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### Promoting Green Finance in Vietnam: Current Situation, Challenges and Institutional Reform Solutions

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#### Abstract

This paper analyzes the current situation, challenges and institutional reform solutions for promoting green finance in Vietnam during 2021-2025. Using qualitative research combined with descriptive statistics, the paper synthesizes data on green credit, green bonds, legal frameworks, ESG disclosure and climate-finance needs. The findings show that green finance in Vietnam has made clear progress: green credit outstanding has grown rapidly, the number of participating credit institutions has expanded, the green bond market has begun to record transactions aligned with international practices, and the national green taxonomy was adopted in 2025. However, the scale of green finance remains small relative to transition needs; capital is

concentrated in a limited number of sectors; transaction costs are high; ESG data are fragmented; incentive mechanisms remain limited; and independent verification capacity needs to be strengthened. The paper proposes a solution framework covering effective taxonomy implementation, standardized disclosure, independent verification, blended finance, green bond development, integration of climate risk into banking supervision, SME support, carbon-market linkage and inter-agency coordination. Its main contribution is to approach green finance as an institutional ecosystem rather than as a set of separate financial products.

**Keywords:** Green Finance, Green Credit, Green Bonds, ESG, Green Taxonomy, Financial Institutions, Vietnam

#### 1. Introduction

Green finance has become an indispensable component of Vietnam's transition to a new growth model. Following the country's commitment to achieve net-zero emissions by 2050, the mobilization of resources for emissions reduction, climate adaptation, circular economy, clean energy and sustainable infrastructure is no longer a purely environmental issue; it has become a matter of financial institutions and financial governance. In other words, green finance is the mechanism through which climate and sustainable development objectives are translated into capital-allocation decisions by banks, capital markets, public budgets, institutional investors and enterprises. Research on green finance must therefore be situated at the intersection of public policy, financial risk management, disclosure standards and the absorptive capacity of the productive sector.

Over the past five years, Vietnam has made substantial progress in building the policy foundations for green finance. The National Green Growth Strategy for 2021-2030, with a vision to 2050, was promulgated in 2021; the Law on Environmental Protection 2020 and its implementing instruments have provided a legal basis for green credit and green bonds; the State Bank of Vietnam has issued regulations on environmental risk management in credit extension; and, by 2025, the national green taxonomy was officially adopted. Nevertheless, a considerable gap remains between policy orientation and a green finance market that operates efficiently. This gap is reflected in the still modest size of green credit, insufficient incentives, fragmented ESG data, uneven capacity for independent verification, and weak connectivity among banking, the bond market, the carbon market and public investment policy.

By the end of the first quarter of 2025, according to the State Bank of Vietnam, 58 credit institutions had green credit outstanding of more than VND 704.244 trillion, equivalent to 4.3% of total credit to the economy. The average growth rate of green credit outstanding during 2017-2024 reached 21.2% per year. This growth rate is notable relative to overall credit growth, yet a share of only 4-5% of total outstanding loans indicates that green finance remains in an early expansion phase. This situation creates a policy paradox: the capital demand for the green transition is very large, while formal green capital channels are not yet deep enough to serve as the principal driver of a low-carbon economy.

This study, titled 'Promoting Green Finance in Vietnam: Current Situation, Challenges and Institutional Reform Solutions', addresses three questions. First, how far has green finance in Vietnam developed through the channels of credit, bonds, ESG disclosure and green taxonomy policy? Second, which institutional bottlenecks increase transaction costs, reduce investor confidence and impede long-term capital flows? Third, what package of solutions should Vietnam design in order to move from a voluntary incentive-based model to a green finance system with standards, data, supervision and risk-sharing mechanisms?

The practical significance of this paper lies in the fact that green finance cannot be promoted merely through slogans or individual banks' ESG commitments. A loan or a bond is genuinely green only when the underlying project is identified by clear criteria, cash flows are monitored, environmental impacts are measured, information is disclosed consistently and risk is reflected in the cost of capital. Accordingly, the institutional architecture of green finance should be understood as an ecosystem comprising classification rules, disclosure standards, verification mechanisms, supervisory capacity, fiscal and monetary support instruments, and sufficiently long-term investor markets.

Academically, the paper approaches green finance from the perspectives of new institutional economics and sustainable finance. From this viewpoint, the largest barrier is not simply a shortage of money, but a shortage of institutional infrastructure that enables capital to flow to the right projects, at the right level of risk and toward the right impact objectives. When information asymmetry is high, green criteria are inconsistent and verification costs are substantial, the market tends either to price risk too conservatively or to accept the risk of superficial 'green labeling'. Both outcomes weaken capital-allocation efficiency and may create long-term financial risks.

## 2. Theoretical foundations and literature review

Green finance can be understood as the set of financial products, processes and institutions used to mobilize, allocate and monitor capital for activities that generate environmental benefits or support the transition toward a low-emission economy. It includes green credit, green bonds, sustainability bonds, green investment funds, climate-risk insurance, green guarantees, carbon finance, transition finance and derivatives used for climate-risk hedging. The key distinction between green finance and conventional finance does not lie in the label of the product, but in the mechanisms used to define the use of proceeds, measure environmental impact, manage risks and disclose information to stakeholders.

At the enterprise level, green finance changes conditions of access to capital. Firms whose projects meet environmental criteria, possess ESG governance capacity and produce reliable emissions data may gain access to long-term capital at more reasonable costs. Conversely, high-emitting firms that lack transparent data or credible transition plans may face higher capital costs, credit restrictions or the risk of stranded assets. Thus, green finance acts as a market-based instrument that sends price signals for green transition, complementing command-and-control instruments in traditional environmental policy.

At the level of the financial system, green finance performs two sets of functions. The first is to mobilize capital for

green sectors such as renewable energy, energy efficiency, clean transport, water management, waste treatment, sustainable agriculture, green buildings and low-carbon technologies. The second is to manage climate and environmental risks in the balance sheets of financial institutions. These two functions are closely related but not identical. A bank may provide green loans, but if it has not integrated climate risk into credit appraisal, collateral valuation and portfolio management, it cannot be regarded as a sustainable bank in the full sense.

Sustainable finance theory emphasizes the role of information. Green investments usually have long life cycles and considerable social benefits, while their direct financial benefits may be distributed unevenly over time. If markets lack information on emissions, energy performance, physical climate risk and transition risk, investors cannot price assets accurately. Disclosure standards such as IFRS S1 and IFRS S2, the TCFD framework, GRI standards, the ICMA Green Bond Principles and national taxonomies therefore become the soft infrastructure of the market. They reduce information asymmetry, improve comparability and limit the risk of greenwashing.

International experience suggests that green finance grows fastest when three conditions are present. First, a clear green taxonomy is available to identify eligible projects or economic activities. Second, there are long-term institutional investors such as insurers, pension funds, infrastructure funds and development banks. Third, guarantee mechanisms, risk-sharing instruments, tax and fee incentives or technical assistance are available to reduce issuance costs, verification costs and data-collection costs. European countries have advanced thanks to taxonomy, disclosure standards and deep bond markets, while several ASEAN economies have grown quickly due to the ASEAN Green Bond Standards, the role of development banks and cooperation with international organizations.

In Vietnam, green finance has particular characteristics because the economy still relies heavily on bank credit. Capital markets are developing but are not yet deep enough to replace the role of medium- and long-term bank credit. Green credit is therefore the main channel in the current phase, while green bonds represent a complementary channel that needs to be expanded to finance infrastructure and projects with long life cycles. Reliance on banking also means that climate risks may accumulate within the credit system if loans to high-emitting sectors are not managed under transition scenarios.

The Vietnamese literature on green finance generally follows three lines of inquiry. The first measures the effects of green credit on bank performance, credit risk or profitability. The second analyzes barriers to green bond development, including the absence of standards, a limited investor base, verification costs and small issuance size. The third examines ESG, information disclosure and the role of the legal framework. However, many studies still examine individual instruments separately and do not treat green finance as an institutional ecosystem. This paper contributes by linking credit, bonds, taxonomy, disclosure, risk management and public policy within a unified analytical framework.

An institutional approach helps explain why green finance can grow rapidly while its share remains low. Rapid growth reflects market demand and the effect of policy guidance. A low share reflects constraints related to criteria, data,

incentives and absorptive capacity. If one looks only at growth rates, one may conclude that the market is developing well; if one looks only at the share of total credit, one may judge the market to be weak. Both perspectives must be combined to show that green finance in Vietnam is in a state of growth from a low base and requires policies that deepen the market rather than merely increase headline scale.

Another important issue is the boundary between green finance and transition finance. For hard-to-abate sectors such as steel, cement, chemicals, shipping, aviation and transitional thermal power, complete exclusion may reduce incentives for technological upgrading; however, applying the green label too broadly would weaken market credibility. The institutional system therefore needs to distinguish clearly among green projects, transition projects, brown projects with emissions-reduction plans and ineligible projects. This distinction is especially important for Vietnam as growth, energy security and emissions reduction must be balanced during the next stage of industrialization.

On this basis, the paper proposes a theoretical framework with four pillars: green taxonomy and technical criteria; information disclosure and independent verification; financial instruments and risk-sharing mechanisms; and macroprudential supervision and climate-risk governance. These pillars interact with one another. A taxonomy without data is difficult to implement; data without verification lacks credibility; verification without incentives does not create motivation; and incentives without supervision create moral hazard. Institutional reform for green finance must therefore be a coherent reform program.

### 3. Research methodology and data

The paper uses qualitative research combined with descriptive statistical analysis. This approach is appropriate for identifying the current situation, challenges and institutional solutions in a context where Vietnam's green finance data do not yet provide long time series, are not fully harmonized across sources and include several market components that are still emerging. Qualitative analysis is used to assess legal documents, policy mechanisms and institutional structures; descriptive statistics are used to illustrate the scale of green credit, sectoral structure, green bond developments and the financing gap for climate transition.

The data sources comprise four groups. The first consists of legal and policy documents, including the Law on Environmental Protection 2020, Decision No. 1658/QD-TTg, Decree No. 08/2022/ND-CP, Circular No. 17/2022/TT-NHNN, Decision No. 1408/QD-NHNN and Decision No. 21/2025/QD-TTg. The second consists of market data and regulatory disclosures, especially State Bank of Vietnam data on green credit outstanding, the number of participating credit institutions and the sectoral composition of green credit. The third includes green bond data from FiiinRatings, the Vietnam Bond Market Association, banks and corporate disclosures. The fourth includes international materials from the World Bank, IFRS Foundation, ICMA, GGGI, ADB and documents related to the Just Energy Transition Partnership (JETP).

The time frame focuses on 2021-2025. This period is significant because it follows the promulgation of the new

National Green Growth Strategy, coincides with the post-COVID-19 recovery process, is associated with Vietnam's net-zero commitment and witnessed the clearer emergence of green finance instruments. Where necessary to clarify legal foundations, the paper refers to the Law on Environmental Protection 2020 or documents issued before 2021. When discussing early-2026 trends, the paper treats them as contextual information for outlook assessment and does not include them in the main five-year data series.

For green credit, the paper uses outstanding balances measured in VND trillion. The figures for 2021, 2022 and 2023 are compiled from announcements, specialized articles and data citing the State Bank of Vietnam. The 2024 figure is back-calculated from the State Bank of Vietnam's end-Q1/2025 disclosure, which states that green credit outstanding reached VND 704.244 trillion, up 3.57% from end-2024. The 2025 figure uses the end-November 2025 point reported by media sources citing the State Bank of Vietnam. This treatment is explicitly noted in the table to ensure transparency.

For green bonds, the paper does not attempt to construct a complete time series for the entire market because the boundaries among green bonds, sustainability bonds, social bonds and sustainability-linked bonds still vary by source. Instead, the paper presents selected transactions and disclosed issuance sizes, especially in 2024, when the market saw the participation of major banks and non-financial enterprises. This approach is consistent with the goal of assessing the quality of market development rather than merely summing all issuances.

The analysis proceeds in three steps. First, it describes the scale, growth rate and structure of green finance channels. Second, it compares these data with the capital requirements of the green transition, thereby identifying the gap between demand and mobilization capacity. Third, it analyzes institutional bottlenecks along the green finance value chain: project identification, dossier preparation, risk appraisal, credit extension or issuance, management of proceeds, impact reporting, independent verification and post-monitoring.

The study has several limitations. First, Vietnam does not yet have an open national database on green finance updated in real time, so several indicators must be compiled from multiple sources. Second, the disclosed sectoral structure of green credit is relatively aggregated and does not allow detailed quality analysis by industry. Third, data on environmental impact after disbursement remain very limited, so the paper cannot quantitatively test the relationship between green capital and emissions-reduction outcomes. Fourth, policies newly issued in 2025 require more time before their implementation effectiveness can be evaluated.

Despite these limitations, the method used in this paper is appropriate for the research objective because green finance is currently an area in which institutions are being formed. In that context, policy analysis, mechanism identification and descriptive data assessment are highly valuable for policymaking. The conclusions do not aim to make absolute quantitative forecasts, but to propose an institutional reform model capable of expanding green capital flows, improving transparency and reducing systemic risks during the transition.

### 4. Current situation of green finance in Vietnam, 2021-2025

**Table 1:** Key policy milestones related to green finance in Vietnam

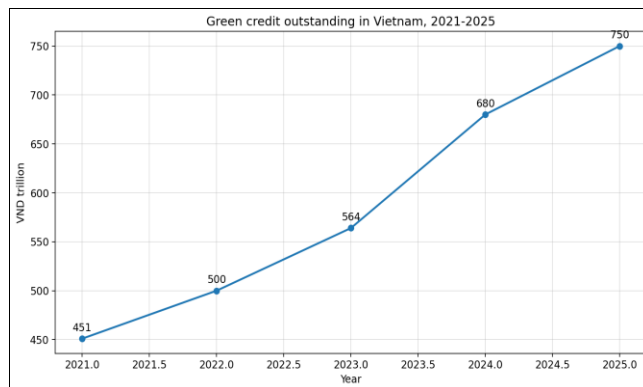
Legal/policy document	Year	Significance for green finance
Law on Environmental Protection 2020	2020	Legalizes green credit and green bonds for the first time and provides the basis for identifying green projects.
Decision No. 1658/QĐ-TTg	2021	Approves the National Green Growth Strategy for 2021-2030, with a vision to 2050.
Decree No. 08/2022/NĐ-CP	2022	Specifies several provisions of the Law on Environmental Protection and sets the roadmap for environmental criteria, green credit and green bonds.
Decision No. 882/QĐ-TTg	2022	Issues the National Action Plan on Green Growth for 2021-2030.
Circular No. 17/2022/TT-NHNN	2022/2023	Guides environmental risk management in credit extension; effective from 1 June 2023.
Decision No. 1408/QĐ-NHNN	2023	Provides the banking sector action plan for implementing the National Green Growth Strategy.
Decision No. 21/2025/QĐ-TTg	2025	Regulates environmental criteria and the certification of projects under the green taxonomy; effective from 22 August 2025.

**Source:** Compiled from the Government Portal, the State Bank of Vietnam and relevant legal documents.

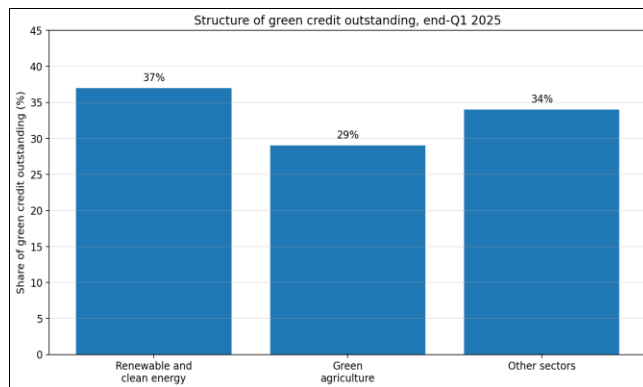
**Table 2:** Scale of green credit in Vietnam, 2021-2025

Year	Green credit outstanding (VND trillion)	Share of total outstanding credit	Methodological note
2021	451	approximately 5.0%	Compiled from State Bank of Vietnam announcements and secondary studies; reflects year-end outstanding credit.
2022	500	approximately 4.3%	Increased by about 12.9% compared with 2021; green credit remained below 5% of total outstanding loans.
2023	564	approximately 4.4%	Data as of 30 September 2023; the portfolio was concentrated in renewable/clean energy and green agriculture.
2024	680	estimated 4.3-4.5%	Back-calculated from the SBV figure for Q1/2025: VND 704.244 trillion, up 3.57% from end-2024.
2025	750	not fully disclosed	Data as of 30 November 2025 according to media reports citing SBV figures; used to identify the trend.

**Source:** Compiled from the State Bank of Vietnam and public disclosures; the 2024 figure is estimated from the Q1/2025 increase of 3.57%; the 2025 figure refers to 30 November 2025.



**Fig 1:** Green credit outstanding in Vietnam, 2021-2025



**Fig 2:** Structure of green credit outstanding at the end of Q1/2025

**Table 3:** Selected green/sustainable bond transactions

Year	Issuer	Value (VND billion)	Main characteristics
2022	EVNFinance	1,725	Green/verified bond mobilizing capital for renewable energy projects.
2023	BIDV	2,500	Green bond under an ICMA-aligned framework; an important milestone for a commercial bank.
2024	BIDV	3,000	Sustainable/green bond issued for an eligible project portfolio.
2024	Vietcombank	2,000	Two-year green bond with an independent external review aligned with international practice.
2024	I.D.I	1,000	A non-financial corporation entering the green bond market.
2024	Hoa Binh-Xuan Mai Water Supply	875.1	Twenty-year tenor with a credit rating and green verification.
2025	Techcombank	500	Additional green bond issuance under the bank's framework; disclosed in the sustainability report.
2025	Vietcombank	2,000	Sustainability bond; 2025 figures should be updated when whole-market statistics become available.

**Source:** Compiled from FiiinRatings, bank/corporate disclosures and public market sources.

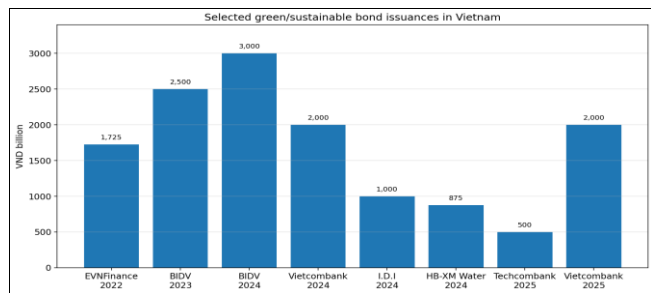


Fig 3: Selected green/sustainable bond issuance amounts

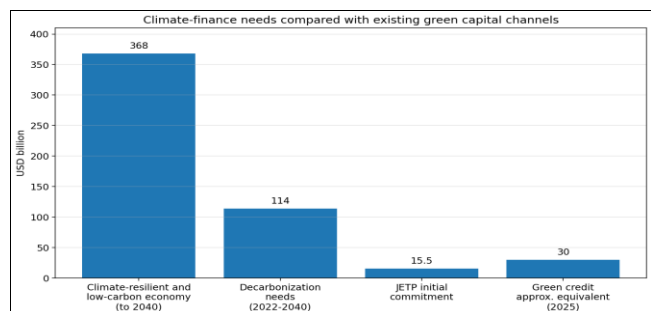


Fig 4: Gap between climate-finance needs and existing green capital channels

The period 2021-2025 can be seen as a transition from policy awareness to the establishment of an institutional framework for green finance in Vietnam. Before 2021, green credit activities were largely based on guidance from the State Bank of Vietnam, the earlier green growth strategy and technical assistance from international organizations. From 2021 onward, new policy frameworks on green growth, climate change, environmental protection and environmental risk management in credit extension began to be issued in a more coordinated manner. By 2025, the adoption of the national green taxonomy marked an important shift from general policy orientation to specific criteria for project certification.

Green credit is the most visible development channel. Green credit outstanding rose from approximately VND 451 trillion in 2021 to around VND 750 trillion by the end of November 2025. Although figures vary across sources because of different reporting dates, the overall trend is one of continuous growth. It is noteworthy that the average growth rate of green credit outstanding has exceeded overall credit growth, reflecting increasing interest from banks and enterprises. However, its share of total outstanding credit has remained around 4-5%, indicating that green finance has not yet become a core component of bank balance sheets.

The structure of green credit shows a high degree of concentration. At the end of Q1/2025, green credit outstanding was concentrated mainly in renewable and clean energy, at more than 37%, and green agriculture, at more than 29%. Together, these two groups accounted for about two-thirds of total green credit outstanding. This concentration has a positive aspect because Vietnam has substantial needs in energy and sustainable agriculture, and projects in these fields are relatively easy to identify in terms of environmental benefits. On the other hand, it also suggests that fields such as green buildings, clean transport, water management, circular economy, industrial decarbonization and climate adaptation have not yet attracted commensurate capital flows.

The green bond market has developed more slowly than

green credit but shows signs of quality improvement. After initial transactions, 2024 signs of progress when the total value of green bond issuance reached nearly VND 6.9 trillion from four prominent transactions by BIDV, Vietcombank, I.D.I and Hoa Binh-Xuan Mai Water Supply. A positive feature is that these transactions applied the ICMA Green Bond Principles and obtained independent assessments from organizations such as Moody's, S&P Global Ratings or FiinRatings. The participation of non-financial enterprises and long-tenor bonds indicates that the market is beginning to move beyond the pilot phase within the banking sector.

Nevertheless, the scale of green bonds remains very small compared with both the corporate bond market and the need for green infrastructure finance. Causes include high issuance costs, the cost of independent verification, the lack of long-term investors, limited secondary-market liquidity and cautious investor sentiment after the corporate bond market volatility of 2022-2023. In addition, many enterprises have potentially eligible projects but do not yet have environmental data systems, are unfamiliar with use-of-proceeds reporting and impact reporting, and therefore find it difficult to meet the requirements of institutional investors.

Regarding information disclosure, listed enterprises have a foundation in Circular No. 96/2020/TT-BTC, which requires certain sustainability information in annual reports. Some banks and large companies have issued separate sustainability reports using GRI or referencing international practices. However, the quality of disclosure remains uneven. Many reports still focus on social activities, energy-saving initiatives or community responsibility, while lacking Scope 1, 2 and 3 emissions data, climate scenarios, quantified targets and linkages to financial risks.

In banking, the implementation of environmental risk management in credit extension is an important step forward. Circular No. 17/2022/TT-NHNN requires credit institutions to assess and manage environmental risks for projects within its scope. This brings environmental considerations into the credit appraisal process instead of treating them only after credit has been granted. However, implementation varies across banks depending on data capacity, appraisal teams, risk appetite and internal ESG strategies.

A significant bottleneck before 2025 was the absence of a national green taxonomy. Without a unified taxonomy, banks had to rely on sectoral guidance, international standards or internal frameworks to identify green projects. This created inconsistency: the same type of project might be accepted by one bank but treated cautiously by another; bond investors could not easily compare products; regulators found supervision difficult; and enterprises faced uncertainty in dossier preparation. Decision No. 21/2025/QĐ-TTg is therefore foundational, but its effectiveness depends on implementation guidance, independent verification capacity and the ability to update criteria as technologies change.

The financing gap is an overarching challenge. The World Bank estimates that Vietnam will need approximately USD 368 billion by 2040 to build a climate-resilient and low-carbon economy; decarbonization alone during 2022-2040 is estimated to require about USD 114 billion. Meanwhile, green credit outstanding is equivalent to only several tens of billions of US dollars, and the initial JETP commitment is

USD 15.5 billion over three to five years. This disparity indicates that Vietnam must mobilize multiple sources simultaneously: the state budget, ODA, private capital, commercial banks, bonds, investment funds, the carbon market and blended finance mechanisms.

The current situation of green finance in Vietnam can be summarized by four features. First, policy has moved quickly, while the market has responded more slowly. Second, green credit has grown rapidly but remains concentrated and low in share. Third, green bonds have higher-quality transactions but remain small in size. Fourth, ESG data and impact disclosure are core weaknesses. These features do not negate the achievements made; rather, they show that the next phase must shift from 'having green products' to 'having a credible green finance ecosystem'.

### 5. Institutional analysis of green finance

Vietnam's green finance institutions are being formed as a multi-layered structure. The first layer consists of national strategies and international commitments, including green growth, climate change, NDCs, net zero and the JETP. The second layer consists of laws and decrees that define the legal basis for green credit, green bonds, environmental protection, emissions reduction and the carbon market. The third layer consists of sectoral regulations on banking, securities, public finance and accounting-auditing. The fourth layer consists of market standards such as ICMA, GRI, ISSB, external review and credit rating. Coordination across these four layers determines the operational effectiveness of green finance.

At the strategic layer, Decision No. 1658/QĐ-TTg provides the overall objectives for green growth during 2021-2030. It is important because it defines green growth not only as environmental protection, but also as a process of renewing the growth model, improving competitiveness, ensuring social equity and moving toward a low-carbon economy. For green finance, the strategy provides the political and policy basis for ministries and sectors to design capital-mobilization instruments. However, the strategy has implementation value only when it is translated into criteria, budgets, incentives, appraisal procedures and reporting responsibilities.

At the legal layer, the Law on Environmental Protection 2020 represents a turning point because it brings green credit and green bonds into the legal framework. Legalization enhances the legitimacy of green finance products, provides a basis for state incentives and clarifies the responsibilities of project owners. Decree No. 08/2022/ND-CP further specifies several contents, although, in the initial phase, gaps remained with respect to detailed environmental criteria. These gaps forced the market to combine international standards with internal guidelines, increasing costs and reducing harmonization.

At the banking layer, Circular No. 17/2022/TT-NHNN is an important tool for incorporating environmental risk into the credit-granting process. Instead of treating environmental documentation as a procedural condition, the circular places environmental issues within the logic of credit risk. When a project is exposed to the risk of environmental violations, suspension, penalties, social opposition or climate impacts, repayment capacity and collateral value may both be affected. Environmental risk assessment is therefore not an additional social-responsibility duty, but a component of safe banking governance.

At the capital-market layer, green bonds require a legal framework that is both flexible and capable of limiting greenwashing. International practice shows that four pillars of green bonds are important: use of proceeds, the process for project evaluation and selection, management of proceeds, and reporting. High-quality transactions typically obtain an external review before issuance and report after issuance. Vietnam has had several transactions that follow this practice, but it needs to raise such practice into a broad market expectation, especially as international institutional investors participate more deeply.

Decision No. 21/2025/QĐ-TTg is an important step forward because it regulates environmental criteria and the certification of projects under the green taxonomy. It establishes a mechanism for projects to be certified either by competent state agencies during environmental appraisal or through independent verification organizations. This dual-channel design is flexible, but it also requires quality control over verification organizations to avoid formalistic certification or competition through low standards.

Nevertheless, a taxonomy does not automatically generate capital flows. For the taxonomy to be effective, it must be linked to credit incentives, guarantee policies, bond issuance standards, information disclosure requirements and a national data system. If a project is certified as green but receives no clear benefit in terms of capital cost, loan tenor, guarantees, preferential access to funds or technical assistance, the motivation to comply will be weak. Conversely, if incentives are too broad and lack post-monitoring, the risk of abusing the green label may arise.

Another institutional issue is fragmented responsibility. The Ministry of Agriculture and Environment plays a major role in environmental criteria; the State Bank of Vietnam regulates credit and banking risks; the Ministry of Finance and the State Securities Commission are involved in bonds and disclosure; the Ministry of Industry and Trade is responsible for energy; the Ministry of Construction is linked to green buildings; and local authorities license projects. Without mechanisms for data coordination and post-monitoring, enterprises may have to submit multiple similar dossiers while regulators struggle to monitor aggregate impacts.

From the market perspective, green finance institutions also require long-term investors. Green infrastructure projects often need capital tenors of 10-20 years, while the banking system faces limits related to funding maturity and liquidity safety. Green bonds can address maturity needs, but they require institutional investors such as insurers, pension funds, infrastructure funds and foreign investors. When the investor base is thin, green bonds struggle to achieve liquidity, form a yield curve or create a stable greenium.

Overall, Vietnam's green finance institutions have moved from the stage of 'oriented encouragement' to the stage of 'rule-building'. The next phase must be one of 'data-based and supervised implementation'. Success does not depend on the number of legal documents, but on the ability to create trust between capital providers and capital users. Such trust is created when green projects are classified consistently, impacts are measured, reports are verified and risks are priced transparently.

### 6. Key challenges

The first challenge is the lack of high-quality green data. To decide whether to provide financing, banks or investors need

data on technology, baseline emissions, energy savings, project life cycle, climate risk, environmental permits, operational capacity and cash flows. Many Vietnamese enterprises, particularly small and medium-sized enterprises, do not yet have emissions measurement systems and are unfamiliar with impact reporting. As a result, even when a project has environmental benefits, proving eligibility as green remains costly. The data gap increases appraisal costs and encourages banks to prioritize large customers or sectors whose environmental benefits are easier to identify.

The second challenge is high transaction costs. A green bond requires an issuance framework, independent review, management of proceeds and periodic reporting. These costs may be reasonable for large issuances but become a barrier for small and medium-sized enterprises. Similarly, a bank that seeks to expand green credit must invest in ESG teams, analytical tools, data systems and credit officer training. Without commensurate incentives, many institutions will treat green finance as a compliance cost rather than a business opportunity.

The third challenge is the risk of greenwashing. If green criteria are unclear, reports are not verified, or environmental impacts are not measured after disbursement, enterprises may attach a green label to activities with limited impact or activities that merely meet formal requirements. Greenwashing is harmful because it undermines investor confidence, misdirects capital flows and may create legal risks. In a relatively new market such as Vietnam, a few negative cases could make investors cautious toward all green products.

The fourth challenge is the maturity structure of capital. Many green projects, especially in energy, water, waste treatment, clean transport and green buildings, require long-term capital and long payback periods. Bank funding, however, is often constrained by maturity pressure and prudential limits. If the bond market, infrastructure funds and guarantee mechanisms are not developed, banks will have to carry too many functions. This may increase maturity mismatch risks and limit the financing of projects with long life cycles.

The fifth challenge is enterprises' absorptive capacity. Green finance requires not only the existence of projects but also the ability to prepare dossiers, comply with standards, manage risks, disclose information and operate projects according to commitments. Many enterprises wish to transition but lack technical experts, ESG advisory support, collateral and sufficiently attractive business plans. Without technical assistance, green capital may flow only to a group of large enterprises, weakening the inclusiveness of the green transition.

The sixth challenge is the gap between policy objectives and incentive instruments. Vietnam has ambitious green growth targets, but specific financial incentives for green projects remain limited. Some incentives related to securities service fees or general encouragement are not strong enough to change market behavior substantially. Commercial banks must still balance profitability, capital adequacy and credit risk. If a project is risky and there is no guarantee or risk-sharing mechanism, banks cannot easily reduce interest rates simply because the project carries a green label.

The seventh challenge is the weak linkage between the carbon market and green finance. When carbon has a clear price, emissions-reduction projects can generate additional cash flows from carbon credits or compliance cost savings.

When carbon prices are unclear or the market is not fully operational, the financial benefits of emissions reduction are difficult to quantify. This reduces the capacity to price projects and lowers their attractiveness to investors. Green finance therefore needs to be connected with the carbon-market roadmap, emissions inventories and the MRV system.

The eighth challenge is transition risk in high-emitting sectors. If environmental regulations, export standards or carbon border adjustment mechanisms change rapidly, enterprises in steel, cement, textiles, logistics, agriculture and energy may face cost pressures. Banks lending to these sectors also face indirect risks. However, without a transition finance framework, these enterprises may not access capital for technological upgrading. Policy should therefore avoid two extremes: continuing to finance high-emission models without conditions, or excluding them entirely so that enterprises lack the resources to transition.

The ninth challenge is the quality of ESG disclosure. Current disclosure is still compliance-oriented and often lacks decision usefulness for investors. A valuable sustainability report should show risks and opportunities related to cash flows, capital costs, assets, strategy and governance. If a report merely presents philanthropic activities or qualitative descriptions, investors cannot use it for valuation. IFRS S1 and IFRS S2 demonstrate that the international trend is to bring sustainability information into the logic of financial reporting, emphasizing financial materiality and comparability.

The tenth challenge is post-monitoring capacity. Green finance does not end at the time of disbursement or bond issuance. The key questions are whether the capital is used for the stated purposes, whether the project maintains environmental criteria, whether impacts are reported accurately, and whether violations are sanctioned. If post-monitoring is weak, the market relies on voluntary commitments. That is insufficient to build long-term confidence, particularly if Vietnam seeks to attract international capital with increasingly high transparency requirements.

**Table 4:** Challenge matrix in green finance development

Challenge group	Manifestation	Impact
ESG data	Limited data on emissions, climate risks and environmental performance	Raises appraisal costs and constrains risk pricing.
Transaction costs	High costs of verification, advisory services, reporting and post-issuance monitoring	Makes green finance difficult for smaller enterprises to access.
Greenwashing	Criteria and reporting practices are not yet fully harmonized	Weakens investor confidence.
Capital maturity	Green projects often require long-term financing	Creates liquidity pressure and maturity mismatch for banks.
Policy incentives	Incentives remain fragmented and insufficiently strong	Fails to create clear economic motivation.
Market connectivity	Weak links with the carbon market and climate data systems	Makes it difficult to quantify the financial benefits of emissions reduction.

Source: Synthesized and analyzed by the author.

## 7. Institutional reform solutions for promoting green finance

The first solution is to operate the national green taxonomy effectively. Decision No. 21/2025/QĐ-TTg has created a foundation, but it should be followed by detailed sectoral guidance, standardized dossier templates, digital certification procedures and a mechanism for periodically updating criteria. The taxonomy must be stringent enough to prevent greenwashing but flexible enough not to exclude new technologies. A public data portal should be established for certified green projects, their continuing compliance status and reported impact results. Such a database would allow banks, investors and regulators to rely on a single source of information.

The second solution is to establish a quality-controlled independent verification mechanism. Verification organizations should meet standards for competence, professional ethics, liability insurance and supervision. Vietnam can create a list of qualified organizations, publish assessment methodologies, require dossier retention and impose sanctions for inaccurate verification. At the same time, the market for assurance services on sustainability information should be developed based on standards such as ISAE 3000 or equivalent standards. When independent verification is credible, the cost of capital can fall because investors have greater confidence in the green label.

The third solution is to develop conditional incentive mechanisms. Incentives should be linked to environmental impact, reporting quality and effectiveness of capital use rather than being tied only to a one-time green label. Possible instruments include targeted interest-rate support, green credit guarantees, reductions in green bond issuance and listing fees, tax incentives for long-term investors, co-financing funds for green projects and conditional refinancing mechanisms for qualified green credit portfolios. Crucially, incentives must be accompanied by post-monitoring to avoid moral hazard.

The fourth solution is to expand blended finance. Green projects in emerging markets often carry higher risks because of new technologies, unstable cash flows or incomplete pricing frameworks. Blended finance that combines public capital, concessional funds, guarantees, commercial capital and technical assistance can reduce risks for private investors. Vietnam should use JETP resources, ODA, climate funds and development banks effectively to create a first-loss or risk-absorbing layer, thereby mobilizing additional bank and bond financing.

The fifth solution is to develop the green bond market according to high standards. Clear guidance is needed on green bond frameworks, use-of-proceeds reporting, impact reporting, external review and post-monitoring. Green bonds should be encouraged to list on exchanges through a separate segment, centralized disclosure and conditions that facilitate the participation of institutional investors. The State may consider issuing sovereign green bonds or local government green bonds for environmental infrastructure, thereby creating a market benchmark and a signal of confidence.

The sixth solution is to strengthen banking capacity in climate-risk management. Banks need to integrate physical climate risk and transition risk into risk appetite, credit scoring, collateral valuation, stress testing and portfolio management. The State Bank of Vietnam could develop a climate supervision roadmap, require disclosure of high-risk

portfolios, guide climate stress testing and encourage the integration of climate data into the Credit Information Center or other sectoral data platforms. This step is necessary so that green finance is not merely an increase in green outstanding loans but also a reduction in brown risks.

The seventh solution is to standardize ESG disclosure according to a roadmap that converges with ISSB standards. Vietnam does not need to apply IFRS S1 and IFRS S2 immediately to all enterprises, but it should build a tiered roadmap. Large listed companies, banks, insurers and high-emitting enterprises should disclose earlier; small and medium-sized enterprises can use simplified templates. Minimum content should include emissions, energy, water, waste, climate risks, emissions-reduction targets, ESG governance and links with financial strategy. Disclosure should be investor-oriented, not merely social reporting.

The eighth solution is to support small and medium-sized enterprises in their green transition. If green finance serves only large enterprises, the transition will lack inclusiveness. The State, industry associations and banks should provide ESG self-assessment tools, green project dossier templates, emissions advisory programs, carbon accounting training, small-scale credit packages for energy efficiency and guarantee mechanisms for enterprises with effective projects but insufficient collateral. This is a prerequisite for green finance to penetrate supply chains rather than remain limited to large infrastructure projects.

The ninth solution is to link green finance with the carbon market. When enterprises can quantify emissions reductions and convert them into credits or compliance obligations, banks gain an additional basis for pricing green cash flows. Vietnam needs to complete the MRV system, credit registry, carbon exchange and rules on the use of carbon revenues. Loans or bonds financing emissions-reduction projects should be designed to reflect potential carbon revenues while controlling carbon-price volatility risks.

The tenth solution is to build an inter-agency coordination mechanism. A national focal point for green finance coordination should include the State Bank of Vietnam, the Ministry of Finance, the Ministry of Agriculture and Environment, the Ministry of Industry and Trade, the Ministry of Construction, the State Securities Commission, local governments, the banking association and institutional investors. This mechanism should be responsible for harmonizing data, updating the taxonomy, resolving project-level obstacles, tracking capital flows, assessing impacts and publishing an annual national green finance report. Without inter-agency coordination, each policy area will develop separately and compliance costs will rise.

The eleventh solution is to promote the role of development banks and specialized funds. Vietnam needs to define clearly the role of development finance institutions in supporting green projects with positive externalities but high commercial risks. These institutions can provide seed capital, guarantees, on-lending of concessional funds, project preparation support and co-financing with commercial banks. If well designed, public capital will not substitute for private capital but will crowd private capital into sectors that the market does not yet finance by itself.

The twelfth solution is to strengthen human resources for green finance. The shortage of human resources is a quiet but important bottleneck. Credit officers need to understand green technologies, environmental risks and ESG reports; enterprises need to know how to prepare green dossiers;

auditors need to assure non-financial information; and regulators need to supervise climate data. Interdisciplinary training programs linking finance, environment, engineering, law and accounting are therefore necessary. Green finance can operate well only when a sufficiently capable community of specialists exists.

**Table 5:** Institutional reform framework for green finance

Pillar	Key solution	Expected effect
Taxonomy	Technical guidance, digitalized certification and public disclosure of green-project data	Reduces information asymmetry.
External verification	Competency standards, quality supervision and sanctions for inaccurate verification	Strengthens market confidence.
Conditional incentives	Interest-rate support, guarantees and fee reductions tied to post-monitoring	Creates substantive economic incentives.
Blended finance	Seed capital, guarantees, ODA, JETP resources and co-financing	Mobilizes private capital into higher-risk projects.
Green bonds	Issuance frameworks, impact reporting and separate listing segments	Expands long-term capital.
ESG/ISSB	Tiered disclosure roadmap, quantitative data and assurance	Improves investors' pricing capacity.
SMEs	Template dossiers, emissions advisory services and credit guarantees	Improves the inclusiveness of the green transition.
Carbon market	MRV, credit registry, carbon pricing and banking-sector connectivity	Enhances cash-flow visibility and pricing of emissions-reduction projects.

**Source:** Proposed by the author based on policy synthesis and market practice.

## 8. Policy discussion

The analysis indicates that Vietnam is facing an important policy choice. If it continues to promote green finance through voluntary and fragmented approaches, the market may keep growing but will find it difficult to reach the required scale. If it moves too quickly to mandatory requirements without supporting enterprises and financial institutions, compliance costs may rise and reduce participation incentives. A reasonable roadmap is therefore to combine selective mandatory requirements with conditional incentives, allowing large actors and high-risk sectors to move first while smaller enterprises receive support for transition.

For green credit, policy should move from a focus on outstanding balances to a focus on portfolio quality. Rising outstanding balances are a positive signal, but they are insufficient. Regulators should monitor new capital flows, sectoral diversification, asset quality, non-performing loan ratios in green portfolios, emissions-reduction impacts and post-disbursement compliance. If policy encourages credit growth without measuring impact, the market may chase scale and weaken the meaning of green finance. Conversely, if measurement is robust, green credit can become an instrument for both economic development and climate-risk management.

For green bonds, Vietnam should prioritize trust over quantity. As the corporate bond market recovers, green products must meet high standards to create a positive distinction. Each high-quality green transaction can generate spillover effects, but one non-transparent transaction can damage market credibility. External review, credit rating, impact reporting and supervision of use of proceeds should therefore become mandatory or quasi-mandatory practices for public green bond offerings and large private placements to professional investors.

For the taxonomy, it is important to avoid turning green classification into a burdensome administrative procedure. The purpose of the taxonomy is to reduce information asymmetry and guide capital, not to create another license. Certification procedures should therefore specify clear time limits and responsibilities, provide digital processes, accept data from existing environmental systems and allow independent verification under supervision. If enterprises spend excessive time proving that a project is green, opportunity costs will reduce the attractiveness of green finance.

For ESG disclosure, Vietnam needs to move from a culture of 'performance reporting' to a culture of 'risk and opportunity reporting'. Investors need to know how climate change affects costs, revenues, assets, supply chains and corporate strategy. Banks need to know whether their clients have credible emissions-reduction plans. Regulators need to know where transition risks are accumulating. ESG disclosure must therefore be standardized according to financial materiality, supported by quantitative data and subject to an appropriate level of independent assurance.

With regard to policy coordination, green finance must be linked to energy, industry, agriculture, urban development and international trade policies. Green credit for renewable energy, for example, cannot be separated from electricity pricing mechanisms, power planning and grid connection capacity. Green finance for green buildings depends on building standards, certification, urban policy and property-market demand. Green finance for agriculture depends on supply chains, product certification, traceability and export markets. If sectoral policies are not synchronized, green capital will face legal and revenue risks.

An important implication is that green finance should be viewed as a national competitiveness policy. Major export markets are increasing requirements related to emissions, sustainable supply chains and environmental responsibility. Vietnamese enterprises that do not transition may lose orders or incur carbon costs. Conversely, an effective green finance system can help enterprises invest in clean technologies, meet international standards and improve their position in value chains. Green finance therefore serves not only climate objectives but also the competitiveness of the economy.

In the medium term, Vietnam should develop an annual national green finance report. Such a report should disclose the scale of green credit, green bonds, sectoral structure, projects certified under the taxonomy, public climate finance, international capital, estimated emissions-reduction outcomes and key risks. A periodic report of this kind would help the market monitor progress, assist regulators in adjusting policy and allow international investors to evaluate the maturity of Vietnam's green finance ecosystem.

In the long term, the objective is not merely to increase the

volume of green capital but to restructure all capital flows so that they are aligned with sustainable development objectives. This means that projects causing serious environmental harm should face higher capital costs or restrictions; credible green and transition projects should be prioritized; transparent enterprises should be rewarded with lower capital costs; and enterprises lacking data should face improvement requirements. When capital-cost signals reflect environmental risks and impacts, green finance becomes an endogenous driver of the market.

## 9. Conclusion

This paper has analyzed the current situation, challenges and institutional reform solutions for promoting green finance in Vietnam. The findings show that 2021-2025 was an important period for laying foundations. Green credit grew rapidly, the number of participating credit institutions expanded, several green and sustainable bond transactions aligned with international standards emerged, ESG disclosure by banks and listed companies improved, and the national green taxonomy was adopted in 2025. These developments demonstrate that green finance has moved from a policy concept to real market activity.

However, the scale of green finance remains insufficient relative to transition needs. Green credit accounts for a low share of total outstanding loans, its structure remains concentrated, green bonds are small compared with the corporate bond market, ESG data are not standardized and incentive mechanisms are not yet strong enough. The gap between climate-finance needs of hundreds of billions of US dollars by 2040 and the current scale of green capital shows that Vietnam needs a more systemic approach, rather than expecting each bank or enterprise to solve the problem on its own.

The main contribution of this paper is its proposed institutional reform framework comprising four pillars: taxonomy and technical criteria; information disclosure and independent verification; financial instruments and risk-sharing mechanisms; and macroprudential supervision and climate-risk governance. These four pillars must be implemented coherently. A taxonomy without incentives will not sufficiently increase capital flows. Incentives without post-monitoring increase greenwashing risks. Disclosure without quantitative data cannot support investor pricing. Green credit without climate-risk governance may still allow brown risks to accumulate in the banking system.

In policy terms, the paper recommends that Vietnam should implement Decision No. 21/2025/QĐ-TTg effectively, develop independent verification mechanisms, establish conditional incentives, expand blended finance, develop the green bond market, strengthen climate-risk governance in banking, create an ESG disclosure roadmap converging with ISSB standards, support small and medium-sized enterprises, link green finance with the carbon market and establish inter-agency coordination. These are not separate solutions but an institutional reform program aimed at reducing transaction costs, building confidence and making green finance a principal capital-allocation channel.

Green finance in Vietnam should therefore be understood as a process of regulated market-building. The State plays the role of creating standards, data systems, incentives and supervision; the financial sector prices risks and allocates capital; enterprises transform production models; and investors and verification organizations strengthen market

discipline. When these roles are effectively coordinated, green finance can become an important driver enabling Vietnam to achieve growth objectives, strengthen climate resilience and move toward net-zero emissions.

## 10. Implementation implications by instrument group

For the green credit instrument group, the focus should not stop at issuing additional regulations; it should translate regulations into the market's implementation capacity. Measures such as expanding clients beyond the energy sector, building green project scoring systems, linking incentives to measurable impacts and strengthening climate-risk appraisal capacity share a common function: reducing information asymmetry between capital providers and capital users. When information is more complete, banks can price loans more accurately, investors can compare bonds more transparently and enterprises have stronger incentives to upgrade governance. Policy should therefore prioritize instruments that improve the quality of information rather than merely setting targets for nominal capital expansion.

A key issue in implementing green credit is sequencing. If compliance requirements are too high at the outset, enterprises may delay participation; if standards are too low, the market loses trust. A suitable roadmap is tiered implementation: large entities, major projects and high-emitting sectors should comply with higher standards, while smaller enterprises can use simplified templates but must still provide minimum data. This approach balances stringency and feasibility and prevents green finance from becoming an exclusive privilege of large enterprises.

In economic terms, green credit can create spillover effects if it is designed as a productivity-enhancing instrument. Energy-efficiency projects reduce operating costs; clean technologies help firms meet export standards; green buildings enhance asset values; and green agriculture supports traceability and more stable markets. These benefits must be quantified in financial plans to demonstrate that green investment not only creates social benefits but also improves cash flows and debt-service capacity.

From a risk-governance perspective, green credit should be placed within a long-term scenario framework. Climate change increases physical risks such as flooding, droughts, storms and saltwater intrusion, while emissions-reduction policies increase transition risks such as carbon costs, technology requirements and shifts in consumer preferences. If financial institutions assess projects only at the present point in time, long-term risks may be overlooked. Scenario analysis and climate stress testing should therefore gradually become common governance tools.

For the green bonds instrument group, the focus should not stop at issuing additional regulations; it should translate regulations into the market's implementation capacity. Measures such as standardizing issuance frameworks, requiring use-of-proceeds reporting, developing institutional investors and creating a separate listing segment share a common function: reducing information asymmetry between capital providers and capital users. When information is more complete, banks can price loans more accurately, investors can compare bonds more transparently and enterprises have stronger incentives to upgrade governance. Policy should therefore prioritize instruments that improve the quality of information rather than merely setting targets for nominal capital expansion.

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For the ESG disclosure instrument group, the focus should not stop at issuing additional regulations; it should translate regulations into the market's implementation capacity. Measures such as moving from description to quantification, prioritizing financially material information, providing independent assurance and digitalizing emissions data share a common function: reducing information asymmetry between capital providers and capital users. When information is more complete, banks can price loans more accurately, investors can compare bonds more transparently and enterprises have stronger incentives to upgrade governance. Policy should therefore prioritize instruments that improve the quality of information rather than merely setting targets for nominal capital expansion.

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For the transition finance instrument group, the focus should not stop at issuing additional regulations; it should translate regulations into the market's implementation capacity. Measures such as not equating transition finance with green finance, building sectoral emissions-reduction pathways, pricing stranded-asset risk and linking capital to emissions-reduction KPIs share a common function: reducing information asymmetry between capital providers and capital users. When information is more complete, banks can price loans more accurately, investors can compare bonds more transparently and enterprises have stronger incentives to upgrade governance. Policy should therefore prioritize instruments that improve the quality of information rather than merely setting targets for nominal capital expansion.

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For the the carbon market instrument group, the focus should not stop at issuing additional regulations; it should translate regulations into the market's implementation capacity. Measures such as completing MRV, defining ownership of carbon credits, connecting data with banks and controlling the additionality of projects share a common function: reducing information asymmetry between capital providers and capital users. When information is more complete, banks can price loans more accurately, investors can compare bonds more transparently and enterprises have stronger incentives to upgrade governance. Policy should

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A key issue in implementing the carbon market is sequencing. If compliance requirements are too high at the outset, enterprises may delay participation; if standards are too low, the market loses trust. A suitable roadmap is tiered implementation: large entities, major projects and high-emitting sectors should comply with higher standards, while smaller enterprises can use simplified templates but must still provide minimum data. This approach balances stringency and feasibility and prevents green finance from becoming an exclusive privilege of large enterprises.

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From a risk-governance perspective, the carbon market should be placed within a long-term scenario framework. Climate change increases physical risks such as flooding, droughts, storms and saltwater intrusion, while emissions-reduction policies increase transition risks such as carbon costs, technology requirements and shifts in consumer preferences. If financial institutions assess projects only at the present point in time, long-term risks may be overlooked. Scenario analysis and climate stress testing should therefore gradually become common governance tools.

For the blended finance instrument group, the focus should not stop at issuing additional regulations; it should translate regulations into the market's implementation capacity. Measures such as using public capital as seed capital, guaranteeing project risks, supporting project preparation and mobilizing long-term private capital share a common function: reducing information asymmetry between capital providers and capital users. When information is more complete, banks can price loans more accurately, investors can compare bonds more transparently and enterprises have stronger incentives to upgrade governance. Policy should therefore prioritize instruments that improve the quality of information rather than merely setting targets for nominal capital expansion.

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For the inter-agency governance instrument group, the focus should not stop at issuing additional regulations; it should translate regulations into the market's implementation capacity. Measures such as sharing data among ministries and agencies, issuing a national green finance report, creating a focal point for resolving obstacles and tracking impacts after disbursement share a common function: reducing information asymmetry between capital providers and capital users. When information is more complete, banks can price loans more accurately, investors can compare bonds more transparently and enterprises have stronger incentives to upgrade governance. Policy should therefore prioritize instruments that improve the quality of information rather than merely setting targets for nominal capital expansion.

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For the small and medium-sized enterprises instrument group, the focus should not stop at issuing additional regulations; it should translate regulations into the market's implementation capacity. Measures such as ESG self-assessment tools, green loan dossier templates, carbon accounting training and green credit guarantees share a common function: reducing information asymmetry between

capital providers and capital users. When information is more complete, banks can price loans more accurately, investors can compare bonds more transparently and enterprises have stronger incentives to upgrade governance. Policy should therefore prioritize instruments that improve the quality of information rather than merely setting targets for nominal capital expansion.

A key issue in implementing small and medium-sized enterprises is sequencing. If compliance requirements are too high at the outset, enterprises may delay participation; if standards are too low, the market loses trust. A suitable roadmap is tiered implementation: large entities, major projects and high-emitting sectors should comply with higher standards, while smaller enterprises can use simplified templates but must still provide minimum data. This approach balances stringency and feasibility and prevents green finance from becoming an exclusive privilege of large enterprises.

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