

Towards a Sustainable Public Finance Model for the Green Transition in Vietnam

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Abstract

This article focuses on analyzing the role and potential of public finance in supporting the green transition in Vietnam, with the aim of fulfilling the country's net-zero emissions commitment by 2050. By synthesizing theoretical insights and international practices from organizations such as the OECD and IMF, and countries like France and New Zealand, the study highlights that green public finance is a vital tool for achieving sustainable development. Based on this foundation, the article examines Vietnam's current context, identifying challenges such as a tax system that does not reflect environmental costs, the absence of a green expenditure classification framework, and an underdeveloped green finance market. The study proposes a sustainable public finance model built on three pillars: environmental tax reform and carbon pricing; green budgeting; and the development of green financial instruments. Policy recommendations are provided to guide fiscal institutional reforms, enhance management capacity, and integrate the green transition into medium- and long-term development plans, contributing to the realization of Vietnam's national climate commitments.

Keywords: Sustainable Public Finance, Green Transition, Environmental Taxes, Green Budgeting, Green Bonds

Introduction

Climate change has emerged as one of the most serious and urgent challenges facing humanity in the 21st century. Its impacts are becoming increasingly evident through extreme weather events such as storms, floods, droughts, rising sea levels, and other natural disasters, directly threatening human life, public health, and the sustainable socio-economic development of nations. Vietnam is among the countries most vulnerable to climate change due to its unique geographical characteristics, including a long coastline, dense river networks, and a heavy reliance on climate-sensitive sectors such as agriculture, fisheries, and tourism.

Recognizing the urgency and severity of this issue, at the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26) in 2021, Vietnam made a strong commitment to achieve net-zero greenhouse gas emissions by 2050. To realize this ambitious target, the Vietnamese government must implement a comprehensive and

synchronized green transition across all sectors, from industry and transportation to energy and urbanization.

However, the green transition is not merely a technological or technical shift, it is a profound reform process closely linked to the development and improvement of institutional policies, particularly public finance policies. Public finance plays a crucial role in this process, as it serves as the primary resource enabling governments to actively intervene, promote, and steer the economy toward a greener, cleaner, and more sustainable path.

In this context, the traditional public finance model, which has primarily focused on pure economic growth, has revealed many limitations and is no longer adequate to meet the demands of the green transition. Therefore, developing a sustainable public finance model that integrates Environmental, Social, and Governance (ESG) criteria into the budget cycle and fiscal policy framework has become an urgent necessity.

Key public finance instruments such as environmental taxes (green taxes), green spending, and environmental impact assessment mechanisms must be effectively designed and implemented to provide strong incentives for businesses and individuals to shift toward environmentally friendly practices. At the same time, establishing sustainable financial mechanisms such as issuing green bonds and setting up carbon markets, will be critical solutions for mobilizing and allocating resources more efficiently for green projects.

In the face of growing climate risks and the urgent global drive toward sustainable development, establishing a sustainable public finance model has become a strategic priority for Vietnam. Without effective fiscal reforms, the country risks falling behind in meeting its climate commitments and sustaining long-term economic growth. Moreover, the increasing integration of ESG factors into global investment and trade frameworks creates a pressing need for Vietnam to align its public finance system accordingly. However, there remains a significant research gap in designing a comprehensive model tailored to Vietnam's unique institutional and economic context. This study seeks to address this critical need. In contribution to this process, this article aims to achieve three main objectives:

- (i) to synthesize and evaluate theoretical studies and international experiences on green public finance;
- (ii) to analyze Vietnam's current situation, identifying both advantages and challenges in implementing green public finance policies;
- (iii) to propose a sustainable public finance model with feasible policy solutions to effectively and comprehensively promote the green transition in Vietnam.

Literature Review

The role of public finance in promoting sustainable development and supporting the green transition has become a significant topic of global research. Recent international studies consistently emphasize the importance of integrating environmental criteria into the planning and execution of national budgets as an effective means to achieve sustainable development goals.

The Organisation for Economic Co-operation and Development (OECD) stresses that national budgets should serve as strategic tools to drive green investment, support energy transition, and protect the environment. The OECD has proposed a Green Budgeting Framework to guide member states in integrating environmental considerations into budgeting processes and fiscal policy implementation. The framework recommends specific measures such as conducting environmental impact assessments of budgets, classifying public expenditures by green criteria, and establishing transparent monitoring and reporting systems (OECD, 2021). Similarly, the International Monetary Fund (IMF) has released a key report highlighting the role of public finance in addressing climate change. According to the IMF, each country's fiscal strategy should proactively incorporate green financial measures such as carbon taxes, green public spending, and green bond issuance to ensure both economic efficiency and environmental goals. The report underscores that applying green fiscal instruments not only helps countries achieve emission reduction targets but also opens up new economic opportunities (IMF, 2023).

In practice, several advanced economies such as France, Germany, New Zealand, and South Korea have successfully implemented green budgeting frameworks. France, for example, has deeply integrated sustainability indicators into its annual budget process by using specific criteria to allocate budget expenditures (Ministère, 2021). Meanwhile, New Zealand has pioneered the Well-being Budget model—an innovative approach that incorporates social and environmental dimensions into budgetary decisions to enhance quality of life and environmental protection (New Zealand Treasury, 2022).

In Vietnam, although the concept of green public finance is relatively new, initial studies have begun to explore the relationship between public expenditure and sustainable development. Nguyen and Tran (2023) found that increased public spending on green projects such as renewable energy and sustainable infrastructure can significantly contribute to green economic growth. Similarly, Pham (2024) emphasized the necessity of fiscal institutional reform toward sustainability, particularly highlighting the role of environmental taxes and other green financial instruments in redirecting investment and consumption behavior toward environmentally friendly practices.

However, despite these preliminary efforts, Vietnam still lacks a comprehensive and systematic model that fully integrates green public finance instruments into both the revenue and expenditure sides of the budgeting process. Building a sustainable public finance model in Vietnam, therefore, requires not only learning from international experiences but also fostering close coordination among various levels and sectors to create a transparent and efficient financial governance mechanism capable of meeting national sustainable development objectives.

Research Methodology

This article employs a qualitative research approach aimed at exploring and deeply analyzing aspects related to building a sustainable public finance model to support the green transition. Qualitative research is particularly useful in this context as it provides deeper insights into phenomena, processes, and the driving forces behind policy reforms (Creswell & Creswell, 2018).

Specifically, the study adopts two main methodological approaches: First, secondary document analysis is used to synthesize and systematize information related to green public finance models. This includes reviewing reports from reputable international organizations such as the OECD, IMF, and World Bank, as well as government agencies from countries that have successfully implemented green finance frameworks such as France, Germany, South Korea, and New Zealand. This method allows access to best practices and theoretical frameworks, helping to draw lessons that are relevant to the Vietnamese context (Yin, 2017). Utilizing secondary sources also saves time and makes effective use of available data from previous research. Second, the study applies institutional analysis to assess the current state of Vietnam's public finance system. As Ostrom (2011) suggests, institutional analysis helps clarify governance structures and institutional factors affecting the effectiveness of public policies. This approach identifies gaps and inefficiencies in Vietnam's current fiscal management mechanisms and provides direction for necessary reforms to enhance the effectiveness of green public finance policies.

In addition, the article uses comparative analysis to contrast green fiscal policies and models that have been successfully implemented in selected countries with Vietnam's current context. This comparison helps identify strengths, weaknesses, and contextual differences, forming a solid foundation for constructing a feasible and effective public finance model tailored to Vietnam's conditions (Ragin, 2014).

All data and information collected from secondary sources, reports, and related studies are critically evaluated for reliability and authenticity before being included in the analysis. The analytical process is conducted systematically through coding, synthesizing, and interpreting data to ensure objectivity and credibility of the research results (Miles et al., 2020).

Overall, these methods provide a robust foundation for developing a sustainable public finance framework suitable for Vietnam's green transition, ensuring the applicability and practicality of the policy recommendations proposed in the article.

Research Findings

Based on secondary data analysis and institutional assessment, this study highlights several key findings regarding the current status and challenges of green public finance in Vietnam:

Vietnam's current tax system does not effectively integrate environmental considerations. Resource taxes and environmental fees remain low compared to the average in other developing countries, thereby weakening their role in promoting sustainable production and consumption behaviors (Pham, 2024). The lack of a clear carbon pricing mechanism and insufficiently strong environmental taxes are major barriers preventing both businesses and individuals from shifting away from polluting activities (IMF, 2023).

Public spending on critical sectors such as renewable energy, green public transport, water management, and climate change adaptation remains limited and heavily reliant on international funding (Nguyen & Tran, 2023). According to the World Bank (2023), domestic financial resources are not adequately prioritized, leading to unsustainable and unstable long-term financing. This overdependence on external aid restricts Vietnam's autonomy in implementing green development programs.

Vietnam has yet to establish a clear and consistent green expenditure classification system. This shortcoming hinders effective monitoring and evaluation of public investments in environmental and green activities. OECD (2021) notes that countries with effective green expenditure classification systems can closely track environmental outcomes and budgetary impacts, allowing for more agile and responsive policy adjustments.

In terms of green finance, especially green bonds, Vietnam is still in the early stages. Government-issued green bonds lack a clear legal framework and specific eligibility criteria for qualified green projects. This absence of transparency has led to skepticism among both domestic and international investors (IMF, 2023; OECD, 2021), limiting Vietnam's ability to attract private and international capital for green development projects.

Proposed Sustainable Public Finance Model

Drawing on international experiences and Vietnam's domestic context, the study proposes a sustainable public finance model comprising three key pillars:

- (i) Environmental tax reform and carbon pricing: Establishing transparent and effective environmental tax systems is crucial to incentivize eco-friendly behavior from both enterprises and households. A robust carbon pricing mechanism will enhance policy impact and increase fiscal efficiency.
- (ii) Green budgeting and environmental impact evaluation: It is necessary to build a green budgeting framework that includes classification, evaluation, and monitoring mechanisms. This will improve transparency and ensure that public funds are allocated optimally to environmentally beneficial initiatives.
- (iii) Development of green financial instruments: Vietnam should develop a clear and internationally aligned legal framework for green bonds and other sustainable finance products. This will help mobilize private sector and global investment resources for green projects more effectively.

These findings provide a critical foundation for Vietnam to develop a more robust and sustainable public finance system, one that can effectively support the country's green and sustainable development goals.

Policy Implications

Based on the key findings of the study regarding the current state of public finance and the demands of sustainable development in Vietnam, this article proposes several detailed policy recommendations to effectively support the green transition process:

First, the government should urgently issue a National Green Budgeting Framework. This framework would serve as a critical tool to ensure that public spending decisions are made based on clear environmental protection and sustainability criteria. It should include detailed classifications to identify environmentally friendly expenditures, along with evaluation criteria to assess the environmental impact of public spending. Integrating environmental considerations into the budget cycle would help ensure the efficient use of financial resources and contribute to achieving national sustainable development goals.

Second, Vietnam must carry out a comprehensive green tax reform. This includes expanding the scope and rates of environmental taxes and fees to better internalize environmental costs into product and service prices. A particularly important measure is the adoption of carbon

pricing mechanisms to guide production and consumption behaviors toward lower emissions. These mechanisms may include an Emissions Trading System (ETS) or a direct carbon tax—tools that have proven effective in many advanced economies.

Third, the government should accelerate the development of a sovereign green bond market to mobilize significant financial resources from both domestic and international private sectors. This market would support climate adaptation and mitigation projects, energy efficiency initiatives, and sustainable economic growth. To enhance transparency and investor confidence, a clear legal framework aligned with international standards—such as the Green Bond Principles (GBP) developed by the International Capital Market Association (ICMA)—must be established.

Fourth, institutional capacity building for green public financial management is essential. Vietnam should invest in professional training programs for financial managers, focusing on green budgeting, environmental impact assessments, and sustainable finance instruments. In addition, developing a modern, transparent green finance information and monitoring system will enable timely policy tracking, evaluation, and adjustment.

Finally, integrating sustainable public finance into Vietnam's national socio-economic development strategy for 2026–2035 must be conducted comprehensively. The green transition should be embedded in the medium-term fiscal planning process to create a stable, long-term fiscal framework that ensures effective mobilization and use of financial resources. This integration would help Vietnam fulfill its environmental protection, sustainable development, and international climate commitments.

In summary, these policy recommendations are expected to play a vital role in enabling Vietnam to successfully implement its green transition strategy, advance sustainable development, and meet international obligations related to environmental protection and climate change.

Conclusion

Sustainable public finance plays a foundational role in enabling Vietnam to achieve its net-zero greenhouse gas emissions target by 2050, while facilitating a smooth transition toward a green and sustainable economy. To meet these ambitious goals, comprehensive reforms to the public revenue and expenditure system—with a strong orientation toward greening—are urgently required. Such reforms will help create necessary market incentives, promote environmentally friendly economic activities, enhance the efficiency of public investment, and ensure that financial resources are used in the most optimal and sustainable manner.

Through analysis and synthesis of international experiences, along with a detailed assessment of Vietnam's current public finance system, this study has identified key limitations and challenges in the existing fiscal framework. Notably, pressing issues such as low environmental taxes and fees, the absence of a clear green expenditure classification system, and the underdevelopment of the green bond market have been thoroughly examined. These findings not only shed light on the constraints of the current system but also form a critical basis for developing a sustainable public finance model.

This article proposes a comprehensive green public finance framework, which includes environmental tax reform and carbon pricing, the establishment of a green budgeting system, environmental impact assessments for public spending, and the development of green financial instruments such as green bonds. The proposed model is grounded in international best practices and adapted to suit Vietnam's specific context and conditions.

Ultimately, the policy recommendations presented in this study serve not only as a valuable reference for policymakers but also as a practical guide for institutional fiscal reforms. If implemented in a methodical and synchronized manner, these reforms will significantly contribute to advancing Vietnam's green transition, ensuring sustainable economic growth, effective environmental protection, and the fulfillment of international climate commitments.

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