# Enhancing the legal framework to promote green capital flows in Vietnam's financial market

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***Abstract: Unfolding green capital flows for the business sector has been a primary concern for both the business community and state management in the financial and banking sectors. Green capital flows are vital in funding to achieve sustainable development and green growth goals, particularly in addressing environmental and climate-related challenges. In recent years, green capital flows have been implemented through green bonds and credits, yielding promising outcomes in energy saving, renewable energy, clean agriculture, and high-tech agriculture. However, their current state reveal numerous obstacles and challenges, necessitating policy adjustments, legal amendments, and the regulatory framework's improvement to ensure the Net-Zero target's achievement by 2050.***

***Keywords:*** *Green finance; green credit; green capital flow; green growth in Vietnam and carbon credits.*

## 1. Introduction

Green financial resources play a pivotal role in achieving the green growth goals outlined in the Prime Minister's Decision No. 1658/QD-TTg, dated October 1, 2021, which approved the National Strategy for Green Growth for 2021–2030, with a vision to 2050. This strategy contributes to economic restructuring aligned with growth model innovation, promoting a circular economy, enhanced competitiveness, resilience to external shocks, and progress toward a green, carbon-neutral economy that mitigates global temperature increases. Investment capital remains a critical challenge to achieve the goals and commitments of green growth and sustainable development.

Specifically, according to the technical report by the Ministry of Natural Resources and Environment, the size of the green economy was US$ 6.7 billion in 2020, while the financial requirements for emission reduction measures across various sectors, as per Vietnam's environmental commitments, are projected to reach approximately US$68.75 billion by 2030. Domestic resources are forecast to reach about US$25 billion, accounting for 36% of the total financial needs. In addition, the

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World Bank's Climate and Development Country Report (2022) estimates that Vietnam's financial need for climate change adaptation measures by 2050 will amount to 6.3–7.2% of its GDP annually, equivalent to US$30.24–$39.6 billion. In particular, financial resources from the state budget to improve resilience and response to natural disasters are estimated at 1.8% of the GDP. The non-state (private) mobilization requirement is projected to account for 4.5–5.4% of the GDP. At the same time, according to the United Nations Development Program (UNDP, 2022), in order to meet the green growth requirements, Vietnam needs approximately US$330-370 billion to implement the commitment to net emissions to zero by 2050 (Van & Hoa, 2024).

However, in practice, green capital flows have not been effectively promoted and have yet to significantly attract the business community's participation. To fully exploit the potential of green capital sources to attain green growth goals, it is essential to conduct a comprehensive assessment of the current state of Vietnam's green finance sector. Several solutions should be then accordingly proposed to improve the legal framework perfection for green finance in Vietnam, aligning it with the Net-Zero target.

## 2. Theoretical framework

Green capital flow refers to the movement of financial capital (originating from banks, credit institutions, insurance companies, and investments) provided by public, private, and non-profit organizations into projects and activities that benefit the environment. These include protecting the atmosphere, addressing climate change and global warming, safeguarding the ozone layer, reducing air pollution, preserving clean water quality, protecting oceans and coastal areas, conserving land resources, combating deforestation and desertification, preserving biodiversity, managing toxic wastes and chemicals, and safeguarding human health and quality of life from environmental and commercial degradation (Kham et al., 2022).

The correlation between the structure of green capital flows and financial instruments, including such key groups as green credit, green bonds, green stocks, and green insurance, is generalized as follows:

### *2.1. Green capital flows and green credit*

Green credit refers to loans provided by credit institutions, including commercial banks, financial companies, green investment funds, or government-backed credit institutions, to meet consumer, investment, production, and business needs that deliver environmental benefits, utilize resources efficiently, reduce pollution emissions, absorb carbon and contribute to the protection of ecosystems and overall biodiversity. Green credit can also be a financial solution to advancing sustainable development and environmental protection. Bank loans are provided to projects, activities, or individuals that positively impact the environment, such as renewable energy, biofuels, energy efficiency, environmental conservation, afforestation, and sustainable agricultural development.

Green loans, or green credit, for green projects in an economy encompass funding from the State, commercial credits, bank credits, and international loans. The Government offers green loans to support green projects that significantly and widely impact the country's overall socio-economic development. Their scale is therefore often large, with preferential interest rates, and institutions must meet strict standards, regulations, and conditions to access these loans. Green trade credit is standard in developed economies and represents a deferred trading relationship between trading parties, with green commercial paper as evidence of this relationship. Using green commercial paper benefits businesses by allowing them to access lower discount rates from commercial banks. Green loans from international organizations are diversified and implemented through official development assistance (ODA), preferential loans between governments, and cooperation with commercial banks. The three above-mentioned types of loans are typically catalytic capital flows to convey policy messages and directions for sustainable and environmentally friendly development.

*2.2. Green capital flows and green bonds*

Green bonds are issued by the Government, local authorities, or enterprises in accordance with bond regulations in order to raise capital for environmental protection activities and investment projects that provide environmental benefits.

In 2008, green bonds were introduced by the World Bank to finance environmental projects. According to the 2015 Green Bond Principles (GBP), green bonds are any bonds where the proceeds from issuance are allocated to partially or wholly finance or refinance an environment-related project, commonly called a green project such as one on clean energy or clean water initiatives. Countries, organizations, and regions will have regulations for issuing this type of bond, but they are all based on the international standard GBP. In particular, green bonds must adhere to the four principles outlined in the GBP: the use of proceeds, project evaluation and selection, management of proceeds, and reporting on fund utilization.

According to G20 Green Finance (2016), green bonds are distinguished from conventional ones by the commitment to use mobilized capital to finance or refinance green projects or businesses. Green bonds can be issued by such public entities as governments or local governments, or the private sector such as banks and businesses to raise capital for environmentally focused projects.

*2.3. Green capital flows and green shares*

Green shares are defined as shares of enterprises engaged in energy efficiency, clean fuels, renewable energy, natural resources, water resources, pollution reduction, and supportive materials aimed at achieving sustainable economic development.

*2.4. Green capital flows and green insurance*

Green insurance can be narrowly defined as environmental pollution liability insurance or, in a broader sense, as insurance encompassing programs related to environmental risk management and resilience and innovative products that support low-carbon solutions (UNEP, 2017).

*2.5. Green capital flows and Carbon credits*

A carbon credit is a certificate for commercial transactions representing the right to emit greenhouse gases, specifically carbon dioxide ($CO_2$). It represents the right to emit one tonne of $CO_2$ or another amount of greenhouse gases equivalent to one tonne of $CO_2$ ($tCO_2e$) into the atmosphere. Carbon credits are tradable licenses or certificates that give credit holders the right to emit one tonne of carbon dioxide or the equivalent of another greenhouse gas. The main goal of generating carbon credits is to reduce emissions of carbon dioxide and other greenhouse gases from industrial activities and reduce the impact of global warming.

A greenhouse gas emission quota is the amount of greenhouse gases a country, organization, or individual can emit within a specified period, measured in tonnes of carbon dioxide ($CO_2$) (National Assembly, 2020). When businesses and organizations exceed the allowable emission limit, they must purchase additional quotas to offset the excess emissions through the emission trading system. Businesses and organizations that reduce emissions below the necessary level can also sell excess quotas.

The carbon credit market is a trading system that allows institutions to trade greenhouse gas emissions, specifically $CO_2$. Companies or individuals can use carbon markets to offset greenhouse gas emissions by purchasing carbon credits from units that eliminate or reduce them. An exchangeable carbon credit is equivalent to one tonne of carbon dioxide or the equivalent of another greenhouse gas being mitigated.

(1) A mandatory carbon market is one for exchanging greenhouse gas emission quotas established and managed under local, national, regional, or international emission reduction laws and regulations. The regulator establishes a national emissions cap and subsequently allocates quotas to regulated market participants. Market participants must comply with quotas granted by investing in emission reduction measures or purchasing quotas from another or carbon credits through a carbon market. Over time, the number of quotas allocated to participants will progressively decrease in line with the national emission reduction roadmap. Many mandatory carbon markets in different countries also allow using a certain percentage of carbon-only credits to compensate for excessive emissions.

(2) The voluntary carbon market operates on the basis of bilateral or multilateral agreements involving cooperation between buyers and sellers. Businesses, NGOs, governments, and individuals can voluntarily purchase credits generated from emission reduction activities to offset their emissions, meet environmental, social, and corporate governance policies, or achieve net-zero commitments. Credits on the voluntary market are issued by organizations that issue independent credits in line with international standards.

**3. The legal framework for green capital flows in Vietnam**

*3.1. Group of policies orienting the institutionalization of the Party and State's guidelines and policies on developing green capital flows*

The legal framework for developing green capital flows has been most clearly defined since 2012, when the Prime Minister issued the National Strategy for Green Growth for the 2011-2020 period through Decision No. 1393/QD-TTg dated December 25, 2012 and approved the National Action Plan on Green Growth for the 2014-2020 period via Decision No. 403/QD-TTg dated March 20, 2014 (Tu, 2020).

In Decision No. 1658/QD-TTg dated October 1, 2021, the Prime Minister approved the National Strategy on Green Growth for the period 2021 - 2030, with a vision to 2050, reaffirming the "National Strategy on Green Growth for the period 2021-2030, with a vision to 2050." This strategy aims to achieve net-zero emissions by 2050, with specific orientations for resource mobilization to implement the green growth strategy:

(1) The State prioritizes and allocates adequate funding from the central and local budgets to implement the green growth strategy, particularly to enhance energy efficiency and promote renewable energy use.

(2) Promulgate mechanisms and policies to encourage financial institutions and small and medium-sized enterprises to conduct production and business activities according to green growth criteria.

(3) Using a system of financial, credit, and market instruments to encourage and support the development of a green economy and products and moving forward to build a system to manage and trade greenhouse gas emissions, taxes, and carbon fees.

(4) Encourage and prioritize attracting loans, ODA, technical assistance from countries and international organizations, and contributions from Vietnamese intellectuals living abroad to participate in implementing green growth strategies. Thus, state agencies play a crucial role in mobilizing resources, coordinating domestic and international funding sources and climate finance, developing a system of national green classification standards and criteria, identifying critical tasks and projects for green growth, and formulating a "Roadmap to realize green growth goals in alignment with socio-economic development objectives towards carbon neutrality".

*3.2. Current policies and regulations*

*Firstly, the current legal regulations for green growth*

The current legal framework for green growth in Vietnam has been established through several vital documents, including:

(1) The Law on Environmental Protection No. 72/2020/QH14 (Article 139 on the organization and development of the carbon market), along with detailed regulations such as Decree No. 06/2022/ND-CP on greenhouse gas emission reduction and ozone layer protection, Decree No. 08/2022/ND-CP guiding the implementation of the Law on Environmental Protection, and Decision No. 01/2022/QD-TTg on the list of greenhouse gas-emitting facilities subject to inventory requirements.

(2) Decision No. 882/QD-TTg, dated July 22, 2022, approving the National Action Plan for Green Growth for 2021–2030; Decision No. 687/QD-TTg (June 7, 2022) on the Circular Economy Development Plan; and national programs such as those on efficient energy use and sustainable production and consumption for the 2021-2030 period.

(3) The Strategy of clean technology use and related decisions (Decisions No. 280/QD-TTg, 2612/QD-TTg, 76/QD-TTg, 889/QD-TTg), the Plan for implementing power development plan VIII (Decision No. 262/QD-TTg dated April 1, 2024), and Decree No. 80/2024/ND-CP (July 3, 2024) on direct electricity purchase and sale mechanisms (Ministry of Planning and Investment, 2022).

*Secondly, the current legal regulations on green credit*

Vietnam's green credit regulations have been implemented through various critical legal documents and policies. Notable milestones include Decision No. 68/2013/QD-TTg on supporting loss reduction in agriculture and programs such as those on replanting coffee trees in the Central Highlands during the 2014-2020 period and afforestation initiatives.

In 2015, several important documents were issued, including Directive No. 03/CT-NHNN dated March 24, 2015, and Decision No. 1552/QD-NHNN dated August 6, 2015, by the Governor of the State Bank of Vietnam, focusing on promoting green credit growth and managing environmental risks in credit activities. In the same year, a handbook on managing environmental risks in 15 economic sectors and Decree No. 55/2015/ND-CP, which encouraged high-tech agricultural production, were also issued.

Subsequent initiatives included Decision No. 813/QD-NHNN, dated April 24, 2017, on clean agriculture lending. Document No. 9050/NHNN-TD, dated November 3, 2017, guided credit institutions in reporting green credit activities and assessing environmental risks.

In 2018, Decision No. 1604/QD-NHNN approved Vietnam's Project of green banking development, directing credit flows toward environmentally friendly projects. Recent updates include Article 149 of the Law on Environmental Protection No. 72/2020/QH14 (2020), Circular No. 17/2022/TT-NHNN dated December 23, 2022, guiding on managing environmental risks in credit activities, and Decision No. 1408/QD-NHNN dated July 26, 2023, which outlined the action plan for the banking sector to implement the Strategy of national green growth for 2021-2030 and commitments made at COP26.

Between 2017 and 2021, green credits experienced an average growth rate of over 25% per year, surpassing the average credit growth rate of the entire economy. However, the proportion of green credit remains modest as this is a relatively new field. According to the State Bank's statistics, by the end of the first quarter of 2024, green credit accounted for only 4.5% of the total outstanding debts of the entire economy, with nearly VND 637 trillion in outstanding loans from 47 credit institutions. Green credit loans are mainly focused on green agriculture (approximately 46% of those loans) and sustainable water management (around 13%), with a recent trend toward expanding into other areas such as renewable and clean energy. Many vital areas in environmental protection and climate change response, such as waste management, transportation, and sustainable construction, remain yet minimal (Anh, 2022).

Currently, 19 credit institutions have developed environmental and social risk management strategies, of which 13 credit institutions have integrated environmental and social risk management content into the process of green credit activities; ten credit institutions have built bank credit products for green credit; and, 17 credit institutions have used environmental and social risk assessment manuals for ten economic sectors. In addition, preferential policies/support for banks lending to environmentally and climate-sensitive areas (providing preferential loans at low interest rates or granting differential interest rates) have also been implemented. In addition, commercial banks with a high proportion of green credit loans also have priority access to preferential loans from international organizations and development partners (Ngoc, 2023).

International organizations providing referential loans currently include the World Bank (WB), the Swiss Government's Green Credit Trust Fund (GCTF), the International Finance Organization (IFC), and the Asian Development Bank (ADB).

*Thirdly, the current legal regulations on green bonds and green stocks*

The legal framework for green bonds and stocks in Vietnam includes several vital documents: Decision No. 1191/QD-TTg dated August 14, 2014, approving the roadmap for bond market development for 2017–2020 with a vision to 2030; Decree No. 163/2018/ND-CP and Decree No. 153/2020/ND-CP specifying the principles for issuing and using corporate bond capital; and, Decree No. 95/2018/ND-CP providing guidelines on the issuance, custody, listing, and trading of government debt instruments on the stock market.

The 2020 Law on Environmental Protection (Clause 2, Article 150) stipulates that proceeds from green bond issuance must be tracked and used for environmental protection projects. Decision No. 1934/QD-BTC, dated August 15, 2024, approves the Ministry of Finance's Action Plan to implement the Strategy of National Green Growth for the 2021–2030 period. Circular No. 155/2015/TT-BTC requires listed companies to prepare sustainability reports or integrate them into annual reports, covering key areas such as resource management, energy and water consumption, compliance with environmental laws, labor-related policies, community responsibilities, and green capital reporting.

The Vietnam Sustainability Index (VNSI), operated by the Ho Chi Minh Stock Exchange (HoSE) since July 2017, was designed to help investors identify "green" companies and promote sustainable development across the economy. Additionally, Circular No. 96/2020/TT-BTC outlines minimum ESG (Environmental, Social, and Governance) standards for company listing and provides guidelines on disclosing environmental and social risk management information.

Incentive policies have also been introduced to promote the green securities market. Circular No. 101/2021/TT-BTC offers a 50% reduction in fees for issuing, listing, and trading green bonds. Furthermore, the handbook How to Issue Green Bonds, Social Bonds and Sustainability Bonds (2021) guides enterprises on the issuance process, while the handbook Greenhouse Gas Emission Reporting (2023) helps businesses perform emission inventories and reporting in compliance with legal regulations.

These documents include Decision No. 1191/QD-TTg dated August 14, 2014 approving the roadmap for developing the bond market for 2017–2020, with a vision to 2030; Decree No. 163/2018/ND-CP and Decree No. 153/2020/ND-CP specifically outlining the principles for issuing and using corporate bond capital; and, Decree No. 95/2018/ND-CP guiding the issuance, custody, listing, and trading of government debt instruments in the securities market.

In general, various measures have been implemented by the Government to support the green bond market, including guiding enterprises in information disclosure, ensuring transparency in green financial activities, and encouraging enterprises to list on the stock market to produce financial reports and annual reports on sustainable development and green growth.

According to the Ministry of Finance, Vietnam issued about US$1.16 billion worth of green bonds between 2019 and 2023. However, the amount of issued green bonds remains limited because the market is still in a new stage and interested investors are but a few (Nhung, 2024). The main reasons include various small-scale green projects failing to meet the requirements by international banks and financial institutions, bond issuers (such as ministries, central and local authorities, and enterprises) not paying real attention to mobilizing capital through green bond issuance channels, and the limited number of such intermediary service providers as credit rating agencies and accreditation organizations to verify project “greenness”, and independent evaluation organizations.

*Fourthly, the legal provisions on carbon credits*

The Law on Environmental Protection passed by the National Assembly in 2020 stipulates that developing the domestic carbon market is one measure to reduce greenhouse gas emissions. The Prime Minister also issued Decision No. 01/2022/QD-TTg on the list of sectors/sub-sectors and establishments having to conduct an inventory of greenhouse gas emissions in preparation for the carbon market development

To orient the development of the carbon credit market, Decree 06/2022/ND-CP dated January 7, 2022, mitigating greenhouse gas emissions and protecting the ozone layer, provides a roadmap for developing the domestic carbon market in two phases: (1) The period to the end of 2027: developing regulations on carbon credit management, exchanging greenhouse gas emission quotas and carbon credits, developing regulations on operating carbon credit exchanges; piloting the mechanism for exchanging and clearing carbon credits in potential fields and guiding the implementation of domestic and international carbon credit exchange and clearing mechanisms; and, establishing and piloting the carbon credit exchange from 2025; and (2) The period from 2028: operating the official carbon credit exchange in 2028.

**4. Challenges in promoting green capital flows to support businesses in accessing funding**

*4.1. Difficulties in the orientation of green capital development*

In general, the policymakers’ orientation strategies aligning with the Party and State's policies and guidelines for promoting green financial development are relatively comprehensive. However, in order to establish feasible and practical directions that truly support business capital sources, it is essential that international practices and experiences to refine policy strategies be reviewed. These include directing leading capital sources from the state budget, ODA capital, and bonds issued by the central and local governments, and those by international organizations to accelerate the green growth process, as well as clearly defining the functions and responsibilities of each ministry, sector, and locality in specific periods.

In particular, it is necessary to issue the regulation of the Green Taxonomy, a classification system to identify economic and investment activities, that help promote a country to achieve its specific priority environmental goals. The Taxonomy is applied in the market of green credits and green bonds as the basis for Government-run credit institutions, public limited liability companies operating in the field of finance, green investment funds, and commercial banks to provide green credits to the market; for green bonds to be issued on the stock market to mobilize funding and loans from the private sector, etc. The Ministry of Natural Resources and Environment is drafting such a taxonomy under Article 154 of Decree No. 08/2022/ND-CP. Simultaneously, the General Statistics Office is formulating a national green criteria framework to compile and integrate a green economy sector list into the broader-scope Vietnamese economic sector system.

The regulations are not yet oriented to facilitate development of a professional green growth market that helps businesses access updated market analysis information and quickly make appropriate choices of project and location. The coordination within joint ventures for critical projects has yet to help businesses accelerate the technology transfer process, especially for prioritized technologies and areas, increase the motivation of businesses and individuals wishing to participate in green initiatives and build a comprehensive green economic ecosystem.

*4.2. Difficulties of credit activities in the field of green growth*

*Firstly,* there are not yet regulations, definitions, or standards for the categories of green industries/sectors that can be uniformly applied nationwide, leading to a lack of a foundation on which credit institutions can base their decisions when selecting, appraising, evaluating, and monitoring the granting of green credit (as stipulated in Article 154, Decree No. 08/2022/ND-CP, on projects eligible to green credit grant and green bond issuance (Thang & Binh, 2023).

*Secondly,* investment in green industries/sectors, especially renewable energy, energy efficiency and energy savings, in Vietnam today often entails a long payback period, large investment costs and high market risks, so it is necessary to provide incentives on loan terms and costs. Yet mobilized capital from credit institutions is usually short-termed and mobilized with the cost of commercial capital in the market.

*Thirdly,* according to various regulations guiding growth promotion, action plans, and facilitating the development of green credit, customers subject to green credit financing will be given incentives on credit policies, primarily interest rate policies. However, in practice, enterprises have difficulty in accessing official loans and can only access short-term loans while access to medium and long-term loans is very limited, and small or micro enterprises often have to bear more expensive borrowing costs than medium and large ones. Enterprises will not be able to borrow capital without mortgaged assets or collateral due to the lack of specific legal documents on supporting interest rates and terms for these loans.

*Fourthly,* the State Bank, while developing and proposing several projects to finance green industries/sectors through the banking system, has encountered difficulties related to the financial mechanism.

*Fifthly,* the new legal framework emphasizes environmental factors but has yet to concretize binding elements, particularly those related to social and governance factors.

*4.3. Difficulties in issuing green bonds and green shares*

*First,* the cost of issuing green bond products is not fundamentally different from, or even higher than, traditional ones. The "green" sector still faces such difficulties as unclear incentive mechanisms, enormous investment costs, prolonged payback periods, high market risk, and manageable additional costs.

*Second,* the legal framework, mechanisms, and policies on the development and investment of green bonds remain inadequate and thus fail to meet either the market's development requirements or international standards and practices.

*Third,* many small-scale green projects do not meet the requirements by large banks and financial institutions worldwide. Green bonds issued in Vietnamese Dong (VND), a freely convertible currency, face challenges in attracting foreign investors, particularly for large-scale bond issuances.

*Fourth,* though the national strategy on green growth is widely propagated, the fact that enterprises have not been adequately aware of the importance of environmental protection in investment decisions causes difficulties in developing green bonds in Vietnam. Added to that, most Vietnamese enterprises' production technology is older and consumes more energy than those of the world. Adapting new technologies in line with the green economy is also challenging due to high investment costs. Most Vietnamese enterprises initially operate with their own limited spontaneous capital. They all want to increase the production investment capital when the operation is stable with initial results, but there are many difficulties in mobilizing credit capital.

*4.4. Difficulties in the carbon credit market*

*Firstly,* the system of policies and mechanisms for managing agricultural and forestry carbon credits remains inconsistent and scattered in many documents. Solutions are required to various issues such as most agricultural production areas and forest areas having not yet developed carbon credits; lack of trading floors for greenhouse gas emission quotas and carbon credits; limitations in measuring, counting, appraising and certifying carbon credits; and, determination of carbon content in goods, etc. The transfer of forest carbon credits still needs more specific regulations to promote trade negotiation processes.

*Secondly*, current challenges in the voluntary carbon market include greenwashing practices, inaccurate carbon accounting, inconsistent quality of carbon projects, and a need for more information on the carbon market.

**5. Some solutions to improve the legal framework to promote green capital flows in Vietnam's financial market**

To promote green capital flows, the legal framework should define the central role businesses play in green growth, such as using clean energy, investing in advanced technology, reducing emissions, and applying ESG standards. Policies should address existing challenges, review, and evaluate projects, and improve regulations suitable for each development phase.

*5.1. Group of green credits*

To complete the legal framework for green credits in Vietnam, it is necessary to focus on developing and consolidating regulations related to the management, supervision, and promotion of green credit products. Proposed solutions include the following:

(1) Early development of a Green Taxonomy for Vietnam, with regulations, definitions, and standards on the list of green sectors/fields for general and consistent application nationwide (implemented in line with Article 154 of Decree No. 08/2022/ND-CP), based on reference to the pilot application of Green Taxonomy of ASEAN countries to have appropriate regulations.

(2) Based on such a taxonomy, the Government needs to develop synchronous solutions and mechanisms, from tax, fee, capital, technical, and market policies to planning and development strategies of each green sector, so that domestic and foreign credit institutions can set appropriate lending criteria.

(3) Reviewing, amending, and supplementing state policies on credit and supportive interest rates for production and business programs and projects associated with environmental protection, in the direction of ensuring interest rates, more preferential than market ones, for such activities as pollution prevention and control activities, environmental degradation and incidents, environmental protection investment projects, funding environmental protection tasks, supporting cleaner production projects in industry, and, in particular, providing long-term credits and preferential interest rates for green industries/sectors.

(4) Credit institutions' awareness and capacity to develop new green credit products are initially limited. Support is thus required to strengthen their capacity to select, appraise, and supervise green credit grants.

*5.2. Group of green bonds and green stocks*

Completing the legal framework for green bonds and stocks is essential to promote sustainable development and green transition in Vietnam's financial market. Improvements in regulation will help increase transparency, access to capital, and investors' confidence in green financial products. The following recommendations aim to further improve the legal framework for these financial instruments:

(1) Enhancing disclosure transparency of green bond issuers: Reports on the use of capital from green bonds should be evaluated transparently and objectively by specialized organizations and made public so that any investor can track their capital in each green project.

(2) The Government and state management agencies of the securities market need to develop a complete and unified roadmap for enterprises in all stages, from planning, preparation steps for issuance, issuance principles, accounting, and payment of bonds to maturity, and use of revenue from issuance. Capacity building is needed to develop green bond exchanges.

(3) The Government needs to set certain preferential policies that encourage investors to buy green bonds. Yet higher tax rates on debt instruments may reduce the attractiveness of bonds, such as preferential corporate income tax policies and corporate income tax for income sources arising from green bonds, in the process of amending the Law on Corporate Income Tax, the Law on Personal Income Tax, and guiding documents.

(4) Regulations for green shares should require listed and public companies to disclose information related to sustainable development, enabling evaluating the efficiency and quality of their sustainable development activities. Additionally, capacity-building regulations for market participants should be strictly enforced, focusing on empowering domestic consulting firms to provide independent assessment services for green projects financed by green debt capital (Hien et al., 2021).

*5.3. Group of green insurance*

Vietnam's insurance enterprises have initially implemented several green insurance products to meet customers' diverse insurance needs, expanded their market share, and increased their competitiveness while aiming for a green economy and sustainable development. As of 2022, four enterprises were providing green insurance products. However, their green insurance products merely remain in the form of environmental liability insurance.

To support a safe, sustainable, and effective development of the green insurance market and achieve the goal of green insurance development as set out in the Strategy for development of Vietnam's insurance market by 2030, various consistent solutions should be further deployed.

(1) Completing the legal framework for insurance business, focusing on regulations on green insurance products in the direction of further transparency and clarity, creating favorable conditions for insurance enterprises and insurance buyers, reforming administrative procedures, and creating a legal corridor for insurance enterprises to apply the achievements of the Fourth Industrial Revolution;

(2) Assessing the status of green insurance products of insurance enterprises; study and develop criteria and methods to identify and classify green insurance products with policies to encourage and support the development of green insurance products;

(3) Encouraging insurance companies to develop a variety of new product lines, diversify insurance products and distribution channels, and prioritize customer-centric approaches to better meet the diverse needs of organizations and individuals during the transition to a green economy and the pursuit of green growth objectives;

(4) Lastly, cooperation with international organizations and other countries should be strengthened to design effective policies in support of green insurance products.

*5.4. Group of carbon credit market*

The legal framework for development of the carbon credit market should be completed, while efforts should be made to establish carbon credit exchanges and implement regulations on their organization and operation. This would enable the domestic market to officially function and integrate with regional and global markets.

(1) Regulations should be provided for an emissions trading system that sets emission limits for each industry and issues emission allowances for participating enterprises. These enterprises can buy, sell, or trade emission allowances with one another, thereby creating a carbon market. If a company exceeds the prescribed emission limit, it must either pay a penalty or purchase additional allowances from other companies to meet its needs.

(2) Besides, development of carbon pricing policies (the cost of purchasing emission allowances) also reduces emissions. These policies increase enterprises' carbon costs, encouraging them to gradually adapt to participation in the carbon market.

(3) Preferential carbon tax rates, such as energy tax and value-added tax on carbon-related products, clean technology development, etc. should be provided to stimulate development of carbon markets

*5.5. Developing the guidelines and incentives for businesses involved in prioritized and preferential green projects outlined in the roadmap towards 2050*

To mobilize resources from the private sector and credit institutions for green growth, the Government of Vietnam should create an institutional and legal environment that encourages the private sector to invest more quickly, simply, and cost-effectively in such major emitting industries as energy, transport, agriculture and manufacturing. Enterprises should adopt recycling processes in production, utilizing input materials, production fuels, and output products capable of circular recycling. Additionally, investment incentives should be given to the following sectors:

(1) Research and application of new industries producing renewable energy such as solar photovoltaics, solar thermal, electrolyzer and fuel cells, onshore wind power, offshore renewable energy, sustainable biogas/biomethane, batteries and energy storage technologies, heat pumps, and geothermal energy.

(2) Researching, producing, and applying clean hydrogen; promoting green transportation and logistics; and advancing the research and application of biofuels and clean fuel for vehicles.

(3) Exploring and applying carbon storage technologies and enhancing research and application of biofuels and biomass fuels.

(4) Developing new technologies for circular and sustainable agriculture; advancing new technologies for wastewater and solid waste treatment; modernizing construction material production technology; using green, clean, and environmentally friendly fuels; and promoting green construction with low carbon emissions and resilience to climate change (German International Cooperation Organization-GIZ, 2023).

**6. Conclusion**

To promote Vietnam's green capital market towards the Net-Zero goal, the State should provide strategies, policies, and necessary solutions to attract capital from the economy, the commercial banking system, and domestic and foreign investors. Drawing on international and ASEAN experiences, the legal framework should be improved promptly, and a Green taxonomy should be developed for granting green credits and issuing green bonds. This system should include specific and transparent evaluation criteria to guide domestic and foreign enterprises, banks, and financial funds in participating in green financial growth. In addition, efforts should focus on attracting investment and supporting the development of priority areas suited to Vietnam's conditions, such as green and clean agriculture, high-tech applications, clean energy transformation, application of circular economic models, urban development, and green transportation, reduction of greenhouse gas emissions, protection and restoration of marine ecosystems, and promotion of sustainable development.

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