



BỘ GIAO THÔNG VẬN TẢI



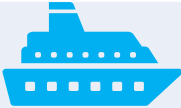




COP26

THE STRATEGIC DEVELOPMENT ORIENTATION FOR TRANSPORT SECTOR TOWARDS NET-ZERO BY 2050

**SCIENCE – TECHNOLOGY AND
ENVIRONMENT DEPARTMENT**

OVERVIEW OF VIET NAM'S TRANSPORT SYSTEM 2020

Category	Infrastructure	Means of transport	Transportation		Emission	
			Passengers (million passenger.km)	Cargo (million ton.km)	Volume (million tonne of CO ₂ eq)	Share (%)
	582,306 km, of which <ul style="list-style-type: none"> Expressway: 1,163 km (0.2 %); National motorways: 24,602 km (4.22%) 	<ul style="list-style-type: none"> Motorbike: 72,061,323 Car: 4,652,946 Electric motorbike: 1,449,379 	116,933 (75.6%)	75,163 (26.2%)	37.9	79.5%
	<ul style="list-style-type: none"> 2,646 km, including 7 main routes 3 types of railway gauge: 1,000mm; 1,435mm and dual gauge. Servicing capacity: 17 - 25 fleets of trains/day and night/route 	<ul style="list-style-type: none"> Diesel engine: 270 Passenger rail coach: 1,050 Cargo rail coach: 5,426 	1,509 (1%)	3,819 (1.3%)	0.2	0.4%
	<ul style="list-style-type: none"> 291 ports; 8,199 inland wharves. The channel length: 26,505 km. 	<ul style="list-style-type: none"> Passenger ship: 47,373 Cargo ship: 171,670 	2,482 (1.6%)	203,907 (71.2%)	4.6	9.6%
	<ul style="list-style-type: none"> 32 seaports, 13 offshore oil&gas seaports, 278 harbors; 575 wharves; 46 maritime channels with 1,105 km 	<ul style="list-style-type: none"> Number of ships: 1,262 Total load: 9,042,974 (DWT) 				
	<ul style="list-style-type: none"> 22 airports: 13 domestic airports; 9 international airports. Capacity: 95.9 million passengers/yr. 	<ul style="list-style-type: none"> Passenger aircraft: 249 Specialized aircraft: 7 	33,774 (21.8%)	3,629 (1.3%)	2.8	5.9%

STRATEGIC ORIENTATION FOR GHG REDUCTION IN TRANSPORT SECTOR

The Prime Minister's Decision No. 876/QD-TTg dated 22 July 2022

OVERALL OBJECTIVE

To develop green transportation system towards the goal of net-zero greenhouse gas (GHG) emissions by 2050.

SPECIFIC OBJECTIVES

By 2030

- To improve the energy efficiency.
- To speed up transition to electricity and green energy in transportation which are available in terms of technology, institutions, and sources in order to fulfill:
 - the commitment in NDC and
 - the goal of mitigating methane emissions in Viet Nam.

By 2050

- To rationally develop transport methods;
- To vigorously carry out the transition of all equipment, vehicles and infrastructures of transport to:
 - electricity;
 - green energy.aiming at achieving net-zero GHG emissions by 2050.

GREEN ENERGY TRANSITION PATHWAY IN TRANSPORT SECTOR

2022

2030

2035

2040

2045

2050

Roadways

The 2022-2030 period:

- Improve manufacture, assembly, import and transition to electricity-powered road vehicles.
- Promote blending and use of E5 gas for 100% of road motor vehicles.
- Develop charging infrastructures meeting demand of individuals and enterprises
- Encourage the transition to green energy for new and existing bus stations and rest stops

By 2040: Phase out manufacture, assembly and import of automobiles, motorcycles and mopeds with fossil fuels for domestic use.

The 2031-2050 period:

- By 2050: Use electricity and green energy for 100% heavy equipment involved in traffic, meet green criteria for bus stations and rest stops; transition to use electricity and green energy for all material handling equipment using fossil fuels.
- Improve charging infrastructures, provide green energy nationwide in order to meet demand of individuals and enterprises.

GREEN ENERGY TRANSITION PATHWAY IN TRANSPORT SECTOR

2022

2030

2035

2040

2045

2050

Railways



The 2022 – 2030 period:

+ Organize pilot researches on using railway vehicles with electricity and green energy on existing railway lines in Vietnam. Invest in construction of new railway lines towards a roadmap for electrification.

+ Formulate plans and invest according to a roadmap to replace old railway vehicles with vehicles that may use electricity and green energy.

+ Encourage transition to electricity and green energy for material handling equipment at gas stations.

By 2040: Partly stop manufacture, assembly and import of railway vehicles and equipment using fossil fuels. Bit by bit, make investment in new railway vehicles using electricity and green energy and transition from railway vehicles using fossil fuels to vehicles using electricity and green energy

By 2050: Use electricity and green energy for 100% rolling stocks; transition to electricity and green energy for 100% equipment using fossil fuels at stations.

Improve and upgrade existing railway infrastructures to meet the complete transition to equipment using electricity and green energy. Continue to invest in constructing new railway lines towards electrification and using green energy.

GREEN ENERGY TRANSITION PATHWAY IN TRANSPORT SECTOR

2022

2030

2035

2040

2045

2050

Shipping



The 2022 – 2030 period:

- Encourage Vietnamese ships which are operating inland to fully comply with the regulations of Annex VI of the MARPOL Convention aimed at effectively using energy and the Strategy to mitigate GHG emissions from ships of the International Maritime Organization (IMO) from 2025.
- Encourage transition to vehicles and equipment using electricity and green energy or have equivalent measures for transition in existing ports, new and additionally invested ports.

The 2031 – 2050 period:

- Encourage Vietnamese ships which are operating inland to fully comply with the regulations of Annex VI of the MARPOL Convention aimed at effectively using energy and the Strategy to mitigate GHG emissions from ships of IMO.
- Use electricity and green energy for ships which are built, converted and imported after 2035; convert to use electricity and green energy for 100% ships which are operating inland from 2050.
- From 2031: Invest in vehicles and equipment using electricity and green energy or have equivalent measures for transition in new and additionally invested ports.
- From 2040: Make transition to electricity and green energy for vehicles and equipment in existing ports and aids to navigation or have equivalent measures for transition.
- From 2050: Use electricity and green energy for all vehicles and equipment in ports and aids to navigation or have equivalent measures for transition.

GREEN ENERGY TRANSITION PATHWAY IN TRANSPORT SECTOR

2022

2030

2035

2040

2045

2050

Aviation



The 2022 – 2030 period:

+ Implement all potential measures of aviation sector at the same time to reduce CO2 emissions; research the use of alternative fuels to partly supplement aviation fuels from 2027.

+ By 2030, complete the database system of energy use and fuel consumption of aviation enterprises.

The 2031 – 2050 period:

+ From 2035: Use at least 10% sustainable fuel for some short-distance flights; use electricity and green energy for 100% of new passenger vehicles and other vehicles in airports.

+ From 2040: Use electricity and green energy for all vehicles operating in airfields (excluding special vehicles to which electricity have not yet used).

+ From 2050: Transition to 100% green energy and sustainable aviation fuels for aircrafts to minimize GHG emissions. Net zero shall be achieved by carbon offset depending on available technology and remaining emissions.

GREEN ENERGY TRANSITION PATHWAY IN TRANSPORT SECTOR

2022

2030

2035

2040

2045

2050

Urban traffic



The 2022 – 2030 period:

- From 2025: use electricity and green energy for 100% new buses.
- Public transport coverage is expected to reach:
 - ✓ 45% - 50% in Ha Noi;
 - ✓ 25% in Ho Chi Minh city;
 - ✓ 25% - 35% in Da Nang;
 - ✓ 20% in Can Tho;
 - ✓ 10% - 15% in Hai Phong;
 - ✓ at least 5% in class-I urban areas.

The 2031 – 2050 period:

- ❖ From 2030: Achieve at least 50% vehicles using electricity and green energy; use electricity and green energy for 100% new taxis.
- ❖ By 2050: Use electricity and green energy for 100% buses and taxis.
- ❖ Public transport coverage is expected to reach at least 40% and 10% in special urban areas and class-I urban areas, in turn.

Thank you!

Science - Technology and Environment Department
Ministry of Transport

