

DECARBONISING TRANSPORT STRATEGIES IN VIET NAM



MINISTRY OF TRANSPORT
OF VIETNAM

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at the **Transport and Climate Change week**

Berlin, 09.2023



01. Overview of the transport system

Infrastructure



Roads

582,306 km, in which:

- Expressway: 1,163 km (0.2 %);
- National Highway: 24,602 km (4.22%)



Railway

- 2,646 km, including 7 main lines
- 3 types of railway gauge: 1,000mm; 1,435mm and dual gauge railway.
- Operating capacity: 17 - 25 pairs of train/day/line



Inland Waterway

- 291 port; 8,199 inland waterway port.
- Line length: 26,505 km.



Maritime

- 32 seaport, 13 offshore oil and gas port, 278 harbor; 575 wharf;
- 46 maritime route with 1,105 km



Aviation

- 22 airport: 13 domestic airport; 9 International airport.
- Capacity: 95,9 million passenger/yr.

Vehicle

- Motorbike: 72,061,323
- Car: 4,652,946
- E-motorbike: 1,449,379

- Diesel locomotive: 270
- Passenger carriage: 1,050
- Rail freight carriage: 5,426

- Passenger ship: 47,373
- Cargo ship: 171,670

- Number of ship: 1,262
- Deadweight tonnage: 9,042,974 (DWT)

- Passenger aircraft: 249
- Specialized aircraft: 7

Transportation

Passenger (million passenger.km)

112,741
(74.6%)

1,509
(1%)

2,726
(1.8%)

34,125
(22.6%)

Freight (million ton.km)

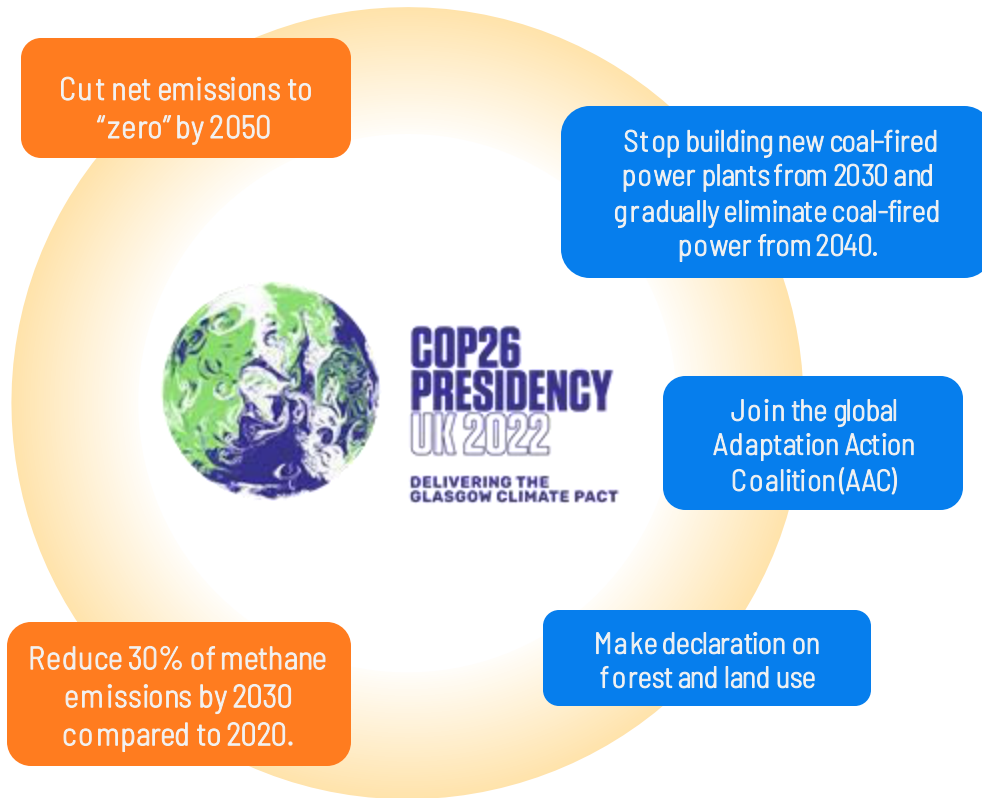
73,503
(25.7%)

3,819
(1.3%)

205,449
(71.8%)

3,562
(1.2%)

02. Viet Nam's commitment



Viet Nam's Prime Minister addressed at the COP26

Note:



Related to GHG emissions reduction in transport sector



3. Current system of legal documents

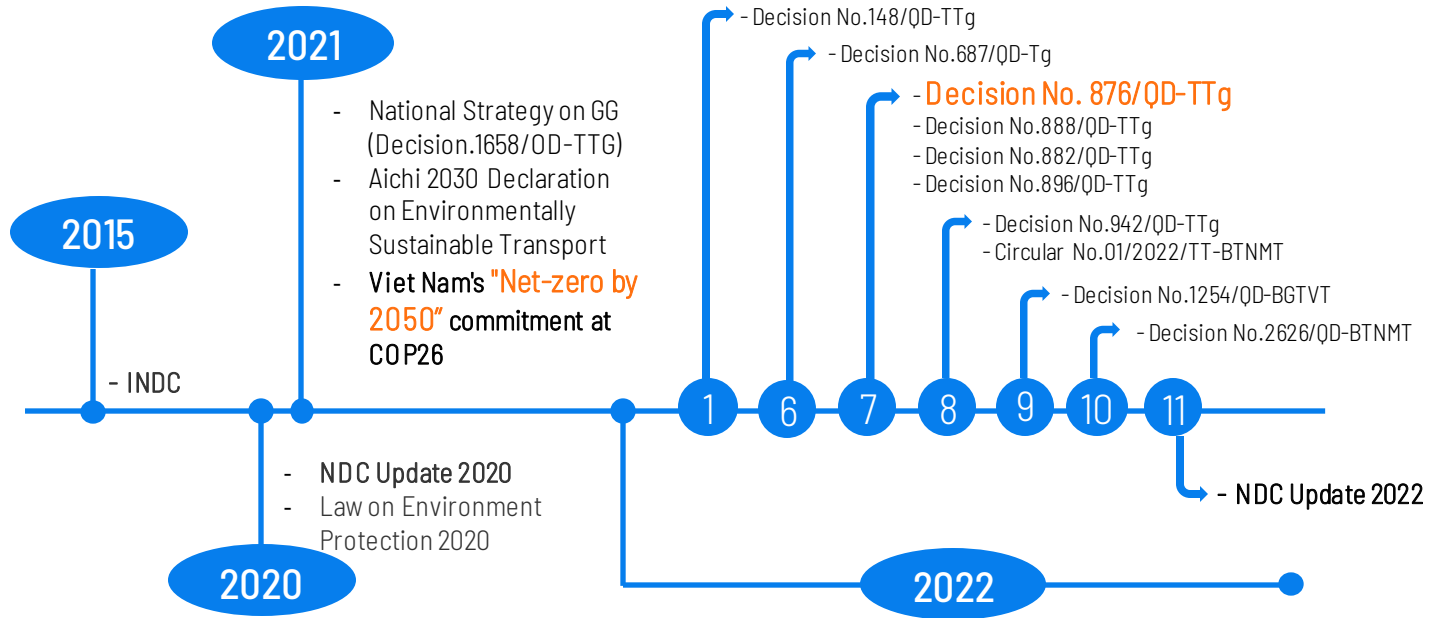


Figure 1. The primary timelines(2015, 2020, 2021, and 2022)of the legal corridor issuance related to GHG emission reduction in transport

04. Action Plan on green transition: Decision 876/QD-TTg

ROADS



2022

- Promote the manufacture, assembly, import and use of electric motorised road vehicles;
- 100% E5 gasoline with road motorised vehicles;

2030

- Promote the manufacture, assembly, import and use of electric motorised road vehicles;
- Convert all machinery and equipment for loading and unloading using fossil fuels to using electricity;
- 100% of vehicles use E5 gasoline.

2040

- Step by step restrict and stop: manufacture, assembly and import of automobiles, motorcycles and mopeds using fossil fuels for domestic use.

2050

Target in 2050

100% motorized road vehicles, machinery and equipment use electricity and green energy.



- Develop charging infrastructure

- Complete charging infrastructure, provide green energy nationwide



- Encourage new and existing bus stations and rest stops to be converted to green criteria

- Convert all bus stations and rest stops to meet green criteria

100% of bus stations and rest stops meet green criteria.

RAILWAY



2022

- Conduct pilot study on the use of electric vehicles and green energy on existing railway lines.
- Encourage the conversion of equipment at the railway station to electricity and green energy.

2030

- Introduce step by step new investment and transition of railway vehicles from using fossil fuels to electricity and green energy.

2040

- Convert vehicles (locomotives, wagons) and equipment from using fossil fuels to electricity and green energy

2050

Target in 2050

100% of vehicles (locomotives, wagons) and equipment at the station use electricity and green energy.



- Invest and develop roadmap in replacing old railway vehicles with new ones that can be converted to electricity and green energy.

- Partially stop the production, assembly and import of railway vehicles and equipment using fossil fuel



- Invest in building new railway lines in the direction of green energy transition.

- Renovate and upgrade the infrastructure of existing railway lines to fully meet the demands of green energy transition for railway vehicles.
- Continue investing in building new railway lines in the direction of green energy transition

The infrastructure is fully eligible for green transformation

04. Action Plan on green transition: Decision 876/QĐ-TTg

INLAND WATERWAY



2022

- Encourage investment in building, importing, and converting inland watercraft using fossil fuels to using electricity and green energy.

- Research and develop criteria for green ports and green transport routes for formulating mechanisms and policies to encourage new investment in green inland waterway ports.
- Conduct pilot study and application to turn some waterways into green transport routes.

2030

- Continue to encourage investment in building, importing, and converting inland watercraft using fossil fuels to electricity and green energy.

- Encourage new investment in inland waterway ports in the direction of green growth

2040

- 100% of newly built inland waterway vehicles use electricity and green energy

- 100% of newly built inland waterway ports must apply green criteria for ports
- Encourage existing inland ports and wharves to switch to green port criteria.

2050

Target in 2050

100% of vehicles use electricity and green energy.
100% of equipment at ports and inland waterways are converted to electricity and green energy

Target from 2050

MARITIME



2022

- Encourage Vietnamese ships operating inland to fully comply with the provisions of the International Maritime Organisation (IMO).

- Encourage the conversion of vehicles and equipment to electricity, green energy or equivalent measures at existing or new ports.

2025

2030

- Continue to encourage investment in building, importing, and converting inland watercraft using fossil fuels to electricity and green energy.

- Ship built, converted or imported after 2035 must use electricity and green energy.

2035

2040

- Invest in vehicles and equipment using electricity and green energy or equivalent measures at new and additional investment ports must be taken.

2050

Target in 2050

Target from 2050

100% of existing ships operating on domestic routes are converted to electricity and green energy.

All means of transport and equipment at ports, marine signaling devices use electricity, green energy or equivalent measures.

- Carry out the conversion of vehicles and equipment at existing ports, marine signaling devices using electricity, green energy or equivalent measures must be taken.

04. Action Plan on green transition: Decision 876/QĐ-TTg

AVIATION



2022

2025

2030

2035

2040

2050

Target in 2050

Target from 2050

- Implement all of the aviation industry's potential measures to reduce CO₂ emissions.
- Finalise and complete the database system on energy use and fuel consumption of aviation enterprises.

- Research on the use of alternative fuels to supplement part of aviation fuel.

- 100% of newly invested passenger vehicles and other vehicles in the airport are electricity and green energy vehicles.

- 100% of vehicles operating in the airfield use electricity and green energy (except for specialised vehicles)

- Use a minimum of 10% sustainable fuel for some short flights

Convert to 100% green energy, sustainable aviation fuel for aircraft.

Depending on technological conditions, residual emissions are compensated by carbon offsetting to achieve net zero emissions

URBAN TRAFFIC



2022

2025

2030

2035

2040

2050

Target in 2050

Target from 2050

- 100% replacement bus, newly invested bus use electricity and green energy.

- At least 50% of vehicles use electricity and green energy
- 100% replacement and newly taxi use electricity and green energy

100% bus, taxi use electricity and green energy.

The rate of public passenger transport in:

- Hanoi reaches 45-50%;
- HCMC reaches 25%;
- Da Nang reaches 25% - 35%;
- Can Tho reaches 20%
- Hai Phong reaches 10 - 15%;
- Grade I cities reaches at least 5%

- Increase the occupancy rate of public passenger transport.

The rate of public passenger transport:

- In special urban areas reaches at least 40%
- In grade I cities reaches at least 10%

**Thank you
for your
attention!**

