

SOME EXPERIENCES FOR VIETNAM TOWARDING GREEN ECONOMY IN THE NEW ERA BASED ON THE EU AND CHINESE LAW ON CARBON MARKET

MAI DAC BIEN

Assoc. Prof, Dr, Senior Procurator,
Head of Law Faculty of Phenikaa University, Vietnam

MAI THU HANG

M.A, PhD student, Lecturer of Economic and International
Law Faculty of University of Procuracy, Vietnam

<https://doi.org/10.37602/IJREHC.2025.6408>

ABSTRACT

For many countries in the world, the carbon market is not a new issue, but the legal framework is still one of the contents that receives much attention and is constantly being improved, especially in the European Union (EU) and China. In recent years, Vietnam has increasingly paid attention to the carbon market not only from an economic perspective but also as an effective solution to adapt to climate change in order to achieve sustainable development goals in the new era. The article raises the research issue of shaping and operating the carbon market in the EU and China from a legal perspective, thereby providing suggestions for building a legal framework and carbon market model in the future.

Keywords: Carbon market; EU; China; Vietnam

1.0 INTRODUCTION

In recent years, climate change has become one of the top concerns of countries around the world and is a significant challenge for countries around the world, including Vietnam. There are many causes of climate change, of which greenhouse gas emissions are still considered by many studies to be the main cause of climate change. This requires countries to have strong legislative, institutional and enforcement measures to reduce greenhouse gas emissions. The European Union (EU) has always been considered a pioneer in issuing policies and regulations to reduce greenhouse gas emissions, of which, building and perfecting the carbon credit market has become one of the important tools operated by the EU to reduce emissions and move towards a green economy. In addition, China is a country with one of the largest greenhouse gas emissions in the world but has early paid attention to building a carbon market and has many similarities with Vietnam. Thus, the study of an pioneering organization and a country with many similarities in building and developing carbon markets are expected to suggest many valuable policy implications for Vietnam.

2.0 OVERVIEW OF CARBON MARKETS

From an international legal perspective, the carbon market was first officially mentioned in the 1997 Kyoto Protocol on Climate Change of the United Nations. Article 17 of the Kyoto

Protocol allows countries with spare emission units (allowed but unused emissions) to sell this excess capacity to countries that exceed emission standards. By 2015, the international community had achieved many important commitments at the COP21 Summit on Climate Change of the United Nations by adopting the Paris Agreement as an important legal basis for establishing and perfecting the carbon market. Article 6 of the Paris Agreement stipulates that parties can use international transaction activities on emission quotas to help achieve emission reduction targets.

The carbon credit market is like any other market, where buyers and sellers exchange goods. But unlike other markets, the carbon credit market is a specialized financial market, where the commodity that is bought and sold is carbon credits. The task of the carbon market is to turn CO₂ emissions into goods by pricing them. The carbon market operates on the principle of buying and selling carbon credits or emission quotas between organizations and businesses that need to emit and organizations and businesses that have the ability to reduce emissions. The carbon market allows investors and companies to trade both carbon credits and carbon offsets at the same time. Carbon credits (also known as carbon allowances) are a type of emission permit that allows a business to emit a certain amount of gas within a specific period. Usually, carbon credits are issued by governments or international organizations. Carbon offset according to Cambridge dictionary is a payment for doing something like planting trees to reduce the amount of carbon released into the environment. Carbon offset is a tradable right or certificate linked to carbon dioxide (CO₂) reduction activities. By purchasing carbon offset certificates, individuals or organizations can invest in climate change projects (such as reforestation, renewable energy construction, carbon-storing agricultural activities, waste and landfill management, etc.) to reduce their own carbon emissions. Carbon credits and carbon offsets make up two slightly different markets, although the basic unit traded is the same – the equivalent of one ton of carbon (CO₂) emissions.

There are currently two types of carbon markets: the compliance market and the voluntary market. The compliance market is regulated by national, regional or international carbon reduction regimes. Each business is allocated a certain number of carbon credits per year. Some businesses emit less than the number of credits allocated, so they have excess carbon credits that they can sell to other businesses in need. For example, two companies A and B are only allowed to emit 200 tons of carbon per year. However, company A emits 300 tons of carbon while company B only emits 100 tons of carbon. To avoid penalties and taxes, company A can buy carbon credits from company B. The voluntary market is where businesses and individuals buy credits at will to offset their carbon emissions. For example, if a company declares to be carbon neutral, they can calculate the amount of carbon they emit. They can then buy an equivalent amount of carbon offset credits by planting more trees, investing in a renewable energy project, or by generating carbon offsets. The airline can then claim to be carbon neutral. The purchase of these offsets is completely voluntary, which is why carbon offsets are part of a voluntary carbon market. Carbon markets operate under either a cap and trade or a baseline and credit system. Cap and trade systems typically operate in a mandatory carbon market, while baseline and trade systems operate in a voluntary market. The main difference between the two systems is that cap and trade sets a limit on carbon emissions and businesses must buy credits if they exceed this limit. Baseline and credit sets a standard level of emissions and if Businesses that reduce their emissions below this level can earn carbon credits to sell.

3.0 EU AND CHINESE LEGISLATION ON CARBON MARKETS

3.1 EU legislation on carbon markets

The EU is one of the pioneers in the development and operation of carbon credit markets. EU legislation on carbon credit markets is mainly regulated by the EU Emissions Trading System (EU ETS). This is one of the EU's main tools to reduce greenhouse gas emissions and promote the transition to a low-carbon economy. The Emissions Trading System (EU ETS) was established in 2005 and is the cornerstone of European Climate Policy. The EU ETS was the world's first major emissions trading scheme and is now the world's largest carbon market.

The EU ETS is operated in the following phases:

Phase 1: (2005-2007) Pilot phase: This is described as the “learning how to do” phase. During this phase, the EU ETS only applies to CO₂ emissions reductions from power plants and energy-intensive industries. Almost all subsidies are provided free of charge to businesses. The penalty for non-compliance is 40 euros per ton of CO₂.

Phase 2 (2008-2012): This phase coincides with the first commitment period of the Kyoto Protocol. During this phase, the EU reduced its subsidies (by about 6.5% compared to 2005) , some countries auctioned subsidies and the penalty for non-compliance was increased to 100 euros per tonne of emissions.

Phase 3 (2013-2020): This is the reform phase of the EU ETS. The EU has established a common EU-wide cap to replace the national cap system and auctions have become the default method for allocating subsidies instead of the previous free allocation. The aviation industry is also subject to an emission cap during this phase.

Phase 4 (2021-2030): emissions from shipping are included into the scope of the EU ETS from 2024. During this period, the EU aims to reduce emissions from 1.74% to 2.2%, limit the use of credits from international investment projects unless an international agreement on climate change is reached, and create a market stability reserve .

The legal framework of the EU ETS is clearly defined in EU Directive 2003/87/EC and has been continuously revised and improved in 2004, 2008 and most recently in 2018.

In principle, the EU ETS operates on the “polluter pays” principle . The EU ETS is a cap and trade system that aims to reduce greenhouse gas emissions by setting limits or ceilings on greenhouse gas emissions for certain sectors (usually heavy industry, power plants and aviation).

About the operating mechanism: EU ETS operates based on the “Cap-and-trade” emissions trading system. “Cap-and-trade” is a system that sets a ceiling (cap) for the total amount of emissions that facilities can emit . This limit is reduced annually according to the EU’s climate goals . ETS facilities have the right to hold an emission unit (allowance) for each ton of greenhouse gas emitted and have the flexibility to sell or buy emission units. Companies managed by EU ETS must buy carbon quotas. They can buy these quotas on the carbon market or through auctions. If a facility can reduce its own emissions at low cost, it will have the right

to sell the excess emissions and make a profit, and vice versa, if reducing emissions is too costly, it can buy emission rights from other facilities from the carbon credit trading market. Companies are required to monitor and report their emissions annually. The EU ETS has introduced an annual monitoring, reporting and verification (MRV) procedure for greenhouse gas emissions under EU Regulation 2018/2066 and Regulation 2018/2067.

EU companies are granted emission permits by the government (Article 4, Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 established a scheme for trading greenhouse gas emissions (GHGs)) or allowances in the Community. Companies that pollute in excess of their permitted emissions must buy permits from other parties that hold permits. When a company or a plant in the EU ETS system needs allowances, they can buy them at auctions or through brokers. In addition to power plants that receive free allowances, a number of other companies can also receive free allowances from the EU Commission, such as industrial, energy and aviation sectors. All these activities are recorded in the Union Registry (an online database of all allowances, like a data bank in which all customer records and transaction amounts are stored). Since 2013, carbon allowance auctions have been the default method for allocating allowances in the EU ETS. Member States auction allowances according to the rules laid down in the EU Directive and the EU Auction Regulation. Allowances will be offered on an auction platform using electronic contracts (Article 4(1) of Regulation No. 2023/2830 of 17 October 2023 supplementing Directive 2003/87/EC of the European Parliament and of the Council by setting out rules on the timing, management and other aspects of the auction of greenhouse gas emission allowances – the EU Auction Regulation). The European Energy Exchange (EEX) in Germany is the common auction platform for the issuance of permits for the 25 EU Member States. Auctions must open and close on the same trading day and are open for no less than two hours. The entities that can participate in the auction under Article 18 of the EU Auction Regulation are aircraft operators, shipping companies listed in the EU Register opened under EU Authorisation Regulation 2019/1122, investment companies authorised under Directive 2014/65/EU, and credit institutions authorised under Directive 2013/36/EU.

To enhance trust and ensure a safe and efficient trading environment, the European carbon market must be subject to a rigorous monitoring regime designed to European financial market. The main players in the European carbon market are energy companies and industrial companies that are obliged to comply with the EU ETS. Financial intermediaries such as banks also trade, but usually on behalf of the emitters. In addition, the EU has also introduced prohibited acts when participating in the carbon market, such as: insider trading (Article 8); Market manipulation (Article 12.2); Prohibition of insider trading and unauthorized disclosure of inside information (Article 14 of Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (referred to as the Market Abuse Regulation -MAR).

3.2 China's Law on Carbon Market

China is one of the world's largest greenhouse gas emitters. Therefore, they also set a target to reduce greenhouse gas emissions and move towards carbon neutrality. To achieve that goal, the Chinese government is developing and perfecting the carbon market. China's carbon market includes the Emission Trading System (ETS) and the China Certified Emission Reduction

(CCER) program. China started implementing carbon emission trading through pilot programs in markets in eight cities and provinces: Beijing, Shanghai, Chongqing, Shenzhen, Hubei, Tianjin, Guangdong and Fujian since 2011. The pilot markets target key energy-intensive industries such as steel, cement, petrochemicals and textiles. China's mandatory carbon market was launched in 2017 and officially started trading in 2021 on the Shanghai Energy and Environment Exchange. This is the first implementation cycle of the ETS in China. The Chinese government has issued the Interim Rules for the Management of Carbon Emissions Trading, which will take effect from February 2021. These rules clarify the criteria for including major emitters; how to set and allocate allowances; verification methods, reporting and disclosure, monitoring, and penalties for violations. This phase mainly applies to power plants. Companies are granted emission permits (CEA) for free of charge. The emission threshold is set by the government and gradually reduced over time. The second phase of the ETS will begin in 2022, and is expected to expand to more industries by 2025, such as aluminum, cement, petrochemicals, building materials, iron, steel, nonferrous metals, pulp and paper. In February 2024, China promulgated the first state-level law related to the national ETS market, the Carbon Emissions Trading Regulations 2024 (ETS Regulations), which will take effect on May 1, 2024. The trading of carbon emission rights can be conducted through transfers, bidding or other trading methods. Currently, the regional market and the national ETS market still operate in parallel, however, the regional market is required to upgrade its rules to be consistent with the ETS Regulations.

China's voluntary carbon market began in 2012 but was suspended in 2017 due to a lack of certified emission reductions (CCER). On October 19, 2023, the Measures for Managing Voluntary Greenhouse Gas Emission Reduction Trading (Trial Implementation) were issued, restarting the national CCER program after a 6-year hiatus. This is an important step in establishing China's voluntary carbon market. The Measures for Managing Voluntary Greenhouse Gas Emission Reduction Trading (Trial Implementation) 2023 have provided specific provisions on the conditions for organizations and individuals to participate in voluntary greenhouse gas emission reduction trading, regulations on project approval and registration (Chapter 2); regulations on emission reduction verification and registration (Chapter 3); regulations on emission reduction trading (Chapter 4); regulations on appraisal and inspection agencies (Chapter 5); regulations on supervision and management of transactions (Chapter 6) and regulations on penalties (Chapter 7). Beijing Green Exchange (CBGEX) is also set up to be dedicated to CCER trading platforms.

4.0 SOME SUGGESTIONS IN DEVELOPING VIETNAM'S CARBON MARKET

According to studies, Vietnam will be one of the countries most severely affected by climate change. Therefore, the Party and State have had many policies, guidelines, and laws to reduce greenhouse gas emissions towards building a green economy. The 13th National Party Congress set out the requirement for green economic development towards the stability and sustainability of the country, which is to "encourage the development of green, clean agriculture, ecological agriculture, organic agriculture, high-tech agriculture, smart agriculture, and adaptation to climate change". With that policy, the Vietnamese Government has issued legal documents on environmental protection, reducing greenhouse gas emissions, towards building a green economy. At the 2021 United Nations Climate Change Summit, Vietnam committed to achieving net zero emissions by 2050. Vietnam has participated in the carbon

trading market for the past 15 years, trading 30 million tons of carbon in the compulsory market and 10 million tons in the voluntary market. From experience in participating in the international carbon market, Vietnam has issued a number of important legal documents, which are the basis for forming a carbon market such as: Directive No. 35/2005/CT-TTG on the organization of the implementation of the Kyoto Protocol; Decision No. 30/2007/QD-TTG on a number of financial mechanisms and policies for investment projects under the clean development mechanism. In particular, the Law on Environmental Protection 2020 has issued many regulations on the organization and development of the domestic carbon market, such as: regulations on carbon credits (Clause 3, Article 35); regulations on carbon markets (Clause 1, Article 139). Along with that, Decree No. 06/2022 stipulates the reduction of greenhouse gas emissions and protection of the ozone layer, focusing on the roadmap for implementing the carbon credit market; Decision No. 01/2022/QD-TTG of the Prime Minister stipulates the list of sectors and establishments that must conduct greenhouse gas inventories, Circular No. 17/2022/TT-BTNMT stipulates techniques for measuring, reporting, and assessing greenhouse gas emission reduction and greenhouse gas inventories in the waste management sector, establishments that must conduct greenhouse gas inventories, etc. They are also important legal bases to shape Vietnam's carbon market.

According to Decree No. 06/2022, the pilot carbon credit market will start in 2025, the completion of the legal framework is expected in 2027 and the carbon credit trading floor will officially come into operation from 2028. Therefore, in order to form and operate a good carbon credit market, Vietnam can learn from experienced countries such as the EU and China.

Firstly, the ETS emission system built and deployed in the EU and China has proven to be very successful in trading emissions. Therefore, on the basis of inheriting existing regulations, Vietnam needs to build and perfect a clear and transparent legal corridor to regulate the operation of the carbon market. In particular, it focuses on perfecting regulations on carbon credit allocation; carbon credit trading mechanism and sanctions for violations. At the same time, Vietnam needs to issue detailed regulations on the carbon market operation mechanism, from the process of creating carbon credits; carbon credit verification to regulations on carbon credit trading. In addition, it is necessary to develop regulations on greenhouse gas emission inventories; detailed monitoring and reporting systems to help companies conduct emissions inventories more easily, and at the same time build a data system on emissions of manufacturing industries similar to the emission trading markets of the EU or China.

Second, Vietnam can learn from China in implementing a pilot market in some major cities in the first phase, then expanding to other regions and aiming to implement it nationwide. In addition to Ho Chi Minh City, which was selected as the first locality to pilot the carbon credit exchange and offset mechanism according to Resolution 98 dated June 24, 2023 of the National Assembly, Vietnam can pilot it in other localities.

Third, Vietnam can learn from the above countries in building a specific roadmap for each stage and gradually expanding the scale. In the first stage, it can start from the electricity industry and gradually expand to major industries such as iron, steel, and cement.

Fourth, Vietnam should prioritize the development and completion of a voluntary carbon market that operates in parallel with a mandatory market to encourage individuals and

organizations to actively participate in green projects and invest in clean and low-emission technologies.

5.0 CONCLUSION

Carbon markets were established under the 1997 Kyoto Protocol on climate change and were gradually finalized in the Paris Agreement at COP21 in 2015. It is a global legal framework that is expected to contribute to solving the problem of climate change.

Recognizing the impact of climate change, Vietnam has made many strong commitments, along with the international community, towards net zero by 2050 with many strategies, plans, comprehensive, synchronous solutions with a roadmap and feasibility. However, Vietnam's institutions and laws on the carbon market are generally very limited, lacking many regulations for this market to operate effectively. The EU and China also soon have legal regulations and operate the carbon market according to standards and methods suitable to the conditions and circumstances of each side and can open up suggestions for Vietnam. In the immediate future, Vietnam should build a pilot carbon market in a locality and then expand and cover the whole country; should choose suitable and feasible fields and then expand to other fields and prioritize the development of the voluntary carbon market and when sufficient conditions are available, gradually complete the mandatory carbon market to achieve green growth goals in the green economy towards sustainable development in the new era.

REFERENCES

Communist Party of Vietnam, Documents of the 13th National Congress of Delegates, Volume II, National Political Publishing House Truth, 2021, p107.

Directive (EU) 2018/410 of 14 March 2018 amending Directive 2003/87/EC

EU ETS handbook - European Commission, 2015

Regulation No 2023/2830 of 17 October 2023 supplements Directive 2003/87/EC of the European Parliament and of the Council by laying down rules on the timing, administration and other aspects of the auction of greenhouse gas emission allowances.

EU Delegation Regulation 2019/1124 of 13 March 2019 amending Delegation Regulation 2019.1122 relating to the operation of the European Union Registration Authority under EU Regulation 2018/842.

Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (the "Market Abuse Regulation -MAR")

Websites:

<https://tuoitre.vn/som-hoan-thien-khung-phap-ly-cho-thi-truong-chi-carbon-credit-market-20240612161933585.htm>

<https://impactful.ninja/cap-and-trade-vs-baseline-and-credit-differences/>

<https://carboncredits.com/the-ultimate-guide-to-understanding-carbon-credits/#1>

https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/development-eu-ets-2005-2020_enviet-nam-75933.htm

<https://chineseclimatepolicy.oxfordenergy.org/book-content/domestic-policies/emissions-trading/>

<https://chineseclimatepolicy.oxfordenergy.org/book-content/domestic-policies/emissions-trading/#reference-12>

<https://tapchicongthuong.vn/thi-truong-mua-ban-phat-thai-cua-lien-minh-chau-au-va-mot-so-de-xuat-cho-viet-nam-75933.htm>