



CLIMATE FINANCE PRACTICE AND APPROACH IN VIETNAM

July 2024

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ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AF	Adaptation Fund
BIDV	The Joint Stock Commercial Bank for Investment and Development of Vietnam
CO ₂ e	Carbon dioxide equivalent
CDM	Clean Development Mechanism
DFC	Development Finance Corporation
ESG	Environmental, social and governance
ETS	Emissions Trading System
EU	European Union
EU-ETS	The European Union introduced the Emissions Trading System
EV	Electric vehicle
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse gas
ITMOs	Internationally transferred mitigation outcomes
MOF	Ministry of Finance
MONRE	Ministry of Natural Resources and Environment
MPI	Ministry of Planning and Investment
NDCs	Nationally Determined Contributions
NTP-RCC	National Target Programme to Respond to Climate Change
PA	Paris Agreement
SBV	State Bank of Vietnam

SDG	Sustainable Development Goals
SDM	Sustainable Development Mechanism
SP-RCC	The Support Program to Respond to Climate Change
UNFCCC	The United Nations Framework Convention on Climate Change
VCM	Voluntary carbon markets
VEPF	Vietnam Environment Protection Fund
WB	World Bank

OVERVIEW

Vietnam, like many other developing nations, faces significant challenges posed by climate change, including extreme weather events, sea level rise, and disruptions to agriculture and water resources. Recognizing the urgent need to address these challenges, Vietnam has actively pursued climate finance strategies to mitigate and adapt to the effects of climate change. Vietnam has made significant strides in mobilizing climate finance from various sources, including international donors, development banks, private sector investments, and domestic budgets. The country has integrated climate change considerations into its national development plans and policies, aligning them with international frameworks such as the Paris Agreement and the Sustainable Development Goals (SDGs).

In line with its vulnerability to climate change, Vietnam's climate finance efforts prioritize adaptation and resilience-building alongside mitigation actions. This includes investment in infrastructure, sustainable agriculture, coastal protection, renewable energy like solar and wind, and forestry and ecosystem conservation. Vietnam has established institutional mechanisms to coordinate and manage climate finance, such as the National Climate Change Strategy. Partnerships with international organizations, development agencies and the private sector play a crucial role in mobilizing financial resources, sharing knowledge and building capacity for climate smart development.

Despite this progress, Vietnam faces challenges in accessing and effectively utilizing climate finance, including limited access to concessional funding, insufficient technical capacity, and coordination gaps between government agencies and stakeholders. However, there are opportunities for innovation and collaboration, particularly in leveraging private sector investments and exploring new financial instruments such as green bonds and climate insurance.

Looking ahead, Vietnam aims to strengthen its climate finance architecture, enhance coordination between stakeholders, mainstream climate considerations into national planning processes, improve monitoring and evaluation mechanisms, and foster innovation in climate finance instruments. By doing so, the Government of Vietnam seeks to build a more resilient and sustainable future in the face of climate change. The Government also seeks to position Vietnam's enterprises to take advantage of the market shifts that are emerging as the world adapts to climate change.

To support the Government of Vietnam's efforts to adopt climate smart practices, attract climate finance, and strengthen private sector competitiveness, the US Agency for International Development (USAID) is collaborating with the Ministry of Industry and Trade (MOIT) to develop technical guidance for the private sector on how to take advantage of new opportunities in climate finance. To that end, USAID engaged a consortium led by RCEE-NIRAS to prepare this technical guidance document and funded the work through the USAID INVEST project. RCEE-NIRAS consulted with MOIT and Vietnamese business associations to understand priorities and information needs and based on these discussions developed the outline for this document which summarizes existing tools, mechanisms, and sources available to finance climate change mitigation

and adaptation. It also provides information on global green finance initiatives and policies, including green bonds, climate funds, carbon credits, and other forms of international funding. The document concludes with a discussion of challenges and opportunities in mobilizing and allocating financing for solutions to tackle climate change.

CHAPTER 1: INTRODUCTION TO CLIMATE FINANCE

1.1. What is climate finance?

Climate finance is an umbrella term for financial capital allocated to activities that mitigate or adapt to the impacts of climate change (see section 1.1.2). The United Nations Framework Convention on Climate Change (UNFCCC) Standing Committee on Finance provides the following definition:¹

“Climate finance aims at reducing emissions and enhancing sinks of greenhouse gases and aims at reducing vulnerability of, and maintaining and increasing the resilience of, human and ecological systems to negative climate change impacts.”

Carbon finance is a subset of climate finance involving activities that use market-based approaches to reduce greenhouse gas (GHG) emissions. As described in section 1.1.2 there are several ways to use carbon markets for mobilizing finance.

Green finance commonly refers to the financing of investments that provide environmental benefits in the broader context of sustainable development and includes climate finance. Subsets of green finance include climate finance, environmental finance (e.g. water, biodiversity, etc.), and conservation finance. Green and climate finance are driven by an interlinking system of international and national commitments that continues to evolve, including:

- The Paris Agreement on Climate Change² and the requirement for countries to submit Nationally Determined Contributions, which outline countries’ commitments to reduce national emissions and adapt to the impacts of climate change.
- The Convention on Biological Diversity.
- The United Nations Convention to Combat Desertification.

Sustainable finance³ is broader than both climate and green finance. It takes into account environmental, social and governance (ESG) considerations when making investment decisions, leading to increased longer-term investments into sustainable economic activities and projects. Sustainable finance is typically the ‘all-encompassing’ term used to capture low carbon (i.e., mitigation), climate (i.e., mitigation and adaptation), green and socially focused activities. It generally aligns with the 17 SDGs.⁴

¹ UNFCCC Standing Committee on Finance: 2014 Biennial Assessment and Overview of Climate Finance Flows Report

https://unfccc.int/files/cooperation_and_support/financial_mechanism/standing_committee/application/pdf/2014_biennial_assessment_and_overview_of_climate_finance_flows_report_web.pdf

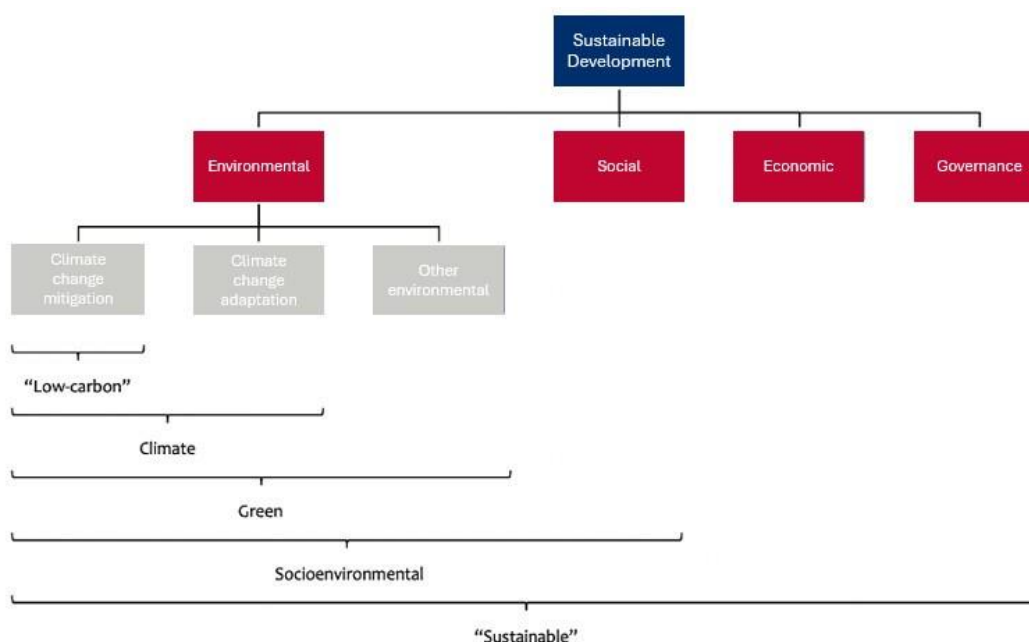
² <https://unfccc.int/process-and-meetings#:a0659cbd-3b30-4c05-a4f9-268f16e5dd6b>

³ https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en

⁴ <https://sdgs.un.org/goals>

Figure 1 maps out the different types of finance activities that would be considered low carbon, climate, green, and sustainability oriented. There are often blurred lines between one category and the other, for example, between what could be considered climate finance and what could be included in green finance. As illustrated by the interlinkages in the figure, sustainability and green finance can often be used to address climate goals and *vice versa*.

Figure 1. Intersections in climate, green and sustainable finance



Source: Adapted from [Green Finance Platform](#)

This technical guidance document will primarily focus on climate finance but will sometimes refer to the other types of finance, given their overlapping nature and opportunities to finance all three concurrently.

1.1.1. Finance for climate change

Climate finance refers to financial resources and instruments that support action on climate change. Climate finance is critical to addressing climate change because of the large-scale investments that are needed to transition to a low-carbon global economy and to help societies build resilience and adapt to the impacts of climate change.

Climate finance can come from different sources: public or private, national or international, bilateral or multilateral. Some multilateral funds that emerging economies such as Vietnam can access include the Green Climate Fund (GCF), the Global Environment Facility (GEF), and the Adaptation Fund (AF). Each of these have different application criteria and processes. It is therefore important to review their guidance before initiating project development.

Climate finance can range from grants (i.e., from GEF, GCF, and the AF) and donations, green bonds, equities, debt swaps, guarantees, and concessional loans. For example, financial institutions such as the World Bank (WB), the African Development Bank, the Inter-American Development Bank, and the U.S. International Development Finance Corporation (DFC) will de-risk climate projects through concessional loans, insurance, or guarantees.

1.1.2. Mobilizing climate finance via carbon markets

Carbon markets are systems in which carbon credits are traded between entities, individuals, or countries. One carbon credit represents one tonne of carbon dioxide equivalent (CO₂e) removed or avoided. Companies or individuals can use carbon markets to compensate for their GHG emissions by purchasing carbon credits from other entities that remove, avoid, or reduce GHG emissions. Carbon markets can thus shift investment away from fossil fuels towards low-carbon activities.

There are two types of carbon markets: mandatory and voluntary.

Mandatory carbon markets: Under mandatory carbon markets, policy makers set binding GHG emission commitments for covered entities and then enable trading in emission credits between these. There are two types of mandatory carbon markets: emissions trading systems (ETS) and baseline-and-credit-systems. In an ETS, the GHG emissions of covered polluters are capped and emission allowances are either auctioned or distributed for free according to specific criteria. Under a baseline-and-credit system there is no fixed cap on emissions, but polluters that reduce their emissions more than they otherwise are obligated to can earn ‘credits’ that they sell to others who need them to comply with regulations they are subject to. Vietnam is in the process of creating an ETS where the GHG emissions of major emitters will be capped and emission allowances will be distributed to facilities covered by the cap.

Voluntary carbon market: The voluntary carbon market (VCM) is based on trades in carbon credits between organizations, companies, or countries that have chosen to reduce GHG emissions on a voluntary basis. The carbon credits are derived from projects or programs that reduce GHG emissions – increasingly known as “Carbon Projects” – using established protocols such as those provided by VERRA,⁵ the Gold Standard,⁶ Plan Vivo,⁷ or those being designed by the Government of Vietnam. Carbon projects involve activities that reduce emissions such as renewable energy, energy efficiency, reforestation/afforestation, or the capture of methane from landfills.

Decree 06/2022/ND-CP, dated January 7, 2022 provides guidance on the development of Vietnam’s carbon market which will include a national ETS as well as a system for generating domestic carbon credits that can be traded to facilities covered by the ETS. The Decree specifies two key periods. The first period spans 2023-2027 and includes

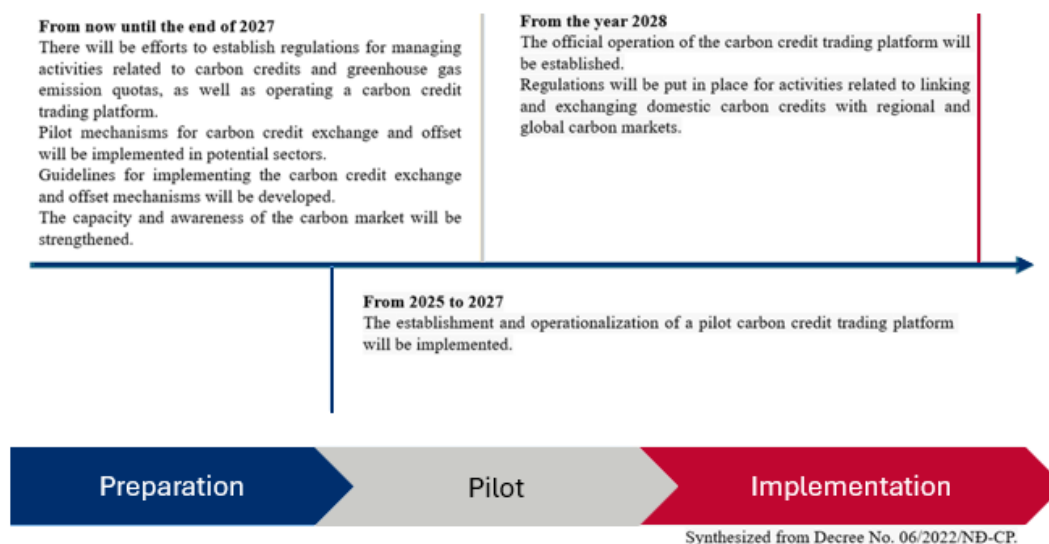
⁵ <https://verra.org/>

⁶ <https://www.goldstandard.org/>

⁷ <https://www.planvivo.org/>

design of rules governing carbon credits, distribution of emission allowances for large GHG emitters covered by the ETS, and piloting of a mechanism for trading carbon allowances and carbon credits starting in 2025. The second period will start in 2028 when the national ETS is expected to be in full operation and Vietnam will begin to connect the domestic carbon market with other markets in Asia and globally.

Figure 2. The roadmap for ETS in Vietnam



Many of the rules for implementing Vietnam's carbon market are still being clarified including the specific criteria for how individual businesses report on GHG emission commitments and engage in the carbon market through trading in emission allowances or the sale of credits from carbon projects. In particular, the scope, scale, objects, and market tools, such as GHG accounting protocols for carbon projects, need to be established.

1.2. The global finance landscape

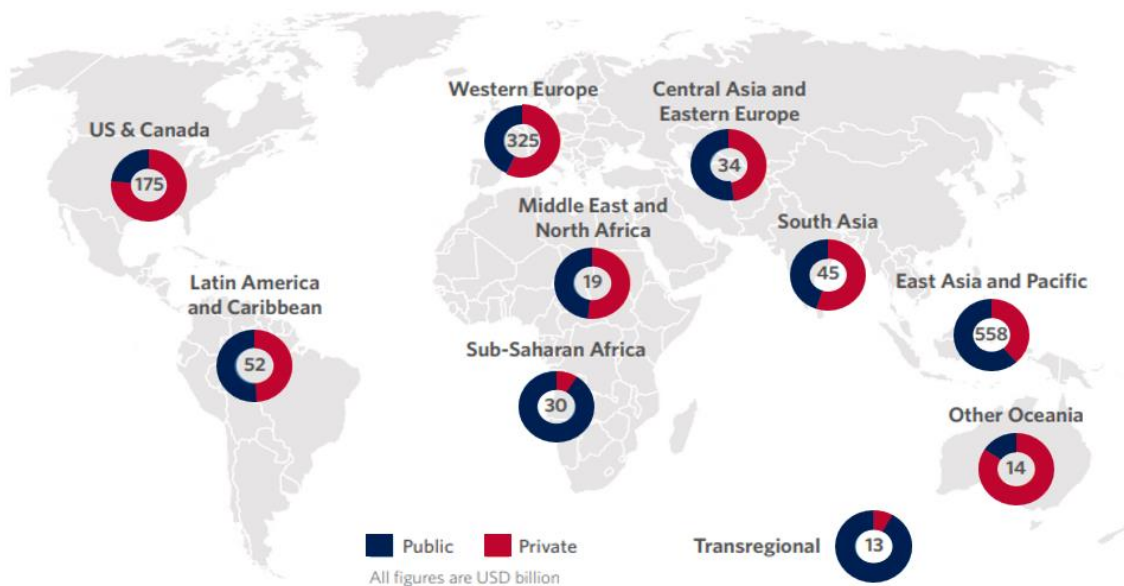
1.2.1. Climate finance

In 2009, developed countries agreed to mobilize US\$ 100 billion annually by 2020 to support climate action in developing countries. In 2015, under the Paris Agreement, parties agreed to extend this goal to 2025 and set a new finance goal for beyond 2025, taking into account developing countries' needs and priorities. The first *Needs Determination Report of the Standing Committee on Finance*, published in 2021, shows that nearly US\$ 6 trillion is needed to implement developing countries' climate action plans by 2030, and this does not fully take into account the expected cost of adaptation.⁸

⁸ <https://unfccc.int/news/from-billions-to-trillions-setting-a-new-goal-on-climate-finance>

According to the *Global Landscape of Climate Finance 2023* report,⁹ global climate finance approached US\$ 1.3 trillion on annual average in 2021/2022 compared to US\$ 653 billion in 2019/2020. Most of this growth is due to an increase in mitigation finance, with the largest growth in the renewable energy and transport sectors. The public sector represented 57% of the climate finance mobilized in 2021/2022 while the private sector represented 43%.

Figure 3. Public versus private climate finance by region



Source: Adapted from [Climate policy initiative, Global landscape of Climate Finance, page 7](#)

The *Global Landscape of Climate Finance 2023* report also shows that 60% of climate finance in East Asia and the Pacific comes from the public sector, with the rest coming from the private sector. Private investment in battery electric vehicles (Evs) constituted approximately a third of overall domestic private investment while national Development Finance Institutions (DFIs) accounted for one third of total domestic climate finance (US\$ 176 billion) in this region. This indicates that DFIs and electrification are promising options for private climate finance. Other options such as those focused on climate adaptation are finding it more challenging to attract funding from the private sector.

1.2.2. Carbon markets

The 1997 Kyoto Protocol to the UN Framework Convention on Climate Change (UNFCCC) set binding GHG emission reduction targets for developed countries and introduced the international carbon market by setting rules for GHG emissions trading

⁹ <https://www.climatepolicyinitiative.org/wp-content/uploads/2023/11/Global-Landscape-of-Climate-Finance-2023.pdf>

between countries and for trades in carbon credits. In 2003, the European Union (EU) introduced the Emissions Trading System (EU-ETS) to help the region meet its commitments under the Kyoto Protocol. The EU-ETS capped GHG emissions for large emitters in the electricity, steel, oil refining, and cement sectors across 25 member states.

A turning point in the negotiations of international climate policies was the adoption of the Paris Agreement at COP 21 in 2015. This was considered the successor to the Kyoto Protocol. The Paris Agreement framework bound Annex I countries (i.e., developed countries) to reduce GHG emissions and, for the first time, required developing economies to set emission reduction targets through their Nationally Determined Contributions (NDCs).

Figure 4. Comparing the Kyoto Protocol and the Paris Agreement

Kyoto Protocol	Paris Agreement
Top-down approach (developed countries must reduce GHG emissions by 5% compared to the 1990 mark for the first commitment period and 18% for the second commitment period)	Bottom-up approach (through Nationally Determined Contributions NDCs)
Developing countries are not bound by emissions reduction targets	A greater role for developing countries
Developing countries have a limited role	The compliance regime primarily relies on transparent reporting as a means to assess the progress of countries in meeting their contribution targets
The compliance risk with Annex 1 countries	

Source: Adapted from [Policy brief on Environment, page 24](#)

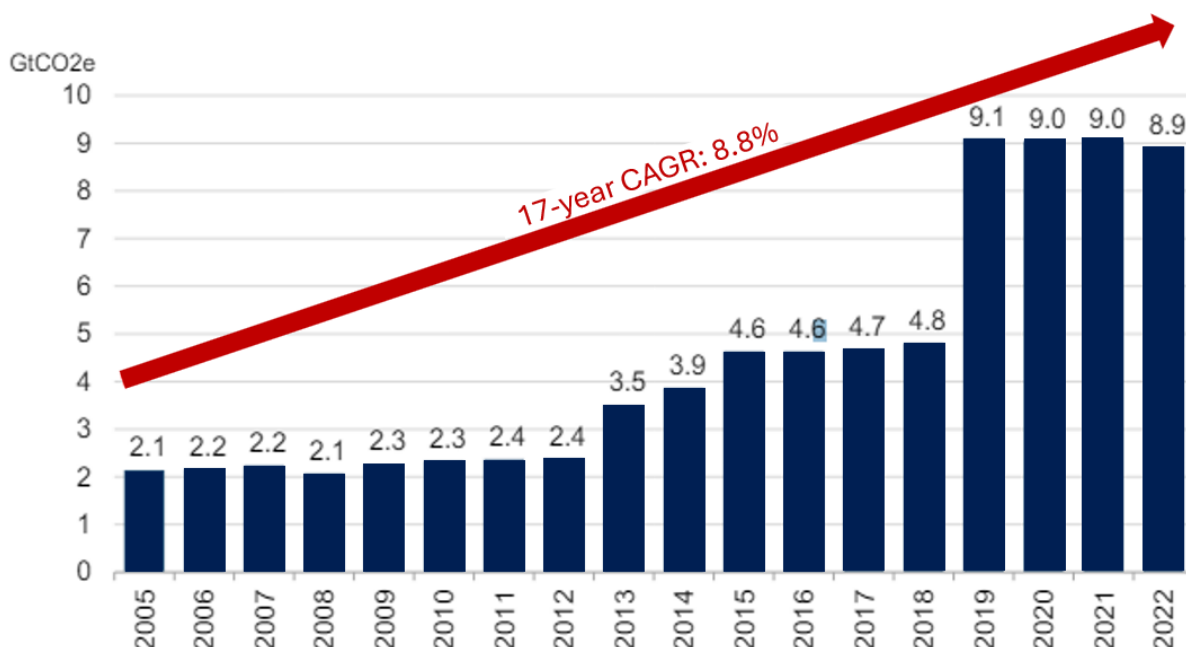
Article 6 of the Paris Agreement sets out how countries can pursue voluntary cooperation to achieve their climate goals. It allows for international cooperation to address climate change in order to incentivize international financial support for developing countries as they implement their NDC commitments. This means that under Article 6, countries can transfer carbon credits earned from reducing GHG emissions to help one or more countries meet their climate targets. Specifically, Article 6.2 allows parties to trade internationally transferred mitigation outcomes (ITMOs) for use in achieving their NDC targets on a voluntary basis. Article 6.4 establishes a new mechanism – the Sustainable Development Mechanism (SDM) – aimed at contributing to GHG emission reductions and supporting sustainable development on a voluntary basis.

Mandatory carbon markets

Several countries worldwide, including the United States, United Kingdom, China, Japan, and South Korea, along with the EU, have committed to carbon neutrality by 2050 or earlier. To achieve this, the EU-ETS, while other countries, such as New Zealand, Korea, and China, implemented national trading systems. These markets cover high-emission

sectors, setting emission limits and allocating tradable carbon allowances to companies. By 2022, global ETSs covered approximately 8.9 gigatonnes of carbon dioxide equivalent (GtCO_{2e}), signifying significant growth as illustrated in Figure 6. The Compound annual growth rate (CAGR) of GHG emissions covered by the Global ETS is 8.8% from 2005 to 2022.

Figure 5. Total GHG emissions covered by global emissions trading systems (2005-2022)



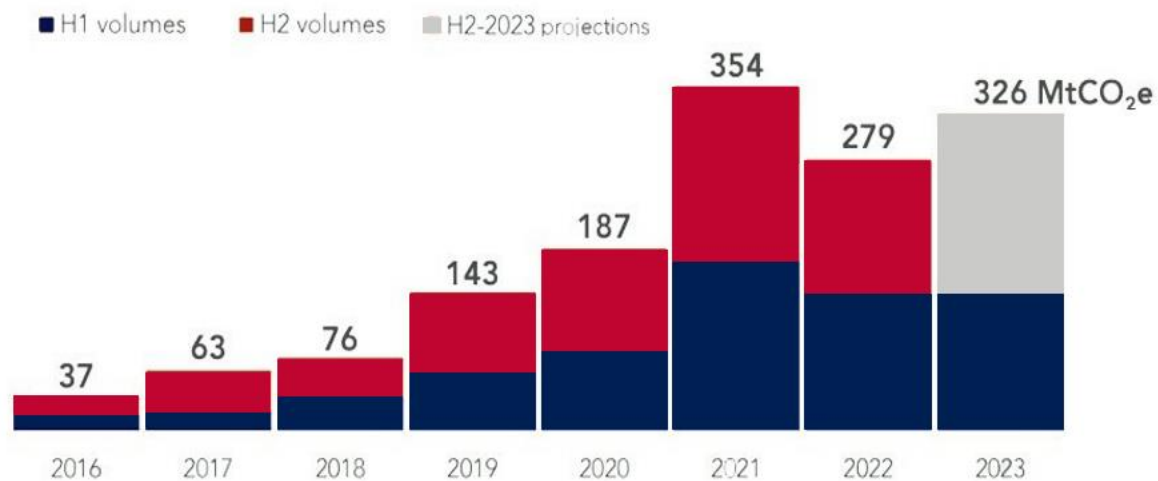
Source: Adapted from [Emissions Trading Worldwide: Status Report 2022, published by the International Carbon Action Partnership, page 36](#)

Note: CAGR stands for compound annual growth rate; GtCO_{2e} stands for giga tonnes of CO_{2e}.

Voluntary carbon markets

The annual global issuance of carbon credits in the VCM rose from 37 million tonnes (Mt) of CO_{2e} in 2016 to 326 million tonnes of CO_{2e} during 2023. The trading value of carbon credits reached US\$2.0 billion in 2021 and market analysts estimated that the trading value could reach US\$245 billion to US\$546 billion by 2050.

Figure 6. Annual issuance of carbon offsets in the VCM, 2016-2023

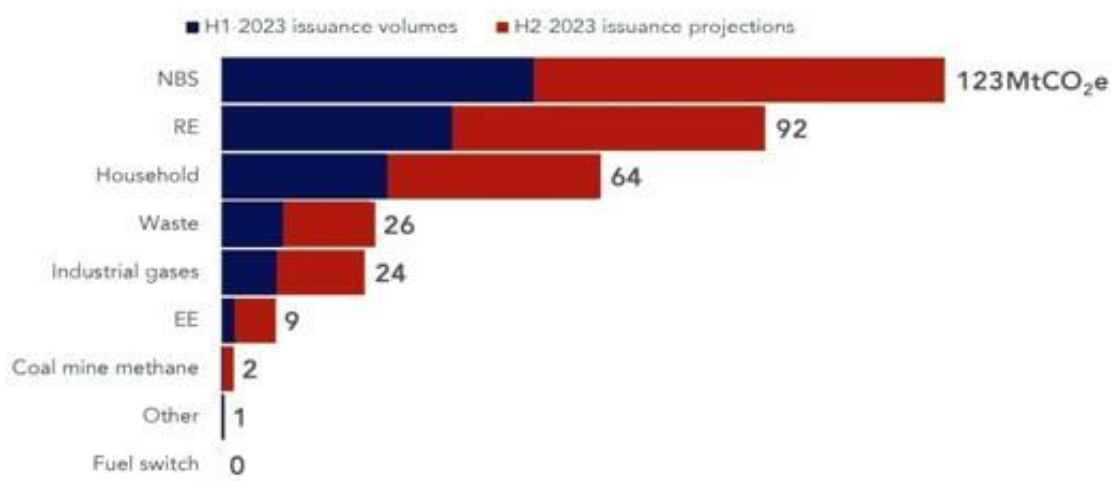


Source: Adapted from [Voluntary Carbon Market 2023 Review. Climate Focus. January 2024.](#)

Note: H1 stands for the first half of the year and H2 stands for the second half of the year; MtCO₂e: million tonnes of CO₂e.

In 2023, the VCM was dominated by credits from nature-based solutions and renewable energy projects, accounting for two thirds of total issuances. Meanwhile, credits issued from household-level programmes (cookstoves and clean water) accelerated compared to previous years.

Figure 7. Type of projects and the number of credits issued, 2023



Source: Adapted from [Voluntary Carbon Market 2023 Review. Climate Focus. January 2024.](#)

Note: H1 stands for the first half of the year and H2 stands for the second half of the year; MtCO_{2e}: million tonnes of CO_{2e}.

1.3. Climate finance and the private sector in Vietnam

Businesses play a crucial role in addressing climate change. Businesses can reduce GHG emissions, invest in green technologies, and develop environmentally friendly products and services. However, to accomplish these tasks, businesses need access to capital. Climate finance can help businesses:

- **Invest in energy-efficient and emission-reducing technologies.** Businesses can use climate finance to invest in new technologies such as renewable energy, energy efficiency and green transportation that reduce GHG emissions.
- **Develop environmentally friendly products and services.** Businesses can use climate finance to develop new environmentally friendly products and services, such as electric vehicles, energy-efficient appliances, and green building materials.
- **Adapt to the impacts of climate change.** Businesses can use climate finance to adapt to the impacts of climate change, such as building climate-resilient infrastructure and developing drought-resistant crop varieties.

Various sources of climate finance are available to businesses in Vietnam, including:

- **Loans from commercial banks.** Many commercial banks are currently offering preferential loans for businesses to invest in climate change projects such as Agribank (e.g., renewable energy, environment and agriculture), The Joint Stock

Commercial Bank for Investment and Development of Vietnam (BIDV) (e.g., renewable energy, energy efficiency), Vietnam Joint Stock Commercial Bank For Industry And Trade (VietinBank), Vietnam Maritime Commercial Joint Stock Bank (Maritime bank), Ho Chi Minh City Development Joint Stock Commercial Bank (HD Bank), and Vietnam Technological and Commercial Joint Stock Bank (Techcombank).

- **Loans from international financial institutions.** Institutions such as the World Bank and the Asian Development Bank provide loans and grants for businesses to invest in climate change projects. Table 1 provides examples of projects in the private sector which have received support from the World Bank and ADB.
- **Attracting investment from venture capital.** Some venture capital funds are investing in start-up businesses operating in the climate change sector.
- **Issuing green bonds.** Businesses can raise capital by issuing green bonds, which are bonds used to finance climate change and other environment-focused projects.

Table 1 presents a list of projects aimed at addressing climate change and promoting sustainable development in Vietnam.

Table 1: Climate finance projects supporting private sector in Vietnam

PROJECT NAME	YEAR	DESCRIPTION	SUPPORTING AGENCY
Renewable Energy Program	2016 - present	Support the development of the renewable energy market in Vietnam.	World Bank
Sustainable Coastal Management Project	2021 - 2026	Support coastal provinces in Vietnam in sustainable coastal management and adaptation to climate change.	World Bank
Sustainable Agriculture Program	2019 - 2024	Support farmers to apply sustainable farming methods to reduce GHG emissions and adapt to climate change.	World Bank
Clean Energy Program	2017 - present	Support Vietnam to develop clean energy and energy efficiency.	ADB
Climate Change Adaptation and Rural Development Project	2018 - 2023	Support rural communities in Vietnam to adapt to climate change.	ADB

Sustainable Water Development Program	2016 - 2021	Support Vietnam to manage water resources sustainably and adapt to climate change.	ADB
Sustainable Transport Program	2019 - 2024	Support Vietnam to develop a sustainable transportation system and reduce GHG emissions from the transportation sector.	ADB

There are other organizations such as the GEF, non-governmental organizations (NGOs), the Japan International Cooperation Agency (JICA), the Asia Foundation, and the Climate Action Network that have supported and are supporting Vietnam with climate change-related projects.

The Vietnamese private sector can also access international climate funds (e.g., the GCF, GEF, CIF and AF) by partnering with government ministries, such as MOIT, or engaging with entities that are accredited to attract funding from these climate funds, such as the Vietnam Development Bank¹⁰. The GCF is actively looking to expand direct access to finance by the private sector. Vietnamese enterprises, climate tech developers, financial institutions, and business associations interested in exploring opportunities with GCF should monitor opportunities with the GCF Private Sector Facility (PSF), which is designed to fund and mobilize private sector actors. PSF promotes private sector investment through concessional instruments, structured across different practices including:¹¹

- **Financial institutions:** Mainstreaming climate change considerations in the financial system
- **Project finance:** Tailoring life cycle concessional finance to de-risk infrastructure projects for climate
- **Climate funds:** Structuring anchor investments in climate equity/debt Funds
- **Climate markets:** Developing capital/carbon markets that require bespoke structuring solutions
- **Climate innovations:** Scaling investments into high-impact climate technologies and innovations

¹⁰ <https://www.greenclimate.fund/ae/vdb>

¹¹ <https://www.greenclimate.fund/sectors/private#private-sector-facility>



Image: VinFast – a electric vehicle manufacturer, has sucessfully mobilized 135 million USD from ADB and other investors to build Vietnam's first fully electric public transport bus fleet and first national electric vehicle charging network.

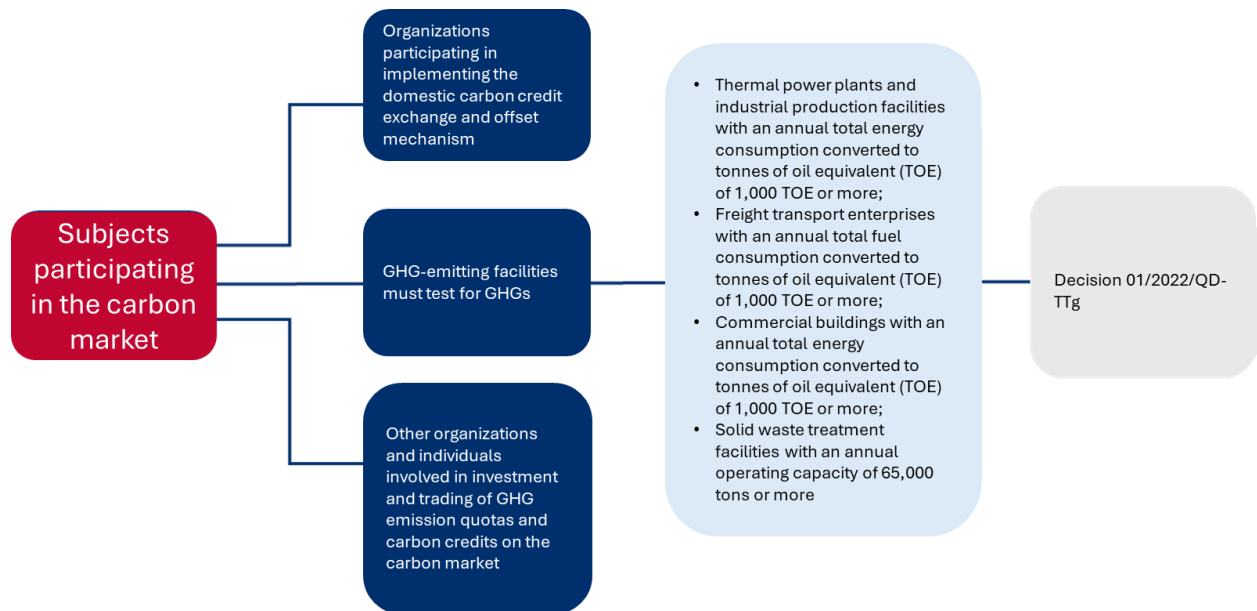
Source: photo credit [Vietnamplus](https://www.vietnamplus.vn)

Opportunities in the carbon market

Businesses covered by an ETS have the opportunity to generate financial revenue, adopt modern low-carbon technology, and join the global effort to reduce GHG emissions. If a business implements measures to reduce its GHG emissions below the stated cap, it can trade excess credits or use them to increase production. Depending on the rules of the specific ETS, businesses that are outside the cap may be able to generate credits from voluntary carbon projects and sell them into the system.

The carbon market under development in Vietnam will have the biggest impact on large GHG emitters as their emissions will be capped. As illustrated in Figure 6, facilities that will be covered by the Vietnamese ETS include large GHG emitters in the power generation, manufacturing, freight transport, commercial buildings, and solid waste sectors.

Figure 8. Participants in the carbon market in Vietnam



Source: Adapted from [Policy brief on Environment, page 30](#)

Covered facilities face a range of risks when participating in the ETS, including the following:

- When a GHG emission limit is imposed, the amount of products the business can produce may be limited. This depends on the design of the ETS and the GHG profile of the facility.
- The ETS emission allowances will gradually decrease over time. Therefore, businesses may need to convert to low- emission technologies to comply with legal regulations.
- If the facility is unable to meet its quotas, the image and brand of the business may be adversely impacted, the company may lose competitiveness, or it may be subject to penalties.

Participating in the ETS may also bring certain benefits to businesses. Businesses have the ability to generate additional revenue from trading carbon credits while enhancing their image and increasing competitiveness in international markets requiring low-carbon production.

To participate in the domestic carbon market, Vietnamese businesses need to build capacity to conduct GHG emission inventories and create GHG emission reduction plans to meet the assigned quotas. In addition, businesses should become knowledgeable about the carbon market and its pricing mechanisms before participating in this special market.

CHAPTER 2: MOBILIZING PRIVATE SECTOR CLIMATE FINANCE – OPTIONS AND EXAMPLES

2.1. Mechanisms for mobilizing climate finance for the private sector

There are several ways in which Vietnam's private sector can mobilize climate finance, including issuing climate and green bonds. Below are some examples – often companies use a combination of these tools. Table 2 compares the guiding principles of each type of bond.

Climate bonds are fixed-income financial instruments, commonly known as bonds, that are specifically tied to climate change solutions. They are issued with the purpose of raising funds to support initiatives addressing climate change, including both mitigation and adaptation projects. Climate bonds and other debt instruments can encompass a wide range of activities, such as reducing GHG emissions through clean energy initiatives or enhancing energy efficiency. Additionally, climate bonds can finance projects focused on adapting to the impacts of climate change, such as constructing flood defenses for regions such as the Nile delta or supporting measures to help ecosystems like the Great Barrier Reef adapt to warming waters. By issuing climate bonds, organizations can attract investment specifically earmarked for climate-friendly endeavors, contributing to the transition to a more sustainable and resilient future.

The Climate Bonds Initiative (CBI) is an international organization focused on mobilizing the global bond market to fund climate change solutions. It develops standards and certifications for climate bonds, ensuring that proceeds are used for projects that mitigate climate change or enhance climate resilience. CBI's expanded standard and certification scheme enables certification of both bonds and loans that align with the program's eligibility criteria.¹² It also supports certification of 'transition finance' which is financial support that helps decarbonize high-emitting activities or enables the decarbonization of other economic activities.¹³ CBI defines 'transition finance' as activities that enable a move away from today's high GHG emissions to levels commensurate with meeting the goals of the Paris Agreement.

CBI has been actively involved in several key projects in Vietnam, focusing on green infrastructure and sustainable finance. One of their major efforts is the "Green Infrastructure Investment Opportunities (GIIO) Vietnam" report¹⁴, which identifies and analyzes green investment opportunities in the country. This report highlights the need for approximately USD 31 billion by 2020 to shift Vietnam's economy toward sustainability, focusing on renewable energy, public transport, water, and waste management. Additionally, the CBI supported Gia Lai Electricity Joint Stock Company

¹²

https://www.climatebonds.net/files/page/files/climate_bonds_expanded_standard_and_certification_scheme_brochure_1.pdf

¹³ <https://www.climatebonds.net/certification/get-certified>

¹⁴ <https://www.climatebonds.net/resources/reports/green-infrastructure-investment-opportunities-giio-vietnam>

(GEC) in issuing Vietnam's first certified green bond. This bond, verified under the Climate Bonds Standard, finances renewable energy projects, including two offshore wind farms, Tan Phu Dong 1 and 2, with a combined capacity of 150 MW¹⁵.

Green bonds. These are regular bonds with two distinguishing features: the proceeds are allocated exclusively for projects with climate and environmental benefits (understood to be intrinsically coupled with social co-benefits) and provide clear transparency and disclosure on the management of the proceeds. In other words, structurally, green bonds are the same as regular bonds, offering comparable risk/reward profiles and following the same issuance procedures, but the proceeds are used for a wide variety of climate and other environmental projects.

Social bonds. According to the International Capital Market Association (ICMA), social bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance in part or in full of new and/or existing eligible social projects. The projects must align with the four core components of the Social Bond Principles.

Sustainability bonds are bonds where the proceeds will be exclusively applied to finance or refinance a combination of both green and social projects and assets. Sustainability bonds are aligned with the four core components of the Green Bond Principles and the Social Bond Principles, with the former being especially relevant to underlying green projects and assets, and the latter to underlying social projects and assets.

Table 2: Green Bond Principles, Social Bond Principles and Sustainability Bond Guidelines

TYPE	GREEN BOND PRINCIPLES	SOCIAL BOND PRINCIPLES	SUSTAINABILITY BOND GUIDELINES
1. Use of proceeds	<p>The Green Bond Principles do not provide details on 'green'. The green definitions are left to the issuer to determine. Broad (and non-exhaustive) green project categories suggested by the principles include:</p> <ul style="list-style-type: none"> - Energy - Buildings - Transport 	<p>Social Project categories suggested by the principles include:</p> <ul style="list-style-type: none"> - Affordable basic infrastructure - Access to essential services - Affordable housing - Employment 	Combination of Green and Social Bond Principles

¹⁵ <https://www.climatebonds.net/resources/press-releases/2024/06/gia-lai-electricity-joint-stock-company-obtains-vietnams-first>

	<ul style="list-style-type: none"> - Water management - Waste management and pollution control - Nature-based assets, including land use, agriculture and forestry - Industry and energy-intensive commercial - Information technology and communications 	<ul style="list-style-type: none"> - Food security and sustainable food systems - Socioeconomic advancement and empowerment 	
2. Process for project evaluation and selection	<p>The issuer should clearly communicate to investors:</p> <ul style="list-style-type: none"> - The environmental sustainability objectives; - The issuer is responsible for determining how projects meet the criteria for eligible green projects and establishing the related eligibility criteria. 	<p>The issuer should clearly communicate to investors:</p> <ul style="list-style-type: none"> - The social objectives - The issuer decides the process on how the projects fit within the eligible Social Projects and the related eligibility criteria 	Combination of Green and Social Bonds Principles.
3. Management of proceeds	<p>The net proceeds of the green bond [and the social or sustainability bond], or an amount equal to these net proceeds, should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner, and attested to by the issuer in a formal internal process linked to the issuer's lending and investment operations for the projects. (Source: Green Bond Principles)</p>		
4. Reporting	<p>Issuers should make, and keep, readily available up-to-date information on the use of proceeds to be renewed annually until full allocation, and on a timely basis in case of material developments.</p> <p>Transparency is of particular value in communicating the expected impact of projects. (Source: Green Bond Principles)</p>		

Vietnam has actively promoted the adoption of green bonds as part of its sustainable finance initiatives. In 2016, a government-backed entity in Ho Chi Minh City and the Ba Ria–Vung Tau municipal government successfully issued green bonds, amounting to US\$23.4 million and US\$3.6 million respectively. Vietnamese companies like the Truongnam Group and Truongnam Solar Power JSC have also entered the green bond market to finance their solar panel projects in Ninh Thuan Province¹⁶. BIDV, Vietnam's oldest bank, issued an inaugural green bond in the domestic market. BIDV has highlighted 13 categories of projects which would be eligible for financing with green bond proceeds.¹⁷ These include renewable energy, clean energy, green industry, environmental protection, and energy saving services provision, sustainable transport, green construction, green agriculture, sustainable forestry, sustainable water management in urban and rural areas, waste treatment and pollution prevention, natural environment protection, ecological environment restoration and natural disasters prevention, recycled and renewable resources¹⁸.

An important element in issuing climate bonds and climate loans, is to establish a green taxonomy that clarifies which activities are eligible for financing with climate or green funds. This taxonomy should be accompanied with key performance indicators that align with the company's vision and an internal system for tagging and ring fencing climate funds to avoid greenwashing. Such frameworks help signal to private investors that the company is committed to sound stewardship of their capital.

The Prime Minister of Vietnam has assigned Vietnam's Ministry of Natural Resources and Environment (MONRE) with the development of a national green taxonomy that specifies which projects supported by the state should be eligible for green credit and bonds. However, the taxonomy has not yet been finalized, including the process for how such green projects should be certified.¹⁹ In the absence of a national green taxonomy, enterprises can draw on other taxonomies, such as the CBI's Climate Bonds Taxonomy²⁰ or the ASEAN Taxonomy for Sustainable Finance.²¹ They can also develop their own taxonomy, for example, by aligning with the climate mitigation and adaptation priorities of Vietnam's NDC.

2.2. Case studies: private sector mobilization of climate finance

¹⁶ <https://tititada.com/academy/dau-tu/thi-truong-trai-phieu-xanh-tai-viet-nam>

¹⁷ <https://thedocs.worldbank.org/en/doc/34f66dd99b83f50d8ec797a1ba686b38-0340012024/original/Case-Study-Viet-Nam-BIDV-green-bond-TA.pdf>

¹⁸ <https://thedocs.worldbank.org/en/doc/34f66dd99b83f50d8ec797a1ba686b38-0340012024/original/Case-Study-Viet-Nam-BIDV-green-bond-TA.pdf>

¹⁹ Finalization of green taxonomy 'a matter of urgency'. The Investor, April 3, 2024
<https://theinvestor.vn/finalization-of-green-taxonomy-a-matter-of-urgency-d9262.html>

²⁰ Climate Bonds Taxonomy. Climate Bonds Initiative <https://www.climatebonds.net/standard/taxonomy>

²¹ ASEAN Taxonomy for Sustainable Finance, Version 3. The ASEAN Capital Markets Forum (ACMF)
<https://www.theacmf.org/sustainable-finance/publications/asean-taxonomy-for-sustainable-finance-version-3>

Climate finance is instrumental in supporting projects and initiatives that address climate change and promote sustainable development. Through various financial mechanisms, such as investments, grants, and loans, the private sector can mobilize resources to drive renewable energy adoption, enhance resilience, and foster domestic climate action.

The following subsections present case studies of climate finance in Vietnam, including development bank's efforts to finance clean energy projects, a green finance strategy adopted by the Investment and Development Bank of Vietnam (BIDV), and climate financing mobilized by a Vietnamese corporation in support of electrification.

2.2.1. Vietnam Energy Efficiency for Industrial Enterprises Project²²

The World Bank funded the Vietnam Energy Efficiency for Industrial Enterprises Project (VEEIE) which was implemented from 2017 to 2022 by MOIT to improve energy efficiency in the industrial sector. The project contributed to achieving the government's energy saving targets and GHG emission reduction objectives.

Implementation of VEEIE was coordinated and supervised by the Department of Energy Efficiency and Sustainable Development at MOIT. VEEIE supported industrial enterprises with the implementation of energy efficiency projects that lead to reductions of energy use and GHG emissions. The project consisted of two components:

- **Component 1: Energy efficiency investment lending.** This component consisted of an energy efficiency lending program of US\$156 million over five years: (a) US\$100 million was provided by the World Bank through debt financing; (b) local partner financing institutions co-financed project activities by financing 20 percent of the loans provided to industrial enterprises; and (c) sub-borrowers contributed at least 20 percent of the investment as equity financing.
- **Component 2: project implementation support.** This component provided technical assistance and capacity building to MOIT on project monitoring and supervision, including support for audits of project activities and safe-guards monitoring.

Under VEEIE, 11 projects obtained loans including for co-generation for sugar cane processing, waste heat recovery for cement production, and solar projects for industrial facilities. The project was implemented successfully and achieved its targets for energy savings, job creation, GHG emission reductions, and new renewable energy installed.

2.2.2. Vietnam Scaling-up Energy Efficiency Project²³

The World Bank has agreed with the Vietnamese Government to implement a comprehensive approach to promote energy savings in high-energy-consuming

²² <https://tietkiemnangluong.com.vn/tin-tuc/hop-tac-quoc-te/t26245/du-an-tiet-kiem-nang-luong-cho-nganh-cong-nghiep-viet-nam-veeie-.html>

²³

https://vsuee.vn/Images/User/ducdt/2024/6/20a_vsuee_rsf_om_attached_to_decision_1337_dated_3.6.2024.pdf

industries, unlocking significant potential for energy conservation and GHG emission reductions. The Vietnam Scaling-up Energy Efficiency (VSUEE) project, which is under the implementation phase from 2022 to 2026, will play a crucial role in achieving Vietnam's NDC.

The VSUEE project was designed and is implemented in Vietnam under the leadership of MOIT and was made possible through financial support from the GCF. The GCF provided 86.3 million USD, of which 75 million USD will be allocated for a Risk Sharing Facility (RSF). The RSF provides guarantees to Participating Financial Institutions (PFIs) to directly grant energy-saving loans to industrial enterprises or through Energy Service Companies (ESCOs). For eligible sub-projects, the RSF can issue guarantees to PFIs, not exceeding 50% of the loan value. The loans may include expenses related to procurement, installation, testing, additional equipment, or retrofitting/upgrading of existing equipment to enhance energy savings. These loans are expected to be funded from PFIs' own resources in foreign or local currency. The RSF will only have access to loans or loan tranches that PFIs allocate from their own resources to support industrial enterprises and ESCOs. The Saigon-Hanoi Joint Stock Bank is the implementing partner of the VSUEE project.

The project is expected to mobilize approximately \$250 million in energy-saving investments and support over 50 industrial production facilities to reduce energy consumption and cut approximately 6.9 million tonnes of annual GHG emissions during the investment period.

2.2.3. BIDV green strategy

BIDV has developed policies and procedures that align with green credit orientation; developed products and policies that offer incentives for credit extensions to green sectors and clean energy; and issued appraisal guidelines on specific projects such as wind power plants and solar energy projects. In addition to deposits from domestic economic organizations and individuals, BIDV continuously strengthens its cooperation with international financial institutions to mobilize and on-lend foreign entrusted funds that finance the green sector, thereby contributing to the growth of green credits. Example BIDV activities include²⁴:

- The Renewable Energy Development Project (REDP) with the total amount of USD 202 million;
- Co-financing of VEEIE loans with the total amount of USD 50 million;
- Two Environmental Credit Lines in 2005 and 2009 from EIB with a total value of EUR 130 million;
- A USD300 Million Loan Facility from ADB to support the growth and productivity of small and medium-sized enterprises (SMEs) in Vietnam with requirements on environmental protection and clean energy; and

²⁴ https://bidv.com.vn/bidv_en/tin-tuc/tin-ve-bidv/bidv-tich-cuc-thuc-day-phat-trien-nang-luong-ben-vung

- A SUNREF credit line of USD 100 million with AFD to develop green finance without the government guarantee).

As of December 2022, BIDV's green finance portfolio amounted to approximately VND 63,000 billion (equivalent to USD2.7 billion), accounting for 4.3% of total outstanding loans and 13% of total green financing of the Vietnam banking system. The largest share of the outstanding loans were for renewable energy and other clean energy, reaching more than VND 54.000 billion (equivalent to 86% of the green credit balance).²⁵

In October 2023, BIDV became the first bank to issue a 2,500 billion VND green bond (nearly 100 million USD) in the domestic market in compliance with ICMA's Green Bond Principles²⁶. The proceeds will be used to finance green, energy saving, emission reduction, and environmental protection projects, in line with BIDV's Green Bond Framework. This was also the first senior, unsecured, and unguaranteed green bond issued in Vietnam, demonstrating the high creditworthiness and reputation of the issuer. All the investors participating in the transaction were reputable insurance and fund management companies affiliated with leading global insurance groups, among them Eastspring Vietnam and Prudential Vietnam.

2.2.4. Climate finance for electric mobility

VinFast Trading and Production Limited Liability Company (VinFast), a subsidiary of Vingroup Joint Stock Company (Vingroup), was approved for developing the VinFast e-Scooter and Car Manufacturing Plant in 2017. The Plant is located in Dinh Vu – Cat Hai economic zone, Cat Hai island, Cat Hai District, Hai Phong city. The e-bus plant commenced operation in December 2020. The plant has been developed on a total area of 30,000 m2 and can produce 3,000 vehicles per year.

In 2022, VinFast successfully mobilized climate financing from the ADB²⁷ and other DFIs for the manufacturing of e-buses and charging units. The 135 million USD raised included a 20 million USD loan from ADB and another 87 million USD loan from other sources such as the Australian Climate Finance Partnership, the Clean Technology Fund, the Climate Innovation and Development Fund, and the Finnish Fund for Industrial Cooperation and Responsibility. The climate financing had a 7 year tenor and is certified by CBI.²⁸

²⁵ https://bidv.com.vn/en?url=wcm:path:/wps/wcm/connect/BIDV_EN/tin-tuc/thong-tin-bao-chi/bidv-to-chuc-hoi-thao-doanh-nghiep-viet-nam-chung-tay-kien-tao-kinh-te-xanh

²⁶ <https://www.adb.org/news/adb-leads-135-million-climate-financing-package-support-electric-mobility-viet-nam>

²⁷ <https://www.adb.org/sites/default/files/project-documents/55327/55327-001-escar-en.pdf>

²⁸ <https://www.adb.org/news/adb-leads-135-million-climate-financing-package-support-electric-mobility-viet-nam>

CHAPTER 3: OPPORTUNITIES AND CHALLENGES FOR VIETNAMESE BUSINESSES

3.1. Challenges for businesses in financing climate action

The financial sector has a crucial role to play in combating climate change by mobilizing resources towards sustainable practices. However, there are significant hurdles businesses must overcome:

- **Inconsistent risk assessment:** Accurately measuring and integrating climate-related risks (both physical and transitional) into financial decisions remains a challenge. A lack of standardized methodologies and patchy data make it difficult to assess the potential financial impacts of climate change on investments.
- **Fragmented regulatory landscape:** Disclosure requirements for climate risks and opportunities vary widely across countries and regions. This inconsistency makes it hard for businesses to develop a comprehensive approach to climate-related finance.
- **Short- versus long-term focus:** Traditional financial markets often prioritize short-term returns, while climate solutions frequently require long-term investments with uncertain payoffs. Businesses need to find ways to bridge this gap and incentivize long-term sustainability efforts.
- **Limited green finance instruments:** While a growing area, the availability of financial products specifically designed to support climate-friendly projects is still limited. This hinders businesses that want to invest in sustainable solutions but lack access to the necessary capital.

3.2. Challenges for businesses in the carbon market

To build and operate the domestic carbon market to support the implementation of the GHG emission reduction target in Vietnam's NDC, there are still many difficulties and challenges:

- The upfront investment needed for GHG emission mitigation is high, and the market for energy saving technology and renewable energy in Vietnam is still limited.
- Existing financial support mechanisms are not strong enough to encourage businesses to invest in activities to reduce GHG emissions.
- The national GHG inventory system remains incomplete. There is still no uniform system for measuring, reporting and verifying GHG emission mitigation activities at the national and sectoral levels. Without such a system in place it takes a lot of time for businesses to collect data and calculate GHG emissions.
- In order for businesses to engage in the carbon market, the Government of Vietnam must clarify which businesses are eligible to participate in the domestic carbon market. It must also determine the total GHG emission cap for the national ETS and distribute emission allowances to facilities covered by the cap.

- The capacity of businesses to engage in the VCM is still weak. The implementation of carbon projects is mainly done by consulting companies.

Final guidance on carbon credit trading under Article 6 of the Paris Agreement is not yet available. This has created uncertainty and slowed investment in carbon projects.

3.3. Opportunities for businesses in financing climate action

The urgency of addressing climate change presents a wealth of opportunities for the private sector to take advantage of market opportunities emerging from the transition to a low-carbon and climate resilient future. These include:

- **Green investments.** Businesses can develop and offer financial products such as green bonds, climate infrastructure funds, and sustainability-linked loans to support renewable energy projects, energy efficiency initiatives, and sustainable land use practices.
- **Climate risk management.** Growing demand exists for services that help businesses assess, price, and hedge climate risks. Financial institutions can develop expertise in climate risk analysis and offer products such as climate-resilient insurance and catastrophe bonds.
- **Emerging markets.** Developing economies require significant investments in climate-resilient infrastructure and adaptation strategies. Businesses can tap into these markets by providing technology and financial solutions for climate-smart agriculture, water management, and disaster preparedness.
- **Sustainable innovation.** Financial institutions can play a key role in fostering innovation in climate solutions. This could involve financing cleantech startups, venture capital funds focused on sustainability, and research and development projects for new low-carbon technologies.

3.4. Opportunities for businesses in the carbon market

In Vietnam, many businesses have proactively participated in, designed, and implemented activities to reduce GHG emissions, particularly in support of the VCM. Examples can be found on the VCM registry platforms of Verra²⁹ or the Gold Standard³⁰. Many carbon credits achieved from GHG emission mitigation activities have been sold by businesses to partners in developed countries. This has helped Vietnamese enterprises gain experience in developing low-carbon projects and commercializing carbon credits in the international carbon market. With the introduction of a domestic VCM that links to the national ETS, developers of carbon projects will be able to expand their carbon project portfolios to meet potential demand from facilities with an emission cap.

Businesses expected to be covered by the national ETS should begin establishing systems for measuring, reporting, and verifying GHG emissions data. This will increase accountability and transparency among stakeholders and help these enterprises identify

²⁹ <https://registry.verra.org/app/search/VCS/All%20Projects>

³⁰ <https://registry.goldstandard.org/projects?q=&page=1>

cost-effective mitigation options that will enable them to take advantage of the coming emissions trading system. In the long-term, the Government of Vietnam expects to link the national ETS with other international markets. Linking the ETS internationally will reduce overall compliance costs, increase market liquidity, promote market stability, and reduce the risk of leakage. It may also help attract increased international investment in activities to decarbonize the private sector.

The carbon market will contribute to increasing budget revenue and thereby help the Vietnamese government have more capital available for green investments. At the same time, carbon market activities will generate significant co-benefits that can have positive synergies with public health, energy security, job creation and climate change goals.

3.5. Recommendations

There are several ways for the private sector to prepare for and mobilize climate finance, including:

1. **Implementing environmental, social and governance frameworks:** Environmental, social, and governance (ESG) performance is increasingly important to investors. Many institutional investors, such as pension funds and asset managers, prioritize ESG factors when making investment decisions. By adopting and communicating ESG-aligned practices, businesses can access a broader pool of capital and attract long-term, sustainable investments
2. **Developing green finance strategies:** Businesses should establish a comprehensive strategy outlining their commitment to sustainability and green projects. This includes setting clear goals for reducing GHG emissions and enhancing climate resilience. A well-defined strategy can attract investors looking for environmentally responsible opportunities.
3. **Aligning with international standards:** Adopting internationally recognized standards, such as the Climate Bonds Standard, can enhance credibility and transparency. This alignment reassures investors that the business' green projects meet rigorous environmental criteria.
4. **Engaging stakeholders:** Collaborate with key stakeholders, including investors, regulators, and industry peers to build support for green finance initiatives. Engaging in dialogues with these groups can help align business goals with investor expectations and regulatory requirements.
5. **Issuing green bonds and other debt instruments:** Businesses can issue climate and green bonds to raise capital specifically for green projects. These bonds can finance a wide range of sustainability projects, from renewable energy to waste management. Green bonds are attractive to investors focused on ESG criteria.
6. **Enhance reporting and transparency:** Providing regular and transparent reports on the use of proceeds from climate finance helps build investor confidence. Detailed reporting on the environmental impact of financed projects demonstrates accountability and the tangible benefits of investments

By following these steps, businesses can effectively mobilize climate finance, contributing to sustainable development and gaining access to a growing pool of green investment capital.