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JEC Assessment: Vietnam. 2022

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1. Macroeconomic Outlook

Vietnam is a lower middle-income in Southeast Asia with a long coastline along the East Sea. With an area of 33 million hectares, the country is dominated by mountainous areas (three quarters of the territory) in the north and central regions, with alluvial plans in the remaining quarter of the country. Vietnam's capital and political, scientific, cultural, and educational center is Hanoi, a city with a population of 7.4 million0F[1]. Overall, the country's population was 97 million as of 2020 with a total GDP of USD 271 billion1F[2]. The human development index of 0.704 ranks it 117th out of 189, placing it in the "high human development" category2F[3].

The country's economy has boomed in recent decades in large part due to export-oriented sectors such as agriculture and manufacturing3F[4] as well as a steady stream of foreign direct investment. The economy also benefits from a plethora of natural and cultural attractions which support its robust tourism industry, including eight UNESCO World heritage Sites, eleven World Biosphere Reserves, and 30 National Parks4F[5].

1.1 Key Economic Data

Since Vietnam launched significant economic and political reforms under Doi Moi, in 1986, the country has risen dramatically from one of the world's poorest countries to a lower middle-income country[6]. With its shift from a highly centralized command-and-control economy to a mixed, market-oriented economy, over the last three decades, Vietnam has made major progress in human and economic development. Its HDI increased from 0.483 in 1990 to 0.704 in 2019, with increases in life expectancy at birth (+4.8 years), mean years of schooling (+4.4 years), and expected years of schooling (+4.9 years)[7].

At the same time, GDP per capita almost tripled (2.7 times increase) between 2002 and 2020, reaching USD 2,800[8]. Overall, the country's GDP grew by over 5% every year during that time except for 2020, due to the pandemic **(**Error! Reference source not found.**).** The country's robust textile industry (which employs 2.5 million workers) has played a key role in its economic growth, contributing 7.05% of export share in 2020[9]. Increasingly technology and electronics manufacturing are also shifting to the country. Vietnam is also a major agricultural exporter: it is one of the world's largest rice exporters[10] and the second-largest coffee exporter behind Brazil[11].

Vietnam's diverse economy proved resilient to the initial economic shock of Covid-19, and the country was one of only a few worldwide to grow its GDP (by 2.91%) in 2020[12]**.** A swift government response to contain the spread of Covid-19 helped keep cases low initially, leading to an early rebound of domestic economic activity and the ability to capture rising global demand for certain exported products[13]. However, subsequent waves in 2021 have stalled growth, and the country's GDP growth was only an estimated 2.58% in 2021, compared to the world average of 5.5% and lower than the World Bank's December 2020 projection of 4.2% growth in 2021 for Vietnam[14].

[1] National Communication (NC) 3. Vietnam, 2019.
[2] World Bank Open Data. World Bank, 2022. (Accessed 25 March 2022).
[3] Human Development Reports. UNDP, 2020
[4] No Time to Waste. World Bank, 2022.
[5] National Communication (NC) 3. Vietnam, 2019.
[6] The World Bank in Vietnam. World Bank, 2021.
[7] Human Development Reports. UNDP, 2020.
[8] The World Bank in Vietnam. World Bank, 2021.
[9] An Introduction to Vietnam's Import and Export Industries. Nguyen & Mah, 2022.
[10] National Communication (NC) 3. Vietnam, 2019.
[11] An Introduction to Vietnam's Import and Export Industries. Nguyen & Mah, 2022.
[12] The World Bank in Vietnam. World Bank, 2021.
[13] Vietnam: Successfully Navigating the Pandemic, Dabla-Norris & Zhang, 2021.
[14] No Time to Waste. World Bank, 2022.

Vietnam's labor market has not yet recovered from the shocks caused by lockdowns in 2021 with workers earning less on average even as labor shortages affect major city centers. The economy's future trajectory will be shaped by underlying trends like its ageing population, declines in global trade, environmental degradation, the risks of climate change, and the rise of automation.[15]. Covid-19 has accelerated these trends. In addition, as both of Vietnam's major export markets -- the United States and China -- expect to see a softening of growth in 2022 compared to the rally in 2021, Vietnam's export growth to each of these countries is expected to slow in 2022, to 3.8% and 5.1%, respectively.[16].

Figure 2. Vietnam GDP growth, in percent, 2000-2021. Source: World Development Indicators for 2000-2020 (accessed 13 March 2022); 2021 data from World Bank estimate

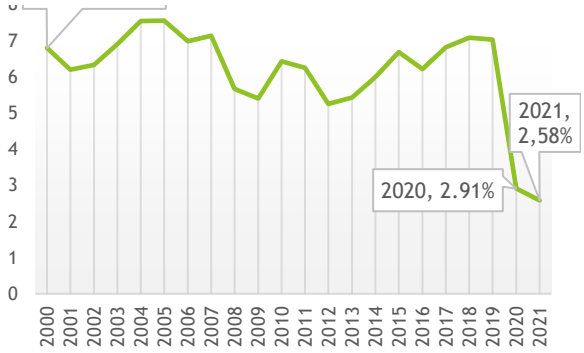
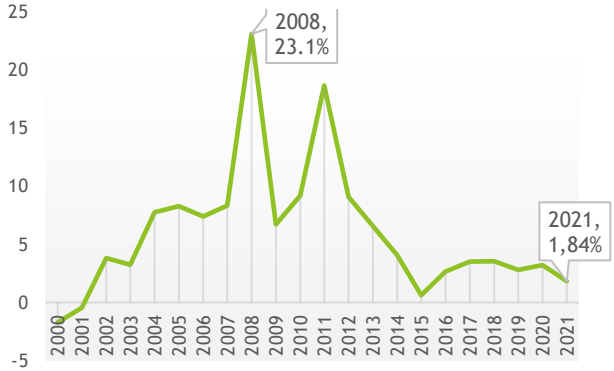


Figure 2. Vietnam inflation rates, in percent, 2000-2021. Source: World Development Indicators for 2000-2020 (accessed 13 March 2022); 2021 data from General Statistics Office of Vietnam (GSO).



Vietnam has experienced extremes in its inflation rate over the last two decades, with a record low rate of -2.6% in July 2000 spiking up to a peak of 28.2% in August 2008 (23.1% across that year).[17] **(Figure 2)**. Since around 2016, inflation has remained relatively steady at around 2-3% annually. In 2022, inflation is expected to increase to 3.5% as supply chain constraints and spiking commodity prices affect Vietnam's domestic consumer prices and export-oriented sectors.

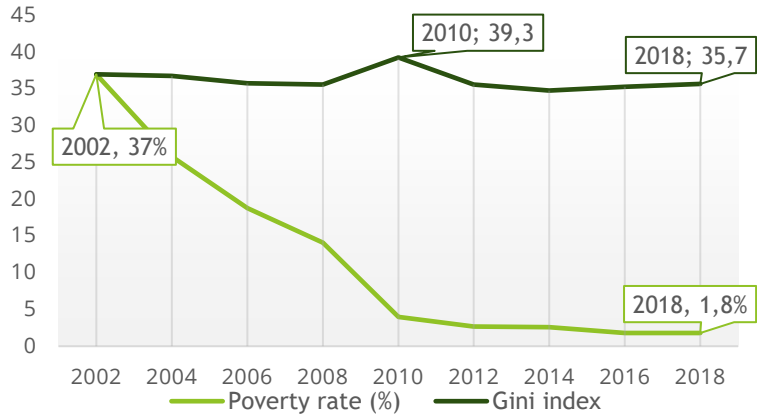
However, the Asian Development Bank (ADB) and the World Bank both project strong growth for Vietnam's GDP in 2022 – the ADB projects 6.5% growth this year, while the World Bank expects 5.5% this but stabilizing to 6.5% thereafter.[18]. This growth should stem from the recovery of foreign tourism, recovery of the services sector, and continued, though slowed, growth in demand for technology, manufactured goods, and agricultural exports. Vietnam aims to become a high-income country by 2045, aiming for green and inclusive economic growth of 5% per capita each year through 2045.[19]

Poverty reduction has been one of Vietnam's signature success stories in the last two decades. Poverty rates fell from over 37% in 2002 to below 2% in 2018 **(Figure 3)**. Vietnam has a relatively high stock of human capital; its HCI (Human Capital Index, 2020) is higher (0.69) than the average of other East Asia & Pacific region and Lower middle-income countries.[20]. The HCI highlights how current health and education outcomes shape the productivity of the next generation of workers. Despite its relatively high overall ranking, Vietnam is behind other countries in its region for health (2.8% of GDP vs. 4.9% in the region) spending and behind both its region and income group on education (4.2% vs. 4.7% in the region and 4.5% in income group) spending. That said, complementary indicators on literacy, social safety net coverage, and employment indicate strong

[15] The World Bank in Vietnam. World Bank, 2021.
[16] No Time to Waste. World Bank, 2022.
[17] Vietnam Inflation Rate. Trading Economics, 2022.
[18] Vietnam and ADB. ADB, 2022; No Time to Waste. World Bank, 2022.
[19] The World Bank in Vietnam. World Bank, 2021.
[20] Vietnam: Human Capital Index 2020. World Bank Human Capital Project, 2020.

fundamentals for a productive workforce. The country also has a reasonable distribution of income, with its Gini index estimated by the World Bank to be 35.7 in 2018, down from a peak of 39.3 in 2010.

Figure 3. Trend in poverty rate (at USD 1,90/day) and Gini index from 2002-2018. Source: World Development Indicators. World Bank, 2022.



A long-term threat to Vietnam's growth aspirations is the impact of climate change on its economy, especially its export-oriented sectors. The value of goods and services exported in 2020 accounted for 106.6% of the country's GDP.[21] Overall, the agriculture provides 13.2% of exports, and production of agricultural goods is particularly vulnerable to expected climate impacts like rising temperatures and extreme weather events. Studies show that rice production could suffer yield losses of 5 to 23% by 2040, especially in the Mekong Delta, threatening local food security and global rice production.[22] By 2050, 50% of current *Robusta* coffee growing areas may be unsuitable for the crop due to the changing climate.[23] A significant portion of the country's infrastructure and populated areas would also be damaged by rising sea levels.

Table 1. Summary of key economic data. Source: Unless otherwise noted World Development Indicators, data for latest year available.

Vietnam (National Level)	
Size	31,007,000 ha
Population	97,338,583 p
GDP per capita	USD 2,785.70 (2020)
Unemployment rate	2.4% (2020)
Gini Index	35.7 (2018)
Poverty rate	6.7% (2018)
Inflation rates	2.8% (2019), 3.2% (2020), 1.84% (2021)
Main agricultural and forest products[24]	Rice, fresh vegetables, sugar cane, cassava, maize, fresh fruit, bananas, coffee, coconuts Pulpwood, wood fuel, wood chips and particles, sawlogs and veneer logs

Vietnam has aspirations of becoming a high-income economy by 2045 and net-zero by 2050. Together with the World Bank, the country is working on a report *Vietnam 2045* that will offer pathways and solutions for Vietnam to realize its aspiration. The report will take stock of the pace of reforms laid out in 2016's *Vietnam 2035 roadmap*, analyze how Vietnam's economic trajectory has been affected by the COVID-19 pandemic and other global mega-trends, and provide recommendations to inform policy reform discussions leading up to the fourteenth Party Congress, scheduled for early 2026[25].

[21] No Time to Waste. World Bank, 2022.
[22] Jiang et al. 2018 and Li, Wang, and Chun 2017 via No Time to Waste. World Bank, 2022.
[23] Coffee Production in Vietnam Faces Dark Future Under Climate Change. Teer, 2016.
[24] FAOSTAT. FAO, 2022.
[25] Vietnam, World Bank Strengthen Partnership to Meet Goal of High-Income Economy by 2045. World Bank, 2022.

1.2 Multilateral cooperation

World Bank has recently reaffirmed the institution's commitment to supporting Vietnam in realizing its goals of becoming a high-income economy by 2045 and reaching net zero emissions by 2050[26]. Vietnam's partnership with the World Bank focuses on strategic areas that promote productivity-led, climate-resilient, inclusive growth, contributing the World Bank's global and local expertise, embedded in evidence-based analysis and financing. Recently, the Government of Vietnam and the World Bank have signed an agreement for financing of US$221.5 million to support Vietnam's recovery from the COVID-19 pandemic through policy reforms aimed at improving financial inclusion and spurring greater environmental resilience[27].

The World Bank's Country Partnership Framework (2018-2022) is aligned with Vietnam's 2010-2020 Socio-Economic Development Strategy (SEDS) and the 2016-2020 Socio-Economic Development Plan (SEDP). It has three pillars: (i) strengthen Vietnam's competitiveness in the regional and global economy; (ii) increase sustainability of the country's development; and (iii) broaden access to economic and social opportunity, supported by three cross-cutting themes: (a) strengthen governance, (b) promote gender equality, and (c) improve resilience related to external economic and climatic shocks.

The **Asian Development Bank (ADB)** has been a key partner for Vietnam since 1966[28]. ADB has supported Vietnam in reducing poverty and developing infrastructure. Recently, ADB support has been framed around addressing income inequality and other socioeconomic disparities, especially for vulnerable groups and ethnic minorities. A major portion of the ADB's current portfolio in Vietnam supports climate change mitigation and environmental stability. In addition, projects support financial inclusion, climate-resilient irrigation, and gender equality in small- and medium-sized enterprises and infrastructure. The ADB is currently drafting a country partnership strategy for Vietnam over 2021-2025 which will incorporate the priorities of Vietnam's Socio-Economic Development Plan 2021-2025.

Vietnam is also a member of the Asia-Pacific Economic Cooperation, the Association of Southeast Asian Nations and, since 2007, the World Trade Organization.

2. Political background

Vietnam is a one-party, socialist unitary state, controlled per the Constitution by the Communist Party of Vietnam (CPV). The Party holds a national congress every five years to outline the country's overall direction and future course as well as to formalize policies. The National Assembly is the supreme organ of state and the only body with constitutional and legislative power. The President of the State and the Prime Minister are elected by the National Assembly. Vietnam has four levels of government: the central level and three sub-national levels. The first sub-national tier encompasses 58 provinces and five centrally managed municipalities. Other two are composed of districts and townships/communes. The two levels under the provinces are not decisive in setting national and provincial policies but do participate in their implementation.

At the sub-national level, legislative authorities are the People's Councils, which are elected by citizens. Executive power rests with the provincial departments and People's Committees, which are chosen by the People's Councils. All administrative mandates and functions of line departments are supervised by the People's Committee. The Councils serve as the supervisory bodies of the People's Committees. The Communist Party directs administrative decisions, and in many cases, Party organs nominate the chairman of the People's Committees and People's Councils. The most important policy that guides development planning across sectors and government levels is the **Socio-Economic Development Strategy (SEDS), which is formulated for a period of ten years.** Additionally, **five-year Socio-Economic Development Plans (SEDP)** focus on the implementation of the SEDS.

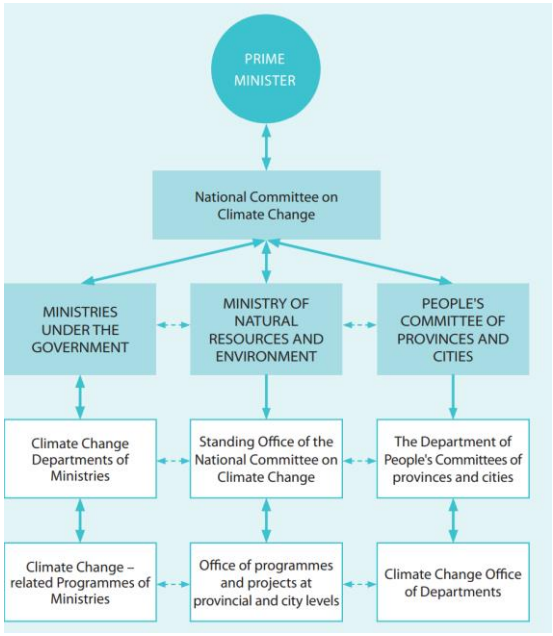
[26] Vietnam, World Bank Strengthen Partnership to Meet Goal of High-Income Economy by 2045. World Bank, 2022.
[27] World Bank Loan Will Support Vietnam's Economic Recovery. World Bank, 2021.
[28] Vietnam: Asian Development Bank Member Fact Sheet. ADB, 2021.

3.2 Environmental governance

Vietnam is one of the ten most vulnerable countries to climate change. To enable adaptation and mitigation, the country has developed a comprehensive climate change governance architecture, with several national, sub-national and sectoral policies, and a high-level coordination committee.

The **National Committee for Climate Change** (NCCC) is the highest-level institutional body in charge for climate change policy **(Figure 4).** The committee advises the government on climate change issues and is tasked with coordinating the development and implementation of the country's climate policies. The NCCC is chaired by the prime minister and two vice chairmen: the Deputy Prime Minister and the Minister of MONRE (Ministry of Natural Resources and Environment). The **Ministry of Natural Resources and Environment** (MONRE) hosts the Standing Office of the NCCC. It is assigned by the Prime Minister as the leading climate change agency, tasked to formulate national climate change policy and to coordinate implementation of climate actions across sectors and sub-national governments. It acts as the national focal point to the UNFCCC. MONRE is tasked with reviewing and planning climate budgets with the **Ministry of Planning and Investment** (MPI) and the **Ministry of Finance** (MOF) but is not the leading agency in allocating funds to cope with climate change.

Figure 4. Vietnam's institutional climate governance framework. Source: V-LED.



The MPI coordinates the country's overall development strategies, planning and national investments, including mobilising and managing ODA and climate finance. The MPI is responsible for the National Green Growth Strategy and in charge of formulating related policy and overseeing implementation. The MPI is also the National Designated Authority for the Green Climate Fund and it established a Climate Finance Task Force to guide the preparation of financing mechanisms.

3.2 Climate-related policies and regulations

The current climate change policy environment consists of various strategies and action plans that address similar issues with overlapping timeframes and objectives, still needing to be harmonized at national, sector and sub-national level for effective implementation. However, while Vietnam's policy system has undergone important reforms, the mode of governance remains hierarchical and centralised, with transformation unlikely to occur soon[29].

In June 2013, the Communist Party of Vietnam adopted a resolution on the "Active response to climate change, improvement of natural resource management, and environmental protection".[30] **Stating that the climate change response was "one of the most important tasks of the entire political system", the policy demonstrates both the Party's and executive government's concern about climate change and is considered the highest-ranking climate change policy in Vietnam.**

Vietnam has been involved in international climate change negotiations since the 1990s. The country is a member to the UNFCCC and has ratified both the Kyoto Protocol and the Paris Agreement. Climate change

[29] Multi-level climate governance in Vietnam. V-LED, 2018.
[30] Resolution No. 24-NQ/TW. 2013.

however only explicitly entered the national policy making agenda in 2008 with the **National Target Programme to Respond to Climate Change** (NTP-RCC). Despite identifying the long-term need to transition towards a low-carbon economy, the allocation of funds granted for the NTP-RCC clearly reflects a focus on adaptation, attributing only 2 per cent of the overall resources to mitigation actions and emphasizing that they will need to be financed by industrialised countries.

In 2011, **National Climate Change Strategy** (NCCS) identified ten strategic tasks for the national climate change response. Although it includes the development of a low-carbon economy as a goal, the NCCS focuses on climate change adaptation. In 2012, the corresponding **National Action Plan on Climate Change** was adopted, as well as the National Strategy on **Environment Protection and the National Green Growth Strategy**. The latter defines precise, unconditional emissions reduction targets, including a 20 per cent reduction of GHG from energy activities by 2030 compared to business-as-usual (and 30 per cent with international support) and pledges to provide domestic funding to support implementation.

Vietnam's NDC sets an economy-wide GHG emissions reduction target of 9% by 2030 compared to BAU with 2014 as the base year, as well as conditional reduction target of 27%. It lists a range of mitigation measures, with specific objectives for the energy, agriculture, transport, waste and LULUCF sector, and defines some general priorities for adaptation. The NDC further states measures to strengthen the role of the state in responding to climate change and enhance international cooperation.

Figure 5 provides a timeline for the environmental and climate change policy framework, and **Table 2** outlines the country's relevant international commitments, policies, and domestic initiatives and programs to realize its climate, forest, and land use priorities.

3.2 Recommendations for the jurisdictional level of assessment

Vietnam's climate, land use, and forest governance structures justify jurisdictional assessment at the national level. Beginning with the 2013 Constitution, which defines land in general and forest land in particular as belonging to the people, represented by the State, ultimate control and authority over land use issues is centralized in Vietnam. The 2017 Law on Forestry clarifies and divides forest ownership into two types: first, forests owned by the people with the State as their sole representative; and second, forests owned by other actors in accordance with other laws affecting the forest sector, such as the Law on Environmental Protection (2014).[31] Forest management is largely undertaken by state entities, including Special Use and Protection Forest Management Boards and State Forest Enterprises, which managed about 47% of total forest area as of 2017, including all Special Use and Protection forests as well as most remaining natural forests on within Production forests.[32]

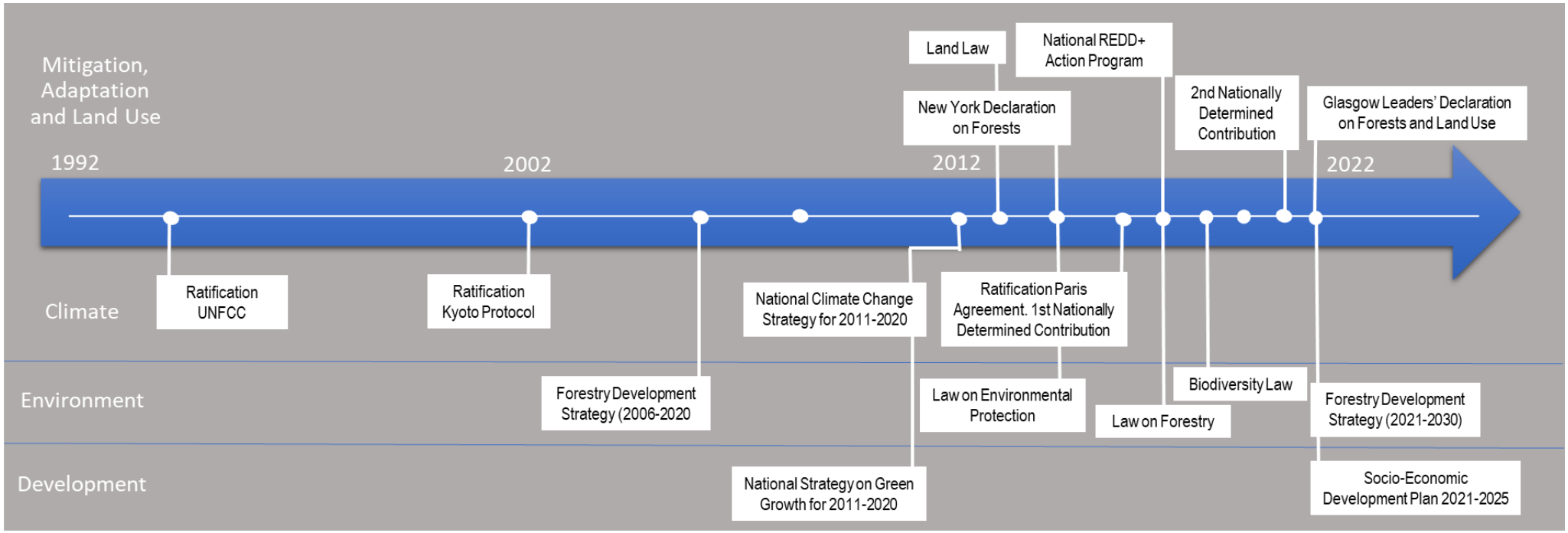
In terms of climate change response, the National Climate Change Committee of Vietnam, established in 2012 and chaired by the Prime Minister, oversees the implementation of climate change action. The committee is vice-chaired by a Deputy Prime Minister and the head of the Ministry of Natural Resources and Environment (MONRE). MONRE has been designated by the Government of Vietnam as the National Focal Point to implement international treaties on climate change (e.g., the UNFCCC and the Paris Agreement). The State's responsibility to manage forests is also carried out by MONRE (with mandates for land, minerals, biodiversity, and climate change) as well as by the Ministry of Agriculture and Rural Development (with mandates for forests and forest products).[33] Party oversight of forest management also extends to the provincial and district levels.

The national government of Vietnam has been engaged in REDD+ since 2009, implementing a national REDD+ readiness program and developing a National REDD+ Action Plan (2012), National Reference Emission Level (2016), a National Forest Monitoring System, and a REDD+ institutional framework that extends from the national to the provincial level.

[31] New forestry law looks beyond protection to development. Hà Công Tuấn, 2017.
[32] PIF entry Project 10539. Global Environment Facility, 2020.
[33] Forest governance in Vietnam: A literature review. Hoang, Thanh, & Lan, 2017.

Given the centralized authority of the national government of Vietnam to manage climate change response, land use, and forest ownership and development, as well as its existing national institutional and legislative frameworks supporting this authority, the recommended jurisdictional level for assessment is the national level.

Figure 5. General overview of the Environmental and Climate Change Policy Framework



3. Forest trends: governance, regulation, and land cover dynamics

3.1 Forest governance, institutions, and policies

Institutional arrangements

Forest sector authority is arranged from the central down to provincial and district levels.

- **Central level:** The government retains the authority for overall central/state management of forest protection and development, with the Ministry of Agriculture and Rural Development (MARD) accountable to the government. In January 2010, MARD established the Vietnam Forestry Administration (VNFOREST), tasked with advising and supporting the minister in managing the country's forests.

- **Provincial level:** The Provincial People's Committee (PPCs) undertakes state management of forest development and protection in their localities. PPC chairpersons are accountable to the Prime Minister in relation to the management of all state forest resources in their localities (provinces and cities). Provincial units of MARD, are District Agriculture and Rural Development (DARD) contain a forestry section to assist the PPCs in carrying out their duties.

- **District level:** District People's Committees (DPCs) undertake state management of forest development and protection in their localities/ districts. DPC chairpersons are accountable to the PPCs for cases of forest damage or loss in their localities. DPCs appoint Divisions of Agriculture to carry out their tasks. Each division is allowed to employ one or two forest staff members responsible for monitoring forestry activities.

- **Commune level:** Commune People's Committees (CPCs) undertake state management of forest development and protection in their localities/communes. CPC chairpersons are responsible to the DPCs for any mismanagement of forest causing damage or loss of forest cover. Communes appoint special forest staff to carry out their tasks. Below the commune is the informal system led by the heads of the villages. Heads of villages are important intermediaries between national laws and any existing customary law.

Forest management and ownership

Forests in Vietnam are classified into three types according to management purposes:

- Production Forests (ca. 7.5 million ha) that are designated for timber supply;
- Protection Forests (ca. 5.2 million ha) that are designated for protection functions, such as watershed and coastal areas; and
- Special Use Forests (2.2 million ha) which are for biodiversity conservation such as national parks, protected area, biosphere etc.

There has been a tendency to increase the share of production forest area and reduce the protection forest area, leaving the special-use forest (SUF) largely unchanged, consistent with the orientation of Vietnam's Forestry Development Strategy 2006–20 and the restructuring objectives for the forestry sector. The actual management of the forests are largely through state entities such as Special Use and Protection Forest Management Boards (FMBs) and State Forest Companies (SFC), which in 2017 jointly managed approximately 46.7 percent of the total forest area. All special-use and protection forests, as well as most of the natural forests on production forest land, are managed by these state entities.

Forest-related policies and regulations

To reach net-zero carbon emissions by 2050[34], the country's environmental governance framework aims to tackle climate change mitigation and adaptation through its forestry and agriculture sectors while not slowing its rapid pace of economic growth.

From 1943 to 1993, Vietnam's forest cover declined from 43% to 28%. Since then, much forest cover has recovered due to land reform policies, a partial logging ban, and large-scale reforestation (plantations and natural regeneration) programs.

Vietnam is a REDD+ pioneer country, having adopted REDD+ in 2009 (Figure 6). Despite early challenges in maintaining forest cover quality due to a number of legal and illegal deforestation and degradation drivers – including national development goals and commercial agriculture – the country has demonstrated strong political commitment to REDD+ aims[35]. The 2017 National Action Programme on REDD+ set an intermediate 2020 target to expand forest cover to 42% and 14.4 million hectares, which was met (as forest cover in 2020 was 14.6 million hectares, with the increase primarily due to plantations). The 2030 target is to reach 45% forest cover while stabilizing natural forest cover, in line with the country's updated NDC (2020).

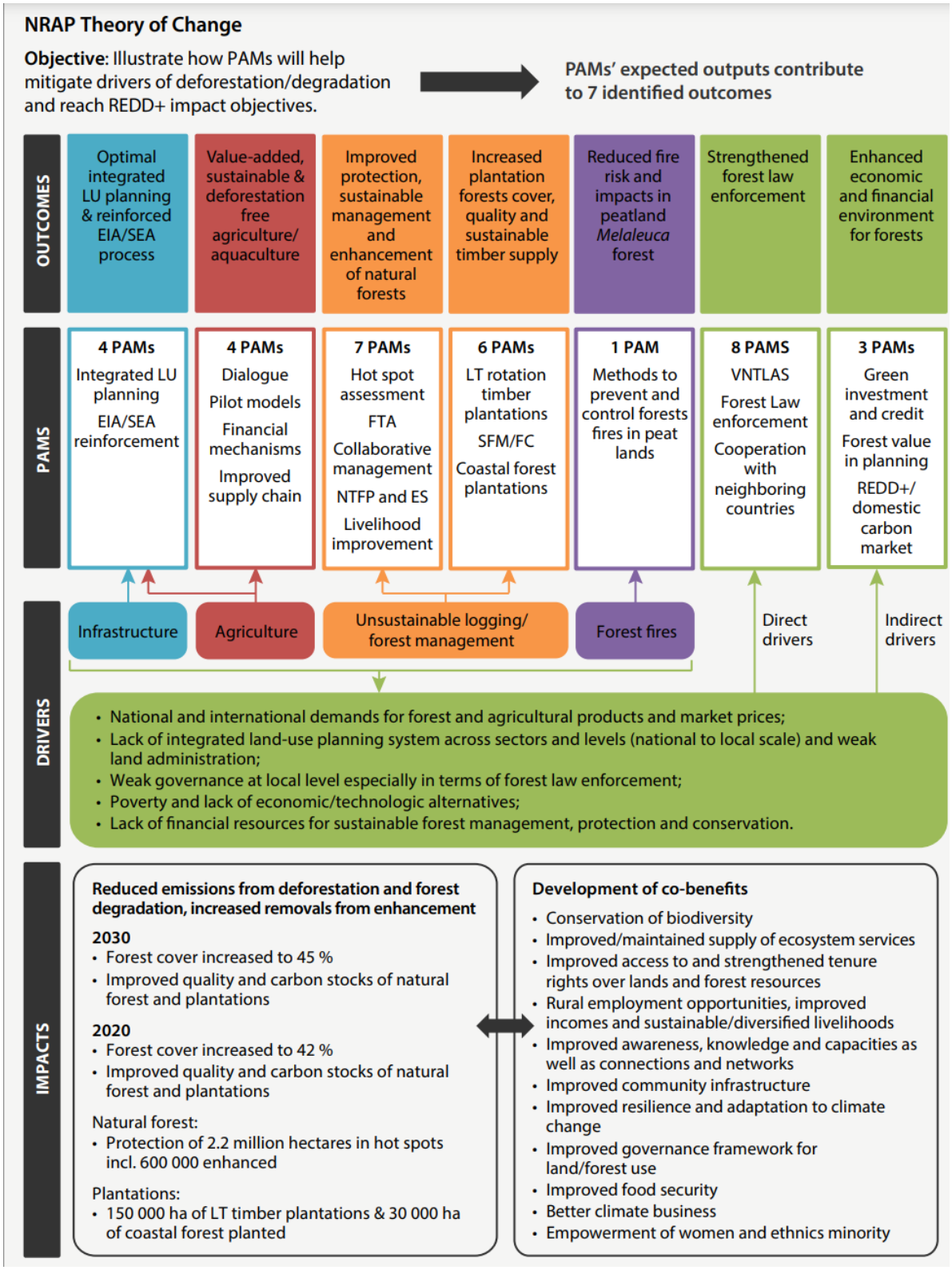
Currently valid Socio-Economic Development Plan 2021-2025, in addition to overcoming the setbacks of the Covid-19 pandemic and continuing rapid, but sustainable, economic growth, also aims to increase investment in technology and innovation across sectors, including agriculture, to ascend the value chain. **The plan recognizes the importance of a stable environment as a foundation for growth and sets a target to maintain forest cover at or above 42%.**

In 2021, Vietnam's government approved a new Forestry Development Strategy for 2021-2030. The strategy builds on some successes from the previous (2006-2020) strategy, including an increase in total forest cover, reforestation after logging, and reduction of forest protection violations[36]. It sets new targets to modernize the sector as an economic powerhouse, including increasing forestry production value by 5-5.5% per year, and planting 340,000 ha/year of production forests. The Strategy builds on the foundation of forest ownership structures set out in the 2013 Land Law and the 2017 Law on Forestry, which allow forest ownership by non-State actors, communities, households and individuals, scientific and educational institutions, and "economic organizations,"[37] in addition to the State. Foreign-invested enterprises may not be "forest owners" but may obtain land use rights through leases from the State. A significant portion of the country's forests – almost 1 million hectares by 2015 – is allocated to community management, which was first recognized in the 2004 Law on Forest Protection and Development[38].

Details on other relevant strategies, regulations and policies are provided in **Table 2.**

[34] COP26 and Climate Change: Vietnam's Commitment to Reducing Emissions. Shira & Associates, 2021.
[35] The context of REDD+ in Vietnam: Drivers, agents and institutions. CIFOR, 2019.
[36] Vietnam Forestry Development Strategy: Implementation results for 2006–2020 and recommendations for the 2021–2030 strategy. CIFOR, 2020.
[37] "Economic organizations" include State Forest Enterprises and other domestic organizations
[38] Forest governance in Vietnam: A literature review. Hoang, Thanh, & Lan, 2017.

Figure 6. National REDD+ Action Plan (NRAP) Theory of Change. Source: CIFOR, 2019.



Multilateral cooperation

The government has engaged with multilateral institutions and other donors to fund major forest protection and agricultural support programs in the country. Since 2012, the **USAID-funded Vietnam Forests and Deltas program has invested USD 31 million to strengthen the country's forest governance framework, to develop the policy basis for REDD+**, as well as to update its Payment for Ecosystem Services policy.

In 2018, **Vietnam signed a Voluntary Partnership Agreement with the EU under its Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan to eliminate illegal timber from the country's supply chain and gain privileged access to the EU's strictly regulated timber market**. Legality requirements were embedded into domestic legislation in October 2020. And in 2020, Vietnam signed an Emission Reductions Purchase Agreement (ERPA)38F[39] with the World Bank totaling USD 51.5 million in payments for verified reductions of 10.3 million tonnes of CO_2 emissions from its REDD+ program in the North Central Region. Finally, a recent Green Climate Fund project, Strengthening the resilience of smallholder agriculture to climate change-induced water insecurity, aims to invest USD 156 million through 2026 to empower vulnerable smallholders in central highlands and south-central coast to manage increasing climate risks to agricultural production by securing water provision, supporting farmers to adopt climate-resilient agriculture, and strengthening access to agriculture related climate information, credit and markets.

In August 2021 **Vietnam submitted a Proposal to the LEAF Coalition to become an eligible supplier of emissions reductions. The proposed supply area includes 11 contiguous provinces in the Central Highlands and South Coastal Central regions** (Lam Dong, Dak Nong, Dak Lak, Gia Lai, Kon Tum, Quang Ngai, Binh Dinh, Phu Yen, Khanh Hoa, Ninh Thuan and Binh Thuan provinces) containing 29% of total national forest (4.26 million ha total, including 3.24 million ha of natural forest and 1.02 million ha of plantations) and 37% of the country's carbon stocks. The government plans to count some of its ART emission reduction credits against its NDC targets while selling the remainder. In October 2021, the government of Vietnam signed a Letter of Intent with the LEAF Coalition confirming the transfer of 5.15 million tons of CO_2 emissions reductions credits per the proposed program, at a minimum price of USD 10 per ton. The country is expected to sign an Emissions Reduction Purchase Agreement (ERPA) within 12 months of signing the Letter of Intent.

[39] Vietnam Signs Landmark Deal with World Bank to Cut Carbon Emissions and Reduce Deforestation. World Bank, 2020.

Table 2. Overview of climate and land use policies, initiatives, and relevant commitments. Source: elaborated by authors.

Year	Policy or Initiative	Type	Forest, peatland, restoration	GHG emission reductions	Description
INTERNATIONAL COMMITMENTS					
2009	***UN REDD***	Program participation	x	x	Vietnam has participated in UN-REDD since 2009.At the close of its National Programme in 2018, it had completed the four pillars of the Warsaw Framework: • the launch of one of the world's first fully operational online safeguards information systems (SIS) • the approval of its National REDD+ Implementation Plan • the development of an operational National Forest Monitoring System (NFMS) and • completion of an updated Forest Reference Emission Level/Forest Reference Level
2016, 2020	***Nationally determined contribution (2016; 2020)***	Plan	x	x	Vietnam has submitted two versions of its NDC: • **2016**: unconditional reduction target of -8% by 2030 compared to BAU with 2010 as the base year; conditional reduction target of –25%. Unconditional aim to increase forest cover to 45%. • **2020**: unconditional reduction target of -9% by 2030 compared to BAU with 2014 as the base year; conditional reduction target of –27%; mitigation measures relate to energy, agriculture, LULUCF, waste, and IP sectors.
2016	***Plan for the Implementation of the Paris Agreement (Decision No. 2053/QD-TTg)***	Plan		x	The plan outlines actions to: • review existing regulations and develop a Decree on the roadmap and modality for GHG emission mitigation • develop a domestic carbon market • pilot the system, policies and market tools for mitigation of GHG emissions in potential sectors • develop and implement GHG mitigation and green growth proposals in accordance with national conditions
2017	***National Action Program on the reduction of GHG emissions through REDD+ by 2030 (Decision No. 419/GD-TTg)***	Plan	x	x	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, which was achieved. 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 (later revised to 43%), contributing to realizing the national target of reducing total GHG emissions by 8% by 2030 compared with BAU (1st NDC), as committed to in the Paris Agreement on Climate Change. This contribution may increase to 25% (1st NDC) with international support.
NATIONAL LEGISLATION AND POLICIES					

2007	***Forestry Development Strategy (2006-2020) (Decision No. 18/2007/QD-TTg)***	Strategy	x	x	The forestry development strategy outlines the national plan for: • the establishment, management, protection, development and the use in a sustainable manner of 16.24 million ha of land planned for forestry, including the cultivation, harvest and processing of forest products. • the increase in the percentage of land with forests (to 45%) • wider participation of all economic sectors in forestry activities in order to contribute to socio-economic development • the protection of the ecological environment and conservation of biodiversity
2011	***Payment for forest ecosystem services (PFES) (Decree No. 99/2010/ND-CP)***	Policy	x	x	The policy aims to provide payments for forest ecosystem services across Vietnam. Beneficiaries of ecosystem services that can receive payments include hydropower plants, clean water suppliers and eco-tourism operators. The policy generates revenues of approximately USD 50 million per year, which is used for forest protection to ensure these ecosystem services stay available.
2012	***National Climate Change Strategy (NCCS) for 2011-2020 (Decision No. 18/2007/QD-TTg)***	Strategy	x	x	The strategy sets the overall objective to mobilize national capacity to carry out measures of climate change adaptation and GHG emissions reduction to enable a low-carbon economy and green growth. It includes provisions for afforestation, improved forest management, and increasing agriculture's resilience to climate change effects.
2012	***National Strategy on Green Growth for the period of 2011-2020 with a vision to 2050 (Decision No. 1393/QD-TTg)***	Strategy		x	The strategy sets out three main areas of action for green growth: • "greening" existing industries • encouraging energy efficiency • producing high value-added products The strategy relies on improved research and advanced technology application, reducing energy consumption and increasing renewable energy, mitigating emissions through sustainable, organic agriculture, and regulating high-pollution industries.
2013	***Land Law*** (No. 45/2013/QH13)	Law	x		The law prescribes the powers and responsibilities of the State in representing the "entire-people" ownership of land and uniformly managing land, the land management and use regimes, and the rights and obligations of land users over the land in the territory of Vietnam.
2014	***Law on Environmental Protection No. 55/2014/QH13***	Law	x	x	Along other aspects, the law outlines the responsibilities of different actors in providing environmental protection, and describes the country's mitigation and adaptation policy. It also regulates the management, protection, development and use of forests, including forest products processing and trade. It aims to limit forest loss and degradation, manage forests sustainably, conserve and increase forest carbon reserves.
2016	***Action Plan to Respond to Climate Change of Agriculture and Rural Development sector for the period of 2016-2020 with vision to 2050 (Decision No. 819/QD-BNN-KHCN)***	Plan		x	The plan presents action to improve the resilience and green growth of the agriculture sector while ensuring low-carbon, low-emissions development.
2017	***Law on Forestry (No. 16/2017/QH14)***	Law	x	x	Building on the 2004 Law on Forestry Protection and Development (LFPD), the 2017 Law on Forestry expands its focus beyond just forest management and forest development to include management, protection, development, forest use, forest product production, trade, and science and technology. One

					of the important contents of the Law is to assess the GHG emissions reduction to find solutions to limit forest loss and degradation, manage forests sustainably, conserve and increase forest carbon reserves.
2017	***Green Growth Action Plan of Agriculture and Rural Development sector up to 2020 (Decision No. 923/QD-BNN-KH)***	Plan		x	The plan aims to achieve by 2020 a 20% reduction of GHG emissions from the agriculture and rural development sector, compared to 2010.
2018	***Biodiversity Law (No. 20/2008/QH12 (2008/18)***	Law	x		The law provides for the conversation and sustainable development of biodiversity. Among other aspects, it classifies conservation zones and specifies conservation zone classification criteria. Conservation zones include: national parks; nature reserves; wildlife reserves; and landscape conservation zones.
2021	***Forestry Development Strategy for the 2021-2030 period, with a vision to 2050***	Strategy	x		The overall goal of the strategy is to build the forestry sector's economic and technical foundation; establishing, managing, protecting, developing and using sustainably forests and land areas planned for forestry; ensuring the broad and equal participation of all economic sectors in forestry activities, maximizing the mobilization of social resources; to apply advanced and modern science and technology. Targets include: • Forestry production value will increase 5-5.5% per year • 340,000 ha/year of production forests will be planted • Average incomes of ethnic minority forestry workers will more than double by 2025 compared to 2020
2021	***Socio-Economic Development Plan 2021-2025***	Plan	x		The current five-year plan for Vietnam sets key economic, social and environmental targets, including: • An average annual GDP growth of 6.5-7% • Share of total labor working in agricultural to reach 25% • Forest coverage will not be lower than 42%
SUBNATIONAL FOREST & CLIMATE PROGRAMS					
2017	***Sustainable development in the Mekong River Delta region with the vision to 2050 (Resolution No. 120/NQ-CP)***	Plan	x		The plan aims to raise the development level of the Mekong Delta region, aiming for per capita income higher than the national average and secure livelihoods. The plan sets specific targets: • the proportion of ecological agriculture and high-technology agriculture to be 80% • the proportion of forest coverage to be increased to over 9% (compared to 4.3% in 2017
2020-2026	***"Strengthening the resilience of smallholder agriculture to climate change-induced water insecurity in the Central Highlands and South-Central Coast regions of Vietnam" (FP125)***	Program			This USD 156 million Green Climate Fund project aims to empower vulnerable smallholders in central highlands and south-central coast to manage increasing climate risks to agricultural production by securing water provision, supporting farmers to adopt climate-resilient agriculture, and strengthening access to agro-climate information, credit and markets.
2012-2021	***Project to recover and manage protection forests sustainably***	Program	x		Funded by ODA loans from Japan, the project is aimed at managing and protecting protection forests sustainably, recovering and preserving biodiversity, and supporting poverty reduction in mountainous areas. The project will be implemented from 2012-2021 in 11 provinces (i.e, Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri, ThuaThien Hue, Quang Ngai, Binh Dinh, Phu Yen, Ninh Thuan, and Binh Thuan Provinces). Funding for the project is provided by Japan's ODA loans.

2012-2021	***Vietnam Forests and Deltas Program***	Program	x	x	This USD 31 million USAID program puts into practice national climate change and low emissions development and REDD+ policies and strategies with a focus on reducing emissions from forestry and agriculture sectors and strengthening climate-smart livelihoods and settlements. The first phase of the program (2012-2018) helped put national policies and strategies into practice to respond to climate change, with a focus on the forestry and agriculture sectors, disaster risk reduction, and strengthening rural livelihoods. Beginning in 2018, the program's second phase focuses on supporting the Government of Vietnam to ensure that the payment for forest environmental services (PFES) system is an effective tool in accomplishing the country's environmental and socio-economic goals.

3.2 Forest trends

Vietnam experienced a sustained and intensive deforestation process last century with forest cover decreasing from 60% of the total area at the beginning of the century to about 25% in the early 1990s[40]. Since then, much forest cover has recovered due to land reform policies, a partial logging ban, and large-scale reforestation (plantations and natural regeneration programs)[41][42].

The forest sector contributes significantly to the country's economy. The export of wood and timber products amounted to $8 billion in 2017, nearly 4 percent of gross domestic product (GDP). Vietnam is also one of the world's leading countries in operationalizing a payment for forest environmental services (PFES) system. Since 2008, its PFES program has generated more than $400 million[43]. In addition, the forest provides a myriad of goods and services that support local livelihoods and the economy as a whole. Given the topography of the country, forests play a particularly critical role in watershed and coastal protection.

Two-thirds of Vietnam's natural forests are deemed in poor condition or regenerating, rich and closed-canopy forest constitutes only five percent of the total. Despite great economic progress and decreasing deforestation rates, the forest sector faces challenges from competing land uses, overexploitation of resources, mounting risks of supply shortages, and insufficient capacity for forest governance and management. As a result, deforestation and forest degradation rates continue in parts of the country, such as the Central Highlands, and the overall quality of the natural forest continues its downward trend. There is also the growing threat from climate change, in particular to the country's mangroves[44].

Vietnam's overarching forest strategy aims to transform and modernize the forest sector into an economic and technological powerhouse while maintaining stable natural forests and overall forest cover at 45%.

Deforestation and degradation

Vietnam's forest cover has increased since 2012, but enhancing, or even maintaining, forest quality remains a challenge. Forest degradation is responsible for 62% of forest sector GHG emissions, while deforestation and forest conversion represent only 38%[45].

Vietnam has one of the highest rates in the world of deforestation of primary forests. Several factors lead to continued pressures on primary forests. These include deforestation for infrastructure improvements to support expanding economy, widespread prevalence of illegal logging, weak management of state-owned forestry farms; and expansion of agricultural production as many lower-income farmers still clear forests for agricultural land.

Forest conversion to agricultural land is largely due to the expanding area of production of export-oriented commodities, such as coffee and rubber. This is particularly the case in the Central Highlights where as much as 79% of new rubber plantations were created on natural forestland. In turn, in the poorest communities, particularly in the mountainous areas, shifting cultivation continues to be practiced and its population depends on the forests for daily needs, thus also exerting pressures on the remaining forests.

Reforestation

Following the major decline in natural forests during the 20th century—from 14.3 million ha in 1943 to about 9.1 million ha in 1990—the government made significant efforts to restore them. 1992 saw the implementation of the 327 Project, a five-year, $68 million nationwide reforestation program. However, this was criticized for placing wood production over food security and focusing on exotic tree species such as

[40] Forest transition in Vietnam and its environmental impacts. *Meyfroidt and Lambin, 2008*
[41] Planted forests in Vietnam enhance ecosystem goods and services. *Mollins, 2020.*
[42] Forests and Forestry, *OpenDevelopment Vietnam, 2020.*
[43] USAID promotes electronic payments to increase efficiency and reduce the risk of Covid-19. *USAID, 2020.*
[44] Country Forest Note: Vietnam. *World Bank, 2019*
[45] Vietnam NDC Sectoral Report LULUCF. *GIZ, 2020*

eucalyptus and acacia. Smallholders are a major aspect of forestry in Vietnam, as they control at least half of the country's planted forest area, and in rural areas, plantations are the main source of income for residents.

In 1998, the government introduced the national 5 Million Hectare Reforestation Program (5MHRP), which cost more than $1.5 billion through 2010, dramatically increasing the scale of the 327 Project. 5MHRP did not meet its area-based reforestation goals, and in some provinces encouraged the replacement of natural shrubland that local communities lived off with monoculture plantations, generally acacia, managed and periodically clear-cut by smallholders.

Despite these shortcomings, initiatives such as the 327 Project and 5MHRP did have an impact on raw forest figures. Vietnam's forest cover grew from 28% of the country, or 9.4 million hectares (23 million acres), in 1990 to 42%, or 14.6 million hectares (36 million acres), in 2020, according to figures in the 2020 paper. Both natural forests and plantations grew during this time, but plantations grew more rapidly

To improve the natural forest quality, Vietnam's Forestry Development Strategy (2016-2020) aimed at an annual rate of natural regeneration equal to 0.8 million ha. The target failed, achieving only 0.36 million ha regenerated per year. Among the main challenges were difficulties with reforestation zoning (ethnic minorities with a tradition of upland rice cultivation, tend not to regenerate forests on the swidden land because shifting cultivation has a higher income value and forms a key part of the culture for many ethnic groups), lack of provincial counterpart funding to cover bureaucratic and management costs of regeneration and similar.

After a series of typhoons and tropical storms slammed into Vietnam in 2020, setting off record floods and countless landslides, Vietnam approved the project "Planting one billion trees in the period of 2021 - 2025". The aim is to plant 690 million trees in urban and rural areas, and other 310 million trees in protection forests, special-use forests and production forests. This official government policy seeks to address ecosystems protection, respond to climate change, improve landscapes and aid economic development. The government has yet to release specifics on what species will be planted where and by whom, or the cost and source of funding. While the initiative was created in the wake of natural disasters that heavily impacted communities in mountainous areas, especially in central Vietnam, it places most of its emphasis elsewhere.

Impacts of climate change on Vietnam's forests

The impacts of climate change on forestry include increasing the risk of forest fires, changing the distribution of natural forest ecosystems, impacts on planted forests and mangroves. The risk of forest fires increases in all ecological regions, however, more strongly in the North West, North Central Coast and Central Highlands areas. It is estimated that there are about 6 million hectares of easily-burnt forest due to its decreasing quality. Forests with high risk of fire include pine, cajuput, bamboo, eucalyptus, dipterocarp forest. Some natural ecosystems - dipterocarp, mangrove, semi-deciduous forests – are at relatively high risk of changing their distribution due to climatic conditions.

In the Red River Delta, climate change and sea level rise could result in shrinking the area of the mangrove ecosystem, due to increased coastal erosion. Some species of mangrove may not adapt to changes in such environmental conditions as tides, salinity, and temperature. In the Southern provinces, especially in the Mekong Delta, the impact of sea level rise, salinity regimes and salinity values may lead to a reduction in mangrove forest areas. In addition, the impact of climate change may cause the loss of biodiversity as well as growth of mangroves.

Semi-deciduous forest ecosystem may no longer exist in the North Central by 2050 and only appear in the South Central and Central Highlands regions. Climate change will not produce major changes in the distribution of the evergreen broad-leaved forest ecosystem.

By 2050, changes in climatic conditions could have a positive impact on the expansion of climatic zones suitable for plantation. Climate change could also significantly reduce the growth of acacia plantation in the South (reduced by 10-27%), especially in the South East and Mekong Delta. However, the growth of *Acacia mangium f*orest is likely to widen in the North, with an increase of 10-30%. Rising temperatures will increase

the risk of larval infestation in pine forests and for other pests in planted forests. Other risks of climate change are the directly relate to the consequences of deforestation and forest degradation.

Country	***Date of Report***	***Author***
Vietnam	*6th of June, 2022*	*Climate Focus*
sub-national jurisdiction	***Date of AB Decision***	***Approval Status***
N.A.	*13th of May, 2022*	Approved

Version History

Date	Version	Author
05/05/2022	**1**	**Climate Focus**
06/06/2022	**2**	**Climate Focus**

Checklist JEC 1 — Vietnam

<table>
<tr><th>Item</th><th>Criteria</th><th>Analysis</th><th>Check</th><th>References</th></tr>
<tr><td>1.1</td><td>Amount of forest/peatland in the jurisdiction</td><td>
Summary conclusion: Forests cover 14.6 million hectares of the country's surface representing 42% of forest coverage. Of these, 10.3 million hectares are natural forests, two thirds of which are in poor condition or regenerating. Other 4.4 million hectares are forest plantations that have been continuously expanding ca. 0.2% per year. Peatlands are estimated to cover 24,000 ha.

Vietnam's forest area[46] that covers 14,677,200 ha, or 42% of the country, consists of natural and planted forests [1]. Natural forests with total area of 10,279,200 ha, include primary and secondary forests, two thirds of which are in poor condition or regenerating, and only 5% contains rich and closed-canopy forest as of 2010 (FREL). The forest coverage ratio continuously increased over the years in the country. The period 2016-2020 had an average growth rate of about 0.2% per year. This occurs mainly due to forest plantations constantly increasing area, currently of ca. 4.4 ha/year [1]. Table 3 depicts the area of forest per province.

Table 3. Area of forest as of 31 December 2020 by province [1].
<table>
<tr><th></th><th>Natural forest (ha)</th><th>Planted forest (ha)</th><th>Total area of forest (ha)</th><th>Forest coverage</th></tr>
<tr><td>Red River Delta</td><td>180,500</td><td>306,800</td><td>487,300</td><td>21.3%</td></tr>
<tr><td>Northern midlands and mountain areas</td><td>3,805,500</td><td>1,522,000</td><td>5,327,500</td><td>53.4%</td></tr>
<tr><td>North Central and Central coastal areas</td><td>3776,500</td><td>1,793,400</td><td>5,569,900</td><td>54.0%</td></tr>
<tr><td>Central Highlands</td><td>2,179,800</td><td>382,200</td><td>2,562,000</td><td>46.0%</td></tr>
<tr><td>South East</td><td>257,100</td><td>223,000</td><td>480,100</td><td>19.5%</td></tr>
<tr><td>Mekong River Delta</td><td>79,800</td><td>170,600</td><td>250,400</td><td>4.9%</td></tr>
<tr><td>Total</td><td>10,279,200</td><td>4,398,000</td><td>14,677,200</td><td>42.0%</td></tr>
</table>
Forest area also comprises wetlands, however, detailed data for wetlands or peatlands areas is not available. Although peatlands are not fully mapped, the Mekong Peatlands Project has recorded scattered peatlands along the country estimated to cover 24,000 ha. The main area of peatlands is located in the Lower Mekong Delta; the province of Ca Mau has about 7,500 ha of peatlands, and the province of Kien Giang almost 3,000 ha [2].
</td><td>OK</td><td>[1] Statistical yearbook of Vietnam 2020

[2] ASEAN Peat</td></tr>
</table>

[46] National forest definition (FREL): minimum 10% tree cover, at a minimum height of 5 meters, over a minimum area of 0.5 ha.

1.2	***Quality of forest/peatland in the jurisdiction***	***Summary conclusion:*** *Vietnam is home to internationally recognized biodiversity hotspots such as world biosphere reserves and over 3.7 million ha of Key Biodiversity Areas. It contains globally important ecoregions acting as carbon sinks and reserves of natural forest ecosystems. As of 2010, two-thirds of Vietnam's natural forests are deemed in poor condition or regenerating, while rich and closed-canopy forest constitutes only 5% of the total.* *Natural forests in Vietnam have experienced widespread degradation and loss over the last few decades. Increased forest cover has resulted largely from expansion of plantation forests and has occurred alongside continued degradation of natural forests. As of 2010, over two-thirds of Viet Nam's natural forests are considered poor or regenerating, while rich and closed-canopy forest constitutes only 5 percent of the total. Conversions of natural forests to plantations remain a part of the national forest development activities, but only targets degraded forests [1].* *Quality of Vietnam's natural forests is one of the priorities of current Forestry Development Strategy. It aims to enhance the quality of 20% of the natural forest area by 2030, improving efficiency of biodiversity conservation, forest protection capacity, minimizing cases of violations of the law on forestry, ensuring environmental security [2].* *The Central Highlands Region (CHR) in central Vietnam encapsulates most of the remaining forests with high biodiversity value in Vietnam. The CHR spans five provinces and is topographically dominated by the Annamite Mountains, northern and southern parts of them highlighted by WWF as global ecoregions. These areas contain geographically unique species, communities and conditions, with globally outstanding biodiversity [3]. Other 4 WWF's ecoregions of global importance include Northern Indochina Subtropical Moist Forests, Eastern Indochina Dry & Monsoon Forests, Mekong & Salween Rivers, and Mekong River Delta Mangroves. Vietnam's globally important ecoregions are home to 16% of the world's flora and fauna species [7].* *The country is home to 122 Key Biodiversity Areas (KBAs) covering over 3.7 million ha. 75 of them are forests, 29 wetlands, and the rest distributed across shrublands, grasslands, coastal and marine habitats, and other terrestrial sites (such as cliffs and abandoned farmland). 50 KBAs have identified threats (i.e. are at risk of incursion or disturbance from human activities such as agriculture or aquaculture). The country has 442 trigger species[47], out of which 261 are birds [4].*	*OK*	*[1] FREL, Forest Reference Level (2016 updated).* *[2] VFDS 2021 - 2030* *[3] Diversity depends on scale in the forests of the Central Highlands of Vietnam. 2017.* *[4] Key Biodiversity Areas* *[5] Indo-Burma ecosystem profile (2020)* *[6] The Global Peatland CO_2 Picture, Wetlands International (2009)* *[7] ASEAN peat* *[8] Tropical Peatland Eco-Management (2021)* *[9] Ramsar*

[47] Trigger is defined as a biodiversity element (e.g. species or ecosystem) by which at least one KBA criterion and associated threshold is met.

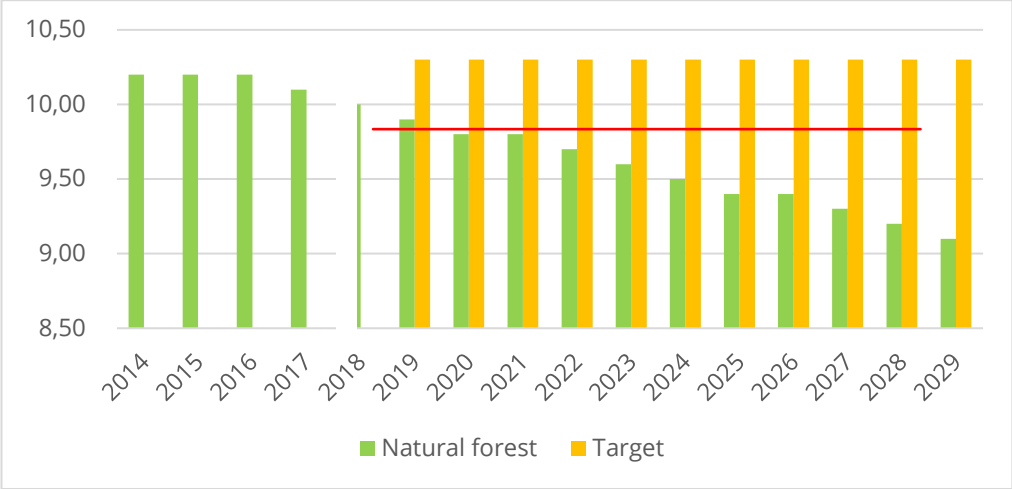
		With the recent recognition of Kon Ha Nung Plateau in the Central Highlands province of Gia Lai and Nui Chua Biosphere Reserve in the central province of Ninh Thuan as a world biosphere reserves, there are 11 sites of this type in the country. *Vietnam is part of the Indo-Burma biodiversity hotspot, with 14 out of 56 conservation corridors defined for this hotspot [5].* *Vietnam's peatland areas have declined through human activities, particularly by drainage for agriculture and forestry and mining for organic fertilizer and fuel. The largest remaining area of peatland is concentrated in the U Minh region of the Lower Mekong Delta. The high-carbon and high-biodiversity ecosystems have in the past been degraded and poorly managed due to a lack of coordination between sectors and institutions responsible for their management as well as local demand for peatland resources. Serious forest and peat fires have damaged habitats in the remaining peatlands, especially in the early 2000s. Improved integrated water and fire management strategies have since been adopted which has reduced the incidence of fire in the last decade [7, 8]. There are 9 Ramsar Sites with the total area of 120,549 ha [9].*		

Checklist JEC 2: Ambition and Strategy — Vietnam

Item	Criteria	Analysis	Check	References
2.1	**Quantitative target against historic rates of gross deforestation**	**Summary conclusion:** By 2030, the National REDD+ Action Program aims to stabilize the natural forest area at least to the level of 2020, that is, at 10.3 million hectares [1]. Comparing this figure to the BAU trajectory for the LULUCF scenario, Vietnam is on a positive trajectory to meet its 2030 target by reducing estimated deforestation rates and increasing the natural forest cover. Vietnam Forestry Development Strategy (VFDS) for 2021-2030 sets strategic directions, objectives and solutions for the sector in the coming years. Its environmental goals include: maintaining the national forest cover rate stable at 42% to 43% by 2030, maintain the area of natural forests at 2020 levels, and the sustainable management of 100% of forest areas owned by other actors [2]. The VFDS also includes other forest-related goals such as planting about 340,000 ha/year of Production forests by 2030, planting with indigenous peoples about 4,000-6,000 ha/year of Protection forests and Special Use forests using precious and rare species, the restoration of 15,000 ha/year of Protection forests and Special Use forests, and increasing the revenues from forest ecosystem services by 5% per year]. In this context, it is important to highlight that natural forests can also be legally explored without conversion. The Statistical Yearbook of Vietnam states that the natural forest cover in 2020 amounted to 10.3 million ha. However, as per the NDC Sectoral Report for LULUCF, the business-as-usual (BAU) projection shows a reduction of natural forests area from 10.1 million ha (2014) to 9.9 million ha in 2020 and to 9.1 million ha in 2030. This data demonstrates that Vietnam has succeeded in reducing its deforestation rates (calculated from 2010 to 2016 and projected to 2030) and, in addition, has managed to increase natural forests. This would mean that Vietnam is on a positive trajectory to meet the 2030 target. Planted forest area is also expected to increase by about 30% (5.4 million ha) in the same period (2014-2030) [3]. The country's updated NDC states specific measures to achieve reductions within the LULUCF sector. They include: protecting, conserving and sustainably using forests and forest land; planting and developing forests, restoring protection forests and special-use forests; defining areas for restoring natural forests, improving forest carbon stock quality and volume; and developing agroforestry models [4]. In terms of GHG emissions, for the period 2021-2030 the proposed mitigation options for the LULUCF sector are considered based on compatibility with policy direction, emissions potential, non-carbon benefits, technical capacity, investment costs and the ability to implement MRV. Out of seven proposed mitigation options, 6 require international assistance. They focus on protecting existing natural forests (controlling deforestation and forest degradation), afforestation and reforestation, improving	OK	[1] Statistical yearbook of Vietnam 2020 [2] VFDS 2021 - 2030 [3] Vietnam NDC. Sectoral Report Land Use, Land Use Change and Forestry. GIZ, 2020. [4] Nationally determined contribution (2020) [5] National Action Program on the reduction of GHG emissions through REDD+ by 2030 (Decision No. 419/GD-TTg)

		productivity and quality of poor natural and planted forests, application of agro-forestry practices, and sustainable forest management [3]. *Without international support, implementing these options will contribute to reducing emissions in the LULUCF sector by 9.3% compared to the national BAU scenario in 2030. The average annual emissions reduction (including removal enhancement) is 8.22MtCO_2/year, of which the annual average emissions reduction from deforestation and forest degradation control is 6.0 MtCO_2e/year (accounting for 73% of total emissions) and average carbon sequestration is -2.2 MtCO_2e/year (accounting for 27%) [3].* *With international support, the annual average (additional) emissions reduction is 8.4 MtCO_2e, of which the emissions reduction from deforestation and forest degradation is 3.3MtCO_2e (accounting for 40%) and removals is -5.1 MtCO_2e (60%). The total estimated emissions reductions for the year 2030 are 11.8 MtCO_2.* *In this context, it is important to observe that* ***in Vietnam's forest sector the estimated emissions from forest degradation are considerably higher than those from deforestation and forest conversion, representing 62% and 38% accordingly [3].***		
2.2	***Ambition***	***Summary conclusion****: The target to maintain the natural forest area at least equal to its 2020 level is ambitious. Within the BAU scenario, the estimated reduction of deforestation rate is about 8% comparing natural forests from 2020 and 2030. This amount is significant compared to historical deforestation rates estimated in Vietnam's official sources.* *Vietnam has managed to revert the deforestation trend from projections under the BAU scenario by increasing the natural forest cover above the projected number in 2020. This means that Vietnam´s ambition intensifies as it requires to maintain the natural forest at the same level by 2030 (400,000 ha above the BAU projection for 2020) [2].* *Deforestation rates in Vietnam are estimated for different periods. The NDC Sectoral Report for LULUCF, assumes that the deforestation rate was 81,514 ha/year (based on past trends from 2002 to 2013) [2]; the Technical Annex on REDD+ (2020), presents the average annual gross natural forest loss between 2010 and 2018 of around 98,463 hectares [4].* *If only compare the projected number of hectares of natural forest under the BAU scenario for 2030 (9.1 million ha) to the 2020 value (9.9 million ha), the estimated reduction of the deforestation rate is around 8% (c.a. 72,800 ha/y). This amount is significant compared to the estimations on deforestation rates calculated from previous years with no consideration of the improvement of forest from regeneration.*	*OK*	*[1] VFDS 2021 - 2030* *[2] Vietnam NDC. Sectoral Report Land Use, Land Use Change and Forestry. GIZ, 2020.* *[3] Statistical yearbook of Vietnam 2020* *[4] Technical Annex on REDD+*

Figure 7. Projected business-as-usual area of natural forests in Vietnam, compared to the target defined in the National REDD+ Program and Vietnam Forestry Development Strategy. In green: projection of the BAU scenario as per Vietnam NDC Sector Report LULUCF. In orange: natural forest level in 2020 as per Statistical Yearbook 2020 which the NRAP target. Red line represents the area of natural forest in the baseline year (2020) of the BAU projection, provided for comparison reasons. Sources: GIZ, VFDS and Statistical Yearbook 2020[1, 2, 3].



The Vietnam Forestry Development Strategy (VFDS) is one of the most important policy instruments for the sector. Although it does not set specific targets related to deforestation, it aims inter alia at :

• The national forest cover rate to become stable at 42% to 43%, effectively contributing to the implementation of the national commitment to reduce GHG emissions,

• Between 2021-2025, improving the quality of 10% of the natural forest area, reaching 20% by 2030. This also includes a better efficiency of biodiversity conservation and forest protection capacity;

• To restore protection forests and special-use forests at 15,000 ha/year average rate.

2.3	***… equalling or exceeding***	***Summary conclusion:*** *n/a*		

	national targets	*Assessment is conducted at the national level.*		
2.4	***Feasible Strategy***	***Summary conclusion:*** *Vietnam's strategy to reduce forest loss and increase forest cover appears to be feasible. The implementation plan for the strategy includes multi-stakeholder participation and consultation processes. The strategy is based upon quantified and time-bound milestones against a defined baseline as well as a clear understanding of challenges in the enabling environment along with the plans to address them. It covers the main drivers of deforestation and is embedded into other national plans and policies. The implementation plan has been adopted, approved, and is publicly available.* ***The strategy was developed and is implemented through multistakeholder consultation process.*** *The National Action Programme on REDD+ (NRAP) [1] includes the principle to "ensure the full and effective participation of relevant stakeholders, inter alia indigenous peoples and woman in local Communities." Under work package 4.1.1 on land use planning, the program specifies that provincial land use planning will occur "with effective participation of stakeholders to balance forests and other sectors' objectives" (p14), and that "public participation in social and environmental impact assessment" will be strengthened (p15). Under work package 4.1.3 on improving forest governance and livelihoods, the program aims to develop collaborative models of forest management between local stakeholders. Under work package 4.1.4 on strengthening law enforcement, the program aims to establish a multi-stakeholder dialogue forum from the central to the provincial level to support civil society organizations, professional associations, farmers, and local communities in organizing and accessing information. Finally, under 4.3.1 on finalizing REDD+ preparations, the program will strengthen mechanisms for all stakeholders to fully and effectively engage in REDD+.* ***The strategy sets quantified and timebound targets.*** *The NRAP [1] sets quantified and timebound targets for two major milestones, 2020 and 2030. By 2020, the program aimed to expand forest cover to 42% of national area, reaching 14.4 million hectares of forest. By 2030, the plan aims to stabilize natural forest area to at least 2020 levels and to increase forest cover to 43% (revised down from 45% in the original document) of national territory.* ***The strategy includes a plan to strengthen the enabling environment.*** *The NRAP [1] includes specific steps to improve the enabling environment for forest protection, sustainable management, and restoration throughout its work packages. The program outlines measures to enable the continued implementation of REDD+, including improving the legal framework; reviewing, amending, supplementing and improving legal documents on land, forestry, finance, environmental protection*	*OK*	*[1] National Action Program on the reduction of GHG emissions through REDD+ by 2030 (Decision No. 419/GD-TTg)* *[2] FREL (December 2016)* *[3] Forestry Development Strategy for the 2021-2030 period, with a vision to 2050* *[4] Socio-Economic Development Plan 2021-2025*

		safeguards; ensuring allocation of funding in the state budget; and integrating REDD+ considerations into forest master planning processes. ***The strategy includes other critical elements for success, including setting a baseline against which to compare progress; identifying the main drivers of deforestation and forest degradation & outlining specific plan to address each; and demonstrating Integration with other policy documents/ priorities.*** *Vietnam submitted its proposed national forest reference level for REDD+ results [FREL] under the UNFCCC in 2016 [2]. The FREL reports that forest cover in Vietnam was about 41% in 2015. This FREL serves as the baseline for the NRAP.* *The FREL [2] also identifies the key drivers of forest degradation and deforestation in Vietnam, namely (I) agricultural or other conversion, (ii) infrastructure development, (iii) unsustainable logging, and (iv) forest fires. The NRAP plans measures to address each of these drivers. For example, in work package 4.1.1., the Ministry of Natural Resources and Environment is responsible for leading the review and adjustment of land use plans for relevant sectors such as agriculture (I), infrastructure (ii), and forestry (iii) to align sector-based planning with forest targets. There are also entire work packages on promoting deforestation-free agriculture and aquaculture and improving timber plantations.* *Finally, Vietnam's strategy to address deforestation and forest degradation is clearly integrated with other policy documents and priorities. The NRAP [1] cites a number of pre-existing national strategies and decisions upon which the strategy builds, including the policy on payment for environmental forest services (2010), the National Strategy on Climate Change (2011), the National Strategy on Green Growth (2012), and Vietnam's commitments under the UNFCCC and the Paris Agreement. Since the NRAP was adopted, Vietnam has also approved a new Forestry Development Strategy [3] and five-year Socio-Economic Development plan [4], both of which reference REDD+ implementation as a continued goal.* ***Various policies and documents that form Vietnam's overall forest strategy have been adopted and are publicly available.*** *Most prominently, the National Action Programme on REDD+ (NRAP) was adopted as the Prime Minister's Decision No. 419/GD-TTg.*		

Checklist JEC 3: Progress — Vietnam

<table>
<tr><th>Item</th><th>Criteria</th><th>Analysis</th><th>Check</th><th>References</th></tr>
<tr><td>3.1</td><td>Timely progress towards milestones of the strategy…</td><td>
Summary conclusion: Vietnam adopted its first National REDD+ Action Program in 2012, and in 2021 it published its first MRV report on national progress achieved in REDD+ 2014-2018 [2]. Based on these reported REDD+ results and the country's adoption and implementation of a number of new laws and policies, the country appears to be making timely progress towards its milestones.

Vietnam published its first National REDD+ MRV report [2] in 2021 as a Technical Annex on REDD+ to its third Biennial update report (BUR3) [3]. This does not provide reporting against the targets in the 2017 NRAP; instead it reports against progress achieved during the period of the first National REDD+ Action Program approved in 2012.

Table 4 demonstrates the emissions and removals of the reference period (FREL/FRL) (1995-2010) [1] and the results reported in the BUR3 Technical Annex on REDD+ [2]. The adjusted forest removals in the reference period discount observed removals from 1995-2010 due to Program 661, an ambitious government re/afforestation program implement from 1998-2010 which led to the mass establishment of timber plantations. The FREL estimates that these results could not be replicated in future years due to reduced area for planting and lack of funding.

Table 4 Progress in reducing forest emissions and increasing removals (in million tCO_2eq) [1].
<table>
<tr><th></th><th>Reference period</th><th>2010-2018 period</th><th>Difference</th></tr>
<tr><td>Average annual forest emissions</td><td>59.961</td><td>41.668</td><td>18.293</td></tr>
<tr><td>from deforestation</td><td>23.060</td><td>15.764</td><td>7.296</td></tr>
<tr><td>from forest degradation</td><td>36.900</td><td>25.904</td><td>10.997</td></tr>
<tr><td>Average annual forest removals</td><td>-39.603</td><td>-78.109</td><td>-38.506</td></tr>
<tr><td>from reforestation</td><td>-18.105</td><td>-25,590,000</td><td>-7,485,000</td></tr>
<tr><td>from forest restoration</td><td>-21.498</td><td>-52,519,000</td><td>-31,021,000</td></tr>
</table>

These results demonstrate that Vietnam is on a trajectory for its LULUCF sector to contribute significantly to its 2nd NDC unconditional target of reducing overall emissions by 9% by 2030, with a conditional target of a 27% reduction, compared to a BAU scenario starting from 2014 [4]. Between the FREL baseline and the
</td><td>OK</td><td>
[1] FREL (December 2016)

[2] Technical Annex on REDD+

[3] Biennial update report (BUR3)

[4] Nationally determined contribution (2020)
</td></tr>
</table>

		reported REDD+ results, Vietnam reduced its average annual forest emissions by 30.5% while almost doubling its average annual forest removals. *In its 2nd NDC submission, Vietnam disaggregates anticipated reduction contributions by sector. The entire Land Use, Land use Change, and Forestry (LULUCF) sector, which includes cultivation, grasslands, and wetlands in addition to forests, is expected to deliver a total of 9.3 million tons of CO_2e emissions reductions by 2030 under the unconditional scenario, or 21.2 million tons of CO_2e emissions reductions under the conditional scenario, compared to BAU. Having succeeded in reducing average annual emissions by 56.8 million tons per year from 2010-2018 compared to the FREL reference period, as reported in* ***Table 4****, Vietnam should be on track to deliver on its NDC forest targets.* *Vietnam has made good progress in terms of adopting and implementing supporting laws, regulations, and policies, as well as established new ones, to support the achievement of its forest-related targets:* • ***2009*** *– Initiation of UN REDD+ participation* • ***2013*** *– Land Law adopted* • ***2014*** *– Law on Environmental Protection adopted* • ***2017*** *– Law on Forestry adopted* *(2nd) National Action Program on REDD+ (through 2030) adopted* • ***2018*** *– Forest Law Enforcement, Governance and Trade (FLEGT) Voluntary Partnership Agreement (VPA) signed with EU* - *Biodiversity Law adopted* • ***2020 –*** *ERPA signed with World Bank under FCPF Carbon Fund* *2nd NDC submitted under UNFCCC* • ***2021 –*** *Forestry Development Strategy 2021-2030, with a vision to 2050* *Socio Economic Development Plan 2021-2025 adopted*		
3.2	***… measurably on a trajectory towards the targets for reduced deforestation***	***Summary conclusion****: Vietnam discloses its REDD+ results which also include discussions of the methodologies used and consistency with existing national documents and international guidelines. These results are considered measurable and verifiable.* ***The methodology used to report its REDD+ results is aligned with the methodology used to generate the country's 2016 FREL [2], with certain key data and methodology updates.*** *The National REDD+ MRV report (2021) [3], submitted as a Technical Annex on REDD+ with the third Biennial update report (BUR3) [2], reports REDD+ progress as described in JEC 3.1 above. Its methodologies are in line with those used to produce the 2016 FREL [1,3] with some updated data. Table 8 of the National REDD+ MRV report ([3], page 10) describes the comparison between FREL methodologies & data vs. the REDD+ results*	*OK*	*[1] FREL (December 2016)* *[2] Biennial update report (BUR3)* *[3] Technical Annex on REDD+ (2021)*

		reported. The forest definition and LULUCF classification system, REDD+ activities, carbon pools, gases and scales applied are all the same. *The REDD+ results did use updated methodology which in all cases is considered substantially consistent with the FREL (2016) construction. The 2018 LULC map used for the REDD+ results was constructed with Sentinel-2 remote sensing images (10m spatial resolution) rather than Landsat7 (30m resolution) or SPOT5 (2.5m) used for previous maps. Since the Sentinel-2 resolution falls within the range of resolutions used for maps used to construct the FREL (2.5-30m resolution), this is considered consistent with the FREL. The REDD+ results also added an uncertainty assessment for LULC conversion areas but did not change the underlying areas used for calculations were not changed. Similarly, in the REDD+ results, improved methods for emissions and removals factors (EF/RF) and emissions/removals uncertainty were applied, additional uncertainty assessments for root-to-shoot ratios and carbon fractions applied, as well as IPCC error propagation formulas for sums and multiplications. Finally, the number of samples measured in the fifth National Forest Inventory (NFIs) cycle (2016-2020) was reduced from previous NFIs, but this was based on an optimized plot design which maintains the overall sampling approach and intensity, and maintains "almost equal accuracy," while reducing total costs (thereby increasing cost efficiency).* ***The methodology used to report Vietnam's REDD+ results is largely consistent with IPCC Guidelines, with certain allowances taken for national circumstance.*** *The 2003 IPCC Guidelines were used primarily to create the FREL, with root-to-shoot ratios and carbon fractions derived from the 2006 guidelines due to updated default factors [1]. In constructing its initial FREL, Vietnam adjusted for the successful past performance of its nation-wide reforestation, restoration, and forest protection programs from the mid-1990s to about 2010. These programs, such as Programme No. 661 "Five million hectare reforestation programme" contributed significantly to increased forest removals through wide-scale plantation establishment (leading to -123 $MtCO_2e$ in removals over the program period). Vietnam considers this success hard to repeat due to reduced program funding and a scarcity of area available for continued large-scale plantation establishment. Therefore it removes (discounts) this amount from its reported FREL in 2016 [1].* *Otherwise, the FREL's activity data was developed using IPCC Approach 3; the below-ground biomass carbon pool was estimated using IPCC default root-to-shoot ratios; and emission and removal factors were generated using IPCC Tier 2, based on plot measurement data from Vietnam's National Forest Inventories, improved by internal and external reviews, and used in combination with country-specific allometric equations to reduce uncertainty.* ***Vietnam's reported progress is based on transparent, consistent, and publicly available information.*** *The detailed methodologies and calculations (including MS Excel spreadsheets and LULC*		

		maps and LULUC change maps) for the REDD+ results are available upon request from the Forest Inventory and Planning Institute (FIPI).		
3.3	***Verifiable improvement of the enabling environment***	***Summary conclusion****: Vietnam has demonstrably and verifiably improved its enabling environment for forest protection, sustainable management, and restoration/ reforestation in recent years. It has enhanced its legal and regulatory framework, including strengthening tenure and land use planning while more closely integrating national and subnational forest management authorities. It has also made provisions for secure funding of its forestry sector through international partnerships and its domestic payment for ecosystem services program.* ***Vietnam's commitment to the forest sector is enshrined in its constitution, and its forest commitments have been mainstreamed into national development plans, action plans and strategies*** *[1]. 2017 was a particularly strong year for Vietnam's enabling environment for forest protection. A new Law on Forestry (2017) was adopted which supports strict management of the conversion and logging of natural forests, a greater focus on environmental services, improved clarity of forest tenure, and national forestry planning. In a major effort to streamline land use regulations, the government consolidated around 25 laws and thousands of plans into one unified Planning Law (2017) [2]. The law mandates the consideration of environment and climate change into planning across sectors, provides a clear principle on land use planning across national and sub-national levels that harmonizes cross-sectoral planning and priorities. Again in 2017, the country's second National Action Program on REDD+ was approved, which addresses the key elements of REDD+ including institutional strengthening, participatory planning and governance, and collaboration across scales of government. Finally, Directive 13 strengthened mechanisms to manage and monitor the forest impacts of projects like hydropower development and rubber plantations [1].* ***Since 2017, Vietnam has continued to update its legal and policy framework for forests.*** *In 2018, the country's VPA-FLEGT was signed with the EU. The same year, it submitted its 2nd NDC with updated emissions reductions targets which include the AFOLU sector. Finally in 2021, the country adopted its Socio-Economic Development Plan 2021-2025 and its Forestry Development Strategy 2021-2030, with a vision to 2050. Both policies integrate the 42% forest cover target while aiming for the forest sector to modernize and increase its sustainable contribution to Vietnam's continued economic development.* ***Vietnam's Payments for Forest Environmental Services (PFES) program has consistently contributed the vast share of Vietnam's state budget allocations for the forestry sector****, while newly secured funding from the FCPF will augment the country's forest budget. The PFES program has provided95.6% of the total state allocated budget for the forest sector from 2011-2020 [2]. Based on the experience of this program, Vietnam's 2017 Forestry Law included provisions for enhanced transparency, efficiency, and*	*OK*	*[1] Country Forest Note Vietnam World Bank 2019* *[2] Taking stock of national climate action for forests, NYDF Assessment Partners 2021* *[3] Payments for Forest Environmental Services in Vietnam: Strengthening effectiveness through monitoring and evaluation, CIFOR 2021*

		equity in the design and administration of the program [3]. In 2020, Vietnam signed an ERPA with the FCPF Carbon Fund unlocking up to 51.5 million USD in payments for REDD+ results. ***Despite a strong political commitment and initial efforts towards REDD+ and sustainable land use planning, Vietnam still has work to do to ensure its policies translate into practice.*** *Forest policy implementation and legal enforcement remain underfunded with insufficient human resources [2]. Requirements for free, priori and informed consent [FPIC] are not yet effectively and consistently implemented [2].*		

Checklist JEC 4: Monitoring, Reporting and Verification (MRV) Vietnam

Item	Criteria	Analysis	Check	References
4.1	**Transparent system operational**	**Summary conclusion:** The FREL/FRL elaboration in Vietnam relies on datasets from the National Forestry Inventory (NFI), that is officially conducted and periodically updated. Data and information used in FREL/FRL are complete, but there are several areas of improvement to increase transparency and completeness related to the interpretation of geospatial images, analysis of forest degradation and forest transitions, as well as the inclusion of the effect of forest fires. In addition, the country has made significant efforts to develop a Forest Resource Monitoring System (FRMS), but the system is not yet fully operational. The country's continued improvement is supported by international funds. The elaboration of the FREL/FRL relies on data from the National Forestry Inventory (NFI) that has been implemented since 1991 and is updated every five years [1]. The Forest Inventory and Planning Institute-FIPI is the public non-business unit under the Ministry of Agriculture and Rural Development responsible for conducting basic surveys on forest resources, forest planning and design and forest land, scientific research and technology transfer [3]. Forest cover maps are elaborated from remote sensing imagery. Vietnam has made efforts to harmonize these maps, making them compatible and consistent over time by applying the same forest definition and a harmonized method for classification. These maps regularly undergo accuracy assessments [2]. Vietnam accounts for land cover changes from 1995-2010 (based on the NFIs) by different stratification systems of forest lands and non-forest lands (bare lands and other lands) across eight agro-ecological regions [2]. This was the same period used as the reference period for FREL/FRL elaboration [1,2], with the forest cover map of 2010 as the baseline map [1]. Activities under the FREL are deforestation, degradation (downward shift in terms of carbon stock between forest types), reforestation and restoration. Estimations of emission and removal factors are obtained from plot measurements of the NFI reported in 2010. These data were reviewed and improved by using country-specific allometric equations. To ensure the transparency of the data used to calculate the FREL/FRL, Vietnam announced that a web geoportal available on internet (under development) would contain historical maps, tables of carbon stocks per eco-region and REDD+ initiatives had been hosted; however, at the time of this assessment the website is not fully operational.	OK	[1] FREL 2016 [2] Resubmission FREL 2016 [3] Present Status and Future Plan on Vietnam's Optical Earth Observation Satellite for Disaster and Climate Change Countermeasure – February 2018 [4] Vietnam Sustainable Natural Resource Management Project (Phase 1) [5] Enhancing Sustainable Natural Resource Management (Phase 2)

		Based on the UNFCCC technical assessment, several areas of improvement have been identified to improve transparency: (a) Use of a consistent approach to geospatial image interpretation across the time series to ensure coherent interpretation and to enhance accuracy; (b) Harmonization of the activity data and emission factors used between the GHG inventory and the FREL/FRL submission; (c) Provision of time-series information on forest and land-use transitions; (d) Improvement of the definition of forest degradation to include thresholds like canopy cover or carbon stock decline and to exclude short-term loss of carbon stocks and (e) Assessment of the effect of forest fires on the resulting non-CO_2 emissions from deforestation and forest degradation, among others. *The VNFOREST (Government of Vietnam Forestry Administration) is operating the Forest Resource Monitoring System (FRMS) in accordance with the Ministry of Agriculture and Rural Development MARD's decision number 4539/QD-BNN-TCLN dated 06/11/2017. This system was developed by (completed) FORMIS II Project[48], and contains 3 major components which are FRMS Database, FRMS Web, and FRMS Desktop. After several years of operation, there have been a bulk of shortages, bugs, and errors existing that make system operation unstable.* *In addition, the country is carrying out a program of adjusting the administrative boundaries and the MARD also has issued its Circular number 33/2018/TT-BNNPTNT which came to be effective from 01 January 2019. These legal bases require the FRMS to be improved and its related data has to be updated accordingly.* *In its first phase (2015-2020), the Sustainable Natural Resource Management project, funded by JICA, supported the Ministry of Agriculture and Rural Development in adapting the FRMS as the official forest system of the country in collaboration with provinces and other partners [4]. In the second phase (2021-2025), it includes as one of its outputs the enhancement of the National Forest Monitoring System with the improvement of the current VNFOREST's FRMS to become a national database system, compliant with the Law on Forestry and current regulations on forest monitoring [5].*		
4.2	***Progress towards implementatio***	***Summary conclusion:*** *MRV systems at all levels, and sectors, have not been set up formally. A proposal for a structure and system design, in terms of a regulatory framework and institutional arrangements, has been extensively discussed in official reports (BUR 2, BUR 3, and NC3). Development of an MRV system was envisioned to be complete by 2021 according to BUR 3. However, there is no evidence of*	*OK*	*[1] NC·3 (2019)* *[2] Decision No: 419/QĐ - TTg*

[48] The first phase of the project, FORMIS I, took place in 2009-2013 and the work continued in 2013-2018 in the FORMIS II with the support of the Finnish government. Based on the Final report, the project supported the Government of Vietnam (GOV)'s Forestry Administration (VNFOREST) in designing a modern forest management information system and putting this system into use nationwide

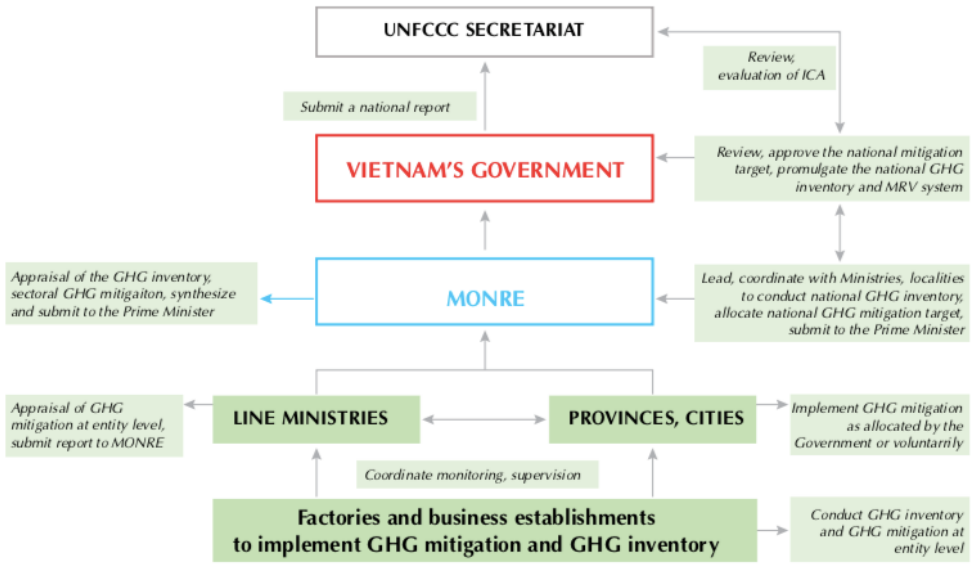
	n of the MRV system	*progress in an integrated national MRV system; progress is more associated with MRV systems at the project or program levels.* *In 2016, Decision No. 2053/QD-TTg (October 28th) approved the Plan for Implementation of the Paris Agreement and the establishment of the MRV system as one of the main tasks to be executed in the period 2018-2020. Based on the Decision, the MRV system was envisioned as a multilevel structure constituted by the national level, sectoral level, local level and project level.* *This mandate was ratified in 2017 with the Decision 419/GD-TTg-TTg that officially adopted the REDD+ Programme; according to this, the implementation of the Programme would include the update and improvement of the National Forest Monitoring System, an MRV system approved and operated, and a database on REDD+ integrated to the Forest Management Information System of Forestry Sector (FORMIS)-by 2020.* *In 2017, the Ministry of Natural Resources and Environment with the Department of Climate Change developed the "Information on National Census Vietnam GHGs" with the purpose to store and manage information related to inventory results, activity data, emission coefficients and national greenhouse gas emission trends for the past years. However full access to the platform is not public, requiring credentials.* *In 2019, the Third National Communication presented a preliminary structure for the national MRV system [1]. This structure described the multilevel design differentiating the local level, the Ministry and the provincial level and the National level. It does not specify whether the Forest Resource Monitoring System will be part of this system or not, nor its relation to the MRV for the LULUCF sector.* *Building on the BUR 2 [3], the BUR 3 (2021) presented further details for the MRV establishment and provided foundations for an official decision (in process) [4]. According to this, objectives of the MRV system are to identify the emission levels, mitigation potentials to facilitate the development of national reports on mitigation, GHG emission reduction plans, domestic carbon credit trading and international contributions; evaluate the effectiveness of domestic GHG emission reduction activities and international commitments; and enhance the transparency of domestic mitigation activities and contributions to global effort.* *The same report establishes that MONRE[49] as the national focal point for the national MRV system is responsible for (i) Developing the report on GHG emission reductions under its management; (ii) Reviewing and synthesising the GHG emission reductions at the sectoral and local levels to report to*		*[3] 2nd Biennial Update Report* *[4] 3rd Biennial Update Report*

[49] Ministry of Natural Resources and Environment.

		the Prime Minister; and (iii) Developing national reports on GHG emission reduction, reporting to the Prime Minister, and submitting the reports to the UNFCCC as per the regulations, meeting requirements and obligations of a Party to the UNFCCC. Ministries in general (MOIT[50], MOT[51], MOC[52], MARD[53], and MONRE[37]) are in charge of developing and implementing the sectoral MRV systems under their management. *In line with the information, the BUR 3 presents the organizational structure for the MRV system as outlined in **Figure 8**. The BUR 3 specifies that the MRV system closely related to the national GHG inventory system, will be completed in 2021. However, concrete progress on MRV systems is mostly related to the projects and programs that have implemented their own MRV systems[54]; for the Agriculture and Forestry sectors for example, the project "Enhancing the NAMA Readiness: Building capacity in integrating food and energy systems in Vietnam (2015-2018)" by MARD helped proposing the MRV system for the sub-sectors of cultivation and husbandry. No evidence has been found on progress of an integrated national MRV system.*		

[50] Ministry of Industry and Trade
[51] Ministry of Transport
[52] Ministry of Construction
[53] Ministry of Agriculture and rural Development
[54] Transport, Cement

Figure 8. Organizational structure for the MRV system. Source: BUR3.



Checklist JEC 5: Social and environmental safeguards — Vietnam

Item	Criteria	Analysis	Check	References
5.1	**Safeguards against social and environmental risks associated with the strategy in place**	**Summary conclusion:** *Vietnam has in place a national Safeguards Information System (SIS) that provides accessible and transparent information in Vietnamese and English on how safeguards are addressed and respected, linked to existing information systems and planned subnational monitoring of REDD+ and safeguards implementation. The First Summary of Safeguards Information presents each safeguard of the framework, following the national circumstances, and how to address and respect each of them in line with Vietnam's legal framework. The country has achieved good progress in implementing recommendations related to economic, social, and cultural rights, though important gaps remain. Vietnam received some criticism for its lack of full respect and integration of human rights concerns, which is worth continuing to monitor.* *The Sub-Technical Working Group on Safeguards (STWG-SG) established under the National REDD+ network is in charge of the organisation and facilitation of consultation and stakeholder engagement process. It coordinates activities on the country approach to safeguards and related processes in the forestry sector [1].* *The STWG-SG is chaired by Vietnam Administration of forestry (VNFOREST) and co-chaired by an international NGO, SNV Netherlands Development Organisation and is also open to all interested parties and stakeholders form the public, private and socio-professional organisations. It provides advice in the development of key national REDD+ safeguards milestones. There is also a government Working Group on the Safeguard Information System (SIS) and the Summary of Information (SOI) established by the VNFOREST (Decision No. 246/2017/QD-TCLN-VP) [1].* *In 2014, a third-party analysis (the second version of an assessment conducted in 2013[55]) established that Vietnam's PLR (policies, laws and regulations) proved to be consistent with the Cancun safeguards (on paper). Some legal gaps were detected such as the rights and vulnerabilities of ethnic minority people, conversion of natural forests, reversals and displacement[56]. This served as the foundations for the*	*OK*	*[1] First Summary of information on how safeguards for REDD+ would be addressed and respected in Vietnam* *[2] UNDP, 2021.* *[3] HRMI Rights Tracker.* *[4] Journalists and members of labour unions suffer human rights violations in Vietnam. 2021.*

[55] Annandale, D., Doan Diem, Ngo Huy Toan, Nguyen Thu Ha (2013) Roadmap for Environmental and Social Safeguards for Vietnam's National REDD+ Action Programme (v1.0): Gap Analysis of Existing Policies, Laws and Regulations;

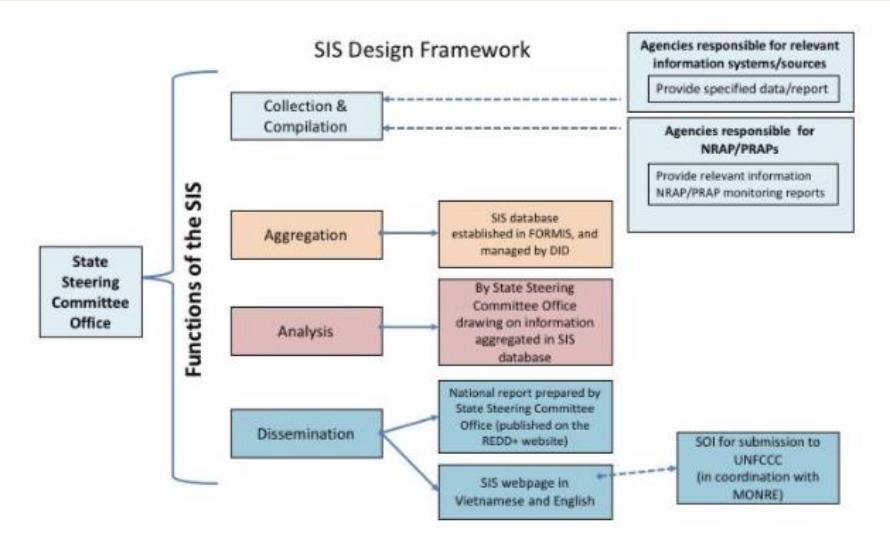
[56] Rey, D., Hoang Ly Anh, Doan Diem, Le Ha Phuong & S.R. Swan (2014) Safeguards Roadmap (v2.0) for Vietnam's National REDD+ Action Plan: a contribution to a country-led safeguards approach. SNV Netherlands Development Organisation, REDD+ Programme, Ho Chi Mi.

		development of the Vietnam's safeguards framework[57] that were refined through regular consultations with the core group of the STWG-SG. *In 2018, Vietnam submitted the "First Summary of information on how safeguards for REDD+ would be addressed and respected in Vietnam". This document presented 1) a description of the SIS design and plans for further design refinements and operations; 2) information on how all the Cancun safeguards will be addressed and respected during future periods for which payment for results will be requested; 3) a description of stakeholder engagement in the processes to develop the SIS and this first summary of information; 4) a description of the REDD+ grievance redress mechanism (GRM), specifying how the mechanism will be accessed and complaints received and resolved; and 5) information on the nature, scale and importance of non-carbon benefits (and risks) for the long-term sustainability of REDD+ activities.* *This first summary of Vietnam's Safeguards Framework not only aligns with the commitments under the UNFCCC but also complies with one of the outputs for policies and measures for REDD+ implementation planned for the period 2017-2020 (Decision No: 419/QĐ -TTg). It specifies the activities that clarify safeguards implementation, the associated legal frameworks, existing gaps and institutional responsibilities in response to one of the recommendations from the 2014 assessment: to enforce a country-led approach to operationalising the Cancun safeguards upon Vietnam's institutional and compliance frameworks.* *The development of the Safeguards Information System (SIS) for Vietnam commenced in late 2015. The inputs for the design of the SIS were coordinated by the State Steering Committee Office, with technical assistance of the UN-REDD Programme Phase II, together with the Department for Information Development of VNFOREST, and the FORMIS Project Phase II. During the process of SIS development, contributions from a wide range of stakeholders have been mobilised including via the STWG-SG, the safeguard core group, and the SIS-SOI Working Group.* *The SIS was envisioned as an tool to collect, compile, aggregate, analyse and disseminate information from priority systems and sources[58]. The existent Vietnam's Safeguard Information System (launched in 2018) website presents the information that explain how Cancun safeguards are being addressed and respected throughout the implementation of REDD+ policies and measures in line with the Country Safeguards Framework and the Vietnam's legal framework. However, no interoperation with other systems is observed in this version.*		

[57] SNV Netherlands Development Organisation, REDD+ Programme, Ho Chi Minh City. SNV Netherlands Development Organisation (2018) Ensuring the Implementation of Vietnam's National REDD+ Action Programme is Consistent with the UNFCCC REDD+ Safeguards: A Guidance Document Identifying and Explaining Vietnam's Safeguards-relevant Legal Framework.

[58] *The first summary presents a Table with the National information systems and sources that will contribute to Vietnam's SIS.*

Figure 9. SIS Design Framework



The long-term development for this system expects to support monitoring of priority activities in the forestry sector, such as Payments for Forest Environmental Services (PFES), and to contribute to the enhancement of governance in the forestry sector, by supporting the monitoring of policy implementation and law enforcement [1].

In addition, the SIS is also envisioned as a mechanism to show how safeguards are respected. That will be possible by compiling other information such as national- and provincial-level information on institutional capacities to implement policies, laws and regulations from the 12 identified existing information systems and sources; provincial-level information, related to the outcomes of the REDD+ policies and measures, harvested through revised provincial REDD+ Action Plans.

		*In terms of **Human Rights**, between 2016 and 2021, Vietnam was actively engaged in a very wide range of human rights mechanisms, from the Universal Periodic Review (UPR), to the reviews under the International Covenants on Civil and Political Rights (ICCPR) and on Economic Social and Cultural Rights (ICESCR), as well as the Conventions against Torture (CAT), on the Rights of Persons with Disabilities (CRPD), and for the Elimination of All Forms of Racial Discrimination (CERD). Though the country achieved good progress in implementing recommendations related to economic, social, and cultural rights, important gaps remain [2].* *Vietnam does not yet have an independent national human rights institution – one of the global indicators of Sustainable Development Goal 16 on Governance and Justice, and as recommended during the 3rd cycle of the UPR. In addition, UN human rights mechanisms and Human Rights Watch[59] have raised concerns with regards to the limitation of certain civil and political rights, including freedoms of opinion and association. Several groups of people were consistently identified by high numbers of experts as being at risk of having these rights violated, including members of labor unions, journalists, people engaged in or suspected of political violence or terrorism, and people with particular religious beliefs or practices. The Human Rights Measurement Initiative (HRMI) showed that of the 13 right HRMI measures, none of Vietnam's scores were high enough to reach the "good" band, and only three scores reached the "fair" band – scores for the rights to health, word, and housing.* *At the end of 2021, Vietnam was nominated as ASEAN candidate for the UN Human Rights Council for the 2023-2025 term. UNHR Council members are expected to demonstrate the highest standards of respect for human rights, both domestically and internationally [2].*		
5.2	***Progress***	***Summary conclusion:** SIS is currently undergoing upgrades to incorporate more information and reporting against multiple safeguards standards, including ART-TREES[60]. Vietnam has piloted key processes to support safeguards implementation based on existing mechanisms. At the Province level, there have been relevant experiences that include "free, prior and informed consent" and a "benefit-sharing approach" that will be used for developing national models. Vietnam's provinces follow the legal framework set out at the national level and coordinated socio-economic, land, and environmental planning further promotes coherence. This progress has enabled the country to access other mechanisms such as the LEAF Coalition.* *Vietnam has already designed and piloted key processes to support safeguards implementation. Building on existing regulations, particularly the Law on Forest Protection and Development (2004), the Law on Commercial Arbitration (2010), the Law on Complaints (2011), the Land Law (2013), the Law on*	*OK*	*[1] LEAF proposal.*

[59] Human Rights Watch about Vietnam. 2021.
[60] The REDD+ Environmental Excellence Standard (Version 2.0.)

		Environmental Protection (2014), the Law on Grassroots Mediation (2013), the Civil Code (2015), and the Law on Legal Aid (2017), a grievance redress process has been set out [1]. *Vietnam was one of the first countries to pilot "free, prior and informed consent" (FPIC) for REDD+ in Lam Dong Province in 2010. Lessons learned fed into the development of national guidelines, which then informed the development and revision of the National REDD+ Action Plan (NRAP) and the MARD Guidelines on (Provincial REDD+ Action Plan) (PRAPs). Vietnam also piloted benefit sharing in 2015, and has developed a model further via the ER-P in the North Central Provinces. Experience from these pilots will help to formalize a national benefit sharing approach for use in REDD+ implementation areas.* *At the subnational level, Vietnam has progressed in designing, implementing and reporting on the safeguards, and its safeguards processes aim to ensure coherence across national and subnational scales. Vietnam's provinces follow the legal framework set out at national level, and coordinated socio-economic, land and environmental planning further promote coherence.* *In the North Central Provinces, the FCPF ERP has prepared an Environment and Social Management Framework, based on a Strategic Environmental and Social Assessment (SESA), as well as a Feedback & Grievance Redress Mechanism, Benefit Sharing Plan, Ethnic Minority Planning Framework, and Gender Action Plan[61].* *Vietnam's safeguards framework and the mechanisms described above will support the country's response to the LEAF safeguards requirements. An initial assessment of the ART-TREES safeguards has been carried out with UN-REDD Programme support, considering requirements related the SIS and summaries, and reviewing evidence of conformance with the 44 TREES safeguards indicators. Discussions with key national and provincial stakeholders held in July 2021 also informed this assessment.*		

[61] *FCPF Readiness Fund Country Completion Report - Vietnam*