

EXECUTIVE SUMMARY SECOND MILESTONE REPORT

**Assessment of Country's Readiness and
International Experience for Carbon Trade Exchange Design**



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COLOPHON AND DISCLAIMER

Beneficiaries

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EXECUTIVE SUMMARY

The emission trading scheme (ETS) offers a cost-effective means for countries to reduce greenhouse gas emissions by putting a price on emissions through a market-based approach. Viet Nam decided to develop a domestic carbon market based on trading of emission allowances and carbon credits in the 2020 Law on Environmental Protection.

Decree No. 06/2022/ND-CP of the Government on mitigation of GHG emissions and protection of ozone layer defines that the trading of emission allowances and carbon credits in the carbon market shall be performed on a carbon trade exchange (CTX), which is scheduled for pilot operation from 2025 and official operation in 2028. The Ministry of Finance (MOF) is assigned to coordinate the establishment and development of CTX and formulate a financial management mechanism for the operation of the carbon market in Viet Nam.

In order to support the MOF and line ministries with the establishment and operation of the CTX, the Energy Transition Partnership (ETP) under the United Nations Office for Project Services (UNOPS) implemented the Technical Assistance on Assessment of Country's Readiness and International Experience for Carbon Trade Exchange Design. The objective of this Study is to provide the MOF with a comprehensive understanding of the country's existing relevant legal, institutional framework, and infrastructure conditions and the gaps to be fulfilled for the establishment and operation of the CTX in Viet Nam.

The Report looked at 21 existing ETSs in the world with operating CTXs to select case studies based on six criteria (years of operation, contextual similarity, traded volume, transaction price, use of carbon credits, and linking) for the in-depth analysis of international experience concerning legal, institutional, and infrastructure requirements for the CTX. After the multi-criteria analysis, four ETSs with the highest rankings were selected, namely UK ETS, New Zealand ETS, California ETS, and Korea ETS. Selected case studies have fulfilled several of the following criteria: a long history of ETS operation (at least more than 5 years), high contextual similarity to Viet Nam (ETS at national level, located in Asia, with a developing economy), and top traded volume of allowances (over 20 million tCO₂) with efficient transaction prices (over USD 10). Among the chosen ETSs, there are also ETSs that allow the use of carbon credit and have linkages to other ETSs. The multi-criteria analysis aimed to ensure that the selected case studies have a similar country context with Viet Nam and can offer the most relevant experiences for the establishment and operation of the CTX.

The review of international experience showed that a robust regulatory framework is a cornerstone of a credible CTX. Each country established its exchange under a dedicated law, supported by comprehensive regulations and guidelines governing allowance trading, market oversight, and participant compliance. On the other hand, aligning this framework with international standards further bolstered transparency and market integrity.

None of the case-study countries/jurisdictions opted for the creation of a new exchange, instead leveraging existing financial platforms within their jurisdictions. Among them, only California utilized the Western Climate Initiative program as an auction platform, the remaining countries conducted auctions through designated carbon trade exchanges. Additionally, the secondary market structure varied, with California and New Zealand featuring multiple platforms, while Korea and the UK employed a single exchange model. Besides the exchanges, i.e. auctioning platform and secondary trading platform(s), the emission trading registry, the resettlement and clearing house are the most important infrastructure for the ETS and operate in connection to the CTX.

However, the case-studies also revealed implementation challenges, ranging from market volatility and oversight issues to regulatory gaps. These challenges, in turn, spurred the development of robust compliance measures, enhanced market surveillance mechanisms, and required effective risk management strategies to mitigate volatility and ensure regulatory adherence. Additionally, the importance of strong institutional capacity, coupled with active stakeholder engagement, emerged as crucial for effective exchange and market management as well as for promoting an inclusive and transparent system. Viet Nam can learn from their rich experiences ranging from the case-studies to create a reliable and robust governance and policy framework, apply a cost-effective and efficient institutional arrangement approach and infrastructure to establish the CTX and the carbon market, and foresee and prepare solutions in advance to ensure seamless market operation.

Viet Nam has developed the legal and institutional framework for the carbon market and the CTX, most importantly through the 2020 Law on Environmental Protection and Decree 06/2022/ND-CP. Besides, there are also existing infrastructure based on exchanges for trading securities under the Vietnam Exchange (VNX) and for trading commodities under the Mercantile Exchange of Viet Nam (MXV). However, there remain gaps for Viet Nam to address to move forward with the establishment and operation of the CTX.

In terms of legal gaps, the cap and the benchmark for allocation of allowances are not defined. There are no specific regulations on criteria for evaluating and determining the eligibility of the carbon credits. The MRV system has not fully developed (there is a lack of guidance for GHG inventory in the transport and construction sectors and a list of verification entities is not promulgated). There is a need to develop the legal regulations for the establishment of the registry, the establishment and operation of the CTX, the establishment of financial mechanisms and measures for market management and oversight.

Regarding institutional gaps, it is necessary to formulate the charter for the designation of the national authorities to administer the operation of the registry and the CTX. Collaboration mechanism between MONRE and MOF, and the criteria for the assessment and approval of “other organizations and individuals” to be eligible for investment and participation in the domestic carbon market should be clearly defined.

In terms of infrastructure, several crucial components necessary for the operation of the ETS are either not yet in place or are lacking. These include the national registry system, a comprehensive support system for ETS implementation encompassing a national database on GHG inventory data from covered facilities to manage and monitor emission caps, tools for allowance allocation, a centralized system for MRV of GHG emissions and reductions, as well as the CTX and the allowance auction platform.

In order to find solutions to address the above mentioned legal, institutional and infrastructure gaps, different options were provided to conceptualize the establishment of the operation of the CTX, which laid the foundation for formulating the corresponding recommendations in terms of legal, institutional and infrastructure aspects.

First, in terms of establishment of the CTX, under Decree 06/2022/ND-CP, MOF is assigned for the development and establishment of CTX while the Ministry of Natural Resources and Environment (MONRE) is assigned for pilot operation and official operation of the CTX. Under this context, the commodities exchange under the management of the Ministry of Industry and Trade would not fit in the overall existing legal and institutional framework for the domestic carbon market and CTX in Viet Nam. Therefore, the two potential options for establishment of the CTX in Viet Nam: i) **Option 1:** Establish the CTX based on the infrastructure system of the securities exchange; ii) **Option 2:** Develop a carbon trade exchange model independent from the stock exchange system, managed by the MONRE. Option 1 offers the advantage of leveraging existing infrastructure, manpower, and resources, whereas the strength of Option 2 lies in ensuring unified market management authority under MONRE.

Second, for operating the CTX, the Report identifies two options for structuring the primary market: i) **Option 1:** Free allocation of allowances for all covered entities (and certification of carbon credits eligible for transactions on the secondary market); and ii) **Option 2:** Free allocation of allowances combining with auctioning (and certification of carbon credits eligible for transactions on the secondary market). While Option 1 has the advantage of reducing financial burden for the ETS- covered entities, Option 2 provides more incentives for enterprises to take GHG mitigation actions (since otherwise they have to pay for emissions with higher cost than a completely free allocation system) and makes the market more active and liquid.

Two options are also proposed for structuring the secondary market: i) **Option 1:** Trading both allowances and carbon credits on a centralized system with separate panels for allowances and carbon credits; and ii) **Option 2:** Trading only allowances on a centralized system. In parallel, carbon credits can be purchased from the domestic or international voluntary carbon market. The advantages of Option 1 include more transparent market information (in terms of transacted prices and volumes) and more reliable transactions (due to the involvement of the clearing infrastructure) since the market is highly regulated. Option 2 however offers more flexibility to allow linkage to the international carbon market.

Based on experiences from international experiences, national context and stakeholder consultation under this Assignment, the recommended solution for establishing the CTX includes:

- MONRE will perform unified management of the carbon market that includes establishing the registry system for allowances and carbon credits; setting regulations for the MRV system and requirements for allowances, carbon credits and market participants; deciding on the scope of utilizing the stock exchange system when the market participants engage in trading allowances and carbon credits in the secondary market;
- CTX is established based on utilizing the services from the stock exchange system managed by MOF (with the participation of State Securities Commission (SSC), Viet Nam Exchange (VNX), Viet Nam Securities Depository and Clearing Corporation (VSDC), etc.)

The proposed legal documents to be developed in the near future to fill in the legal gaps for this option include:

- Decree issued by the Government on establishing and operating the pilot CTX;
- Decision issued by the Prime Minister assigning MONRE to develop and manage the carbon market;
- Decision issued by the Prime Minister to assign the operation of the pilot CTX to VNX, VSDC, and MONRE;
- Decision issued by MOF on adjusting the operating regulations of VNX and VSDC related to the pilot CTX;
- Other guiding documents for procedures to operate the CTX.

The recommended institutional arrangements include:

- **MONRE:** playing the leading role in development and management of the carbon market, including the development and operation of the national registry system and the operation of the CTX and a comprehensive support system for ETS implementation encompassing a national database on GHG inventory data from covered facilities to manage and monitor emission caps;
- **MOF:** collaborating with MONRE for the design, development and operation of the CTX, playing the leading role in financial management of the carbon market, providing directions for SSC, VNX and VSDC to fulfill the requirements for carbon transactions;
- **VSDC:** collaborating with the National Registry System for application/account management, performing depository, clearing and settlement for carbon transactions;
- **VNX:** assigning the suitable stock exchange (HNX or HOSE) to provide a trading platform for the execution of carbon transactions.

As for the infrastructure, it is recommended to develop the national registry, a primary and secondary trading platforms for trading, and a centralized MRV system and a national

database on GHG inventory data to track the compliance of the covered entities. Based on the review and selection of specific model for operation of the CTX in the next phase, further details of the infrastructure for the CTX would be envisioned. It is therefore crucially important for relevant national authorities (MONRE and MOF) to discuss and agree on the selected option for operation of the CTX before moving to the next steps, including finalization of the relevant legal framework, institutional arrangements, technical design, and infrastructure development for the CTX.