

# CARBON PRICING AND THE ROADMAP FOR CARBON MARKET DEVELOPMENT IN VIET NAM

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# 1. Global impacts of rising temperatures

**2°C** Limiting global warming to 2°C above pre-industrial levels

Global GDP loss of **13%**

The sea level rises by  
**50 cm** in 2100

**17%** of freshwater is depleted

Heatwaves lasting  
more than **1.5** months

**98%** of reefs at risk

VS



**1.5°C** Limiting global warming to 1.5°C above pre-industrial levels

Global GDP loss of **8%**

The sea level rises by  
**40 cm** in 2100

**9%** of freshwater is depleted

Heatwaves lasting  
more than **1.1** months

**90%** of reefs at risk

# 1. Key climate agreements

**Rio Earth Summit**  
1992  
Provide principles and mechanisms for action within **the United Nations Framework Convention on Climate Change (UNFCCC)**

**Kyoto Protocol**  
1997  
Establish targets for greenhouse gas (GHG) emissions reduction for industrialized countries

- 1st commitment period: 2008 - 2012
- 2nd Commitment Period: 2013 - 2020

**Paris Agreement**  
2015 (COP21)  
for the period 2021-2030  
All parties make voluntary commitments to reduce emissions through Nationally Determined Contributions (NDCs)

**Glasgow Climate Pact**  
2021 (COP26)  
Countries strengthen their commitments to reduce emissions toward net-zero

## 2. GHG emissions reduction targets

### Global:

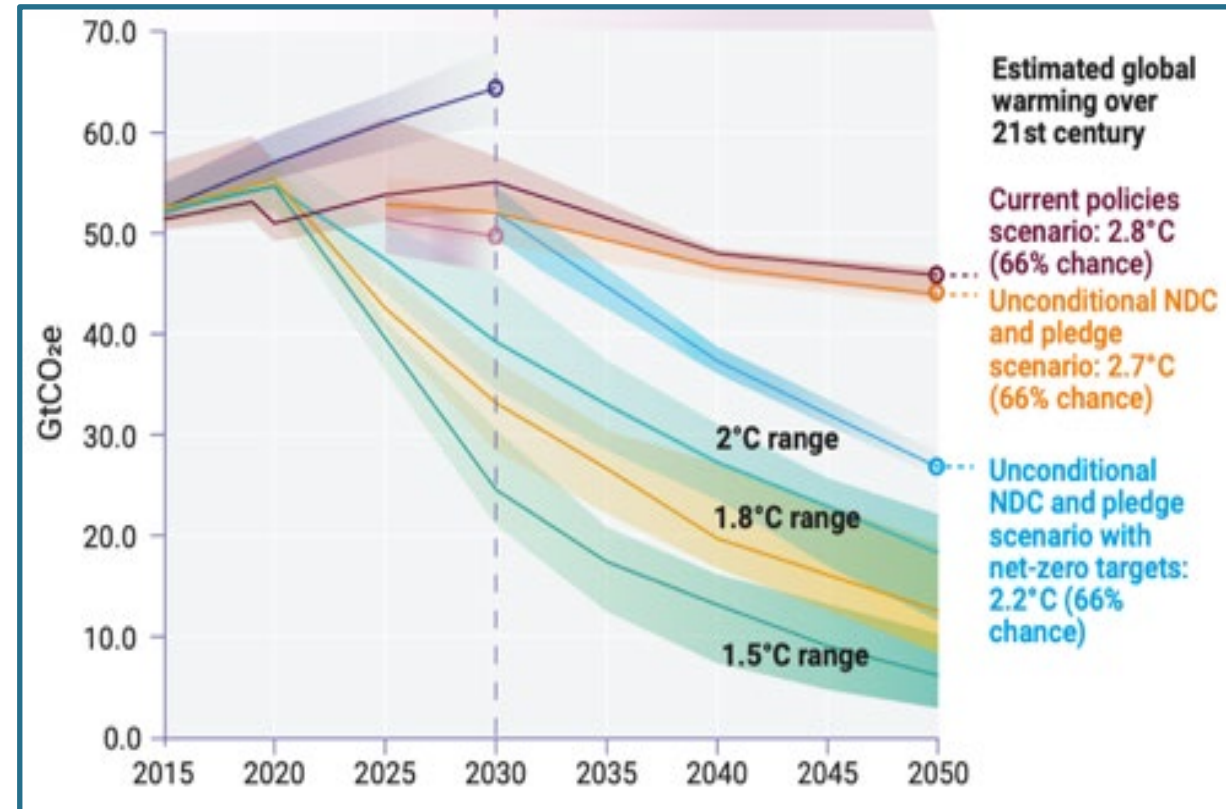
**UNFCCC** is an international agreement signed in 1992 at the Earth Summit in Rio de Janeiro, Brazil.

UNFCCC aims to **prevent dangerous human interference with the climate system and to stabilize GHG concentrations in the atmosphere** at a level that would prevent dangerous anthropogenic interference with the climate system.

### Viet Nam:

In November 2022, Viet Nam updated its **Nationally Determined Contribution (NDC)**:

- Using domestic resources, by 2030, Viet Nam will **reduce 15.8%** (compared to **the 9% commitment in 2020**) of total GHG emissions compared to Business-As-Usual (BAU) scenario;
- This contribution could increase to **43.5%** (compared to **the 27% commitment in 2020**) with international support.



Source: Emissions Gap Report, UNEP

## 2. The goal of net-zero emissions

### What is net-zero?

**Net-zero** means cutting GHG emissions to as close to zero as possible, with any remaining emissions re-absorbed from other sources, such as afforestation, ocean restoration, and sustainable land management activities.

### Why?

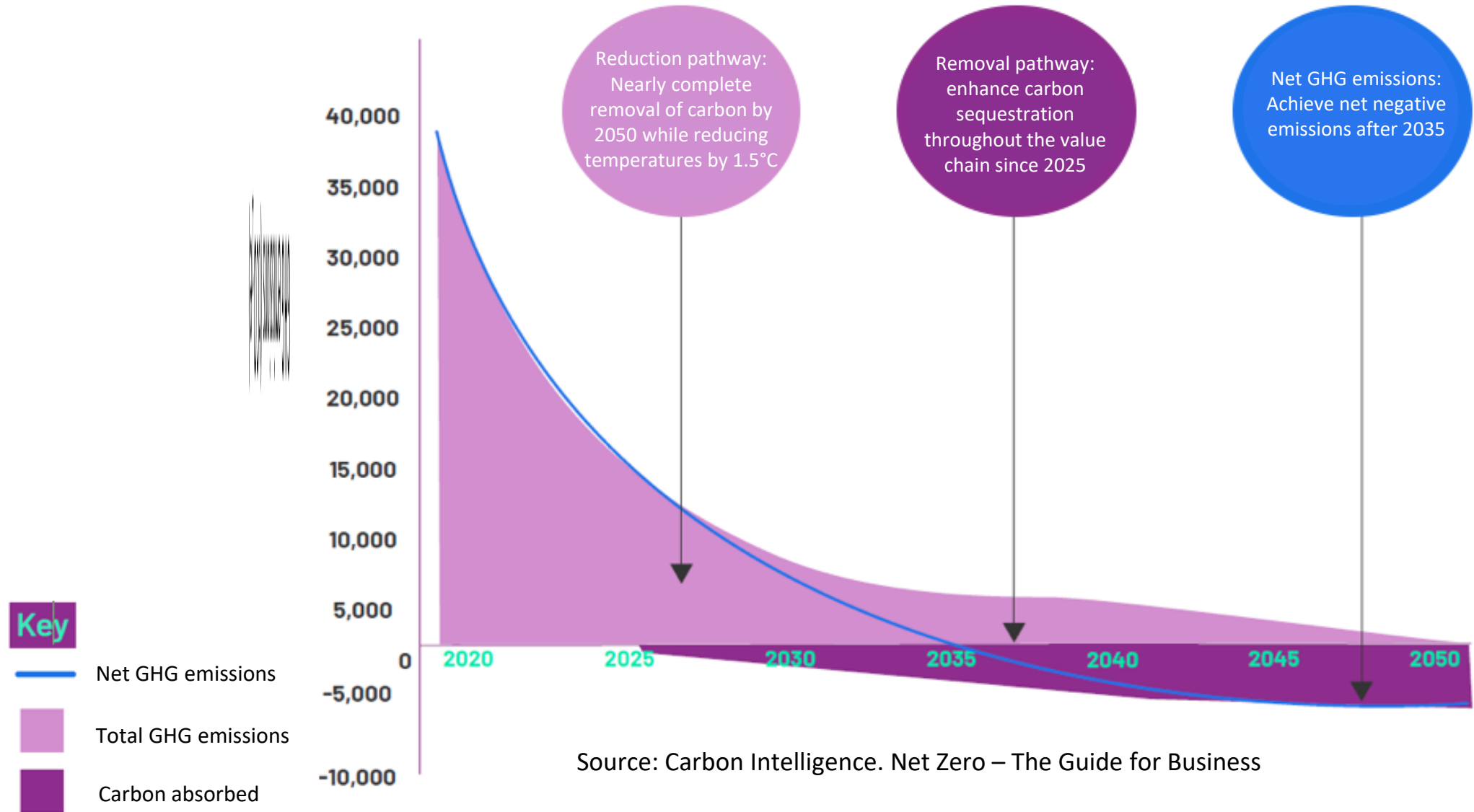
To prevent the worst impacts of climate change and preserve a livable planet: holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels (as per the Paris Agreement goals).

- The Earth is now about 1.1°C warmer than it was in the 1800s, with the temperature accelerating in recent decades.
- To keep global warming to no more than 1.5°C: GHG emissions need to be reduced by 45% by 2030 and reach net zero by 2050.

On 1 November 2021, at the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26), Prime Minister Pham Minh Chinh declared that Viet Nam is committed to achieving net-zero emissions by 2050.

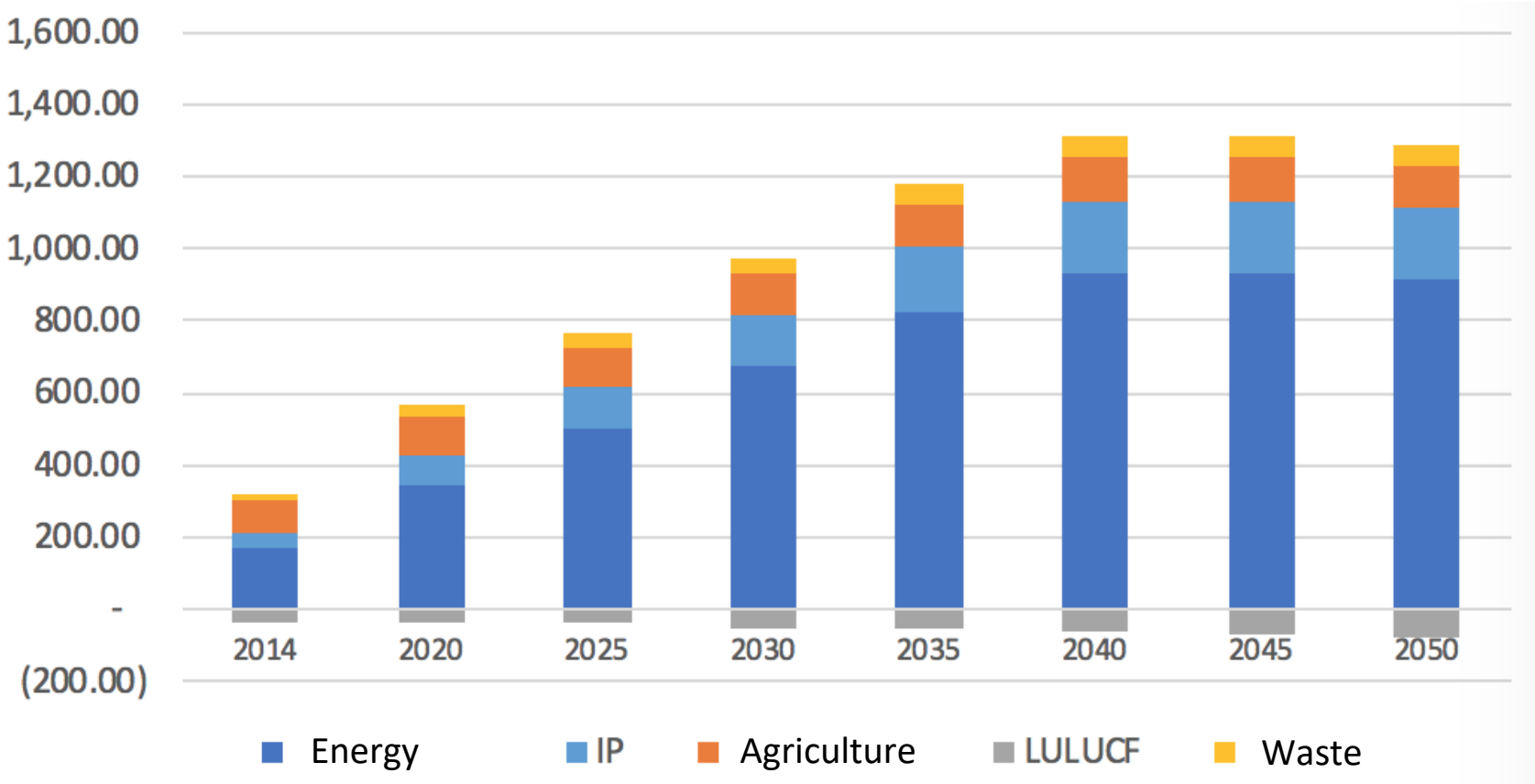


## 2. Illustration of the pathway to achieve net-zero



Source: Carbon Intelligence. Net Zero – The Guide for Business

# 2. National GHG emissions under BAU scenario – NDC 2022

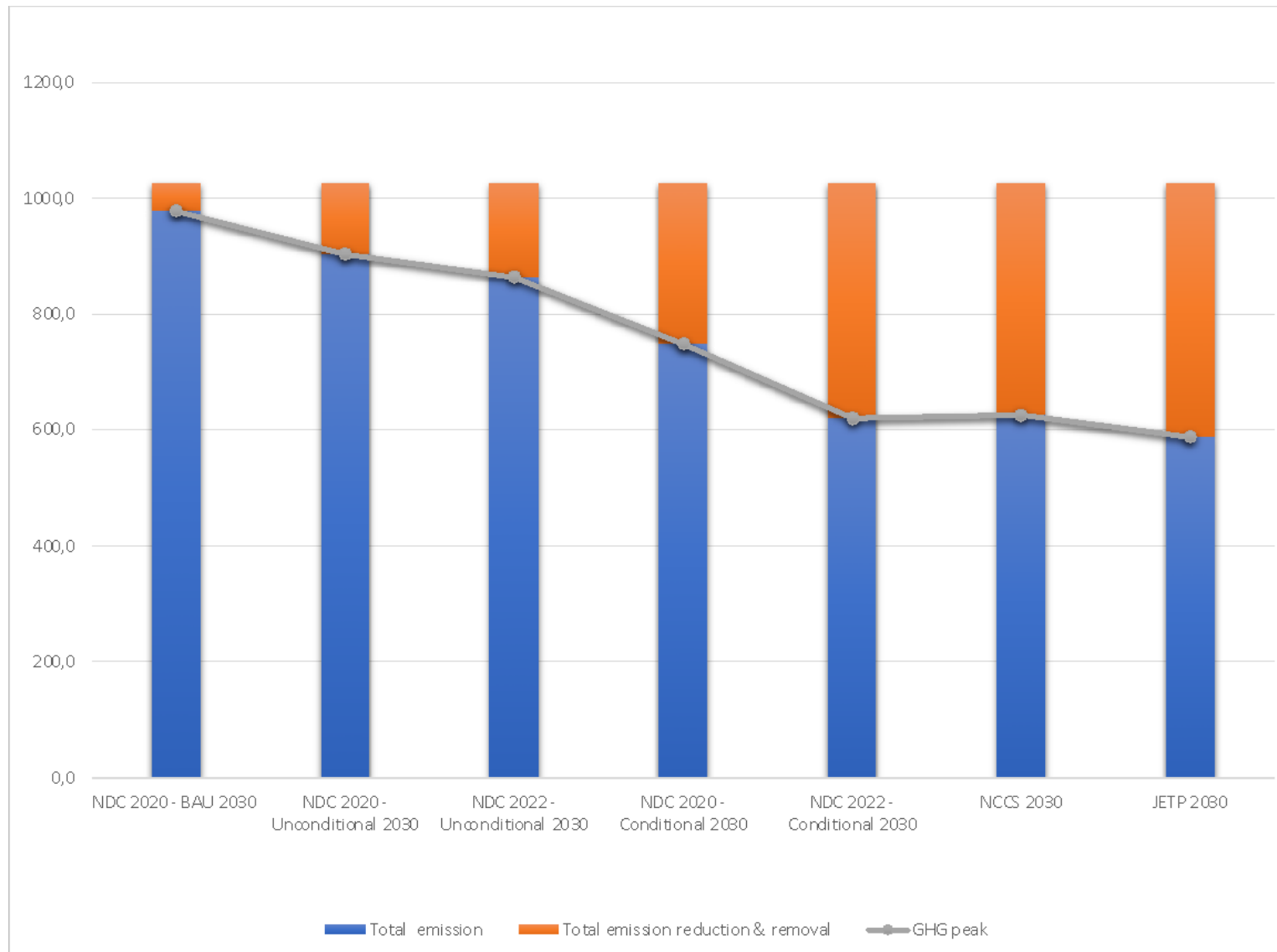


Source:

- NDC 2022 (estimated until 2030)
- Scenario analysis by VNEEC from 2030 - 2050



## 2. GHG emissions and national emission reduction targets



Source: VNEEC compiled from published reports and data

## 2. Legislation on GHG emissions inventory and mitigation

- **Decree No. 06/2022/ND-CP dated 07 January 2022** on GHG emissions mitigation and protection of the ozone layer: obligation to conduct GHG inventory and mitigation for all levels, including facility level.
- **Decision No. 01/2022/QD-TTg dated 18 January 2022:** The list of facilities mandated to conduct GHG inventory and mitigation (updated every two years)
- Sector-level guidelines on measurement, reporting and verification (MRV) of GHG emissions mitigation and inventory results: 1) MONRE: Circular No. 17/2022/TT-BTNMT dated 15 November 2022 (waste management sector); 2) MARD: Circular No. 23/2023/TT-BNNPTNT dated 15 December 2023 (forestry sector) 3) MOIT: Circular No. 38/2023/TT-BCT dated 27 December 2023 (industry and trade sector)

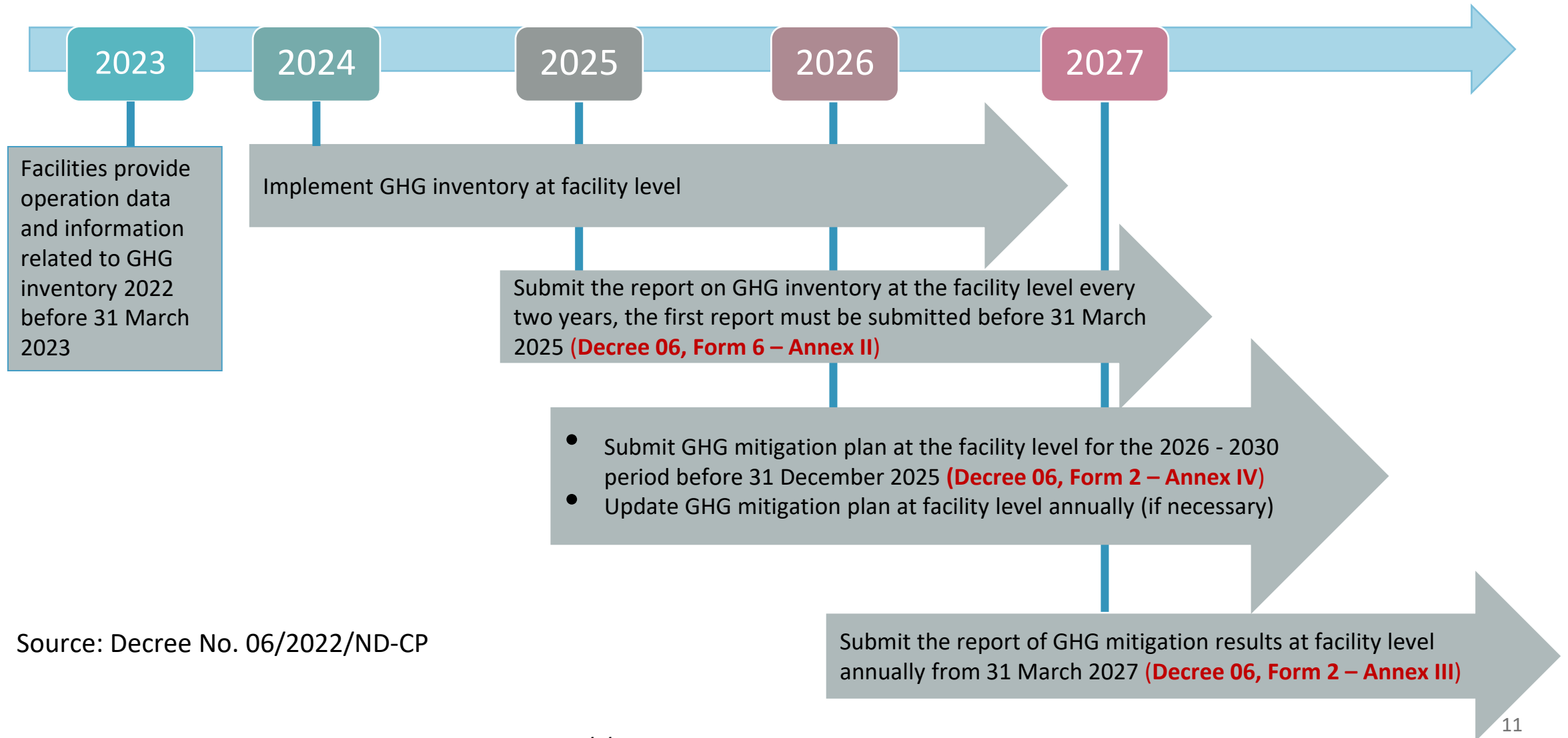
Sectors
Energy
Industrial Process (IP)
Transportation
Construction
Waste

Facilities subject to GHG inventory
Annual emission $\geq 3,000$ tons of CO <sub>2</sub> equivalent
Thermal power plants, IP facilities with total annual energy consumption $\geq 1,000$ ton of oil equivalent (TOE)
Cargo transport company with total annual fuel consumption $\geq 1,000$ TOE
Commercial buildings with total annual energy consumption $\geq 1,000$ TOE
Solid waste treatment facilities with annual operating capacity $\geq 65,000$ tons

1912 facilities



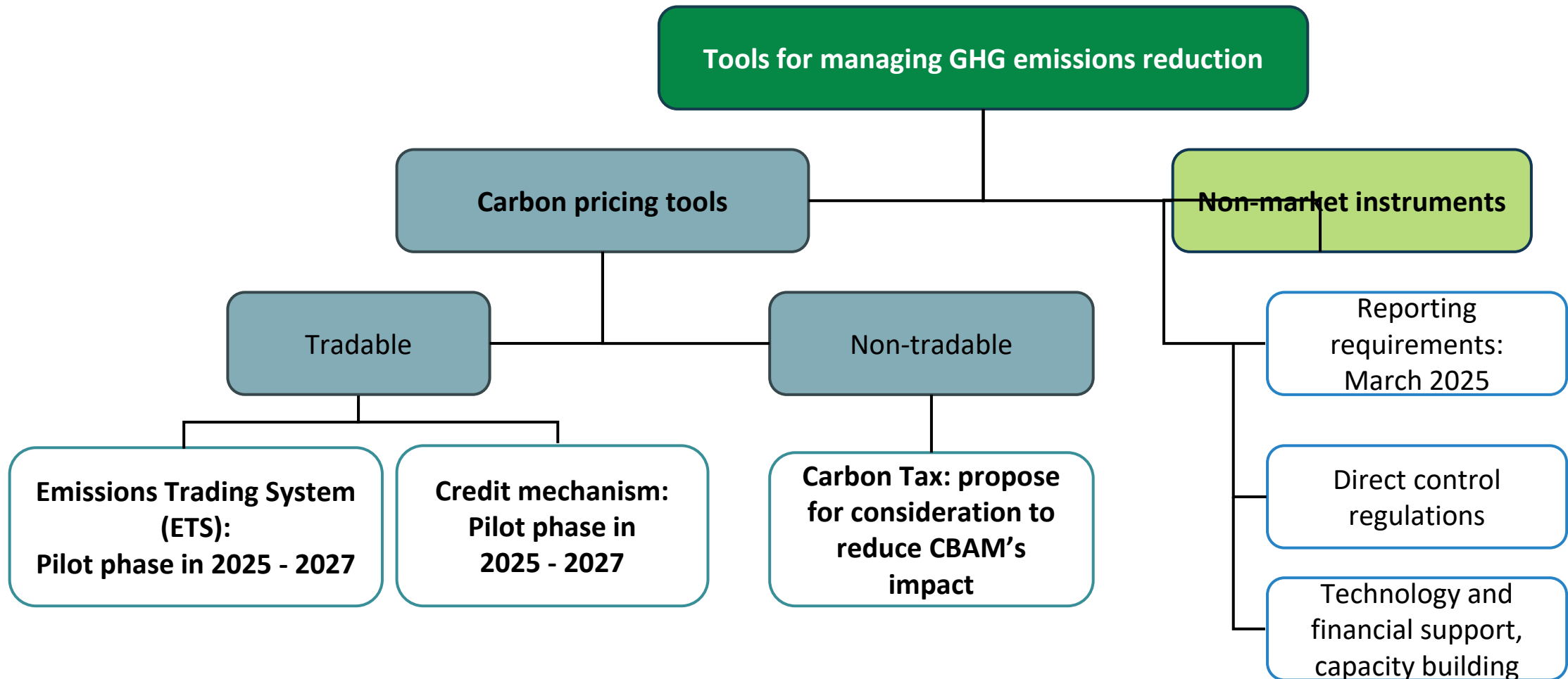
## 2. The roadmap of GHG emissions inventory and mitigation at the facility level



Source: Decree No. 06/2022/ND-CP

# 3. An overview of the carbon market in Viet Nam: The structure

The tool system for managing GHG emissions reduction



### 3. An overview of the carbon market in Viet Nam: Allowances and carbon credits

#### Pop Quiz

Can allowances be converted into carbon credits?

Yes

No

### 3. The roadmap of carbon market development in Viet Nam (1)

#### Law on Environmental Protection (2020)

Regulate the basic legal framework for the domestic carbon market development through Article 139

#### Decision No. 06/2022/ND-CP on GHG emissions mitigation and protection of the ozone layer (2022)

Regulate the detailed provisions of Article 91 “GHG emissions mitigation”, and Article 139 “The organization and development of the domestic carbon market” of Law on Environmental Protection 2020

#### Decision No. 01/2022/QĐ-TTg on promulgation of lists of sectors and facilities subject to GHG inventory (2022)

Entities participating in the carbon market according to Article 5, point 1 of Decree 06

### 3. The roadmap of carbon market development in Viet Nam (2)

2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	...
<b>Preparation phase:</b> <ul style="list-style-type: none"> <li>- Establishing methodology, and regulation on management of carbon credit and emission allowance.</li> <li>- MRV guidance.</li> <li>- Implement a pilot carbon credit trading scheme in prospective fields of the market and provide industrial players with guidance.</li> <li>- National GHGs inventory.</li> <li>- Registry system.</li> <li>- Governance.</li> <li>- Promote activities for awareness raising and capacity building on carbon market development.</li> </ul>										
2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	...
				<b>Pilot phase:</b> <ul style="list-style-type: none"> <li>- Operate a carbon credit exchange mechanism on a pilot basis from 2025.</li> </ul>						
2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	...
							<b>Implementation phase</b> <ul style="list-style-type: none"> <li>- Officially start operation of the carbon credit exchange mechanism.</li> </ul>			

Source: Decree No. 06/2022/ND-CP

# THE GOVERNMENT



## MOF

- Lead the development and establishment of CTX;
- Issue financial management mechanisms for the carbon market

## MONRE (the national focal point on climate change)

- Report to UNFCCC as required; update NDC;
- Develop and update the list of sectors and facilities subject to GHG emissions inventory;
- Be the focal point for the national GHG emissions inventory; operate the online GHG emissions inventory database;
- Be the focal point of the MRV system for GHG emissions mitigation; establish the national online MRV database; develop the national GHG emissions mitigation report; issue GHG emissions mitigation verification procedures;
- Set the total GHG emissions cap, the proportion of allowance for reserve and auction; set the GHG emissions benchmark per product unit;
- Certify carbon credits and allowances traded on the CTX; provide guidance on allowance auction, transfer, loan, and surrender; regulate assessment mechanisms for projects and programs following carbon offsetting and exchange within the UNFCCC framework;
- Lead the pilot and official operation of CTX; link the domestic CTX with regional and global carbon markets; develop propaganda materials, and enhance participants' capacity in the carbon market;
- Related roles in the waste management sector.

## MARD

- Establish the GHG emissions mitigation plan; establish technical procedures and regulations on MRV within the management scope; operate the online MRV databases within the management scope; measure the result of implementing GHG mitigation measures at the sector level; develop the GHG emissions mitigation report within the management scope; verify the GHG emissions mitigation at the sector level;
- Organize to conduct GHG emissions inventory at the sector level; develop the report for national GHG emissions inventory; operate GHG emissions inventory databases at the sector level;
- Cooperate to implement the carbon market.

## MOIT

## MOC

## MOT

## PROVINCIAL PEOPLE'S COMMITTEE

- Review figures of energy consumption, capacity, and scale of facilities on the list of sectors and facilities subject to GHG emissions inventory;
- Update the list of facilities subject to GHG emissions inventory;
- Monitor and supervise the implementation of GHG emissions mitigation plans of facilities listed in the GHG emissions inventory; provide relevant information and data to management agencies;
- Verify the GHG emissions inventory results at the sector level;
- Cooperate to implement the carbon market.



## Other organizations, individuals

- Encourage to implement GHG emissions mitigation
- Participate in the carbon market

## Facilities in the waste management sector

- Conduct GHG emissions inventory, and prepare GHG emissions inventory reports
- Implement GHG emissions mitigation measures; develop GHG emissions mitigation plans; measure the results of implementing GHG emissions mitigation; prepare GHG emissions mitigation reports.
- Participate in the carbon market

## Facilities in AFOLU sector

## Facilities in energy sector

## Facilities in construction sector

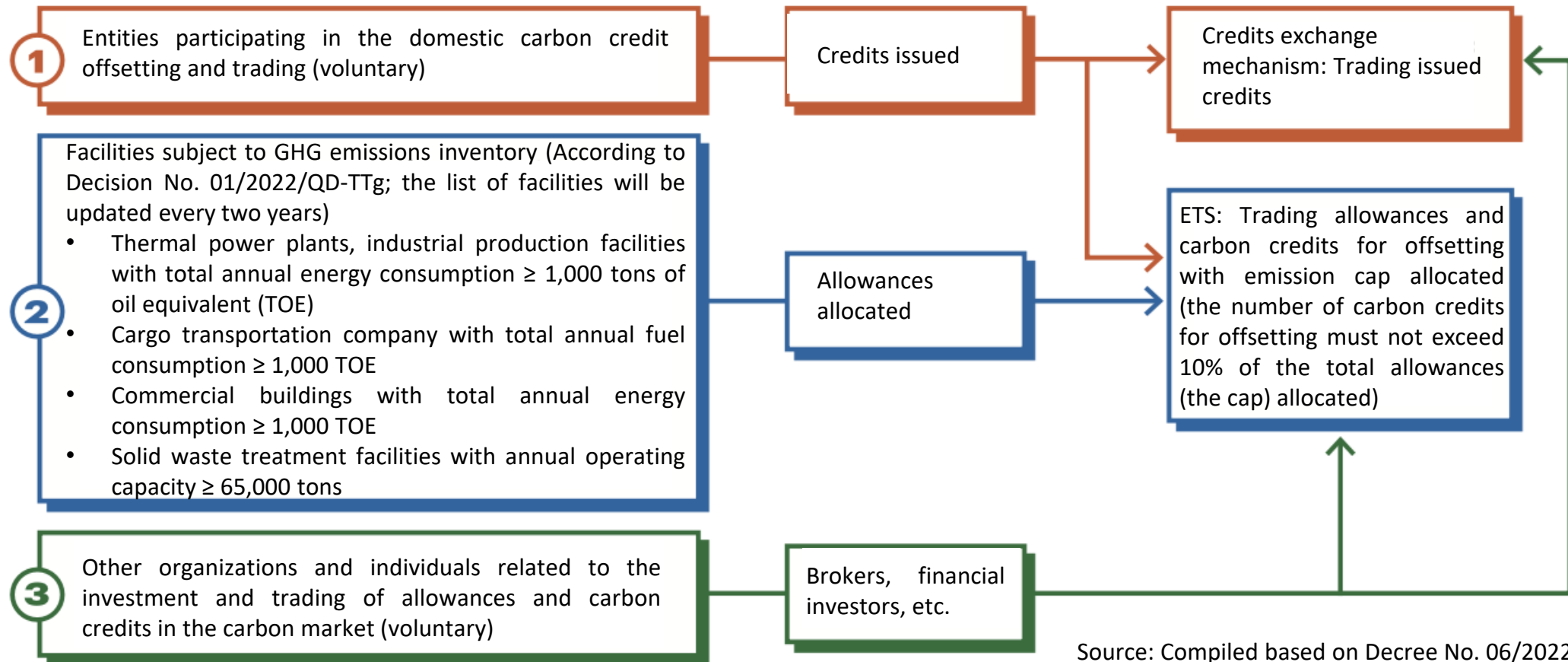
## Facilities in transportation sector

## FACILITIES ON THE LIST OF GHG EMISSIONS INVENTORY



### 3. An overview of the carbon market in Viet Nam: Key participants

Three key participants participating in the domestic carbon market as regulated in Decree No. 06/2022/ND-CP.



Source: Compiled based on Decree No. 06/2022/ND-CP

## 4. Obligations and benefits of enterprises

Law on Environmental Protection (2020)	Measure (inventory) GHG emissions according to regulated MRV procedure		Participation in the domestic and international carbon market - can generate additional revenue
	Facilities will be subject to the emission cap		Attract green capital/investment
Decree No. 06/2022/ND-CP	Detailed regulations on facilities are subject to conduct GHG inventory every two years, starting from 2024	<b>VS</b>	Enhance competitiveness (through innovative activities in developing products using advanced technology)
	Facilities will develop and implement GHG emissions mitigation plans according to the roadmap from 2026		Increase technological innovation capabilities, penetrating new markets
	GHG emission mitigation results must undergo verification by accredited entities		Reducing financial and operational risks
Decision No. 01/2022/QĐ-TTg	Issuance of the list of 1,912 facilities required to conduct GHG emissions inventory		Contribute to national and global climate goals while reducing climate risks

## 4. The GHG emissions mitigation process at the facility level

- **Assess current GHG emission and climate risks (policy/technology risks, risks from negative physical impacts of climate change)**

*Understand the starting point*

- **Strategy development**

*Identify ambitions, objectives, and response methods (including participation in the carbon market)*

- **Identification and implementation**

*Identify and implement initiatives, and strategies for GHG emissions mitigation; innovate technologies; and participate in the carbon market*

- **Result monitoring**

*Measurement, Monitoring, Verification (MRV)*

- **Desired outcomes**

*Building long-term value*

## 4. Key questions for enterprise management level

1

How can the board of directors and other management levels integrate climate change considerations into business planning and operations?

Questions that enterprise managers need to consider and answer

5

How to promote partners in the value chain to innovate, collaborate, and invest in GHG emissions mitigation?

2

What are the impacts, risks, and opportunities of climate change for the enterprises?

3

Current status of resources for implementing the GHG emissions mitigation strategy?

4

How can enterprises develop GHG emissions mitigation plans with the lowest costs?

# THANK YOU!

