DCC Department of Climate Change

ENERGY TRANSITION PARTNERSHIP

REPORT

ANALYSIS OF VIET NAM'S LEGAL FRAMEWORK AND INTERNATIONAL EXPERIENCES TO IDENTIFY GOVERNANCE OPTIONS FOR EMISSION TRADING SYSTEM IN VIET NAM

FEBRUARY 2025

Prepared by:

GREEN CLIMATE INNOVATION COMPANY LIMITED

ENERGY AND ENVIRONMENT CONSULTANCY JOINT STOCK COMPANY

SOUTH POLE CARBON ASSET MANAGEMENT

GREENCIC

Energy Environment Climate VNEEC

south pole

UNOPS

AFD Agence Française de Développement

Federal Ministry for Economic Affairs and Climate Action

Department for Energy Security & Net Zero

Environment and Climate Change Canada / Environnement et Changement climatique Canada

Australian Government Department of Climate Change, Energy, the Environment and Water

CIFF Children's Investment Fund Foundation

SEQUOIA CLIMATE FOUNDATION

DEVELOPMENT AND IMPACT ASSESSMENT OF CARBON CREDIT AND ALLOWANCE GOVERNANCE MECHANISM IN VIET NAM

REPORT

ANALYSIS OF VIET NAM'S LEGAL FRAMEWORK AND INTERNATIONAL EXPERIENCES TO IDENTIFY GOVERNANCE OPTIONS FOR EMISSION TRADING SYSTEM IN VIET NAM

A report analysing the legal framework in Viet Nam and international experiences to identify different governance options for the determination and development of the ETS governance options in Viet Nam, with a focus on the feasible options for the pilot operation during 2025-2027 period that reflects the most recent commitments under the NDC, net-zero and JETP

Ha Noi, February 2025

COLOPHON AND DISCLAIMER

Beneficiary

Department of Climate Change, Ministry of Agriculture and Environment, Viet Nam
10 Ton That Thuyet, Nam Tu Liem, Ha Noi, Viet Nam | +8424 3775 9430 | info@dcc.gov.vn

Key Experts

Nguyen Hong Loan, Green Climate Innovation Company Limited: Team Leader and Climate Policy Expert
Dang Hong Hanh, Energy and Environment Consultancy Joint Stock Company: National Carbon Market Expert (Policy)
Nguyen Tien Hai, Energy and Environment Consultancy Joint Stock Company: National Carbon Market Expert (Design)
Robert Ritz, Energy Policy Research Group, University of Cambridge: International Data Modelling Expert
Roxanne Tan, South Pole Carbon Asset Management: International Carbon Market Expert (Carbon trading)

Contributors

Green Climate Innovation Company Limited: Nguyen Le Khanh Linh, Hoang Thuy An, Doan Mai Huong
Energy and Environment Consultancy Joint Stock Company: Tran Ngoc Binh, Nguyen Thi Hong Anh
South Pole Carbon Asset Management: Umdatul Mujahidah, Viddy Firmandiaz

Acknowledgements

We would like to thank the Department of Climate Change of the Ministry of Agriculture and Environment and the Southeast Asia Energy Transition Partnership for their collaboration and support, insightful comments, and advice for the completion of this Deliverable.

Disclaimer

Suggested citation: Loan, N., Hanh, D., Hai, N., Ritz, R., Tan, R. (2025). *Analysis of Viet Nam’s legal framework and international experiences to identify governance options for Emission Trading System in Viet Nam*, prepared for the Energy Transition Partnership for Southeast Asia (ETP), Hanoi, Viet Nam.

EXECUTIVE SUMMARY

This report, "Analysis of Viet Nam's Legal Framework and International Experiences to Identify Governance Options for the Emission Trading System (ETS) in Viet Nam" was developed under the technical assistance project "Development and Impact Assessment of Carbon Credit and Allowance Governance Mechanism in Vietnam" funded by the Southeast Asia Energy Transition Partnership (ETP) to support the Department of Climate Change (DCC), Ministry of Agriculture and Environment (MAE). The study provides a comprehensive evaluation of Viet Nam's legal readiness, international best practices, and different governance design options for the pilot operation of the domestic Emission Trading System (ETS) in Viet Nam. The ultimate objective is to provide evidence-based recommendations that will allow Viet Nam to transition from conceptual planning to the operationalisation of a national carbon market aligned with its climate commitments, including its Nationally Determined Contribution (NDC), net-zero pledge for 2050, and the strategic objectives of the Just Energy Transition Partnership (JETP).

The legal foundation for ETS implementation in Viet Nam has been laid out through the Law on Environmental Protection 2020 (LEP 2020) and Decree No. 06/2022/ND-CP. Further momentum has been generated by the Prime Minister's Decision No. 232/QD-TTg on approval of the scheme for establishment and development of the carbon market in Viet Nam, which envisions a phased implementation from pilot to full-scale operation by 2028. However, substantial design and governance decisions remain, particularly concerning sectoral scope, cap-setting methodology, and allowance allocation mechanisms. The purpose of this report is to fill those gaps by combining legal analysis, international comparisons, and identification of options for modelling different governance scenarios.

International experience and key considerations for Viet Nam

The report outlined key design principles to guide the establishment of a robust ETS framework in Viet Nam, informed by international case studies selected based on three criteria: (i) system maturity (over five years of operation); (ii) contextual similarity (comparable economic, industrial, or regional conditions); and (iii) diversity in allocation mechanisms. Seven case studies were analysed: European Union (EU) ETS, South Korea ETS, China National ETS, Mexico ETS, Indonesia ETS, Canada's federal output-based pricing system (OBPS) and Alberta Technology Innovation and Emissions Reduction (TIER).

The review of international experiences highlighted several key insights. First, scope and coverage typically evolve over time, beginning with a limited number of sectors, such as power and heavy industry, and gradually expanding to include additional sectors like transport and buildings. Mature systems such as the EU ETS and K-ETS now cover a broad range of sectors and GHGs, while China's and Indonesia's systems remain focused on the power sector, reflecting an incremental approach suited to administrative capacity and data availability.

Second, cap-setting approaches vary between absolute and intensity-based methods. Most mature systems, such as the EU ETS, K-ETS, and Mexico ETS, use a top-down, absolute cap, offering greater environmental certainty. In contrast, China, Indonesia, and Canada's OBPS adopt intensity-based or bottom-up approaches, providing greater flexibility but requiring strong MRV systems to ensure environmental integrity.

Third, allowance allocation mechanisms differ widely, with a general shift from free allocation to increased auctioning in mature systems. The EU ETS and K-ETS use hybrid approaches, combining benchmark-based free allocation for emissions-intensive, trade-exposed (EITE) sectors with auctioning for others. Meanwhile, Mexico, Indonesia, and Alberta TIER rely predominantly on free allocation, often using historical emissions or intensity benchmarks. These practices reflect transitional considerations and political economy factors.

Furthermore, allowance prices vary significantly across systems, from under USD 1/tCO_2e in Indonesia to over USD 60/tCO_2e in the EU and Canada, indicating different levels of market maturity, policy ambition, and demand-supply dynamics.

Overall, these case studies demonstrate that the governance of ETS must be adaptable, balancing ambition with practical implementation constraints. Successful systems have achieved this by phasing in design elements, enhancing data infrastructure, and adjusting allocation rules in response to market performance and sectoral characteristics. These lessons offer valuable guidance for Viet Nam as it refines its ETS design, particularly in aligning cap-setting methods and allowance allocation with national priorities and capacity during the pilot phase.

Viet Nam's legal framework on ETS and Gap Analysis

This report also assessed Viet Nam's existing legal frameworks for ETS development, focusing on LEP 2020, Decree 06/2022/ND-CP and its proposed amendments, Decision No. 13/2024/QD-TTg and Decision No. 232/QD-Ttg.

Regarding scope and coverage, Viet Nam's current regulatory framework lacks clarity in certain areas. Although draft revised Decree No. 06/2022/ND-CP proposes including the thermal power, cement, and steel sectors in the pilot phase, the amendment has not yet been enacted, and the underlying rationale for sector selection has not been clearly articulated, leaving uncertainty for regulated entities.

Cap-setting presents a more fundamental gap. Viet Nam has yet to establish a regulatory or technical basis for determining emissions caps. The absence of clear guidelines risks regulatory uncertainty and the potential for overallocation, thereby weakening the ETS's environmental effectiveness.

Allowance allocation is similarly underdefined. While the draft amended Decree No. 06/2022/ND-CP suggests a fixed historical benchmarking approach for allocation, it does not incorporate key adjustment factors, such as emission reduction targets; business plans; abatement potential; or the technical and financial capacity of regulated facilities, limiting the robustness and fairness of the proposed approach.

Governance options and recommendations for ETS pilot operation in Viet Nam

To address the identified gaps in scope and coverage, cap-setting and allowance allocation, Deliverable 2 proposed a set of governance options and recommendations tailored to the ETS pilot phase. Informed by international best practices and the assessment of national context, these options serve to re-evaluate and operationalise key provisions outlined in the current draft amended ETS regulations.

First, in determining scope and coverage, three key aspects were considered: (i) sectoral coverage; (ii) emission sources; and (iii) the point of regulation. Sectoral coverage was assessed based on GHG emissions intensity and trade exposure, using classification from Decision No. 27/2018/QD-TTg. The results indicated that for the pilot phase, the thermal power sector, characterised by high emissions, low trade-exposure, was identified as a foundational sector for inclusion. The steel and cement sectors, having high emissions and high trade exposure, are also recommended due to their relevance in addressing carbon leakage risks, particularly in light of the emerging impacts of the Carbon Border Adjustment Mechanism (CBAM). In terms of emission sources, ETS should be limited to Scope 1 emissions, so as to ensure clarity in measurement, monitoring, and verification (MRV), and enhance the overall feasibility of system management. The point of regulation should be situated at major GHG-emitting activities, including crude steel production in the steel sector and clinker production in the cement sector, to support a targeted and effective approach to emission reduction while avoiding potential distortion of the emission intensity benchmark.

Second, options for the cap-setting approach were developed to align with Viet Nam's NDC, ensuring that the ETS complements national climate targets. Option 1: Based on the NDC's unconditional scenario with the national emission reduction target of 15.8%. Option 2: Based on the NDC's conditional scenario, with a more ambitious target of 45.3% compared to the Business-As-Usual (BAU) scenario in 2030. Option 3: Aligned with Viet Nam's commitment under the conditional NDC with JETP scenario, which envisions reducing the emission peak from 240 $MtCO_2e$ in the electricity sector by 2035 to 170 $MtCO_2e$ by 2030.

Third, for allowance allocation, the benchmarking methodology is proposed to promote efficiency, transparency and alignment with sectoral and industrial development plans. In addition, the use of carbon offsets is permitted but limited to 10% or 20% of total compliance. These limits will be assessed to determine the extent to which they can provide cost flexibility for regulated entities.

In summary, the recommended governance design for Viet Nam's pilot ETS includes the inclusion of thermal power, cement, and steel sectors, with a focus on Scope 1 emissions and allowance allocation is based on benchmarking to incentivise emission accuracy. In addition, the scenarios to be considered for cap-setting are the unconditional NDC, the conditional NDC, and the NDC combined with JETP support, with the restricted use of offsets up to 10% or 20% of total compliance obligations.

Deliverable 2 constructed policy-relevant scenarios that inform the subsequent economic and environmental impact modelling and analysis. A total of nine scenarios, combining variations in sectoral coverage, cap stringency, offset usage, and allowance allocation, were developed to serve as inputs for Deliverable 3 "Assessing and modelling the impacts of governance options for ETS in Viet Nam". This approach provides an integrated analytical foundation to support evidence-based decisions on the design and implementation of Viet Nam's pilot ETS.