussion on carbon rights in the REDD+ political sphere. However, recently, there has been more discussion and it is generally accepted that the entity that owns the land (the government) also owns the carbon. The government is preparing formal registration of carbon rights under the framework of the Emissions Reduction Program Agreement. MONRE is developing the domestic carbon market.

Carbon rights are not regarded unlawful under the current law but just have no legal grounds for their recognition and hence their transfer except the Decision No. 1775/QD-TTg 21 November 2012 on approval of project of GHG emission management, management of carbon credit business activities to the world market. This decision refers to carbon trading and management.

2.3.3 Participation in decision-making processes

Despite the clear requirement to include participatory decision making in the forestry sector, as stated in many policies, the role of non-state actors in the decision-making process is limited (Pham et al. 2014b). Nguyen et al. (2014) highlighted that, despite efforts to engage local people in the process of discussion and decision making on forest contracting, community participation is much more constrained than the law stipulates. Local people's knowledge of their participation rights is also limited (Le et al. 2016; Loft et al. 2017; Pham et al. 2013).

A study conducted by Pham et al. (2014a) showed that the strong interest of a large number of stakeholders involved in REDD+ could lead to a wide range of policy proposals. This could potentially offer a wide selection of options for REDD+ implementation. The study also showed

that the REDD+ decision-making process in Vietnam is weakened not only by its inability to address the interests and concerns of those who participate in the formal arena, but also by its inability to involve and engage important actors who drive deforestation and forest degradation. However, Pham et al. (2014a) also highlighted positive signs of decision making in which actors have the political space to propose alternative policy options, even in highly centralized policy events. The Ordinance on the Implementation of Democracy in Communes, Wards and Towns (2007) defines the requirements for effective participation, including what information people should be given, what they should discuss, vote and decide on, how to provide comments prior to the decision by the competent authority, and how to monitor. REDD+ implementation at grassroots level.

Research conducted by Yang et al. (2016) on multiple governance in land-use decision making showed that 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 with local communities; and (iii) local people's understanding of the pros and cons of these land uses, and their confidence and rights to accept or reject land-use changes.

2.3.4 Gender equity

Gender equity continues to be overlooked in most forestry policies. According to Pham et al. (2016), women were not encouraged to participate in forest management and the REDD+ decision-making process despite the political commitment asserted in the National Strategy on Gender Equality (2011–2020), the National Action Program on Gender Equality (2011–2015) and the National Forest Strategies (2006–2020). Although large numbers of women participate in REDD+ meetings, and women at the national level are less affected by discriminatory cultural and social norms, significant obstacles remain to the full participation of women. The recruitment protocol of Vietnam forestry sector does not favor women and their participation in REDD+ working groups is often nominal. In addition to weak capacity to implement gender strategies, a lack of concern for gender issues prevails among national organizations working on REDD+ in Vietnam. Current REDD+ payment distribution also fails to address gender. It has not been developed with a gender-sensitive approach and does not taken into account the different perceptions of men and women (Pham et al. 2015). Women also face disparities regarding access to land (Tran et al. 2012): Only 36% of agricultural LURCs are held jointly or in women's names for the Kinh majority, and only 21% for ethnic minority women (Oxfam 2012).

3 The political and economic context of deforestation and forest degradation in Vietnam

3.1 Vietnam's political system and its macro economy

In the first Country Profile, Pham et al. (2012) analyzed the one-party system and its implications for forest management. This section deals with the implications on the economy. Since the 2000s, the Vietnamese economy has been experiencing dynamic economic growth, driven by international trade and foreign investment. The country experienced a growth rate of 6.7% in 2015 and 6.2% in 2016. Growth prospects for 2017 remain high with 6.5% growth. GDP has increased since 2014 (Table 13). According to the World Bank, much of the economic growth in Vietnam is predicated on the intense exploitation of natural resources (World Bank 2017). Further, the World Bank claims that, despite Vietnam's remarkable progress on poverty reduction, promoting development has become increasingly difficult. Major challenges include narrowly shared economic growth, high poverty rates among ethnic minorities, increasing social vulnerability and rising levels of inequality. Close to 45% of ethnic minorities still live in poverty. Although they make up only 15% of the country's population, ethnic minorities constituted 73% of Vietnam's 9 million poor people in 2016. The poor are heavily concentrated in rural areas (World Bank 2018). The UNDP has further confirmed the World Bank's observations, highlighting the changing nature and characteristics of poverty and the persistence of societal disparities.

Since 2012, the government has launched reforms in all key sectors of the economy and begun to privatize public companies. To cope with the global financial crisis, the government strengthened the business sector by promoting production and exports, stimulating consumption and investment, and introducing new fiscal policies. In 2016, Vietnamese foreign trade benefited from a slowdown in global demand from China. Inflation reached 4.7% in 2016, a relatively low rate for the

Table 13. Economic indicators, 2014–2018

Main indicators	2016	2017	2018 (e)	2019 (e)	2020 (e)	Main indicators
GDP (billion USD)	201.33	220.38	241.43	266.24	292.17	GDP (billion USD)
GDP (constant prices, annual % change)	6.2	6.8	6.6	6.5	6.5	GDP (constant prices, annual % change)
GDP per Capita (USD)	2,172	2,353e	2,553	2,788	3,031	GDP per Capita (USD)
General Government Gross Debt (in % of GDP)	59.9e	58.5	57.8	57.4	57.1	General Government Gross Debt (in % of GDP)
Inflation Rate (%)	2.7	3.5	3.8	4	4	Inflation Rate (%)
Unemployment Rate (% of the labor force)	2.3	2.2	2.2	2.2	2.2	Unemployment Rate (% of the labor force)
Current Account (billion USD)	5.92	5.4	5.23	5.23	4.96	Current Account (billions USD)
Current Account (in % of GDP)	2.9	2.5	2.2	2	1.7	Current Account (in % of GDP)

Note: (e) Estimated data

Source: Nordeatrade.com (2018)

country. In 2017, public finances remained fragile and the public deficit was still high. Despite a large public debt, the country's external accounts have improved as the exports have risen. With its stable political context, Vietnam has attracted a large amount of foreign direct investment (FDI), including a record USD 15.8 billion in 2016, up 9% from 2015.

Despite these achievements, political challenges to Vietnam's economy include corruption and the need to maintain a communist ideology (Steinfeld and Thai 2013).

In addition, SOEs, the domestic private sector (mostly SMEs) and foreign international enterprises are treated differently (Malesky and London 2014) with a clear preference for SOEs and international firms. While SOEs can only provide employment for less than 5% of the total population, the private sector provides more than 92% of total employment in the countries (Busch 2017). SOEs are seen as the backbone of the communist economy, although they are inefficient and a heavy burden on the economy (Perkins and Vu Thanh 2011). A total of 319 SOEs still play a leading role in the economy and manage 2,853,164 ha of agricultural and forest land nationwide (Government of Vietnam 2015). Thirteen large state corporations and their private banks owe debts of likely more than USD 20 billion (or 10–15% of GDP), which restricts the development of the country (Busch 2017).

Economic liberalization has so far only benefited state firms (Busch 2017). In the early 2000s, many SOEs were subject to some form of limited privatization (especially of asset-holding subsidiaries), a policy that was approved because it furthered the interests of state-connected actors. In the absence of a true commercial class that is able to acquire and manage divested assets, privatization ended up funneling valuable assets, such as land, from SOEs to private companies under the control of these actors (Busch 2017). Privatized companies retained their connection to the state, as the government kept nearly two-thirds of SOE shares sold during the main period of privatizations from 2001 to 2011 (Busch 2017). Most government policies provide special favors to SOEs by granting them more access to critical resources, such as land, credit and natural resources, and lucrative opportunities, such as public investment and government procurement. In fact, SOEs were allowed to use state capital without paying

dividends until. The SOEs were designated to disburse the majority of official development assistance (ODA) capital and they are also granted state-owned land for free. Moreover, they can use the leased land as collateral for bank loans, while private businesses do not have such an option. In contrast, more than 95% of Vietnamese companies are small scale, and struggle with lack of access to credit and land. They are usually reliant on old, often second-hand technology. Foreign investors often negotiate directly with local governments to obtain highly competitive terms related to taxation and access to land (Busch 2017). This makes it difficult for SMEs to compete, and a lack of domestic competitiveness over the past 10 years means larger export-focused FDI enterprises have little incentive to build business links to these less competitive domestic firms (Busch 2017).

In the forestry sector, smuggling and illegal trade are already sanctioned by local officials – and usually carried out by managers of SOEs. Such tacit approval not only creates markets for otherwise illicit commodities but also for the official positions that control these activities (Busch 2017). In fact, this coalition of local officials and SOE managers, who were the prime beneficiaries of fence breaking, represent the main force lobbying their more senior party peers to accept these market changes (Busch 2017).

In November 2015, the National Assembly ratified an economic restructuring plan for 2016–2020 with SOE reform and restructuring of the financial sector among its leading priorities. Most SOEs are not centrally controlled. Local state actors have responded to the privatization drive by devolving SOEs' valuable assets, such as land, into subsidiaries with opaque and, in many cases, quasi-private ownership structures (Busch 2017).

With its budget deficit exceeding 6% of GDP for each of the past 5 years (2013–2018), Vietnam has effectively reached its self-imposed 65% debt-to-GDP ceiling for 2016–2018. In fact, this fiscal constraint seems to have led to some progress on SOE restructuring, with sales of strategic stakes and even initial public offerings for major SOEs announced in 2017. Other sources of revenue remain flat, despite strong economic growth, with total tax revenues under 20% of GDP and the share from income and profit taxes a meager 35% of total tax (Busch 2017).

Perhaps a greater concern than the fiscal constraint of the debt ceiling is the low quality of existing public spending, much of which is at the subnational level. Vietnam's central transfers are highly progressive and became more so during 2007–2011. They have helped drive regional–urban convergence in access to services and measures of welfare. However, the quality of public investment is often uncoordinated and incoherent because of fragmented governance structures (Busch 2017).

Competition between local governments to attract foreign investment has at times been productive, yet wasteful at other times. One example of waste and duplication is the number of ports and airports that have been built (Busch 2017).

More progressive policies on securing land tenure depend on shifts in factors underlying civil society space and interest-group politics. The Vietnamese government is not a unified actor. Some government allies are prepared to join with civil society advocates in coalitions for policy reform, while different bureaucracies and central–local splits make regulation and enforcement difficult. Local officials are assessed on economic growth performance, not on compliance with laws (Wells-Dang et al. 2016). Development, in turn, is seen as a short-term measure of GDP rather than a longer-term and multi-faceted social development challenge (Wells-Dang et al. 2016).

The MARD master plan and Decree 30 have created a new opportunity for "renovation, restructuring, and boosting performance effectiveness" that aims to deal with the current constraints of state-run forest management. Important developments in the master plan and Decree 30 include: "the privatization of forest companies which solely manage production plantations, conversion of forest companies which manage natural forests into forest management boards" operating in the form of public welfare organizations, and dissolving forest companies which suffer from continual business losses. This means shifting away from state-run management, in which forest companies and FMBs are given priority, toward household- and community-centered management. This effort requires that the Government of Vietnam proceed with decentralization of forest-land management, with land currently owned by forest companies and FMB allocated to households and communities instead.

3.2 Political economy of drivers of deforestation and degradation

The government has set a target for forest cover of approximately 42% by 2020 (Government of Vietnam 2017b). However, while forest cover is increasing, it is unlikely that the 42% target will be met (Pham et al. 2017). Drivers of deforestation and degradation discussed in Chapter 1 are difficult to tackle for several political reasons.

3.2.1 Meeting the national development goal

Despite its impressive economy, Vietnam needs an annual GDP growth of 7–8% to reach the current position of Asian economies such as Taiwan and South Korea by 2035 (Busch 2017). Meanwhile, the country is still struggling to reach 6.5% annual growth (Busch 2017). All sectors, including forestry sectors, ministries and provinces, are obliged to promote their economic development activities so the country can meet its target in period of a GDP of 6.5–7% on average in five years, 2016–2020, with a per capita GDP of approximately USD 3,200–3,500 by 2020 (ADB 2016). To achieve this target, the economy needs to be strengthened based on competitive sectors that have significant economic value and GDP, such as coffee, rubber and wood-processing industries, which are major drivers of deforestation and degradation in Vietnam. The political context of each of these sectors will be discussed in more detail below.

3.2.2 Hydropower development

According to Pham et al. (2012), to support rapid national economic growth, Vietnam is building new hydropower plants to provide a cheap energy resource. Since 2012, when our first Country Profile was published, hydropower plants have continued to be a major and widespread driver of deforestation and degradation in Vietnam. The development of hydropower has resulted in the loss of 200 ha of special-use forest and biodiversity loss (Thien Nhien 2017). According to the MARD, 19,792 ha of forest in 29 provinces were cleared for the construction of 160 hydropower projects in the period from 2006 to 2012. That area included 3,060 ha of protection forest, 4,411 ha of special-use forest; and 12,321 ha of production forest (Goverment of Vietnam 2013). Tropenbos Viet Nam (Ty and Nghi 2017) found that, between 2006 and 2013, over 19,805 ha of forest land were converted in 27 provinces of the country for reservoir and

construction sites. The Central Highlands lost the largest area, 358,700 ha, during the peak of the hydropower frenzy between 2008 and 2014 (Thanh Nguyen and Nhung Nguyen 2017). The Law on Biodiversity (National Assembly 2008) does not address hydropower development, and thus fails to protect biodiversity in these cases. The small amount of money reserved for the mitigation of negative impacts on biodiversity makes hydropower projects appear cheaper than they should be, while hydropower increases the chance of biodiversity loss with costs to the environment and society. There are gaps in the legal requirements for Environmental Impact Assessments, which partly explains why mitigating the environmental and social risks of hydropower projects is overlooked. The legal framework on hydropower plants also has major gaps. These include the absence of detailed regulations resulting in poor practices of compensation for forest loss and reforestation in many hydropower projects. There are no regulations on recovering forests grown by people which are cleared for hydropower development. Government offices which fail to conduct full-scale reforestation are not punished. There is no requirement to evaluate forest environmental services of forest areas being destroyed. There is no regulation forcing hydropower investors to contribute to protecting or replanting forest being deforested by local people and loggers for the construction of their plants. In many provinces, private companies investing in small hydropower unit construction and rubber plantations have strongly influenced provincial leaders and the Provincial People's Committee in decisions related to forest land allocation, forest leases and forest conversion in order to gain benefits (Pham et al. 2009; UNREDD 2013). Apparently, voices from district, communal authorities and local communities "are not taken much into account" (UNREDD 2013).

In recent years, the government has acknowledged the negative impact of hydropower development on both the environment and local people. In 2013, the Prime Minister rejected 424 (about 34%) proposals the construction for hydropower dams (Dang Giang 2013). In 2012, hydro provided about 48% of Vietnam's electricity, but by 2020 this is expected to drop to about 20% (IHA 2014). Vietnam also requires hydropower plants to replant and compensate for the loss of forest cleared for construction. However, according to MARD, by 2013, only 3.7% of the converted forest areas had been subject to replanting (Ty and Nghi 2017).

In 2014, hydropower investors planted 2,450 ha of forest, meeting only 22% of the required target (Pham Anh 2014). The construction of hydropower plants also opens more ways for loggers and poachers to access further forest areas, including natural reserves with precious flora and fauna. This secondary forest loss is usually not incorporated into the reforestation plans of hydropower projects' investors.

3.2.3 Coffee

Coffee provides a strategically important income for Vietnam, as the country is the world's second largest producer after Brazil (UNREDD 2017). In 2016, Vietnam produced 1.5 million tons of coffee (Table 14). It generates USD 3 billion annually and employs more than 1 million people in the country. In 2015, the coffee area was about 662,250 ha, accounting for around 17% of the world's coffee output, and providing 50% of the world's low-end Robusta beans.

The government aims to expand the coffee area and is providing supporting loans and subsidies for the coffee sector. In July 2013, in response to the coffee crisis in Vietnam that arose through tax evasion, mismanagement, insolvency, high interest rates and a credit squeeze, the government extended the loan repayment period for coffee firms from 12 to 36 months (Nguyen et al. 2013). The Vietnam Coffee and Cocoa Association (VICOFA) has sought government approval to stockpile 300,000 tons – a fifth of the country's output – to try to boost prices and offer exporters soft loans to finance purchases of beans from farmers.

The expansion of coffee has been the primary driver of deforestation and degradation in the Central Highlands. It has resulted in the loss of ethnic minority land to large-scale plantations, often run by the majority Kinh, who have migrated to the region.

3.2.4 Rubber development

According to the Vietnam Rubber Magazine (Tran 2018), Vietnam currently ranks third globally in natural rubber production and export. In 2017, the country earned USD 2.3 billion from the export of 1.4 million tonnes of natural rubber, up 36% in value and 11.4% in volume year on year (Table 15). The rubber sector

Table 14. Plantation and export of coffee in Vietnam, 2012–2017

	2012	2013	2014	2015	2016	2017
Coffee (tons)	1,732,156	1,301,202	1,153,370	1,341,171	1,470,000	1,800,000
Coffee (ha)	623,000	637,000	665,009	662,250	645,000	650,000

Source: authors' data

Table 15. Plantation and export of rubber in Vietnam, 2010–2017

	2012	2013	2014	2015	2016	2017
Rubber (tons)	1,023,231	1,074,603	1,173,480	1,137,369	1,260,000	1,395,000
Rubber (ha)	917,900	958,800	977,700	981,000	976,400	971,600

Source: authors' data

contributed VND 1.7 trillion (USD 74.46 million) to the state budget in 2017, while paying its employees an average of VND 7.1 million (USD 310) each per month.

The government encouraged the rapid expansion of the rubber industry (Goverment of Vietnam 2009), after Vietnam joined the ASEAN Free Trade Area (AFTA) and the WTO. This led to deforestation in many areas. By 2015, the rubber plantation area had reached 981,000 ha. The shift from tropical forests and traditionally managed swidden fields to large-scale rubber monoculture resulted in a loss of ecosystem services and significant changes in ecological functions, socio-economic conditions and human welfare, as well as impacting the carbon balance.

3.2.5 Timber and wood-processing industry

Vietnam is one of the world's largest exporting countries of wood furniture and parts, with exports valued at USD 4.38 billion in 2013, and exports of primary timber products valued at USD 769.8 million in 2014 (VIFA-EXPO 2016). In 2016, the total export turnover of wood and wood products of Vietnam reached nearly USD 6.8 billion, providing the largest export turnover for the country.

According to interviewees from Vietnam Timber and Forest Product Association (VIFORES), the Handicraft and Wood Industry Association of Ho Chi Minh City (HAWA), Binh Dinh Wood and Forest Product Association (FPD Binh Dinh) and Forest Trends (2018), the export of timber and wood products from Vietnam was USD 7.7 billion in 2017. This shows an increase

Table 16. The largest world wood markets over first 6 months in 2017

Country	Export turnover (million USD)	Percent (%)
Cambodia	145.6	13.8%
United States	121.7	11.6%
Africa	211.22	20.1%
EU	114.9	10.9%
Malaysia	50.9	4.8%
Thailand	46.1	4.4%
New Zealand	27.8	2.6%
Chile	27.7	2.6%

Source: To et al. (2017b)

in both quantity (increase 12.6% as compared to 2016) and quality.

To et al. (2017b) also found that the amount of timber and wood imported from Laos declined, while imports from Cambodia and Africa grew rapidly in 2017 (Table 16 and 17). Their report showed that the supply and demand of wood and wood products in Vietnam is not aligned and balanced, suggesting that the development of the processing is unsustainable. The wood-processing sector is also at risk, as all countries supplying wood to Vietnam from Africa (over 20 countries) have very low national governance ratios, high corruption indexes and use/management policies.

The timber volume from both natural forests and plantations increased in 2016 compared with 2005 (Table 18).

Table 17. Pros and cons of different markets

Countries	Context	Pros and cons for Vietnam
United States	The United States controls imports of Chinese wood products.	Create opportunities to expand the market for Vietnamese wood products.
Japan	In 2016, the Japanese government passed the Law on Enhancing the Distribution and Use of Legal Timber, also known as the Clean Wood Act.	Vietnam's timber and timber products entering the market might have some difficulties in ensuring and proving accountability.
Korea	The Korean government banned the removal of illegal timber from the market by 2012. The ban is contained in the Forestry Act promulgated in 2012. In addition, in March 2017, Korea's Forest Administration announced the Act on the Sustainable Use of Wood, which includes provisions to govern the use of import of wood products into this country.	n/a
China	China has banned timber harvesting from natural forests effective from the beginning of 2017.	Direct impact on the Vietnamese timber industry, particularly in terms of raw material supply. The competitive situation in purchasing rubber wood among Vietnamese enterprises and between Vietnamese enterprises and Chinese traders is intense, which has led to the price of rubber wood material increasing by 40% since 2017.

Source: To et al. (2017b)

Table 18. Timber volume

	2005	2016
Timber from natural forest (million m³)	758.2	992.8
Timber from plantations (million m³)	53.4	190.02

Source: Authors' data based on interviews with government agencies

The area of plantation forest in Vietnam increased from 3.55 million hectares in 2015 to nearly 4 million hectares in 2016. The export value of wood-processing industry had doubled by 2016 from 2010 (Huyen 2017). In 2016, the total wood and wood products export turnover of Vietnam reached about USD 6.8 billion. In the first 6 months of 2017, export turnover reached nearly USD 3.7 billion. The price of raw wood materials increased from 2 million VND in 2010 to 5 million VND per cubic meter in 2016, which resulted in in an export trade in wood and wood products worth USD 5.76 billion in 2016 (Vietnamnews. vn 2016a). According to interviewee from Vietnam Timber and Forest Product Association, this is expected to reach USD 10 billion by 2020.

Vietnam's Forest Development Strategy sets the target of certifying at least 30% production forest area by 2020. However, in 2016, the area certified was only 220,000 ha, equivalent to 5.3% total planted area (Pham et al. 2017). Sectoral production values are still low with only 0.68% national GDP in 2016 compared with 2–3% set out in Vietnam Forest Development Strategy (Pham et al. 2017).

The signing of the FLEGT VPA changes both the domestic and export markets. Import supply to the domestic market is equal from two main groups: (i) natural wood species from tropical regions such as the Greater Mekong Subregion and African countries which are unstable and have a high risk of being illegal; (ii) countries such as the United States, some Latin American countries and the EU with low legality risks. Vietnam imports about 4–5 million m³ of timber raw materials annually, with an import turnover of over USD 1 billion. In the first 6 months of 2017, the total import value of Vietnam's raw material wood reached nearly USD 760 million (To et al. 2017b). However, some of the changes in Vietnam's wood-based materials and furniture markets are likely to continue to have a major impact on the wood-processing industry. Timber supply from the countries in the Greater Mekong Subregion

is fluctuating, with the supply from Laos almost disappearing, while the supply from Cambodia increasing sharply (To et al. 2017b).

The expansion and development of the wood industry is Vietnam is facing a number of difficulties in competing for raw materials. This is due to the policy of controlling the source of raw material in importing countries, such as Laos, as well as the increase in demand for natural wood in China since the ban on timber extraction from natural forests in the country came into effect in early 2017 (To et al. 2017b and Table 17). Corruption in the forest sector remains understudied in Vietnam considering the significant incomes from wood products (generating around USD 4.67 billion in 2012) and the substantial regional flows of timber to and from the country. Several studies claim, however, that illicit activity in the sector continues to thrive despite regulatory efforts (To et al. 2014).

3.2.6 Rice

Rice is a key agricultural commodity in Vietnam, and the agriculture, forestry and fisheries sector is a major source of employment. Vietnam is the world's fifth largest rice exporter by volume, with 6 million tons of rice exported in 2017 (FORBES Vietnam 2017). Government Resolution 63/NQ-CP dated 23 December 2009 on Ensuring national food security sets objectives for 2020 as: paddy area 3.8 million hectares, rice production from 41 to 43 million ton and rice exports of around 4 million ton per year; maize plantation area 1.3 million hectares and maize production 7.5 million ton. Vietnam has relatively low rice production cost because: the country overproduces rice, labor is cheaper than in other regions and the rice is often low quality. Vietnamese farmers produce 2–3 crops/year. Short growing periods result in lower quality rice compared to the same varieties in other countries, such as Thailand or India.

Traditional wet paddy rice production also emits a significant amount of methane, a powerful GHG. Vietnam harvests around 7 million hectares of rice annually, and methane emissions from rice production are responsible for 50% of emissions from agriculture, which in turn is responsible for 33% of the country's total GHG emissions (Ccacoalition.org 2018).

While the economy continues to expand, there have been chronic structural and macroeconomic problems. Vietnamese agriculture has increased yields and total output but has not been able to substantially increase quality or value added. Further expansions in agricultural production are possible, but remain stymied by small and fragmented cultivation areas that restrict investment in agricultural equipment or exploiting economies of scale in crop production. However, as Figure 5 shows, rice production has fallen over time. In the most recent Decree No 942/QD-TTg dated 3 July 2017, on Approval for rice export market development strategy of Vietnam for the period of 2017–2020 with vision toward 2030, the government confirms that it aims to gradually reduce the amount of exported rice. At the same time, it will increase the rice export value by increasing the quality and shifting the structure of export products.

Figure 5 shows that rice production is decreasing but maize production remains level. This is because rice farmers receive a lower income than other farmers who grow other crops, such as wheat and maize. In the last two decades, Vietnam has produced more rice than needed. The most recent Decree No. 942/QD-TTg dated 03 July 2017 on Approval for rice export market development strategy of Vietnam for the period of 2017–2020 with vision towards 2030 confirms the government strategy is not to increase rice production but improve the quality and value added for rice export.
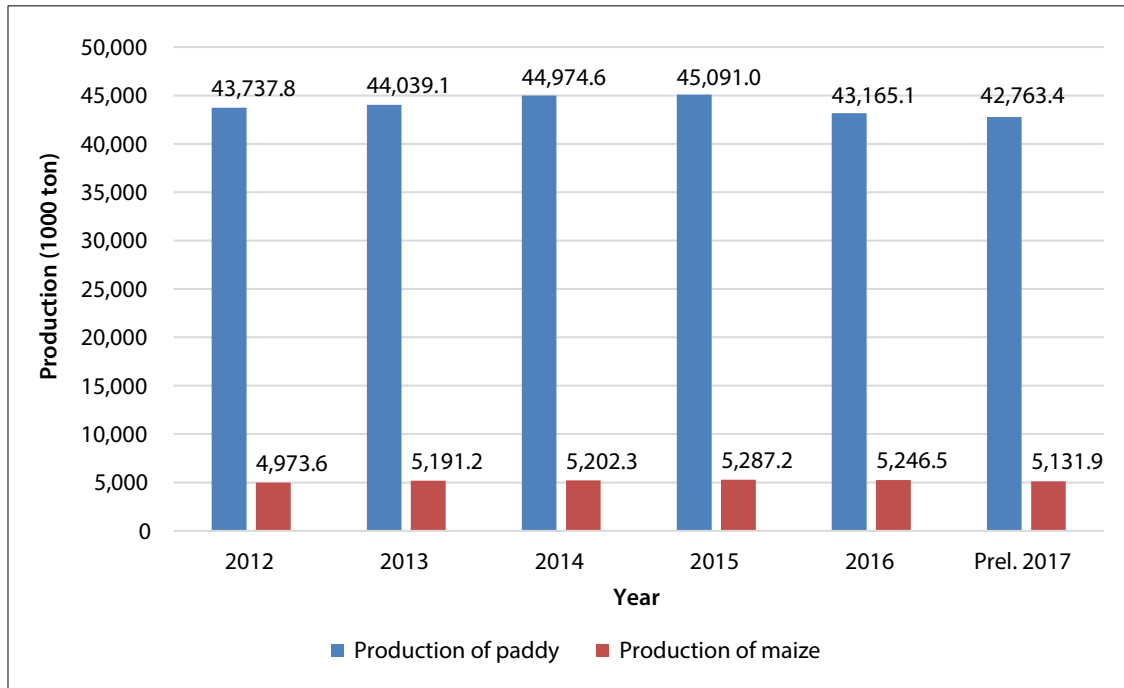
Figure 5. Rice and maize production

Source: GSO (2017b)

4 The climate change policy environment

4.1 The REDD+ national policy environment

Policy documents and policy development between 2008 and 2012 related to REDD+ were recorded in Pham et al. (2012). Between 2013 and 2017, a large number of new policies related to REDD+ were issued (see Table 19 and Table 20). The main policy that changed REDD+ in Vietnam was the Decision No. 419/QD-TTg in April 2017. In addition, the Vietnamese government approved the National Program on the reduction of greenhouse gas emissions through the reduction of deforestation and forest degradation, sustainable management of forest resources, and conservation and enhancement of forest carbon stocks (REDD+) by 2030.

Table 19. Major policies that shaped REDD+ policy in Vietnam

Year	Name of policy	Key content
Jan 2011	Decision No. 39/QD-BNN-TCCB	Establishment of REDD+ Steering Committee
Jun 2012	Decision No.799 /QD-TTg	Approval of the National Action Program on reducing emissions greenhouse gases through efforts to reduce deforestation and forest degradation, sustainable management of forest resources, conservation and enhancement, forest carbon stocks in the period 2011–2020.
Sep 2012	Decision No. 1393/QD-TTg	The Prime Minister's approval of the National Green Growth Strategy, in which the agriculture sector recognizes the need to speed up afforestation/reforestation and implement programs to reduce GHG emissions through REDD+ and sustainable forest management.
Nov 2012	Decision No. 1775/QD-TTg on approval the project about management of greenhouse gas emissions; Managing carbon trading activities in the world market	Manage GHG emissions to implement the UNFCCC and international treaties to which Vietnam is a party. Take advantage of opportunities in order to develop a low-carbon economy and green growth to reduce GHG emissions, contributing to the goal of sustainable development. Manage carbon trading activities in the world market: effectively manage, monitor trading activities, transfer of carbon credits generated from mechanisms within and outside the Kyoto Protocol to the world market.
Apr 2013	Decision No. 594/QD-TTg approving the Project on Nationwide general investigation and inventory of forests for the period from 2013 to 2016	Conduct a nationwide update of forest management units through the National Forest Inventory and Statistics Program to provide updated information for the annual monitoring of forests.
Mar 2015	Decision No. 106/QD-TCLN-VP	Establishment of Vietnam REDD+ Office (VRO). VRO allowed to create their own accounts and use the seal of VNForest office for transactions

Table 19. Continued

Year	Name of policy	Key content
Apr 2015	Decision No. 161/QD-TCLN-VP on Issuing the working regulations of VRO	Prescription of the principles, responsibilities, powers, working regimes, working relations and order of work settlement of VRO. Applies to members of the office, agencies, units and organizations involved with VRO.
Dec 2015	Decision No. 5399/QD-BNN-TCLN on Issuing Regulation on piloting REDD+ benefit distribution under the framework of UNREDD Vietnam Phase II	Provision of practical basis for the development of REDD+ benefit distribution mechanism and policies for their nationwide application for the implementation of REDD+ action programs or REDD+ action plans. Includes benefit distribution: benefit distribution methodologies, organization of benefit distribution, rights and responsibilities of beneficiaries and monitoring, evaluation and grievance redress.
Dec 2015	Decision No. 5414/QD-BNN-TCLN on approving the guidelines on development of provincial action plan on reducing GHG emissions through efforts to reduce deforestation and forest degradation, sustainable forest management, conservation and enhancement of forest carbon stocks (REDD+)	Provision of guidelines on Provincial REDD+ Action Plan (PRAP) development for provinces to implement REDD+ projects and programs or to call for support from partners and international donors within the framework of REDD+ initiative implementation. Contribute to mobilizing resources for and implementation of the National REDD+ Action Plan (NRAP) and forest protection and development plans (FPDPs) in provinces.
Dec 2015	Decision No. 5337/QD-BNN-TCLN on Approving the establishment of Vietnam's REDD+ Fund	The REDD+ Fund is an important component of the REDD+ National Action Program, approved by the Prime Minister on 27 June 2012. The REDD+ Fund was established to mobilize capital including results-based and voluntary contributions, aid, sponsorship, entrusted investment of individual, domestic and foreign organizations to support programs, projects and activities to reduce GHG emissions nationwide. With payments to be made for reduced emissions, enhanced forest carbon stocks, carbon conservation and sustainable management of natural forests across the country. It is expected that by 2020, the living conditions of local people implementing REDD+ will be improved.
Mar 2016	Decision No. 863/QD-BNN-TCCB: Promulgating Working Regulation of the National REDD+ Steering Committee	1. Provision of principles, responsibilities and powers, working regime and relations, as well as a reporting mechanism for the National REDD+ Steering Committee in Vietnam (NRSC). 2. The regulation applies to the members of NRSC, Vietnam REDD+ Office (VRO), ministries, sectors and localities relating to REDD+ activities in Vietnam.
July 2016	Notification No. 191/TB-VPCP	No conversion of 2.25 million hectares of natural forests in the Central Highlands
Aug 2016	Resolution No.73/NQ-CP	Investment policy of the target program in the period 2016-2020, including the target investment program for sustainable forestry development; the overall objectives include improving productivity, quality, and promoting the value of each forest type, increasing the value of production forest per area; contributing to meet the requirements for disaster reduction, ecological environment protection, effective response to climate change and sea-level rise; creating jobs, increasing incomes, contributing to hunger eradication and poverty reduction, improving livelihoods for local people who depend on the forests in association with the process of new rural development, ensuring security, defense and social order.

Table 19. Continued

Year	Name of policy	Key content
Jan 2017	Directive No. 13-CT/TW (12/01/2017)	Board of secretary on strengthening the Party's leadership of the management, protection and development of forests, aiming to block logging in natural forests nationwide.
Jun 2017	Decision No. 886 QD-TTg approving the Program for Sustainable Forestry Development for the period 2016-2020	Specific targets toward 2020: 1. Growth rate of forestry production value from 5.5% to 6%. 2. National forest coverage rate of 42%, forest and area of 14.4 million hectares. 3. Average plantation productivity of 20 m³/ha/year. 4. Value of exports of timber and forest products to reach USD 8–8.5 billion. 5. Maintain 25 million jobs, increasing income, contributing to poverty alleviation, improving the livelihoods of people working in forestry, associated with the process of rural development, ensuring security, national defense, social order and safety. Total capital of the program is VND 59,600 billion (~USD 2.6 billion) (Central budget: VND 14,575 billion (~USD 0.6 billion) and ODA capital and other: VND 45,025 billion (~USD 2 billion)).

Apr 2017	Decision No. 419/QD-TTg on approval of the National Action Program on the Reduction of Greenhouse Gas Emissions through the reduction of Deforestation and Forest Degradation, Sustainable Management of Forest Resources and Conservation and Enhancement of Forest Carbon Stocks (REDD+) by 2030	Contribute to protecting and improving the quality of the existing natural forests, expanding the forest area and improving the quality of plantation forests; link with the implementation of national goals of reducing GHG emissions, forest protection and development, green growth; mobilize international support, getting access to carbon markets; and improve people's lives and the country's sustainable development.
		
		Specific objectives:
		* For the period 2017–2020
		  a. Contribute to the reduction of GHG emissions through REDD+ activities, as well as expansion of the forest cover to 42%, with 14.4 million hectares of forest by 2020;
		  b. Meet the requirements of REDD+ readiness, ensuring there is capacity to access financial resources for results-based payments as per international requirements;
		  c. Improve the quality of natural forests and planted forests to increase carbon stock and environmental forest services; replicate effective models of forest plantations; aim at sustainable management, protection and conservation of natural forests;
		  d. Contribute to the improvement forest governance, create jobs, improve the living conditions of the people associated with the New Rural Program and ensure security and national defense.
		
		* For the period 2021–2030
		  a. Stabilize the natural forest area by 2030 to at least the same level as 2020, and increase forest cover up to 45% of national territory, contributing to the realization of the national target of reducing total GHG emissions by 8% by 2030 compared with the BAU scenario, in line with the Paris Agreement. This contribution may increase to 25% with international support;
		  b. Replicate highly effective models on REDD+ and sustainable forest management, integrate REDD+ fully into sustainable forestry development programs;
		  c. Complete policies, laws and action framework of the REDD+ program and access financial resources for results-based payments in accordance with international requirements.

Table 19. Continued

Year	Name of policy	Key content
Nov 2017	Decision No. 1857/QD-TTg on the establishment of the State Steering Committee for the Program on Sustainable Forestry Development for the period 2016 - 2020	Establishment of the State Steering Committee for the Program on Sustainable Forestry Development for the period 2016–2020. This decision includes functions, powers, tasks, activities and funds of the Steering Committee.
Nov 2017	The Law on Forestry	Article 61: Payment for Forest Environment Services includes forest carbon sequestration and preservation; reduction of greenhouse gas emissions from deforestation and forest degradation; sustainable forest management, green growth. Article 86: Rights and obligations of population communities assigned by the state to religious forests, protection forests and production forests.
Mar 2018	Decision No. 823/QD-BNN-TCCB	Establishment of State Steering Committee office for the Target Program on Sustainable Forest Development for 2016–2020 and REDD+ implementation by merging State Steering Committee office for the Target Program on Sustainable Forest Development for 2011–2020 and Vietnam REDD+ Office.

The legal framework supporting REDD+ is strong, with a series of policy instruments in place ranging from strengthening institutional setting to restricting deforestation. The revised NRAP has addressed major limitations of the previous NRAP by providing clearer policies and measures (PAMs) for addressing drivers of deforestation, as well as clear monitoring and evaluation of NRAP implementation.

As of June 2015, Vietnam had 254 Clean Development Mechanism (CDM) projects accredited and registered by the CDM Executive Board. Vietnam is ranked fourth internationally for number of projects, with a total GHG reduction of approximately 137.4 million tCO_2e in the credit period. Among the 254 projects, energy projects account for 87.6%, waste treatment for 10.2%, reforestation and afforestation for 0.4% and other projects for 1.8%. To date, more than 12 million certified emission reductions credits have been issued by the Executive Board for Vietnam, ranking it at eleventh in the world.

The NRAP is expected to contribute directly to the INDCs by reducing BAU GHG emissions by 8% by 2030 with domestic funding and up to 25% with international support. However, to date, financing NRAP has been challenging as most REDD+ funding is from international donors committed to specific projects.

Table 20. Comparison of NRAP 2017–2020 and NRAP 2021–2030

NRAP 2017–2020	2021–2030
• Contribute to the reduction GHG through REDD+ activities and the expansion of the forest cover to 42% and reach 11.4 million hectares of forest. • Meet the requirements of REDD+ readiness and capacity to access results-based payment. • Improve the quality of natural forests and planted forests (carbon stock and environmental services). • Contribute to the improvement forest governance, create jobs, improve the living conditions of the people.	• Stabilize the natural forest area by 2030, to at least the same level as 2020 and increase forest cover to 45%. • Replicate highly effective models on REDD+ and sustainable forest management, integrate REDD+ fully into sustainable forestry development programs. • Complete Policies, laws and regulations (PLR) and action framework of the REDD+ program and access results-based payment.

According to UN-REDD (2018), the challenge lies in how to align domestic and international funding flows from multiple funding sources that are potentially relevant to REDD+. Potential funding includes the state budget, ODA, PFES and public banks. However, it remains unclear as to whether these funding sources can be used for REDD+. There are several other factors challenging funding. First, there is a strict ceiling defined by the National Assembly for public deficit and debt until 2020. This leaves limited fiscal space for increased government spending on REDD+, although there is still some space for the government to contract new debts for REDD+ activity. However, new debt should be concessional enough to qualify as ODA or should finance income-generating projects. Second, as ODA can only fund investment, all required expenditure needs to be well covered by the state budget. Third, the VRO has limited capacity to coordinate the REDD+ agenda in Vietnam and this constrains fundraising.

The new NRAP has also clearly mapped out a Theory of Change with a total of 33 PAMs (Figure 6, UN-REDD 2018).

Provincial REDD+ Action Plan (PRAP). For the "indicator of REDD+ scenarios for pilot provinces prepared", Vietnam has submitted PRAPs of all pilot provinces. Nineteen PRAPs have been approved, which set out the suggested REDD+ interventions in the province. PRAP formulation processes were strongly influenced by the national government, while local citizens had limited involvement in their design.
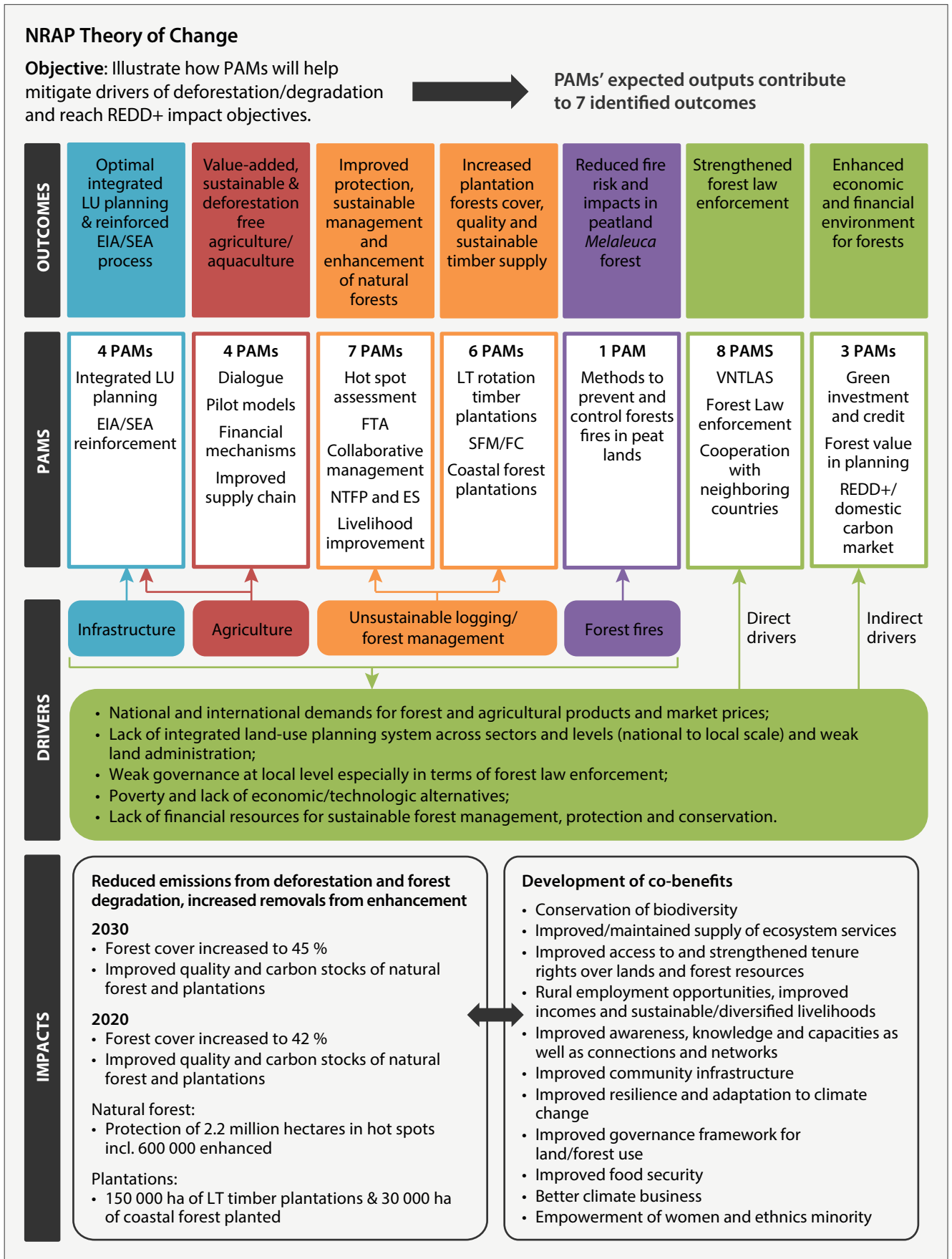
MRV system. By the end of 2016, Vietnam submitted its modified submission on reference emission levels for REDD+, which comprises three parts (Figure 7). Vietnam also submitted its final version of the FREL in December 2016, in accordance with Decision 13/CP.19 and in the context of results-based payments. The FREL/FRL proposed by Vietnam covers reducing emissions from deforestation, reducing emissions from forest degradation and enhancement of forest carbon stocks, which are among the activities included in Decision 1/CP.16, paragraph 70. In its submission, Vietnam has developed a national FREL/FRL. Vietnam has developed an FREL/FRL for the entire national territory of the country,

including all forest areas. As identified in its submission, Vietnam is applying a stepwise approach to its development of the FREL/FRL, in accordance with Decision 12/CP.17, paragraph 10. The stepwise approach enables parties to improve the FREL/FRL by incorporating better data, improved methodologies and, where appropriate, additional pools. Vietnam submitted a modified national FREL of 59,960,827 tCO_2e/year and FRL of −39,602,735 tCO_2e/year, in the context of accessing results-based payments for the activities referred to in Decision 1/CP.16, paragraph 70 (MARD 2016).

Abrupt land-use changes occurred when hybrid maize replaced traditional shifting cultivation and forests, which invalidated carbon stock trends that would have been predicted had the FRL been projected into the future. Demonstrating the additionality of REDD+ in fast developing areas is difficult and that payment systems rewarding potential emission reductions against hypothetical extrapolation of FRLs are unlikely to be a cost-effective strategy (Mertz et al. 2017).

As set out in Vietnam's Submission on Reference Levels for REDD+ Results Based Payments under the UNFCCC (FREL/FRL) (MARD 2016), much of Vietnam's forest cover was removed between 1943 and 1993, declining from at least 43% to 28%. Since then, Vietnam has made considerable efforts to increase its overall forest cover.

Based on the forest-cover maps generated by the National Forest Inventory, the actual forest area in Viet Nam increased overtime. Much of the increase has been due to the establishment of new plantations. The quality of natural forests, however, is increasingly fragmented and degraded. As of 2010, over two-thirds of Vietnam's natural forests is considered poor or regenerating, while rich and closed-canopy forest constitutes only 5% in total. Between 1995 and 2010, the area of natural forest classified as rich decreased by 35,000 ha/year and medium forest reduced by 66,000 ha/year. According to the FREL/FRL for the period of 1995–2010, forest cover increased from 11.3 million hectares in 1995 to 13.7 million hectares in 2010. These figures indicate that deforestation and forest degradation remain serious issues for Vietnam.

NRAP Theory of Change

Objective: Illustrate how PAMs will help mitigate drivers of deforestation/degradation and reach REDD+ impact objectives.

PAMs' expected outputs contribute to 7 identified outcomes

OUTCOMES	Optimal integrated LU planning & reinforced EIA/SEA process	Value-added, sustainable & deforestation free agriculture/ aquaculture	Improved protection, sustainable management and enhancement of natural forests	Increased plantation forests cover, quality and sustainable timber supply	Reduced fire risk and impacts in peatland *Melaleuca* forest	Strengthened forest law enforcement	Enhanced economic and financial environment for forests
PAMS	**4 PAMs** Integrated LU planning EIA/SEA reinforcement	**4 PAMs** Dialogue Pilot models Financial mechanisms Improved supply chain	**7 PAMs** Hot spot assessment FTA Collaborative management NTFP and ES Livelihood improvement	**6 PAMs** LT rotation timber plantations SFM/FC Coastal forest plantations	**1 PAM** Methods to prevent and control forests fires in peat lands	**8 PAMS** VNTLAS Forest Law enforcement Cooperation with neighboring countries	**3 PAMs** Green investment and credit Forest value in planning REDD+/ domestic carbon market

	Infrastructure	Agriculture	Unsustainable logging/ forest management	Forest fires	Direct drivers	Indirect drivers

DRIVERS

- National and international demands for forest and agricultural products and market prices;
- Lack of integrated land-use planning system across sectors and levels (national to local scale) and weak land administration;
- Weak governance at local level especially in terms of forest law enforcement;
- Poverty and lack of economic/technologic alternatives;
- Lack of financial resources for sustainable forest management, protection and conservation.

IMPACTS

Reduced emissions from deforestation and forest degradation, increased removals from enhancement

2030
- Forest cover increased to 45 %
- Improved quality and carbon stocks of natural forest and plantations

2020
- Forest cover increased to 42 %
- Improved quality and carbon stocks of natural forest and plantations

Natural forest:
- Protection of 2.2 million hectares in hot spots incl. 600 000 enhanced

Plantations:
- 150 000 ha of LT timber plantations & 30 000 ha of coastal forest planted

Development of co-benefits
- Conservation of biodiversity
- Improved/maintained supply of ecosystem services
- Improved access to and strengthened tenure rights over lands and forest resources
- Rural employment opportunities, improved incomes and sustainable/diversified livelihoods
- Improved awareness, knowledge and capacities as well as connections and networks
- Improved community infrastructure
- Improved resilience and adaptation to climate change
- Improved governance framework for land/forest use
- Improved food security
- Better climate business
- Empowerment of women and ethnics minority

Figure 6. National REDD+ Action Plan (NRAP) Theory of Change

Note: EIA/SEA: Environmental Impact Assessment/ Strategic Environmental Assessment; FLA: Forest Land Allocation; NTFP: Non-timber forest production; ES: Ecosystem service; SFM/FC: Sustainable forest management/ Forest Certification; VNTLAS: Viet Nam Timber Legality Assurance System; LT: Long traditional
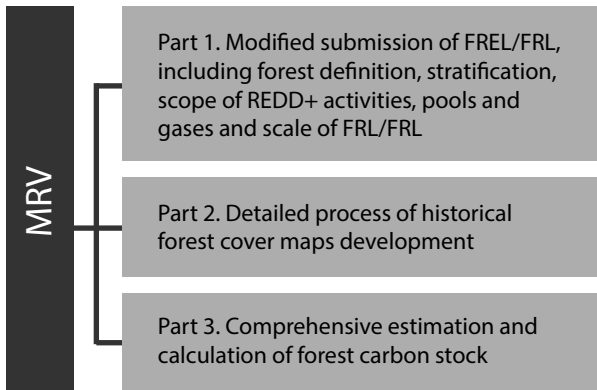
Source: UN-REDD (2018)

Figure 7. MRV system

MRV

Part 1. Modified submission of FREL/FRL, including forest definition, stratification, scope of REDD+ activities, pools and gases and scale of FRL/FRL

Part 2. Detailed process of historical forest cover maps development

Part 3. Comprehensive estimation and calculation of forest carbon stock

4.2 Financial management mechanism of the National REDD+ Program

The REDD+ Fund is an important component of the REDD+ National Action Program, which was approved by the Prime Minister on 27 June 2012. MARD announced that it would require Vietnam Administration of Forestry (VNFOREST) to develop a proposal for the Vietnam REDD+ Fund through Decision No. 1682/TB-BNN-VP 3 April 2013. A draft scheme to establish the Vietnam REDD+ Fund for the period 2015–2020 was circulated in October 2016 and was formally approved in December through Decision No. 5337/QD-BNN-TCLN dated 23 December 2016. Decision No. 5337/QD-BNN-TCLN proposes that the REDD+ Fund will have a legal status, its own seal, and the authority to make independent decisions on the allocation of funds without the approval of Vietnam Forest Protection and Development Fund (VNFF), as allowed in the MARD Ministerial Decision on the proposal to establish REDD+ Fund. The REDD+ Fund might be established to mobilize funds based on results, including voluntary contributions, donations, and investment trusts of organizations and individuals at home and abroad (Box 2) to support programs, projects and activities to reduce GHG emissions in the whole country.

The Vietnam REDD+ activities and projects come from bilateral government and multilateral institution funding, from Germany, the United States, Japan, Norway, UNREDD+, Forest Carbon Partnership Facility (FCPF) and Global Environment Facility. However, the private sector contribution to REDD+ was very small, only USD 0.46 million for 2009–2014, while the total budget required to carry out the REDD+ program is VND

10,942 billion (~USD 500 million) in the period 2017–2020 (Pham et al. 2018 and Table 21). This funding is expected from ODA and PFES.

Without guidance from the UNFCCC on how REDD+ funds should be established and managed, Vietnam considered the need for flexibility in REDD+ funds under the NRAP. In Decision No. 419/QD-TTg dated 5 April 2017, the Prime Minister assigned MARD, in coordination with the Ministry of Finance and other relevant ministries and agencies, to develop and issue regulations on the organization and operation of the National REDD+ Fund in accordance with Vietnamese law and international rules. The decision also states that funds for the implementation of NRAP will be mobilized from many sources, among which international sources will play a key role (Figure 8).

Although many potential sources of financing the REDD+ fund are mapped out, to date, no donor has made any financial or technical commitment to donate to the fund in Vietnam, including Norwegian donors, the major donor to the UN Program. As a result, on 19 May 2017, the Director of the UNREDD Program Management Unit, Phase II (UNREDD II) sent a written request to the Forestry Department leaders to postpone the establishment of the Vietnam REDD+ Fund until 2020 because both international and national financial resources are not in place (Table 22).

Box 2. Objectives of the proposed REDD+ Fund

1. Carry out REDD+ activities in accordance with the UNFCCC specific guidance on results-based actions.
2. Implement the National Action Plan on REDD+ (NRAP) and provincial REDD+ programs/actions (PRAP).
3. Contribute to the achievement of the GHG emission reduction goal in agriculture and rural development by 20% by 2020, supporting the implementation of the Forest Protection and Development Plan, the Development Strategy National Strategy on Climate Change Response, Green Growth Strategy, toward Sustainable Development.

Table 21. Potential REDD+ funding and national program budgets

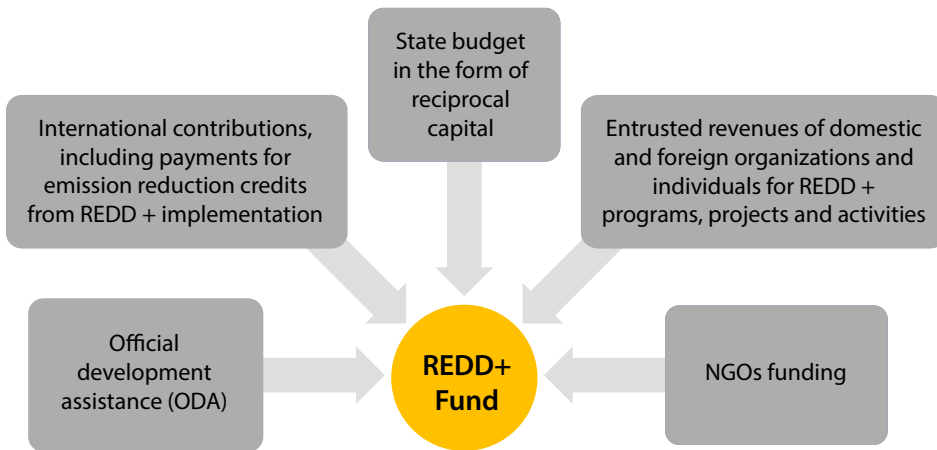|	Amount	Source of information
Budget requirements		
Projected budget for implementation of the Vietnam Forest Development Strategy 2006-2020	VND 111,387,443 million (~USD 5 billion)	MARD 2017
Total estimated cost of national REDD+ program (2017–2020)	VND 10,937.39 billion (VND 2,772.29 billion in 2018; VND 2,995.47 billion in 2019; and the remaining for 2020)	UNREDD and MARD 2018
Potential contribution of REDD+ finance		
2009–2014		
Potential funding if REDD+ is effectively and fully implemented in Vietnam	USD 80–100 million annually	UNREDD Program 2010
REDD+ funding committed (2009–2014)	USD 84.31 million	Silva-Chávez et al. 2015; Le et al. 2015
REDD+ funding disbursed (2009–2014)	USD 37.77 million	Silva-Chávez et al. 2015; Le et al. 2015
2015–2020		
FCPF funding committed to an emission reduction project reducing deforestation and forest degradation in the North-Central Coast	USD 51.5 million	FCPF–REDD+ Vietnam 2017

Source: Pham et al. (2018)

Table 22. Challenges for accessing to international and national REDD+ finance

International sources	National sources
Vietnam's Forest Reference Line (FREL/FRL) has been adopted by the UNFCCC, which is the most important basis for Vietnam to receive payment based on results. However, to reach payment-based-performance outcome, Vietnam should send a report to the UNFCCC on emission reductions after the reference period. At present, Vietnam is compiling appropriate datasets to calculate this result, preparing for first claim on REDD+ results-based payment (RBP).	Previous investment from the state budget or from enterprises and the private sector for forest protection and development activities, such as payments for forest environmental services, has been implemented under the current mechanism. This includes the mechanism through the Forest Protection and Development Fund, not necessarily through the REDD+ Fund.
Other donations from the international communities for REDD+ Vietnam from 2017 to 2020 will be mainly funded through the projects, not through the fund model.	
The FCPF of World Bank and Green Climate Fund (GCF) will adopt a pilot model of benefit sharing, not necessarily through the fund.	
Currently, there is no financial commitment as well as technical support from Norway – the main donor to the UNREDD Program Vietnam Phase III – the most likely source of funding for the REDD+ Fund in Vietnam.	

Source: Adapted from VNFF (2018)

Figure 8. Potential financial sources for REDD+ Fund

Source: MARD (2018b)

If REDD+ is fully in place, eligible activities that can be funded by the REDD+ Fund are diverse (Figure 9).

The REDD+ Fund will have three disbursement channels in accordance to a monitoring and evaluation cycle corresponding to each disbursement method/channel (Figure 10).

Each channel also has evaluation criteria that the REDD+ Fund committee will use to assess the payment distribution (Table 23).

The implementation of the benefit-sharing plan for the Emissions Reduction Program follows the agreement between the Vietnamese government and the unit entrusted by the donor (such as the World Bank's Carbon Fund). It is not part of the disbursement channel of the REDD+ Fund because it does not require approval from the REDD+ Fund.

The Vietnam REDD+ Office will provide technical assistance in the development of the operation plan of the REDD+ Fund. Technical Adviser Board will be responsible for verifying annual activity plans. Program/project verification procedures will be included in the activity manual. In 2012, an extensive local consultation of a Compliant Benefit Distribution System for REDD+ in Vietnam was conducted by UNREDD. The final report suggested that revenue disbursement and financial transactions should be concentrated, as much as possible, at the central level in order to achieve economy of scale and reduce costs and opportunities for embezzlement and corruption.

Figure 9. Scope of activities under proposed REDD+ Fund
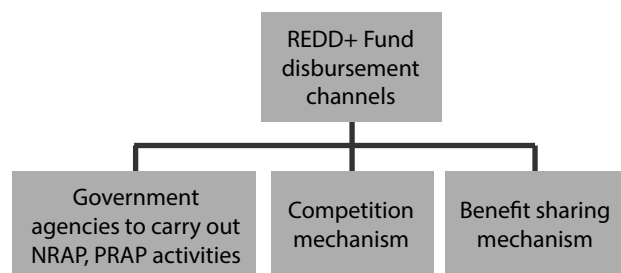
Figure 10. REDD+ Fund's proposed disbursement channel

Table 23. Assessment criteria and activities funded through disbursement channels

Disbursement channel	Assessment criteria	Activities funded
Channel 1: Government agencies	• The compatibility of the proposal with the functions, tasks and powers of the proposing agency. • Financial capacity and management capacity of proponents. • Quality of technical and financial proposal. The selection of proposals will be based on selection criteria/ priority activities approved by the Fund Management Board.	Support for policy development and capacity building for REDD+ or national programs contributing to GHG emission reduction or absorption and capacity building (policies and solution); developing PRAP; implementing components of PRAP (or equivalent provincial REDD+ scheme) in line with the mandate of government agencies; national and provincial REDD+ operations (including MRV, NFMS and Safeguards Information System (SIS)) implemented by the VRO.
Channel 2: Competitive arrangement	All legal entities operating in Vietnam can access REDD+ funds to develop proposals for funding from the Fund after the announcement. The appraisal of these proposals will be based on: • Initial screening on the eligibility of the proponent. • The results of the evaluation of the program's financial capacity and program management of proponent. • Results of evaluation according to the technical and financial assessment criteria of the proposal submitted by the Technical Advisory Board. The Directors of Fund Management Board will approve the basic purpose satisfactory results.	Support for policy development and capacity building for REDD+ or support technical scientific research to implement national programs that contribute to GHG emission reduction or absorption and capacity building; implement the provincial REDD+ action plan or provincial Forest Protection and Development Plan integrate REDD +.
Channel 3: Benefit-sharing mechanism directed toward beneficiaries who are forest owners or forest managers, who have forest protection and management contracts based on implementation results	Benefit sharing will be based on the following: • REDD+ schemes at base level or activity proposals (direct or indirect), which support a reduction in deforestation and forest degradation, sustainable management of forest resources, preserve and enhance forest carbon stocks with specific outcome indicators that support the implementation of PRAP (or equivalent provincial REDD+ plan). Indicators of forest cover and quality, as well as appropriate benefit packages will be clearly and rationally defined in the REDD+ plan or in the proposed activity. • Certificate of forest-land use rights. • Forest protection contract. The Fund Management Board will be informed at the next meeting about approval results and information related to these small sponsor proposals (including the provincial REDD+ action plans that these small sponsor proposals support to implement, the recipient of the sponsor and project scale). The Fund Management Board will approve the annual investment plan, including the annual allocation of funds for each disbursement method. The annual plan will be developed by the Fund Management Board on a regular basis: • Available resources. • Results of the previous year (based on the equivalent tons of CO_2, intermediate results and non-carbon benefits identified in the provincial monitoring and evaluation framework). • National emission reduction targets. • Existing plans (NRAP, PRAP, FPDP). • Orientation of National Steering Committee about REDD+.	Implementation of the Provincial Action Plan for REDD + (PRAP), or equivalent provincial REDD+ plan; implementation of the benefit-sharing plan for Emissions Reduction Program.

It also claimed that the REDD+ Fund should be audited by both national and international auditors, as required by national regulations and the UNFCCC. The report put further emphasis on the participation of CSOs and NGOs in managing the REDD+ Fund, to enhance transparency during the operation of the benefit distribution system.

MARD also confirmed that the REDD+ Fund will only formally be established under two scenarios: (i) immediately after making a commitment to finance a REDD+ Fund in Vietnam or one of the international donors agreeing to fund a program managed by the REDD+ Fund; or (ii) when Vietnam meets technical requirements and mobilizes various financial resources, which is going to expected in 2020. The operational principles and financial management of the REDD+ Fund requires involvement of different stakeholders, especially socio-political organizations, in the governance of the REDD+ Fund. According to government requirement, REDD+ needs to ensure the legitimate rights and interests of all stakeholders, especially ethnic minorities, local communities and women, and every activity of the REDD+ Fund must be open, transparent and effective. Conflicts of interest arising from the involvement of parties at different stages, including formulation, appraisal, implementation, monitoring and evaluation, must be identified, prevented or mitigated during the period that the REDD+ Fund is operationalized. The REDD+ Fund will apply accountability standards in its internal control, budgeting and execution, capital and currency management,

accounting, internal auditing and independent auditing and reporting, as required by the UNFCCC and Vietnamese law.

4.3 Government agencies responsible for REDD+

The institutional setting of REDD+ in Vietnam is presented in Figure 11.

According to stakeholders interviewed, the State Steering Committee Office's capacity to coordinate and lead the implementation of the NRAP is limited and, in 2014, many of the sub-technical working groups became inactive due to lack of motivation and leadership from key actors. Monitoring systems and mechanisms to ensure Vietnam's REDD+ implementation is effective, efficient and equitable are not yet fully in place. UNREDD (2018) also argued that the REDD+ network is irregular, ineffective with little orientation, along with the weak coordination role of the management agency, depending on the support of the projects to maintain the operation.

4.4 REDD+ and ethnic minority people

REDD+ has been criticized for the potential impacts on ethnic minority people's rights, because it restricts their use of forest resources such as firewood, fodder and other NTFPs. However, Rasul and Karki (2007) analyzed the
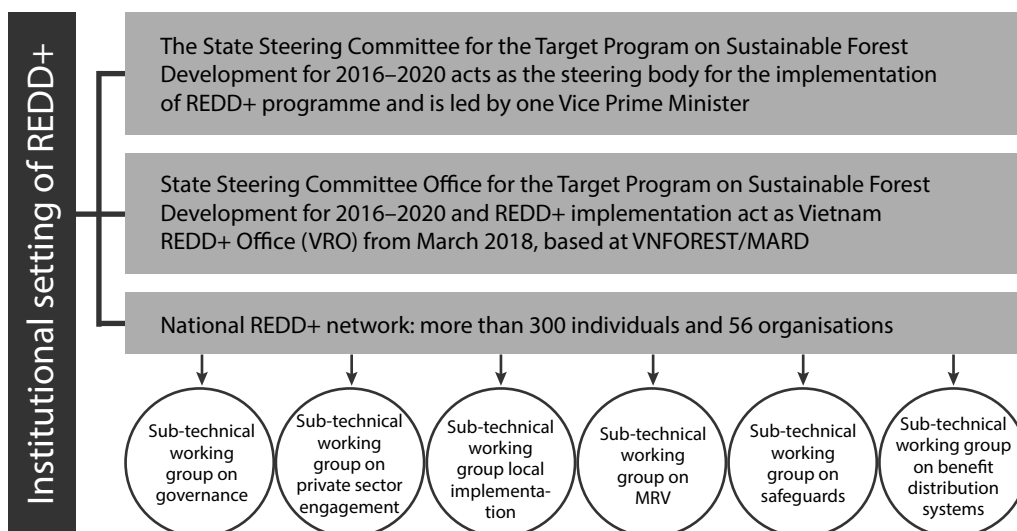

Figure 11. Institutional setting of REDD+

potential for benefits if REDD+ is implemented. It is clear that securing, as well as clarifying and strengthening, land tenure can contribute to the reduction of deforestation and forest degradation, which will contribute to the implementation of REDD+. Securing tenure can itself protect the livelihoods of ethnic minority people (Satoh 2015). However, forest land tenure is a significant issue in developing countries such as Vietnam.

In REDD+ pilots in Vietnam, the meaning of justice in benefit distribution systems is a concern for REDD+ practitioners (Luttrell et al. 2013). Yet, the politics of justice may more often remain implicit to practical matters of REDD+ design and implementation, such as the measurement of carbon stocks (Sikor 2013). REDD+ may provide a new opportunity to consider forest justice and, more broadly, sustainable forest management.

Several REDD+ pilot projects examined did not explicitly acknowledge how climate-induced changes might impact household livelihoods, and what role these vulnerabilities may play in REDD+ participation (McElwee et al. 2016). In some REDD+ pilot projects in Kon Tum, livelihood activities had been restricted under REDD+, causing negative consequences, particularly for lower-income households. Activities affected included restrictions on swidden agriculture and NTFP collection, the lack of suitable alternative livelihood plans, and delays in seeking carbon financing (McElwee et al. 2016).

Ethnic minority peoples have expressed diverging opinions on REDD+ and the risks and opportunities that it may provide for them. REDD+ implementation has not stimulated an authentic discussion about the recognition of ethnic minority peoples' rights as their voice has mostly been absent. The lack of a human rights based approach to the national REDD+ program poses considerable risks to them. The extent to which they will be able to benefit from REDD+ will depend on how a number of key issues, including participation and local governance, are addressed (Errico 2016).

Households and individuals have rights of access, use, management and alienation on their production forests, but they have fewer rights in protection forests and special-use forests, especially compared to the government.

The involvement of local communities and ethnic minority people into REDD+ equates to the necessity of protecting their rights and benefits. In order to involve ethnic minority people in REDD+ projects, they must be provided with sufficient information (Satoh 2015).

The effectiveness of community participation in REDD+ is confirmed by scholars. The first quantitative research of REDD+ community participation was conducted in 2013. The study found that although half of the official REDD+ projects did not engage local communities in monitoring activities, communities successfully produced forest monitoring data, which was accurate, legitimate and cost-effective (Langford 2013).

4.5 Safeguards information and assessment

The development of Vietnam's Country Safeguards Framework is fully consistent with its commitments under the UNFCCC, and objectives (b) and (c) of NRAP. Objective (b) states for the period 2017–2020: "the importance of meeting the requirements of REDD+ readiness, ensuring there is capacity to access financial resources for results-based payments as per international requirements." Objective (c) for the period 2021–2030 is "Complete policies, laws and action framework of the REDD+ program and access financial resources for results-based payments in accordance with international requirements."[1]

Vietnam's Country Safeguards Framework aims to address potential risks and effectively promote the benefits REDD+ could achieve through the implementation of REDD+ PAMs, in order to demonstrate fulfillment of Vietnam's commitments under the UNFCCC, and to fulfill a key prerequisite for obtaining results-based payments under the REDD+ mechanism. The Country Safeguards Framework will also be expected to meet institutional safeguards-related requirements for all REDD+ financing channels, including results-based payments under the UNFCCC and parallel multilateral financing mechanisms such as the FCPF, and other financing for key REDD+

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1 NRAP 2017–2030 (Government of Vietnam 2017c): Article 1 (2.2.1.b and 2.2.2.c)

actions.[2] The Framework progressively works toward an efficient, effective and unified approach to REDD+ safeguards-related requirements.

The REDD+ safeguard requirements set out in the UNFCCC include: (i) to ensure consistency with the UNFCCC REDD+ safeguards (i.e. the Cancun safeguards); (ii) to develop a national Safeguards Information System (SIS) to collect information on how the Cancun safeguards are being addressed and respected; and (iii) to submit the most recent summary of information (SOI) on how all of the Cancun safeguards are being addressed and respected.

To date, Vietnam's country-based approach has primarily focused on the REDD+ safeguard requirements set out in the UNFCCC. The Cancun safeguards have been clarified in the national context; existing governance arrangements have been assessed to identify and progressively resolve gaps in order to ensure that safeguard requirements are addressed. At the same time, existing national information systems have been assessed to identify necessary sources of information to establish a national SIS that provides information on how the safeguards are being respected.

In addition to the Cancun safeguards, Vietnam expects to face a range of institutional safeguard requirements for REDD+ results-based payments and financing for REDD+ actions across the three REDD+ phases of readiness, implementation and results-based payments (Table 24).

REDD+ Phase I: Readiness. In parallel with the UNFCCC process, several multilateral initiatives and bilateral agreements have provided funding for REDD+ readiness activities. They may apply safeguard frameworks applicable to the REDD+ readiness and demonstration activities that they financially support. The different safeguard frameworks and requirements from the various multilateral initiatives have distinct differences in terms of content and process, and could therefore become a potential burden, leading to overlapping activities and increasing transaction costs. This could hinder the country's efforts to effectively

implement the Cancun safeguards and achieve multiple benefits.

REDD+ Phase II: Implementation. Vietnam anticipates the need to access financing for the implementation of key REDD+ PAMs and related actions; for example, for restructuring supply chains in key sectors to reduce national emissions. Vietnam's National REDD+ Implementation Plan (NRIP) will set out the specific PAMS and expected financing levels and sources.

REDD+ Phase III: Results-based payments. Vietnam has noted that the primary vehicle for making results-based payments for REDD+ under the UNFCCC is expected to be the Green Climate Fund (GCF). Eligibility criteria, presented in response to the request for proposals for the pilot program for REDD+ results-based payments include, *inter alia, 'a SIS to inform how the safeguards are addressed and respected, and a summary of information on how all the Cancun REDD-plus safeguards were addressed and respected during the period for which payment for results is being requested.'* This first SOI does not attempt to meet the GCF safeguard requirements for results-based payments, but it does anticipate them by providing:

1. A description of the SIS design and plans for further design refinements and operations (subsection 3.1.7).
2. Information on how all the Cancun safeguards *will be* addressed and respected during future periods for which payment for results will be requested (section 5).
3. A description of stakeholder engagement in the processes to develop the SIS (subsection 3.1.6) and this first SOI (subsection 1.4).
4. A description of the REDD+ grievance redress mechanism, specifying how the mechanism *will be* accessed and complaints received and resolved (subsection 3.2.2).
5. Information on the nature, scale and importance of non-carbon benefits (and risks) for the long-term sustainability of REDD+ activities (subsection 2.7).

In parallel with the UNFCCC process, several multilateral initiatives and bilateral agreements have provided funding for REDD+ initiatives, including both REDD+ readiness activities and results-based payments. Multilateral initiatives have their own safeguard frameworks that are applicable to the REDD+ activities that they financially support, including results-based payments. In particular, Vietnam expects to access results-based payments

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2   Key identified REDD+ financing needs and potential resources will be identified in Vietnam's NRIP, which is currently under development.

from the Carbon Fund of the FCPF, administered by the World Bank through the Subnational Emissions Reduction Program in the North-Central Coast Region of Vietnam and a national Emissions Reduction Program for the GCF pilot RBP. According to the FCPF guidelines, these programs will be required to adhere to relevant World Bank safeguards, and should also promote the UNFCCC safeguards (i.e. the Cancun safeguards).

To date, safeguard-related activities have been conducted as a standalone activity, separate from the development of the country approach to the Cancun safeguards. These form a part of the preparation for FCPF financing for the Emissions Reduction Program in the North-Central Coast Region of Vietnam. They include the application of the Strategic Environmental and Social Assessment process and the Environmental and Social Management Framework. A similar approach is anticipated for the preparation of the planned FCPF National Emissions Reduction Program.

Taking this challenge into account, Vietnam's country approach to safeguards ultimately aims to enable the development of unified national safeguards framework that can fulfill the requirements of the key forms of REDD+ financing through the different phases.

Currently, the main focus of the country approach to REDD+ safeguards has been the Cancun safeguards. As noted above, safeguard-related activities carried out as part of the preparation for FCPF results-based payments have been conducted separately to date. Further clarity is expected in relation to the mechanism for results-based payments through the GCF and related institutional requirements.[3] Completion of the NRIP is expected to allow further clarification of likely safeguard-related requirements for key anticipated financing sources for REDD+ actions.

Vietnam expects to take the following key actions toward achieving a unified national REDD+ safeguards system:
- Continue to roll out the country approach to the Cancun safeguards, including operationalization of the SIS.
- Complete the NRIP, thus identifying key funding needs and expected resources for REDD+ actions.
- Clarify the safeguard-related requirements of the GCF mechanism for REDD+ results-based payments as they are finalized.

Table 24. REDD+ financing sources, safeguard requirements and the proposed country response

REDD+ phase	REDD+ financing source	Safeguard requirements
I. Readiness	Multilateral initiatives and bilateral agreements	FCPF Readiness Fund: Adhere to World Bank safeguards framework (operational policies) Norway-Vietnam Joint Declaration on REDD+ and the UNREDD Programme: "ensure that the UNFCCC REDD+, UNREDD and FCPF Common Approach to Safeguards are fully respected, implemented, and reported"[a]
II. Implementation	Financing from public or private sector financial institutions for key REDD+ actions	Safeguards frameworks of the relevant financial institutions
III. Results-based payments	Results-based payments from the GCF	Cancun safeguards GCF Interim Environmental and Social Standards
	Results-based payments from the FCPF Carbon Fund	World Bank safeguards framework adhered to Cancun safeguards promoted

a   Joint Declaration between the Socialist Republic of Viet Nam and the Kingdom of Norway on REDD+ dated 5 November 2012.

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3   It is also anticipated that there will be further international discussions on the relationship between Cancun safeguards and the GCF ESS (Environment and social safeguards) that Vietnam can contribute to and benefit from.

- Map the safeguard frameworks and requirements of the different identified REDD+ funds and financial resources as well as identifying common requirements and potential overlaps in the different safeguard frameworks and requirements.
- Identify options to broaden the application of the Country Safeguards Framework to address the different safeguards-related requirements.
- Implement the selected options.

The Sub-technical Working Group on Safeguards is chaired by the VNFOREST and co-chaired by an international NGO, SNV Netherlands Development Organisation. Membership of the Working Group is open to all interested parties and stakeholders, with members from public, private and civil society sectors, including members of the Vietnamese NGO FLEGT network (VNGO-FLEGT) and representatives from the REDD+ Ethnic Minority Network supported by the UNREDD Vietnam Phase II Program. Efforts have been made to ensure the participation of representative stakeholders, particularly at subnational and local levels.

The development of SIS for Vietnam began in late 2015. Inputs for the design of the SIS are being identified, coordinated by the VRO with technical assistance from the UNREDD Program Phase II together with the FORMIS (Development of Management Information System for Forestry Sector) Project Phase II. A wide range of stakeholders have contributed to developing SIS, including the Sub-technical Working Group on Safeguards, the Sub-technical Working Group on Safeguards core group, and the SIS–SOI Working Group.

The design of Vietnam's SIS aims to address the key requirements for a national SIS as set out in the UNFCCC guidance. It has drawn on the outputs of the three distinct but related steps conducted earlier in the development of the Country Safeguards Framework: PLR assessment, PLR implementation assessment and national clarification of the Cancun safeguards. The initial assessment of Vietnam's PLRs was completed in 2014, with a further assessment being carried out in 2017 (Rey and Swan 2014). Vietnam's SIS will provide a national-level system of information on how all of the Cancun safeguards are addressed and respected, throughout the implementation of REDD+ PAMS, and how they have been developed and operated in a way consistent with relevant national regulations and the international REDD+ processes. During operationalization, the SIS will serve as the primary information source for the development and submission of the SOI.

5 Implications for effectiveness, efficiency, and equity (3Es) in Vietnam

Since our first Country Profile, published in 2012, REDD+ policies in Vietnam have progressed significantly with clearer and more integrated REDD+ policies and legal frameworks. However, there are still challenges to enhance the effectiveness, efficiency and equitable outcomes of REDD+.

5.1 Effectiveness

The large number of policies supporting REDD+ discussed in Chapter 2 shows government interest in strengthening the legal framework on REDD+. Overall forestry sector policies (e.g. newly revised Forestry Law and closure of natural forests), which emphasize the political will to end deforestation also lays out a platform to enable REDD+. These efforts have led to some progressive achievements (Meyfroidt et al. 2013). Furthermore, the Vietnamese government also promotes cooperation with neighboring countries to control illegal logging and trade and promote biodiversity conservation, As discussed in Chapter 3, the reduction in the volume of timber imported from Laos and Cambodia also demonstrates its success.

However, as Chapters 2 and 3 have shown, inconsistencies and weak law enforcement among existing policies have impeded their effectiveness. In particular, drivers of deforestation and degradation identified in our previous study continue to be major drivers today, demonstrating that REDD+ has not been effective. Although the revised NRAP has more explicitly designed PAMs to directly tackle the drivers of deforestation and degradation, the political economy and national development goals strengthening coffee, rubber and timber processing and the energy sector will continue to place great pressure on forests. Previous chapters have shown that addressing drivers of deforestation and degradation in Vietnam is hampered by international trade

agreements associated with further needs to clear forests, weak law enforcement, national economic development goals, and conflicts over land tenure, unclear carbon rights, challenges in decentralization and devolution of rights across government levels, and uncertainty in international negotiation and carbon markets. This has weakened interests and national political commitment toward REDD+. Overcoming these challenges requires stronger commitment from international donors on funding available for REDD+; stronger political will to move away from BAU for economic development that is rooted from the need to have more deforestation and forest degradation; refinement of legal frameworks on tenure and carbon rights; and a transparent, accountable and participatory decision-making process.

To demonstrate the effectiveness of REDD+ a transparent and accountable MRV system and rigorous impact assessment studies are needed. However, both of these factors are not fully in place in Vietnam. With the submission of FRLs to UNFCCC in 2016, MRV progress under REDD+ is relatively advanced. Yet, the MRV system is still constrained by the inconsistency of data on REDD+ and the national GHG inventory and internal verification (lack of guidelines and collaboration between MARD and MONRE). Moreover, as discussed in Chapter 1, different emission targets set up by different ministries also pose major challenges of enforcement for provincial authorities. There is currently no rigorous impact assessment on the impact of REDD+ in Vietnam, closing this knowledge gap requires funding and efforts from government, donors and scientific communities.

5.2 Efficiency

Compared with 2012, when our first Country Profile was published, REDD+ financing options and benefit-sharing mechanisms have been

developed and refined in Vietnam, with the proposed establishment of the REDD+ Fund. The scope of REDD+ Fund activities, as well as a disbursement channel under the REDD+ Fund provides long-term strategic use of REDD+ to cover both national priorities on forest protection and development, as well as channel REDD+ benefit directly to local communities. However, as Chapter 4 shows, the lack of finance committed to REDD+ has delayed the actual the establishment of the REDD+ Fund and also weakened the political interest of the government in REDD+.

Chapters 1, 3 and 4 show that the business case for REDD+ is not attractive in Vietnam. First, the opportunity costs and economic profits that other sectors, such as hydropower and commercial agriculture, contribute to the national GDP are too high to be compensated by REDD+ payments. Second, the current price for carbon credits sold for FCPF is around USD 5 /ton CO_2. The total estimated revenue will be USD 50 million. However, according to a VNFOREST leader interviewed, the cost for the program and data information is six times higher (approximately USD 312 million). This level of payment is also too low to incentivize local people to change their current land-use practices. Third, Pham et al. (2018) highlighted that the potential REDD+ revenue that can be channeled to Vietnam is small and uncertain. At the same time, the government has contributed a significant amount of its domestic funding to implement REDD+ (USD 5.6 billion) but this funding is not fully acknowledged by the donors. Fourth, the initial costs required to meet donors' requirements are high, while the government is uncertain about the potential pay-off. Forest areas in Vietnam are fragmented and small, owned by a large number of small-scale individual forest managers, which also poses high transactional and operational costs.

Furthermore, REDD+ was initially established through market-based investment and targeted buyers are from private sector. A major expectation is that the private sector will be a major player in REDD+ financing and ensure low-emission investments in land-based activities (FAO 2016). However, private sector engagement in REDD+ in Vietnam is limited, despite the efforts of a REDD+ Technical Working Group on private sector engagement. In addition to the weak business case for REDD+, those interviewed from the private sector also claimed that conflicts over tenure, unclear carbon rights and law enforcement have prevented them from engaging in REDD+, posing significant challenges for meeting safeguard requirements.

The SIS also requires an accountable and transparent information framework. However, as discussed in Chapters 2 and 4, information on forestry sectors and other issues, such as rights, are often not available, cannot be accessed or are inconsistent in Vietnam. Implementing SIS requires coordination among sectors and ministries, but more importantly, political commitment to reveal and publish data and information.

5.3 Equity

Earlier sections have discussed the FLA Program and its challenges in delivering benefits for local people. One major constraint in achieving equitable benefit sharing is that state agencies manage most forest area in Vietnam and will therefore be the main recipients of REDD+ benefits.

Our first Country Profile in 2012 indicated how weak coordination among government agencies and non-participatory decision-making processes represented the two main barriers for REDD+ implementation in Vietnam. Earlier sections show that despite the formal requirements stated in many forestry policies, which require coordination and collaboration among agencies, weak coordination leading to inconsistent policies still persists. Although there is a political space for non-state actors in participating in REDD+ decision making, there is still limited participation from CSOs.

The government has strengthened its REDD+ safeguards policies. However, FPIC is still treated as a sensitive issue (Pham et al. 2014a) and indigenous rights, despite being formally recognized in the new Forestry Law 2017, are still not fully implemented in practice.

Conclusions

The effectiveness of REDD+ policies in addressing drivers of deforestation and degradation cannot be proven yet as the revised National REDD+ Action Plan has only recently been approved. However, that drivers of deforestation and degradation are outside of the forestry sector and have a strong link to national economic development goals points to an uneasy pathway for REDD+. The business case for REDD+ in Vietnam has not been proven due to the uncertain carbon market, increasing requirements from donors and developed countries, and high transaction and implementation costs. The progress on safeguard policy development in Vietnam between 2012 and 2017 affirms the government's interest in pursuing an equitable REDD+ implementation. However, equitable REDD+ policies need to be considered from a contextual, procedural and distributive perspective, with a more inclusive decision-making process; these are not fully in place in Vietnam. Current efforts toward effective, efficient and equitable outcomes of REDD+ can be further enhanced by a stronger political commitment to addressing drivers of deforestation from all sectors, broader changes in policy framework that create incentives for avoiding deforestation and degradation, cross-sectoral collaboration and committed funding from both government and developed countries.

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Vietnam is acknowledged to be REDD+ pioneer country, having adopted REDD+ in 2009. This paper is an updated version of Vietnam's REDD+ Country Profile which was first published by CIFOR in 2012. Our findings show that forest cover has increased since 2012, but enhancing, or even maintaining, forest quality remains a challenge. Drivers of deforestation and degradation in Vietnam, including legal and illegal logging, conversion of forest for national development goals and commercial agriculture, weak law enforcement and weak governance, have persisted since 2012 up to 2017. However, with strong political commitment, the government has made significant progress in addressing major drivers, such as the expansion of hydropower plants and rubber plantations.

Since 2012, Vietnam has also signed important international treaties and agreements on trade, such as Voluntary Partnership Agreements (VPAs) through the European Union's (EU) Forest Law Enforcement. These new policies have enhanced the role of the forestry sector within the overall national economy and provided a strong legal framework and incentives for forest-user groups and government agencies to take part in forest protection and development. Nevertheless, new market rules and international trade patterns also pose significant challenges for Vietnam, where the domestic forestry sector is characterized by state-owned companies and a large number of domestic firms that struggle to comply with these new rules.

The climate change policies, national REDD+ strategy and REDD+ institutional setting has been refined and revised over time. However, uncertain and complex international requirements on REDD+ and limited funding have weakened the government's interest in and political commitment to REDD+. REDD+ policies in Vietnam have shown significant progress in terms of its monitoring, reporting and verification (MRV) systems, forest reference emission levels (FREL), and performance-based and benefit-sharing mechanisms by taking into account lessons learnt from its national Payment for Forest Environmental Services (PFES) Scheme. Evidence also shows increasing efforts of government and international communities to ground forestry policies in a participatory decision-making processes and the progress on developing safeguarding policies in Vietnam between 2012 and 2017 affirms the government's interest in pursuing an equitable REDD+ implementation. Policy documents have fully recognized the need to give civil society organizations (CSOs) and ethnic groups political space and include them in decision making. Yet, participation remains token. Government provision for tenure security and carbon rights for local households are still being developed, with little progress since 2012.

The effectiveness of REDD+ policies in addressing drivers of deforestation and degradation has not be proven, even though the revised NRAP has recently been approved. However, the fact that drivers of deforestation and degradation are outside of the forestry sector and have a strong link to national economic development goals points to an uneasy pathway for REDD+. The business case for REDD+ in Vietnam has not been proven, due to an uncertain carbon market, increasing requirements from donors and developed countries, and high transaction and implementation costs. Current efforts toward 3Es outcomes of REDD+ could be enhanced by stronger political commitment to addressing the drivers of deforestation from all sectors, broader changes in policy framework that create both incentives and disincentives for avoiding deforestation and degradation, cross-sectoral collaboration, and committed funding from both the government and developed countries.

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