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Environmental Governance and Green Economic Development in Vietnam: A Policy Analysis

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ABSTRACT: Vietnam's transition toward a green economy has become a strategic policy priority as the country seeks to sustain growth while responding to climate change, pollution, resource degradation, and changing requirements in global markets. This article analyzes the relationship between environmental governance and green economic development in Vietnam through a qualitative policy-analysis approach. It examines the evolution of Vietnam's legal, strategic, institutional, and market-oriented governance instruments, including the Law on Environmental Protection 2020, Decree No. 08/2022/ND-CP, the National Green Growth Strategy for 2021–2030 with a vision to 2050, the National Action Plan on Green Growth, the National Strategy for Environmental Protection, the updated Nationally Determined Contribution, the Scheme for Circular Economy Development, the revised Power Development Plan VIII, the green taxonomy, and the domestic carbon-market framework. The article argues that Vietnam has moved from a primarily administrative model of environmental management toward a broader governance framework that links environmental protection with economic restructuring, energy transition, circular economy, green finance, and climate commitments. However, the effectiveness of this transition depends on implementation capacity, regulatory coherence, environmental data quality, enterprise readiness, local enforcement, credible financing mechanisms, and public participation. The article concludes that Vietnam's green economy agenda should be understood not only as an environmental policy project but also as an institutional transformation requiring stronger coordination, transparent market mechanisms, and accountable implementation.

KEYWORDS: environmental governance; green economy; green growth; Vietnam; climate policy; green finance; carbon market; circular economy; policy analysis

1. INTRODUCTION

Vietnam's economic transformation over the past several decades has been driven by industrialization, export expansion, urbanization, infrastructure development, and deeper integration into global value chains. This growth has contributed to improvements in income, employment, trade capacity, and poverty reduction. However, the same development model has also generated significant environmental pressures, including air and water pollution, rising greenhouse gas emissions, growing waste volumes, biodiversity loss, and increasing pressure on land, water, energy, and urban infrastructure. As Vietnam moves toward higher levels of income and industrial complexity, the central policy challenge is no longer only how to sustain growth, but how to make growth cleaner, more resilient, more resource-efficient, and socially inclusive.

The urgency of this challenge is reinforced by Vietnam's high exposure to climate risks. The country has a long coastline, low-lying deltas, climate-sensitive agricultural systems, rapidly growing cities, and infrastructure vulnerable to storms, floods, heat stress, sea-level rise, and salinity intrusion. The World Bank's country climate and development analysis emphasizes that climate change could impose large long-term costs on Vietnam if mitigation and adaptation are insufficient (World Bank, 2022). A later World Bank report on Vietnam's pathway toward 2045 further argues that greener and more resilient development can become a source of growth and job creation, but only if the country combines climate adaptation, lower-carbon development, and sustainable management of natural assets (World Bank, 2025).

In this context, environmental governance has become a central development issue. It is no longer sufficient to treat environmental policy as a separate sector focused only on pollution control. Instead, environmental governance must be integrated with economic planning, public investment, industrial policy, energy transition, financial regulation, land-use management, urban development, enterprise reform, and international trade strategy. A green economy requires not only environmental laws but also institutional capacity, credible data systems, financial instruments, market incentives, and public participation.

Vietnam has built a broad policy architecture for environmental governance and green development. Major policy milestones include the Law on Environmental Protection 2020, Decree No. 08/2022/ND-CP, Decision No. 1658/QD-TTg approving the National Green Growth Strategy for 2021–2030 with a vision to 2050, Decision No. 882/QD-TTg approving the National Action Plan on Green Growth, Decision No. 450/QD-TTg approving the National Strategy for Environmental Protection to 2030 with a vision to 2050, Decision No. 687/QD-TTg approving the Scheme for Circular Economy Development, Decision No. 896/QD-TTg approving the National Climate Change Strategy to 2050, the updated Nationally Determined Contribution submitted in 2022, Decision No. 21/2025/QD-TTg on environmental criteria and certification of green taxonomy projects, Decision No. 232/QD-TTg on the establishment and development of the carbon market, Decision No. 768/QD-TTg revising the Power Development Plan VIII, and Decree No. 29/2026/ND-CP on the domestic carbon exchange (Government of Viet Nam, 2022, 2026; National Assembly of Viet Nam, 2020; Prime Minister of Viet Nam, 2021, 2022a, 2022b, 2022c, 2022d, 2025a, 2025b, 2025c; Viet Nam, 2022).

These developments show that Vietnam is moving from a narrow environmental-management model toward a more integrated form of environmental governance. Earlier approaches relied heavily on administrative control, environmental impact assessment, licensing, inspections, and sanctions. These instruments remain necessary, but more recent policies increasingly connect environmental objectives with green finance, circular economy, renewable energy, emissions trading, sustainable consumption, and enterprise competitiveness. This evolution reflects an important policy shift: environmental governance is now expected not only to reduce environmental harm but also to guide economic transformation.

Nevertheless, policy ambition does not automatically produce policy effectiveness. The success of Vietnam's green economy transition depends on whether laws, strategies, and plans can be implemented through capable institutions, coordinated public administration, prepared enterprises, credible financial mechanisms, and effective local enforcement. Implementation challenges remain significant, including fragmented responsibilities among agencies, uneven provincial capacity, limited environmental data systems, financing constraints, gaps in small and medium-sized enterprise readiness, and the need to reconcile energy security with decarbonization.

This article analyzes Vietnam's environmental governance framework and its role in supporting green economic development. It addresses three questions. First, how has Vietnam's environmental governance framework evolved in relation to green growth? Second, what policy instruments are being used to connect environmental protection with economic transformation? Third, what implementation challenges and policy priorities are most important for strengthening Vietnam's green transition? The article proceeds by outlining a conceptual and analytical framework, explaining the qualitative policy-analysis method, examining Vietnam's main policy instruments, assessing key implementation challenges, and proposing recommendations for strengthening environmental governance as a driver of sustainable development.

2. CONCEPTUAL AND ANALYTICAL FRAMEWORK

Environmental governance refers to the system of laws, institutions, administrative procedures, policy instruments, market mechanisms, information systems, and participatory processes through which a society manages environmental risks and natural resources. It includes state regulation, but it also involves enterprises, investors, communities, research institutions, development partners, and citizens. In Vietnam, environmental governance has traditionally been strongly state-led, with emphasis on legal regulation, administrative approval, environmental impact assessment, inspection, and compliance. The Law on Environmental Protection 2020 and Decree No. 08/2022/ND-CP continue this regulatory tradition while expanding the role of environmental permits, environmental information, waste management, monitoring, extended producer responsibility, and environmental databases (Government of Viet Nam, 2022; National Assembly of Viet Nam, 2020).

Green economic development refers to a development pathway that improves economic performance while reducing environmental risks, lowering carbon intensity, improving resource efficiency, strengthening climate resilience, and supporting social inclusion. In Vietnam, green development is closely associated with the national green growth framework. The National Green Growth Strategy for 2021–2030 with a vision to 2050 identifies green growth as a pathway linked to economic restructuring, growth model renewal, environmental sustainability, social equity, and movement toward a carbon-neutral economy (Prime Minister of Viet Nam, 2021). The National Action Plan on Green Growth translates this strategic direction into task groups and implementation responsibilities for ministries, sectors, and localities (Prime Minister of Viet Nam, 2022c).

The concept of green economic development is broader than environmental protection. It requires changes in production, consumption, investment, technology, infrastructure, finance, and public administration. For a developing and industrializing economy, it also requires policy balance. Green policies must reduce environmental risks while maintaining growth, employment, energy security, and social inclusion. This balance is particularly important for Vietnam because the country continues to require investment in infrastructure, manufacturing capacity, housing, transport, energy, and public services.

A policy-analysis perspective is useful because Vietnam's green transition is not driven by a single law or program. It is shaped by a complex policy mix involving environmental regulation, climate commitments, circular economy policy, power planning, green finance, carbon-market development, public investment, enterprise behavior, and international cooperation. This article therefore evaluates Vietnam's green governance framework through four analytical dimensions: policy coherence, instrument diversity, implementation capacity, and accountability.

Policy coherence concerns whether laws, strategies, plans, and sectoral programs are aligned around a consistent green development direction. Instrument diversity concerns whether Vietnam uses an appropriate combination of regulatory, planning, financial, market-based, informational, and participatory tools. Implementation capacity concerns whether institutions, local authorities, enterprises, and financial actors can translate policy commitments into practical results. Accountability concerns whether environmental governance includes credible monitoring, reporting, verification, public information, and feedback mechanisms.

This framework does not assume that the existence of many policy documents is equivalent to successful green development. A country may have ambitious strategies but still face weak enforcement, poor coordination, inadequate finance, or limited enterprise readiness. Conversely, a country may achieve stronger environmental outcomes when regulations, incentives, information systems, and implementation capacity are aligned. The central issue is therefore not only whether Vietnam has adopted green policies, but whether these policies can reshape incentives, decisions, and behavior across the economy.

3. METHODOLOGY

This article uses qualitative policy analysis based on publicly available legal, strategic, and institutional documents. The main sources include Vietnamese laws, government decisions, implementing decrees, official national strategies, climate-policy submissions, policy announcements, and reports from international organizations. The analysis does not use interviews, survey data, or econometric estimation. It does not introduce fabricated statistics or unsupported empirical claims. Numerical information is included only when it is drawn from publicly available documents or institutional reports.

The scope of the article is national-level environmental governance and its implications for green economic development in Vietnam. Although local implementation is discussed, the article does not provide a province-by-province assessment. The focus is on the structure of the policy framework, the types of governance instruments being used, and the main implementation challenges affecting the transition from policy design to policy performance.

The source base was selected according to three criteria. First, the documents had to be directly relevant to environmental governance, green growth, climate policy, circular economy, green finance, energy transition, or carbon-market development. Second, the documents had to be official legal instruments, official policy documents, or reputable institutional reports. Third, the documents had to help explain the relationship between environmental governance and economic transformation rather than merely describe isolated environmental programs.

The article has three limitations. First, many green-growth instruments in Vietnam are recent, which means long-term outcome data are still limited. Second, green economic development is cross-sectoral, so the article cannot analyze every sector in equal depth. Third, environmental governance is changing quickly, especially in relation to carbon markets, green finance, energy planning, and institutional restructuring. The analysis therefore reflects the policy framework available at the time of writing and should be updated as new legal instruments and implementation results become available.

4. VIETNAM'S POLICY ARCHITECTURE FOR GREEN ECONOMIC DEVELOPMENT

Vietnam's green economic development agenda is supported by a layered policy architecture. At the legal level, the Law on Environmental Protection 2020 and its implementing decrees provide binding rules for environmental management, environmental permits, waste management, environmental monitoring, and extended producer responsibility. At the strategic level, the National Green Growth Strategy, the National Action Plan on Green Growth, the National Strategy for Environmental Protection, the National Climate Change Strategy, and the Scheme for Circular Economy Development establish medium- and long-term orientations. At the market-instrument level, green taxonomy rules and carbon-market regulations create new mechanisms for aligning finance and enterprise behavior with environmental objectives. At the sectoral level, the revised Power Development Plan VIII addresses the energy transition, which is central to Vietnam's decarbonization pathway.

4.1. Legal Foundation: Law on Environmental Protection 2020 and Decree No. 08/2022/ND-CP

The Law on Environmental Protection 2020 is a core legal foundation for Vietnam's current environmental governance framework. It provides rules on environmental protection activities, environmental impact assessment, environmental permits, waste management, environmental monitoring, environmental information, and the responsibilities of organizations, households, communities, and individuals in environmental protection (National Assembly of Viet Nam, 2020). Compared with earlier approaches, the law strengthens the connection between environmental protection and development planning by requiring environmental considerations to be integrated into project approval, operational management, and waste responsibility.

Decree No. 08/2022/ND-CP provides detailed guidance for implementing several provisions of the Law on Environmental Protection. It covers environmental zoning, strategic environmental assessment, environmental impact assessment, environmental licensing, environmental registration, waste management, environmental monitoring, environmental information systems, and extended producer responsibility (Government of Viet Nam, 2022). This decree is important because it translates the broad legal principles of the 2020 law into more specific administrative procedures and compliance requirements.

One important element of Vietnam’s environmental governance framework is extended producer responsibility. EPR changes the logic of waste management by assigning producers and importers greater responsibility for the post-consumption impacts of certain products and packaging. In principle, this mechanism encourages firms to consider product design, packaging, recycling, recovery, and disposal costs. It can reduce pressure on public waste systems and support the development of recycling industries. However, EPR requires accurate data, clear reporting rules, credible verification, and effective enforcement. If enterprises underreport obligations or if recycling systems are weak, the environmental effect of EPR may be limited.

Environmental permitting is another important tool. A permit-based system can help integrate environmental conditions into project operation and provide a legal basis for monitoring compliance over time. However, the effectiveness of permitting depends on inspection, data collection, sanctions, and transparency. If permits are treated mainly as administrative paperwork, they may not significantly change enterprise behavior. Therefore, the transition from approval-based management to performance-based environmental governance remains a key implementation challenge.

4.2. Strategic Orientation: National Green Growth Strategy and Action Plan

Vietnam’s National Green Growth Strategy for 2021–2030 with a vision to 2050 is one of the most important strategic documents shaping the country’s green development agenda. Approved through Decision No. 1658/QD-TTg, the strategy positions green growth as part of economic restructuring and growth model renewal. It emphasizes lower greenhouse gas emissions, greener economic sectors, sustainable lifestyles, sustainable consumption, and the promotion of equality and resilience (Prime Minister of Viet Nam, 2021).

The strategy is significant because it frames environmental protection not as a constraint on development but as a condition for long-term prosperity. This framing is important for a developing economy such as Vietnam, where policymakers must balance growth, employment, industrial expansion, energy demand, and environmental sustainability. Green growth is presented as a pathway for improving competitiveness and resilience while reducing environmental pressure.

The National Action Plan on Green Growth for 2021–2030, approved through Decision No. 882/QD-TTg, gives operational form to the strategy. It organizes implementation into thematic areas, task groups, and specific responsibilities for ministries, sectors, and localities (Prime Minister of Viet Nam, 2022c). This is important because green growth cannot be achieved by strategic statements alone. It requires administrative assignment, sectoral integration, monitoring, budgeting, and coordination.

However, the effectiveness of the strategy and action plan depends on implementation quality. Vietnam’s policy system often produces ambitious national strategies, but implementation may vary across sectors and localities. To be effective, the green growth strategy must influence investment decisions, budget allocation, industrial planning, public procurement, enterprise support, infrastructure development, and local socioeconomic planning. The challenge is therefore to move from national commitment to measurable policy change.

4.3. National Strategy for Environmental Protection

The National Strategy for Environmental Protection to 2030 with a vision to 2050, approved through Decision No. 450/QD-TTg, provides another major pillar of Vietnam’s environmental governance framework. The strategy emphasizes pollution prevention and control, biodiversity conservation, sustainable use of natural resources, climate-change response, circular economy, environmental quality, and the right to live in a clean and safe environment (Prime Minister of Viet Nam, 2022a).

This strategy is important because it links environmental protection with governance reform. Environmental outcomes depend not only on technical standards but also on institutional quality, transparency, enforcement, community supervision, and digital transformation. The strategy therefore recognizes that environmental protection requires an effective governance system rather than isolated regulatory measures.

The environmental protection strategy also complements the green growth strategy. While the green growth strategy focuses on transforming the growth model, the environmental protection strategy focuses more directly on environmental quality, pollution control, ecosystem protection, and environmental management. Together, they create a dual framework: one directed toward greening the economy and the other toward protecting environmental systems.

The main challenge is ensuring that these strategies are mutually reinforcing. If green growth remains under economic agencies and environmental protection remains under environmental agencies, coordination problems may persist. Effective green economic development requires these strategies to be integrated into sectoral planning, local development plans, public investment decisions, and enterprise regulation.

4.4. Climate Governance and Vietnam's Updated NDC

Vietnam's climate commitments have become an important driver of green economic development. In its updated Nationally Determined Contribution submitted in 2022, Vietnam raised its greenhouse gas mitigation targets compared with earlier commitments. The updated NDC identifies an unconditional target of reducing emissions by 15.8 percent compared with the business-as-usual scenario by 2030 and a conditional target of 43.5 percent with international support (Viet Nam, 2022).

These commitments have important governance implications. They require Vietnam to improve greenhouse gas inventories, sectoral mitigation planning, monitoring, reporting, verification, carbon-market readiness, and coordination across energy, industry, agriculture, land use, transport, and waste. Climate governance therefore requires not only strategic commitment but also credible data and institutional capacity.

The National Climate Change Strategy to 2050, approved through Decision No. 896/QD-TTg, provides a broader framework for climate adaptation and mitigation (Prime Minister of Viet Nam, 2022d). This strategy is relevant because Vietnam's green economy agenda must address both emissions reduction and climate resilience. Adaptation is especially important for agriculture, water management, urban planning, coastal protection, disaster-risk reduction, and infrastructure resilience.

Vietnam's climate governance framework therefore faces a dual task. It must reduce the carbon intensity of future growth while protecting the economy and communities from climate impacts. These two objectives are connected. Without adaptation, climate change can damage infrastructure, reduce agricultural productivity, disrupt supply chains, and increase public spending needs. Without mitigation, Vietnam may face rising transition risks, including carbon-related trade barriers, investment pressure, and higher long-term climate costs.

4.5. Circular Economy and Resource Efficiency

Circular economy policy provides a bridge between environmental protection and industrial transformation. Decision No. 687/QD-TTg approved the Scheme for Circular Economy Development in Vietnam (Prime Minister of Viet Nam, 2022b). The circular economy approach seeks to reduce waste, extend product life cycles, reuse materials, improve recycling, and promote resource efficiency.

This policy direction is significant because Vietnam's industrial and urban development has increased waste generation and resource consumption. A circular economy can help reduce pressure on landfills, lower raw-material demand, create markets for secondary materials, and support new business models in recycling, repair, remanufacturing, eco-design, and industrial symbiosis. It also supports the EPR framework under the Law on Environmental Protection 2020 and Decree No. 08/2022/ND-CP (Government of Viet Nam, 2022; National Assembly of Viet Nam, 2020).

Circular economy policy is especially relevant in sectors such as plastics, packaging, textiles, electronics, agriculture, food processing, construction materials, and urban waste management. These sectors are economically important but can create significant environmental burdens. By encouraging firms to reduce material intensity and recover value from waste, circular economy policy can support both environmental and economic objectives.

However, implementation is complex. Circular economy requires waste classification, standards for recycled materials, reliable collection systems, investment in recycling technology, consumer participation, and markets for recovered materials. Local governments must improve waste management systems, while enterprises must redesign products and supply chains. Without these enabling conditions, circular economy policy may remain aspirational.

4.6. Green Finance and Green Taxonomy

Finance is a central condition for Vietnam's green transition. Green economic development requires investment in renewable energy, grid modernization, clean transport, energy efficiency, waste treatment, water systems, climate-resilient infrastructure, cleaner production, and low-carbon technologies. Public budgets alone are insufficient. Vietnam therefore needs to mobilize private capital, banking-sector credit, bond-market finance, international climate finance, and blended finance.

Decision No. 21/2025/QD-TTg on environmental criteria and certification of investment projects under the green taxonomy is an important step in this direction. The decision provides environmental criteria for identifying green projects and supports the development of green credit and green bonds (Prime Minister of Viet Nam, 2025a). A taxonomy matters because green finance requires clarity about what qualifies as green. Without clear criteria, financial markets may face inconsistent classification and greenwashing risks.

A credible green taxonomy can help banks, investors, regulators, and enterprises identify eligible projects. It can also support transparency in green-bond issuance and green-credit allocation. However, the taxonomy's effectiveness depends on verification quality, institutional capacity, and project preparation. Enterprises must be able to document environmental benefits, comply with technical criteria, and prepare financially viable projects. Banks must have capacity to assess environmental risks and monitor outcomes.

Green finance should therefore be understood as both a financial-market instrument and a governance challenge. A taxonomy can classify projects, but it cannot automatically create bankable investment opportunities. Vietnam needs technical assistance, project preparation support, regulatory guidance, and coordination between financial institutions, environmental authorities, local governments, and enterprises.

4.7. Carbon-Market Development

Vietnam is also developing carbon-market instruments as part of its climate governance framework. Decision No. 232/QD-TTg approved the scheme for establishing and developing a carbon market in Vietnam (Prime Minister of Viet Nam, 2025b). Decree No. 29/2026/ND-CP provides regulations for the domestic carbon exchange, including registration, ownership transfer, custody, trading, and settlement of greenhouse gas emission allowances and eligible carbon credits (Government of Viet Nam, 2026).

Carbon markets can support green economic development by creating price signals for emissions reduction. If designed and implemented credibly, a carbon market can help enterprises identify lower-cost mitigation options, encourage investment in cleaner technologies, and support Vietnam's NDC implementation. Carbon markets can also help Vietnam prepare for international climate-related trade measures and investor expectations.

However, carbon markets are technically demanding. They require accurate emissions measurement, reporting, and verification. They also require credible allowance allocation, transparent registries, clear rules for carbon credits, safeguards against double counting, and effective penalties for non-compliance. Without these elements, a carbon market may have limited environmental impact or may lose market confidence.

Vietnam's carbon-market development should therefore proceed gradually and carefully. A phased approach can allow regulators and enterprises to test reporting systems, build technical capacity, identify sector-specific challenges, and improve market rules before full implementation. The credibility of the market is more important than its speed of expansion.

4.8. Energy Transition and Power Development Plan VIII

Energy transition is one of the most important dimensions of Vietnam's green economic development. Rapid economic growth, industrialization, urbanization, and rising living standards increase electricity demand. At the same time, Vietnam has committed to reducing emissions and moving toward net-zero emissions by 2050. This creates a complex governance challenge: the country must ensure power security while gradually reducing the carbon intensity of its energy system.

Decision No. 768/QD-TTg approved the adjustment of the National Power Development Plan for 2021–2030 with a vision to 2050, commonly referred to as the revised Power Development Plan VIII (Prime Minister of Viet Nam, 2025c). The revised plan covers power sources, transmission grids, renewable energy, and new energy industries. It is important because electricity planning affects industrial development, investment confidence, energy security, emissions reduction, and the feasibility of broader green transformation.

The Just Energy Transition Partnership also plays a role in Vietnam's energy transition. The Resource Mobilisation Plan for Vietnam's JETP was launched in 2023 to support the implementation of Vietnam's clean-energy transition goals (European Commission, 2023). The JETP reflects the fact that energy transition requires not only domestic planning but also international finance, technology cooperation, regulatory reform, and investment preparation.

Energy transition creates both opportunities and risks. Renewable energy, grid modernization, storage, energy efficiency, and new energy industries can support green industrial growth and reduce emissions. However, renewable energy expansion must be matched with transmission capacity, system flexibility, pricing mechanisms, investment certainty, and regulatory coordination. If these issues are not addressed, energy transition may face bottlenecks and create risks for power reliability.

5. ENVIRONMENTAL GOVERNANCE AS A DRIVER OF GREEN ECONOMIC DEVELOPMENT

Vietnam's environmental governance framework can support green economic development through several channels. First, it creates regulatory pressure for cleaner production. Environmental impact assessment, permits, standards, inspections, waste responsibilities, and sanctions can encourage enterprises to internalize environmental costs. These tools can reduce pollution and improve compliance if enforcement is credible.

Second, environmental governance creates markets for green industries. Policies on renewable energy, circular economy, recycling, green finance, carbon markets, and energy efficiency can stimulate demand for cleaner technologies, services, and investment models. This means environmental policy can also function as industrial policy. It can help create new sectors and business opportunities while reducing environmental pressure.

Third, environmental governance supports international competitiveness. Export-oriented firms increasingly face environmental, social, and governance requirements from buyers, investors, and regulators. Climate-related trade instruments, including the European Union's Carbon Border Adjustment Mechanism, show that carbon intensity is becoming more relevant in international trade (European Commission, n.d.). For Vietnam, green governance can help enterprises prepare for stricter sustainability expectations in global markets.

Fourth, environmental governance reduces long-term development risks. Climate adaptation, disaster-risk reduction, sustainable urban planning, pollution control, and ecosystem protection can lower the economic costs of environmental degradation. The World Bank (2022, 2025) emphasizes that climate resilience and greener growth are central to Vietnam's long-term development prospects. Environmental governance is therefore not merely a cost; it is a form of risk management and future-oriented economic policy.

However, these benefits depend on implementation. Environmental laws and strategies can create direction, but enterprises and local authorities respond to incentives, enforcement, finance, and administrative feasibility. If policies are poorly coordinated, weakly enforced, or difficult to comply with, their impact will be limited. Vietnam's green economy transition therefore requires attention to governance quality as much as policy ambition.

6. IMPLEMENTATION CHALLENGES

Despite the breadth of Vietnam's policy architecture, implementation remains the decisive test. Green economic development requires multiple actors to change behavior: ministries must coordinate, provinces must enforce, enterprises must invest, banks must assess projects, households must participate in waste and consumption changes, and investors must trust green-finance and carbon-market rules. This section analyzes the main implementation challenges that may limit the effectiveness of Vietnam's green governance framework.

6.1. Inter-Agency Coordination

Green economic development requires coordination across many sectors. Energy policy must align with climate commitments. Industrial policy must align with pollution control and resource efficiency. Finance policy must align with environmental criteria. Local planning must align with national strategies. Trade policy must respond to international sustainability requirements. This complexity makes inter-agency coordination one of the most important governance challenges.

Vietnam has improved policy coherence at the strategic level, but implementation still requires continuous coordination among ministries, provinces, state-owned enterprises, private firms, financial institutions, and development partners. Different agencies may prioritize different objectives. Energy authorities may emphasize power security and affordability. Industrial authorities may emphasize growth and investment attraction. Environmental authorities may emphasize pollution control and emissions reduction. Financial regulators may emphasize market stability and credit risk. Local governments may prioritize employment, revenue, and infrastructure.

These objectives are not necessarily contradictory, but they require mechanisms for policy alignment. Without coordination, green growth may be fragmented across separate plans and programs. A whole-of-government delivery system is therefore essential. Such a system should include clear assignment of responsibilities, shared indicators, regular reporting, dispute-resolution mechanisms, and leadership capable of balancing economic and environmental priorities.

6.2. Uneven Local Implementation Capacity

Local governments are central to environmental governance. Provinces and municipalities are responsible for many practical tasks, including land-use planning, investment approval, environmental permitting, inspection, waste management, pollution response, climate adaptation, and public communication. If local capacity is weak, national policies may not produce expected results.

Implementation capacity varies across localities. Some provinces and cities have stronger technical expertise, administrative resources, monitoring equipment, digital systems, and investment capacity. Others face constraints in staffing, training, environmental laboratories, inspection resources, and data management. These differences can create uneven enforcement and unequal green development outcomes.

Local capacity is especially important for environmental permits, waste management, circular economy, and climate adaptation. These policy areas require day-to-day administrative work, local infrastructure, and close interaction with enterprises and communities. National strategies must therefore be translated into local plans, budgets, technical guidelines, and monitoring routines.

6.3. Environmental Data and Monitoring

Reliable data are essential for effective environmental governance. Carbon markets require emissions data. Green finance requires evidence that projects meet environmental criteria. EPR requires information on product volumes, packaging, recycling, and waste treatment. Environmental permits require monitoring of compliance conditions. Climate reporting requires sectoral data on emissions and adaptation progress.

Vietnam's policy framework increasingly recognizes the importance of environmental information systems and databases (Government of Viet Nam, 2022). However, data quality, interoperability, transparency, and verification remain implementation challenges. If data systems are fragmented or incomplete, market-based instruments may lose credibility. If enterprises lack capacity to report accurately, compliance systems may become burdensome and unreliable.

Digital transformation can support environmental governance, but technology alone is not enough. Data systems require clear reporting standards, institutional responsibility, verification procedures, staff capacity, and public accountability. Environmental data should be useful not only for administrative reporting but also for policy learning, investment planning, risk assessment, and public information.

6.4. Enterprise Readiness

Enterprises are central actors in Vietnam's green transition. They determine energy use, production technology, resource efficiency, waste generation, supply-chain practices, investment decisions, and innovation. Large export-oriented firms may have strong incentives to adopt environmental standards because of international buyers, investors, and market access requirements. However, many small and medium-sized enterprises face greater constraints.

SMEs may lack capital for cleaner technologies, technical knowledge about environmental compliance, staff for sustainability reporting, and access to green finance. They may also view environmental regulation as a cost rather than a source of innovation and competitiveness. If support mechanisms are weak, green policies may widen the gap between large firms and SMEs.

Vietnam's green growth agenda should therefore include targeted enterprise support. This may include cleaner production programs, energy-efficiency audits, concessional credit, technical advisory services, simplified ESG guidance, tax incentives, digital reporting tools, and sector-specific roadmaps. Enterprise readiness is not only a private-sector issue; it is a public-policy condition for successful green transformation.

6.5. Green Finance Absorption

Vietnam needs substantial investment for renewable energy, grid infrastructure, energy efficiency, clean transport, waste treatment, water systems, climate resilience, and cleaner production. The green taxonomy provides a foundation for classifying green projects, but project classification alone does not guarantee finance (Prime Minister of Viet Nam, 2025a).

Green finance absorption depends on whether projects are bankable. Many environmentally beneficial projects may face barriers such as unclear revenue models, high upfront costs, technology risks, weak feasibility studies, or regulatory uncertainty. Banks may also lack expertise in environmental-risk assessment. Enterprises may not know how to prepare taxonomy-compliant documentation.

Therefore, Vietnam should treat green finance as a system-building task. It requires technical criteria, verification capacity, financial-sector training, project preparation support, risk-sharing instruments, and coordination with international climate finance. Without these elements, green finance may grow slowly or concentrate only in large firms and projects.

6.6. Energy Security and Decarbonization

Energy transition is a major opportunity but also a governance risk. Vietnam must meet rising electricity demand while reducing long-term emissions. Renewable energy expansion, grid modernization, storage, energy efficiency, and flexible power systems are essential. However, these require large investment, regulatory certainty, land-use coordination, technology planning, and careful sequencing.

If renewable energy grows faster than grid capacity, bottlenecks can occur. If pricing mechanisms are unclear, investors may hesitate. If transition costs are not managed, energy affordability and industrial competitiveness may be affected. Energy transition therefore requires strong coordination between planning, finance, regulation, and implementation.

The revised Power Development Plan VIII provides an important planning framework, but implementation will determine outcomes (Prime Minister of Viet Nam, 2025c). Energy transition must be managed as both an environmental and economic-development agenda. It must support emissions reduction while maintaining electricity reliability, attracting investment, and supporting industrial competitiveness.

6.7. Public Participation and Transparency

Public participation is essential for legitimate and effective environmental governance. Citizens and communities can help identify local environmental risks, monitor pollution, provide feedback, and strengthen accountability. Transparency also supports investors, researchers, enterprises, and public agencies by improving access to environmental information.

Vietnam's environmental protection strategy recognizes the importance of environmental quality, community supervision, and governance improvement (Prime Minister of Viet Nam, 2022a). However, participation must be meaningful rather than procedural. Environmental impact information, pollution data, compliance status, and complaint-handling mechanisms should be accessible where legally and technically feasible.

Public participation should be treated as a policy-learning mechanism. It can improve environmental decisions, reduce social conflict, and strengthen trust. In a green economy, governance must be technically competent and socially responsive. Public feedback can identify implementation problems that are not visible in administrative reports.

7. DISCUSSION

Vietnam's environmental governance framework has become more comprehensive and more development-oriented. It now includes legal regulation, strategic planning, climate commitments, circular economy, green finance, carbon-market development, and power-sector planning. This represents a significant evolution from a narrower model of environmental management.

The policy architecture shows strong strategic coherence. Most major documents point toward low-carbon growth, resource efficiency, climate resilience, circular economy, and green finance. The National Green Growth Strategy and Action Plan provide an economic transformation framework. The Law on Environmental Protection and Decree No. 08/2022/ND-CP provide regulatory foundations. The updated NDC and National Climate Change Strategy provide climate commitments. The circular economy scheme addresses resource efficiency. The green taxonomy and carbon-market rules introduce market-oriented instruments. The revised Power Development Plan VIII addresses energy transition.

However, strategic coherence does not guarantee practical coherence. The central challenge is implementation across a complex administrative and economic system. Vietnam must ensure that national strategies influence sectoral plans, that sectoral plans guide investment, that investment decisions reflect environmental criteria, and that local implementation is monitored. This requires a policy delivery system, not only a policy declaration system.

The emergence of market-based instruments is particularly important. Green taxonomy, green credit, green bonds, EPR, and carbon markets can reshape economic incentives. They may encourage firms and investors to account for environmental impacts. However, market instruments require more than legal authorization. They require data, verification, registries, technical standards, market confidence, and enforcement. If these institutional foundations are weak, market instruments may remain symbolic.

Vietnam's green transition should also be understood in the context of international economic integration. Export markets, investors, and supply-chain partners increasingly require evidence of environmental performance. The European Union's Carbon Border Adjustment Mechanism illustrates the growing connection between trade and carbon intensity (European Commission, n.d.). For Vietnam, green governance is therefore linked to competitiveness. Firms that adapt early may improve market access and resilience, while firms that delay may face higher compliance costs later.

At the same time, green transition must be inclusive. If environmental regulation imposes costs without support, smaller enterprises may struggle. If energy transition raises affordability concerns, households and firms may resist. If carbon markets are too complex, participation may be limited. Therefore, green economic development must combine regulation with support, incentives, capacity-building, and social dialogue.

Overall, Vietnam's policy direction is increasingly clear. The country has constructed a sophisticated framework for green governance. The next stage is implementation. Policy success will depend less on producing additional strategies and more on strengthening delivery capacity, monitoring systems, financial mechanisms, local enforcement, and public accountability.

8. POLICY RECOMMENDATIONS

First, Vietnam should strengthen whole-of-government coordination for green growth. The green economy agenda should not be assigned to one ministry alone. It must be integrated into energy, industry, agriculture, transport, finance, urban planning, trade, education, and science and technology. A stronger coordination mechanism should identify responsible agencies, timelines, indicators, budget sources, and reporting requirements. It should also resolve conflicts between short-term economic objectives and long-term environmental goals.

Second, Vietnam should improve environmental data and monitoring systems. Reliable data are necessary for permits, inspections, carbon markets, green finance, EPR, climate reporting, and public accountability. Environmental databases should be digital, interoperable, and linked to decision-making. Data providers should be accountable for accuracy, and regulators should have capacity to verify reported information. Environmental data should also be made accessible to the public where appropriate.

Third, Vietnam should build local enforcement capacity. Provinces and municipalities need technical training, inspection resources, monitoring equipment, environmental laboratories, digital permitting systems, and risk-based enforcement methods. Capacity-building should prioritize localities with rapid industrialization, high pollution pressure, or climate vulnerability. Local governments should not only implement national policies but also adapt them to specific local conditions.

Fourth, Vietnam should use the green taxonomy to mobilize credible finance. Decision No. 21/2025/QD-TTg provides a legal foundation, but implementation requires transparent certification, independent verification, banking-sector guidance, and project preparation support (Prime Minister of Viet Nam, 2025a). Green finance should be connected to technically sound and financially viable projects. Financial institutions should receive guidance on assessing environmental risks and monitoring project outcomes.

Fifth, Vietnam should develop the carbon market gradually and credibly. Carbon-market rules should prioritize measurement, reporting, verification, registry integrity, allowance allocation, and compliance. A phased approach can help regulators and enterprises build capacity before full-scale implementation. Market credibility is more important than rapid expansion. Carbon pricing should be introduced in a way that supports emissions reduction while maintaining economic stability.

Sixth, Vietnam should support SMEs in green transformation. SMEs need accessible guidance, concessional loans, energy audits, cleaner production support, technology transfer, and simplified reporting tools. Sector-specific support is necessary because different industries face different environmental challenges. Support should help firms view green transformation as a pathway to productivity, innovation, and competitiveness rather than only as a compliance burden.

Seventh, Vietnam should align energy transition with industrial development. Renewable energy, grid modernization, storage, energy efficiency, and new energy industries should be treated as part of national competitiveness. Energy planning should provide regulatory certainty while maintaining power security and affordability. The revised Power Development Plan VIII should be implemented through transparent procedures, investment coordination, and attention to both environmental and economic outcomes (Prime Minister of Viet Nam, 2025c).

Eighth, Vietnam should institutionalize public participation and environmental transparency. Public access to environmental information, community monitoring, consultation, and complaint mechanisms can improve accountability and policy legitimacy. Environmental governance should combine state regulation with social feedback. Public participation should be designed to improve policy learning rather than simply satisfy procedural requirements.

Ninth, Vietnam should connect green governance with innovation policy. Cleaner production, resource efficiency, digital monitoring, recycling technologies, renewable energy services, and low-carbon infrastructure can become sources of innovation. Public policy should support research, technology transfer, pilot projects, and cooperation between universities, enterprises, and government agencies. A green economy is not only a regulatory objective; it is also an innovation agenda.

Tenth, Vietnam should ensure that the green transition remains socially inclusive. Policies should consider the needs of workers, households, vulnerable communities, and small enterprises. Climate adaptation should protect communities exposed to floods, storms, salinity intrusion, and other hazards. Energy transition should be designed with attention to affordability and employment. Green growth will be more durable if its benefits are widely shared.

9. CONCLUSION

Vietnam has made significant progress in constructing a policy architecture for environmental governance and green economic development. The Law on Environmental Protection 2020, Decree No. 08/2022/ND-CP, the National Green Growth Strategy, the National Action Plan on Green Growth, the National Strategy for Environmental Protection, the updated NDC, the circular economy scheme, the green taxonomy, carbon-market regulations, and the revised Power Development Plan VIII all demonstrate a clear shift toward integrated green development.

The main challenge is implementation. Vietnam's green transition requires more than legal documents and strategic targets. It requires coordinated institutions, reliable environmental data, capable local governments, prepared enterprises, credible green finance, effective market mechanisms, and meaningful public participation. Environmental governance must become a practical driver of investment, innovation, resource efficiency, emissions reduction, and climate resilience.

Vietnam's green economic development should therefore be understood as an institutional transformation. If environmental governance becomes more coordinated, transparent, data-driven, and locally enforceable, it can support not only pollution control but also sustainable competitiveness, social resilience, and long-term national prosperity. The policy direction is increasingly clear; the next stage depends on delivery capacity, accountability, and the ability to translate ambition into measurable outcomes.

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