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Road Safety Performance Review

Viet Nam



UNITED NATIONS

United Nations Economic and Social Commission for Asia and the Pacific
United Nations Economic Commission for Europe
United Nations Economic Commission for Latin America and the Caribbean
Transport Safety Department – Ministry of Transport of Viet Nam (MOT)

Road Safety Performance Review

Viet Nam

**Project on Strengthening the National Road Safety
Management Capacities of Selected Developing Countries,
and Countries with Economies in Transition**

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PREFACE

Viet Nam is one of a group of low- and middle-income countries which according to global statistics, suffers 90 per cent of global road traffic deaths whilst having only 54 per cent of all road vehicles.

In recent years, the Government of Viet Nam have gone to great lengths to deal with traffic accidents, resulting in a continuous fall in deaths and injuries as reported by Department of Traffic Police. These results primarily come from the country's own efforts, and from its active response to the call for actions of the United Nations Decade of Action for Road Safety. Viet Nam has also studied how other countries ensure traffic management safety and security, and has received support, resources and knowledge from international organizations, nongovernmental organizations and developed and developing countries.

The number of road traffic accidents in Viet Nam, however, remains high, a situation which requires both continued internal efforts and assistance from abroad.

The United Nations has funded a project aimed at strengthening the national road safety management capacities of selected developing countries, and countries with economies in transition. It is focused on four countries – Albania, Georgia, the Dominican Republic and Viet Nam – and its executing agencies are United Nations Economic Commission for Europe (ECE), United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and United Nations Economic Commission for Latin America and the Caribbean (ECLAC).

The focal point in Viet Nam is the Transport Safety Department of the Ministry of Transport (MOT).

The objectives of the project are:

- to improve the capacity of road traffic safety management through the development of the Road Safety Performance Review of Viet Nam (RSPR);
- to study and propose amendments to the 2008 Road Traffic Law to bring it in line with both the needs of the current situation and the international standards of the 1968 Convention on Road Traffic and the 1968 Convention on Road Signs and Signals (including issues directly related to traffic safety);
- to study and propose amendments to regulations on road traffic safety auditing, inspection and appraisal;
- to organize seminars on best practices and to ensure experience sharing; and to identify priority activities for the road traffic safety management system.

The project assesses the road traffic safety performance of Viet Nam in terms of the five pillars of the global plan for the United Nations Decade of Action for Road Safety, which include:

- road safety management capacity;
- the safety of road infrastructure and transport networks;
- the safety of vehicles;
- the safety of road users;
- post-crash response.

The project took place between March 2015 and March 2018

ABBREVIATIONS

ADB	Asian Development Bank
APEC	Asia Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
BOT	Build Operate Transfer
DANIDA	Danish International Development Agency
DRVN	Directorate for Roads of Viet Nam
E&T	Education and Training
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ESCAP	Economic and Social Commission for Asia and the Pacific
GDP	Gross Domestic Product
GRSP	Global Road Safety Partnership
GSO	General Statistics Office
HCMC	Ho Chi Minh City
IMF	International Monetary Fund
iRAP	International Road Traffic Safety Assessment Program
ITS	Intelligent Transport Systems
JICA	Japan International Cooperation Agency
MARD	Ministry of Agriculture and Rural Development
MND	Ministry of National Defence
MOC	Ministry of Construction
MOCI	Ministry of Culture and Information
MOCST	Ministry of Culture, Sports and Tourism
MOET	Ministry of Education and Training
MOF	Ministry of Finance
MOFA	Ministry of Foreign Affairs
MOH	Ministry of Health
MOIT	Ministry of Industry and Trade
MOJ	Ministry of Justice
MOLISA	Ministry of Labour, Invalids and Social Affairs
MONRE	Ministry of Natural Resources and Environment
MOPS	Ministry of Public Security
MOST	Ministry of Science and Technology
MOT	Ministry of Transport
NH	National Highways
NTSC	National Traffic Safety Committee
ODA	Official Development Assistance
PI	Patrol and Inspection
PPT	Public Passenger Transport
PTSC	Provincial Traffic Safety Council

RMV	Road Motorized Vehicle
RRTP	Road and Rail Traffic Police
RSA	Road Safety Audit
RSC	Road Safety Corridor
RSPR	Road Safety Performance Review
RTA	Road Traffic Accident
TA	Traffic Accident
TI	Transport Infrastructure
TP	Traffic Police
TSO	Traffic Safety and Order
TSU	Traffic Safety Unit
UN	United Nations
VARD	Viet Nam Association of Responsible Drinking
VBA	Viet Nam Beer-Alcohol-Beverage Association
WB	World Bank
WTO	World Trade Organization

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1. Overview

1.1. Geographic and climatic features

Viet Nam is a country located on the Pacific-coast side of the Indochinese peninsula in South-East Asia. The country borders the East Sea, has a 4,550 km land border with China to the north and has Lao People's Democratic Republic and Cambodia to its west. On the map, the mainland of Viet Nam is S-shaped, extending from latitude 23°23' North to 8°27' North, and is 1,650 km long from north to south. Its widest mainland area is around 500 km across and the narrowest nearly 50 km.

Viet Nam is in the tropical belt and experiences high temperatures and humidity all year round. The average temperature in Viet Nam ranges from 21°C to 27°C, and gradually increases from north to south. However, in the northern mountains, such as Sa Pa, Tam Dao and Hoang Lien Son, the temperature may drop to 0°C with snowfall.

Because of the monsoon effect and complex topography, Viet Nam is often affected by extreme weather such as typhoons, flooding and droughts.

The topography of Viet Nam is diverse, featuring mountains, plains, coastlines and continental shelf. It reflects the country's long history of geological and topographical development, monsoon weather and the hot and humid climate. The topography gets lower as one travels from the northwest to the South-East, as is clearly shown by the directions in which the big rivers flow.

Mountainous areas make up around three-quarters of the country's territory, but these consist mostly of low hills; low altitude areas of less than 1,000 m account for 85 per cent of the landmass.

Deltas occupy only one quarter of the total landmass, and are separated into many areas by hills. At the two ends of the country, there are two large and fertile deltas: the Red River Delta (Red River Basin, 16,700 km²) and the Mekong Delta (40,000 km²). Located between the two major deltas is a small and narrow series of deltas distributed along the central coast from the delta of the Ma River (Thanh Hoa) to Phan Thiet, covering a total area of 15,000 km².

1.2. Population and demography of Viet Nam

1.2.1. Population and growth rate

According to a press release issued in 2014 by the Association of Southeast Asian Nations (ASEAN) Statistics Division of the ASEAN Secretariat, Viet Nam became the third most populated country in South-East Asia, after Indonesia (248.8 million people) and the Philippines (99.4 million people). Viet Nam has more than 90 million people and is ranked 13th in the world in terms of population.

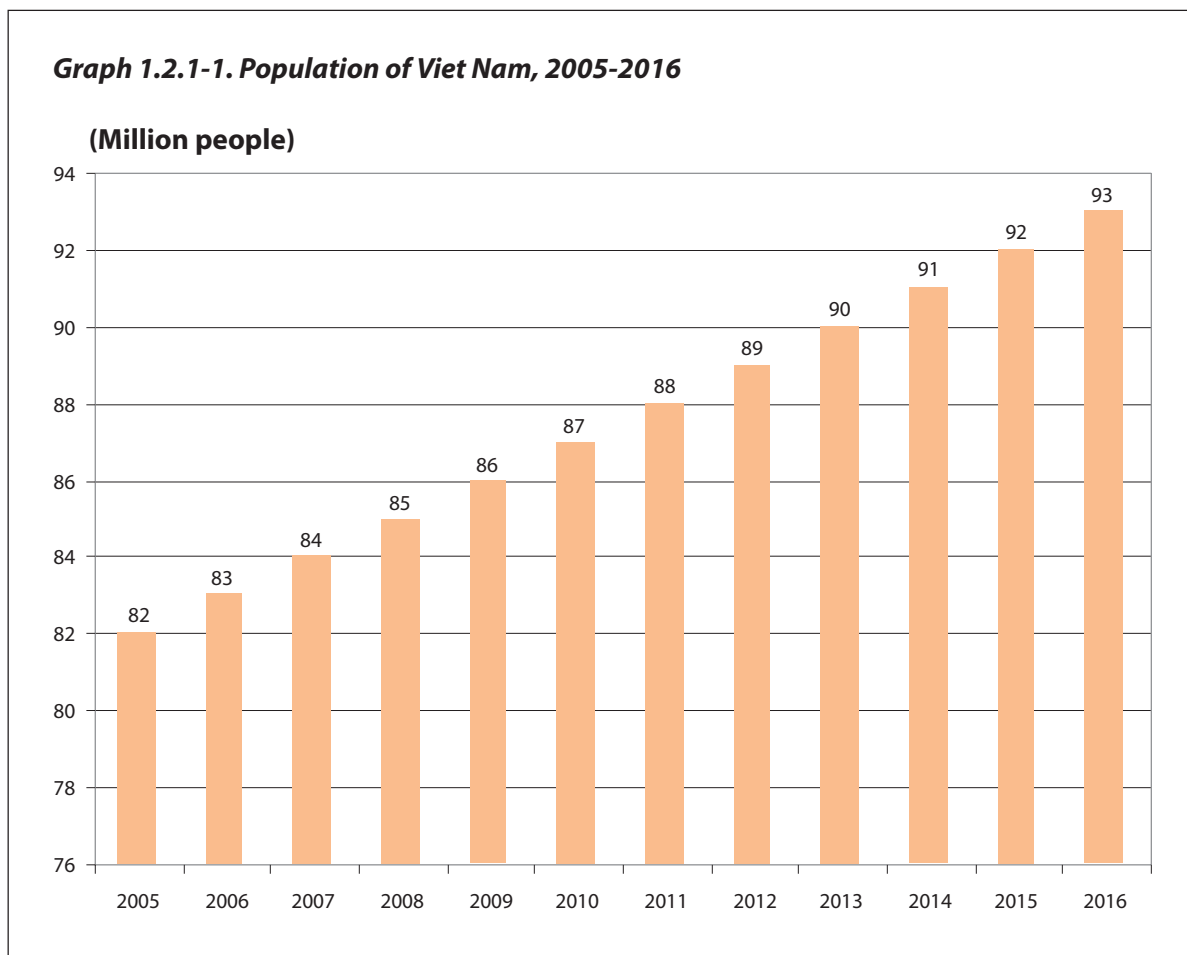
In 2016, the population of Viet Nam reached 92.7 million people. It grew by 10.308 million people between 2005 and 2016 with an average annual increase of 859,000, a relatively stable population growth rate. The average population growth rate from 2005 to 2016 was 1.04 per cent, lower than the average population growth rate of the ASEAN group (1.3 per cent). According to the Population Change and Family Planning Survey of 2016, the total birth rate in 2016 reached 2.09 children per woman, continuing to rest around the replacement level. The gender ratio of newborns is 112.2 boys per 100 girls.

1.2.2. Population distribution

In Viet Nam, the population is concentrated in three large metropolitan areas i.e. Ha Noi, Ho Chi Minh City and Da Nang. The population is concentrated mainly in the Red River Delta and the Mekong and coastal areas. In 2015, Ha Noi had a population of 7.216 million, accounting for 7.8 per cent of the national population. Ho Chi Minh City had 8.146 million people, accounting for 8.8 per cent of the population.

1.2.3. Population density

In 2015, the population density of the whole country was 277 people/km². The Red River Delta has a population density of 994 people/km²; the Midlands and Northern Mountains 124 people/km²; the North



Source: General Statistics Office of Viet Nam.

Table 1.2.1-1. Population growth rate, 2005-2015

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Growth rate (per cent)	1.17	1.12	1.09	1.07	1.06	1.07	1.05	1.08	1.07	1.08	1.08	1.08

Central region and Central Coast a population density of 205 people/km²; the Central Highlands 103 people/km²; the Southeast region 684 people/km²; the Mekong Delta 434 people/km²; Ha Noi 2,172 people/km²; and Ho Chi Minh City 3,888 people/km².

1.2.4. Average life expectancy

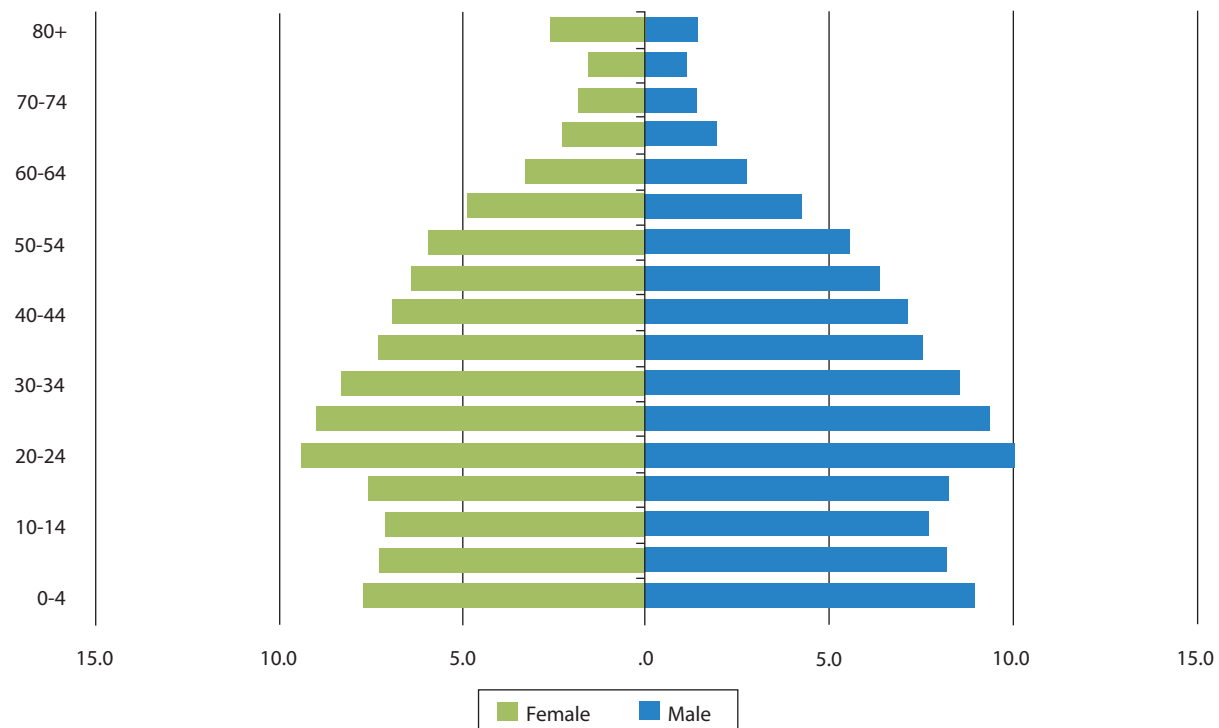
In 2010, the average life expectancy of the whole country was 72.9 years, while it was 73 years in 2012, 73.1 years in 2013, 73.2 years in 2014 and 73.3 years in 2015. In 2016 the average life expectancy was 73.4 years (70.8 years for men and 76.1 years for women).

1.2.5. Population pyramid

According to the Vietnamese population survey conducted by the General Statistics Office of Viet Nam, the 2014 population pyramid of Viet Nam can be analyzed as follows:

The stable birth rate of the period 2009-2014 led to the narrow base of the 2014 population pyramid, which was slightly larger than the bar for the 5-9-year-old population. The low death rate mixed with high average life expectancy resulted in the gradual narrowing of the pyramid's body. The proportion of the population aged 80 and above is significantly higher than in the age pyramids of preceding years. The age pyramid of

Figure 1.2.5-1. Population pyramid of Viet Nam, 2014



Source: General Statistics Office of Viet Nam.

the Vietnamese population in 2014 is typical of an aging population. However, the population of the youth age group (16-30 years old, as defined by the 2005 Viet Nam Youth Law) was 25.5 per cent in 2014, an increase of 2.3 percentage points compared to 2009.

The average population in Viet Nam is distributed by gender and by urban or rural residency as follows:

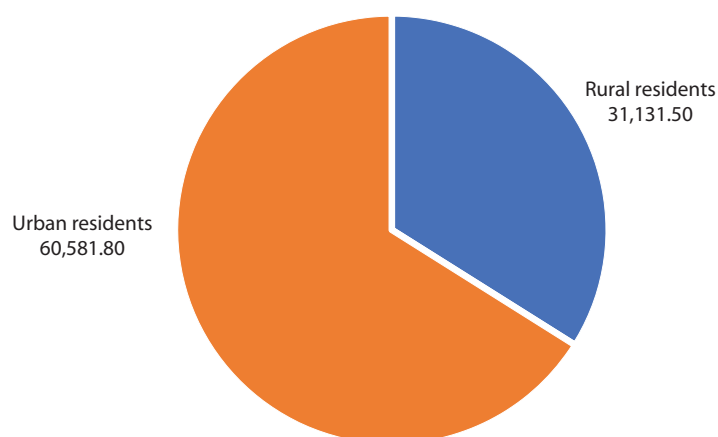
Table 1.2.5-1. Average population by gender and urban or rural residence

Year	Total	Gender		Urban or rural residence	
		Male	Female	Urban	Rural
2005	82 392.1	40 521.5	41 870.6	22 322.0	60 060.1
2006	83 311.2	40 999.0	42 312.2	23 045.8	60 265.4
2007	84 218.5	41 447.3	42 771.2	23 746.3	60 472.2
2008	85 118.7	41 956.1	43 162.6	24 673.1	60 445.6
2009	86 025.0	42 523.4	43 501.6	25 584.7	60 440.3
2010	86 947.4	42 993.5	43 953.9	26 515.9	60 431.5
2011	87 860.4	43 446.8	44 413.6	27 719.3	60 141.1
2012	88 809.3	43 908.2	44 901.4	28 269.2	60 540.1
2013	89 759.5	44 364.9	45 394.6	28 874.9	60 884.6
2014	90 728.9	44 758.1	45 970.8	30 035.4	60 693.5
2015	91 713.3	45 234.1	46 479.2	31 131.5	60 581.8

Source: General Statistics Office of Viet Nam.

Note: Unit = thousand people.

Graph 1.2.5-1. Population by urban or rural residence, 2015



Note: Unit = thousand people.

1.3. Economic growth

The economy of Viet Nam is a market economy, and the World Bank (WB) ranks it sixth in the South-East Asian region (after Indonesia, Thailand, Malaysia, the Philippines and Singapore) and 42nd in the world. To date, 64 countries have recognized Viet Nam as a market economy.

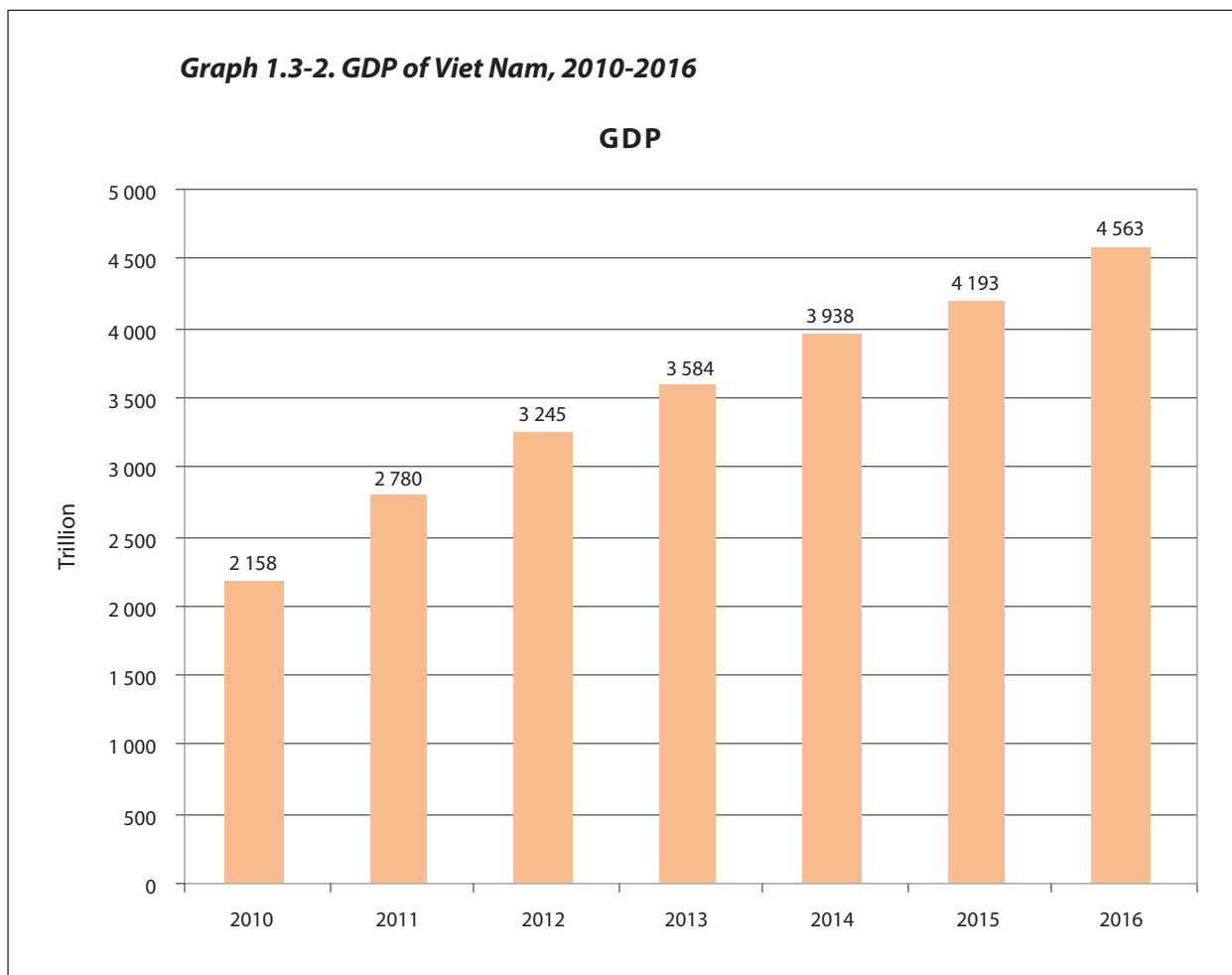
From an economic point of view, Viet Nam is a member country of the United Nations, World Trade Organization (WTO), International Monetary Fund (IMF), World Bank Group, Asian Development Bank (ADB), Asia-Pacific Economic Cooperation Forum, and ASEAN. Viet Nam has multilateral free-trade agreements with ASEAN countries, Republic of Korea, Japan, China, and several other countries. Viet Nam has also signed a bilateral economic partnership agreement with Japan.

Table 1.3-1. GDP of Viet Nam, 2010-2016

Year	GDP (at current prices)	GDP (at constant 2010 prices)	GDP per capita		GDP growth rate (previous year = 100)
	billions VND	billions VND	million VND	USD	per cent/year
2010	2 157 828	2 157 828	24 818	1 273	6.42
2011	2 779 880	2 292 438	31 640	1 517	6.24
2012	3 245 419	2 412 778	36 544	1 748	5.25
2013	3 584 262	2 543 596	39 932	1 907	5.42
2014	3 937 856	2 695 796	43 402	2 052	5.98
2015	4 192 862	2 875 856	45 717	2 109	6.68
2016	4 562 700		48 600	2 215	6.21

Source: General Statistics Office of Viet Nam.

Note: VND - Vietnamese dong.



Source: General Statistics Office of Viet Nam.

During the period 2011-2015, the average economic growth rate is estimated to have been 5.91 per cent, lower than in the period 2006-2010. However, in the context of the economy facing many difficulties and challenges, and the world economy often presenting many disadvantageous occurrences, this is still a relatively good growth rate. Moreover, the trend of economic recovery has been more prominent since 2013, with growth rates improving year on year. The growth rate in 2015 was 6.68 per cent, which exceeded the target 6.2 per cent that was the highest level of the 2011-2015 period. In 2016, GDP increased by 6.21 per cent.

The Vietnamese economy is divided into three fields (or three big economic sectors). These are: 1) agriculture, forestry and fishery; 2) industry, including the mining and mineral exploitation industry, the processing industry, construction and production of building materials, gas production and distribution; 3) commerce, service, finance, tourism, culture, education and health.

For the percentage of industries contributing to GDP in 2010-2016, see the table below.

Table 1.3-2. Percentage of industries contributing to GDP, 2010-2016

Year	2010	2011	2012	2013	2014	2015	2016
GDP of agriculture/fishery (per cent)	18.38	19.57	19.22	17.96	17.70	17.00	16.32
GDP of industry/construction (per cent)	32.13	32.24	33.56	33.19	33.21	33.25	32.70
GDP of services (per cent)	36.94	36.73	37.27	38.74	38.04	39.73	40.92

Source: General Statistics Office of Viet Nam.

1.4. Energy for transport

With approximately 50 million motorcycles and mopeds and nearly 3 million automobiles of all kinds, road transport is the leading consumer of fuel in all fields of transport, followed by the aviation, maritime and rail sectors.

Transport is one of the major fuel-consuming sectors, especially of fossil fuels. Like other developing countries, Viet Nam faces many challenges, including the exhaustion of domestic fossil fuel resources, greater reliance on world energy prices, and environmental pollution. Various Decisions concerning energy efficiency in transport sector have been issued in respond to the growing challenges. (see box 1)

Box 1. Decisions concerning energy efficiency in transport sector

Decision No. 4088/QD-BGTVT – dated 12 December 2013 and issued by the Ministry of Transport – on the action plan for sustainable development in the period 2013-2020, emphasizes the prudent use of natural resources. Specifically, it encourages investment in the development of means and equipment used for fuel substitutes to petrol and oil (LPG, CNG, biofuel, etc.); seeks intensification of research on the application of renewable energy in transport (solar, wind, etc.); implementation of the national target programme on the economical and efficient use of energy in transportation activities; step-by-step integration of energy-saving measures into development strategies, plans and projects for transport; and stepping up the implementation of waste recycling initiatives in the exploitation and development of transport activities. Circular No. 64/2011/TT-BGTVT dated 26 December 2011 stipulates the measures necessary for the economical and efficient use of energy in transportation activities, and clearly identifies measures for the economical and efficient use of energy in the planning, construction and renovation of transport works. The circular also regulates the use of energy-saving and efficiency measures in transport activities, from the stage of transport organization to the investment in and management of means of transport, and encourages promoting the application of new technologies and energy in transport. Specifically, organizations and individuals both inside and outside of the industry may combine resources according to current regulations, in order to organize the application of – and research into – new technologies and the use of new and renewable energy that improves efficiency in transport operations.

On 9 March 2017, the Prime Minister issued Decision No. 04/QD-TTg regulating the list of vehicles and equipment that must have their energy resources labeled. The Decision also designates the minimum energy efficiency level and a roadmap for regulations on transport means, which stipulates:

- compulsory labeling on energy resources for cars with seven seats or less;
- the application of voluntary energy labeling for cars of more than seven to nine seats by the end of 31 December 2017; motorcycles and mopeds have until 31 December 2019;
- compulsory labeling of energy for cars of seven to nine seats from 1 January 2018; motorcycles and motorbikes from 1 January 2020.

2. Road safety legal framework and management in Viet Nam

2.1. Legal framework on road safety

2.1.1. Road Traffic Law

In the field of road traffic and road traffic safety, the Road Traffic Law is the legal document that has the highest legal force.

The first Road Traffic Law was adopted by the tenth National Assembly meeting of the Socialist Republic of Viet Nam at its ninth session on 29 June 2001 (hereinafter referred to as the 2001 Road Traffic Law). The 2001 Road Traffic Law was codified from Government Decree 36/CP dated 29 May 1995 on the guarantee of road traffic and urban traffic orderliness.

Road Traffic Law 23/2008/QH12 (amended) was passed by the National Assembly of Viet Nam on 13 November 2008 and took effect on 1 July 2009 (hereinafter referred to as the 2008 Road Traffic Law).

The 2008 Road Traffic Law included eight chapters with 89 articles. Compared with the 2001 Law, out of the 89 articles only three were the same in both content and structure (3.37 per cent). There were 68 amendments (76.40 per cent) and 18 new articles (20.23 per cent). In the 2008 Law there is a focus on the issue of traffic safety: many of the articles are more stringent than those of the 2001 Law, especially the many regulations on traffic safety that contain measures that have been successfully applied by developed countries, and which were studied and supplemented into the 2008 Law (helmet use, alcohol volume in blood and breath samples, mobile phone use when driving vehicles, seat belts in automobiles, etc.).

2.1.2. Legal documents under the Road Traffic Law

Together with the Road Traffic Law, the legal documents that support it have created a full legal corridor for safe, convenient and fast road transport activities. Below is a list outlining some of the documents:

- traffic orderliness and safety strategy:
 - for the first time, the Government approved the “Project on the enhancement of traffic orderliness and safety in the 2000-2005 period” (Document No. 356/CN-CP dated 17 April 2000);
 - in 2008, the Prime Minister approved the “Project on strengthening national traffic orderliness and safety up to 2010” (Document No. 259/QD-TTg dated 4 March 2008);
 - in 2012, the Prime Minister approved the National Road Safety Strategy by 2020 and a Vision to 2030 (Document No. 1586/QD-TTg dated 24 October 2012);
- road development master plan: Decision 356/QD-TTg by the Prime Minister approving the adjustment of the road transport development master plan up to 2020 with a vision to 2030;
- decrees on the sanctioning of administrative violations: The Decree on administrative sanctions in the field of road traffic is regularly amended (every two years). Violations of laws on road orderliness and safety are strictly penalized;
- decrees on specialized management such as transport management, the management and protection of transport infrastructure, the list of dangerous goods and the transport of dangerous goods, time limit for automobile use, etc;
- Government resolutions 13/NQ, 32/NQ and 88/NQ have promptly resolved the problems associated with traffic accidents and shown high efficiency in reducing traffic accidents in each period;
- ministries have promulgated many documents that enhance state management in the field of traffic orderliness and safety, and that relate to its safeguarding. These included 37 circulars and joint circulars issued by the Ministry of Public Security; 230 circulars and joint circulars issued by the Ministry of Transport; 34 circulars and joint circulars issued by the Ministry of Finance; and two joint circulars set forth by coordination between the Ministry of Health, the Ministry of Public Security and the Ministry of Transport. The Ministry of Defense issued three related circulars.

In addition, the instructions of the Communist Party's Secretary and the National Assembly's Resolution on the protection of traffic orderliness and safety have facilitated the activities of forces fighting to reduce traffic accidents. They have also helped to mobilize the whole political system to participate in ensuring road safety and orderliness.

2.2. Joining international agreements on road safety

With the goal of promoting transport connectivity between Viet Nam and other countries in the region and the world, Viet Nam always pays close attention to making sure its national transportation system is developed with international integration in mind.

In the field of road transport, the issue of road safety is always mentioned in the processes related to joining international treaties, and bilateral and multilateral agreements.

Viet Nam has joined the following important international agreements:

- after the Government issued Resolution 141/NQ-CP on 31 December 2013, the Ministry of Foreign Affairs of Viet Nam took measures to accede to the 1968 Convention on Road Traffic and the 1968 Convention on Road Signs and Signals. On 20 August 2014, Viet Nam officially became a member of the abovementioned conventions.

Viet Nam has signed the following bilateral and multilateral agreements:

- Intergovernmental Agreement on Asian Highway Networks;
- Agreement between the Governments of the Kingdom of Cambodia, the People's Republic of China, the Lao People's Democratic Republic, the Union of Myanmar, the Kingdom of Thailand and the Socialist Republic of Viet Nam for Facilitation of Cross-Border Transport of Goods and People (GMS-CBTA);
- ASEAN Framework Agreement on Facilitation of Goods in Transit (AFAFGIT);
- ASEAN Framework Agreement on Facilitation of Inter-State Transport (AFAFIST);
- the ASEAN Framework Agreement on Multimodal Transport (AFAMT);
- the Agreement of the Government of the Lao People's Democratic Republic, the Kingdom of Thailand and the Socialist Republic of Viet Nam on Facilitation of Tourist Transport by Road;
- Memorandum of Understanding between the Governments of Cambodia, the Lao People's Democratic Republic and the Socialist Republic of Viet Nam on Road Transport;
- the Road Transport Agreement between the Government of the Socialist Republic of Viet Nam and the Royal Government of Cambodia;
- Agreement between the Government of the Socialist Republic of Viet Nam and the Government of the Lao People's Democratic Republic to Create Favorable Conditions for Road Vehicles Crossing their Border;
- the Road Transport Agreement between the Government of the Socialist Republic of Viet Nam and the Government of the People's Republic of China.

As mentioned above, on 20 August 2014, Viet Nam officially became a member of the 1968 Convention on Road Traffic and the 1968 Convention on Road Signs and Signals. However, many regulations under these and other international conventions related to road safety have been partially implemented by Viet Nam since 2005. The makers of the GMS-CBTA Agreement studied many international conventions and included relevant parts in the content of the 20 Annexes and Protocols of the Agreement. These included international vehicle traffic registration, criteria for driving licenses, road signs and signals, etc.

2.3. Traffic safety institution structure

The agencies involved in traffic safety and their responsibilities are summarized as follows:

2.3.1. The Government

Responsible for implementing the resolutions issued by the National Assembly on traffic orderliness and safety.

2.3.2. Ministry of Transport

The Ministry of Transport (MOT) is a government agency which performs the state management of road, rail, inland waterway, maritime and air transport throughout the country. The functions and duties of MOT are to formulate strategies and policies, and through their respective authorities to ensure that specified activities, functions and duties are implemented.

On traffic safety:

- to assume the prime responsibility for, and coordinate in organizing the implementation of, comprehensive projects on traffic safety throughout the country that have been approved by the Prime Minister. Its functions and tasks include guiding and inspecting the implementation of measures aimed at ensuring the safety of road, railway, inland waterway and maritime transport, and civil aviation;
- to approve the civil aviation security programme, the plan for dealing with hijacked aircraft, and to approve the civil aviation security programmes of foreign airlines; to assume primary responsibility for inspecting and supplying information on aviation security and safety as regulated by law;
- guiding procedures for the investigation of aircraft incidents according to government regulations; to organize the investigation and handling of maritime and civil aviation accidents according to the provisions of law;
- to organize search and rescue operations in road, rail, inland waterway, maritime and air transport.

Related departments and agencies:

- the Transport Safety Department advises the Transport Minister on the state management of traffic safety within the scope of its responsibilities, and organizes the implementation of regulations on the safety of road, rail, inland waterway, maritime and civil aviation transport in accordance with relevant laws;
- other departments: the Department of Transport Infrastructure, Department of Legislation, Department of Planning and Investment, Department of Finance and Department of Science and Technology all have corresponding functions;
- the Directorate for Roads of Viet Nam is an agency under the Ministry of Transport, which is responsible for advising and assisting the Minister of Transport in managing the state's road transport, and for carrying out the state management of road transportation in the whole country.
- The Viet Nam Register is an agency under the Ministry of Transport which performs the state registration of means of transport, equipment and facilities for loading and unloading, specialized construction equipment, containers, and boilers and pressure jars in road, rail, inland waterway and maritime transport throughout the country. It also organizes quality and technical safety registration for transport means and equipment, as well as for means and equipment used in petroleum exploration, exploitation and transportation at sea, in accordance with the provisions of the law.

2.3.3. Ministry of Public Security

The Ministry of Public Security is responsible for performing the management of state public order and social safety. In the field of traffic safety and orderliness, the Ministry's agencies have the following mandate:

The Traffic Police Department has the following tasks:

- organizing traffic law publicity; organizing, directing and carrying out the task of ensuring order and safety in road, rail and inland waterway transport; registering and issuing the number plates of motorized road vehicles (except for military transport means and special-use vehicles);
- conducting training, and granting and renewing licenses to drive the motorized road vehicles, ships and boats of the police force;
- organizing, commanding and controlling traffic in important urban centres and traffic hubs;
- in cases of emergency, the police force is permitted to divide lanes and routes, and to set up temporary no-stopping and no-parking points;
- patrolling, and controlling and dealing with administrative violations of road and inland waterway traffic orderliness and safety;
- organizing the investigation and settlement of traffic accidents, assuming prime responsibility and coordinating with transport agencies to collect statistics and analyze the causes and conditions of traffic accidents; proposing preventative measures;
- coordinating with competent agencies to inspect the safety devices used in waterway and railway transportation, when signs of their being unsafe are detected.

The Police Department for Administrative Management of Social Orderliness perform the state management of security and orderliness for conditional business sectors and security services; the state management of weapons, explosives, and support tools; and management of the agency's seals. The department manages public order strictly according to the provisions of the law, and as instructed by the Minister of Public Security. It directs and guides the police force, providing the administrative management of social order for measures that prevent, detect and combat crimes according to the provisions of the law, and as instructed by the Minister. The department is also responsible for managing pavement encroachment and illegal construction.

The police investigation agency is responsible for investigating serious and very serious traffic accidents.

The Police Department for Fire Prevention, Fighting and Rescue and the Rescue Police are responsible for assisting the Minister of Public Security in uniting, managing, directing and guiding the police force on fire prevention and fighting, and rescue and salvage. The department provides the state management of fire prevention and fighting under the Law on Fire Prevention and Fighting; organizes the implementation, direction and guidance of the forces that carry out fire prevention, fighting and rescue, and the salvage police forces in accordance with the regulations of the state and as instructed by the Minister of Public Security.

2.3.4. Ministry of Education and Training

Responsible for education and the dissemination of traffic safety regulations and regulations in schools and universities.

2.3.5. Ministry of Health

Responsible for the emergency treatment of people injured in traffic accidents.

2.3.6. Ministry of Justice

The state management agency in charge of law.

2.3.7. Ministry of National Defense

Responsible for ensuring the safety of military vehicles.

2.3.8. National Traffic Safety Committee

The National Traffic Safety Committee (NTSC) was established in 1997 (Prime Minister's Decision No. 917/1997/QĐ-TTg dated 29 October 1997).

On 22 June 2017, the Prime Minister issued Decision No. 22/2017/QĐ-TTg on the organization and duties of the NTSC and the Traffic Safety Boards of provinces and municipalities, to replace Decision No. 57/2010/QĐ-TTg. This decision shall take effect on 10 August 2017.

The National Traffic Safety Committee is an interdisciplinary organization that directs and assists the Prime Minister in directing ministries, sectors and localities in the implementation of national strategies and schemes for assuring traffic orderliness and safety, and the carrying out of interdisciplinary solutions, to ensure traffic order and safety in the whole country.

Box 2. Duties and powers of NTSC

- a) to study and propose to the Prime Minister plans to organize the implementation of national strategies and projects and interdisciplinary solutions for ensuring traffic orderliness and safety, to maximize efficiency and synchronization in ensuring traffic order and safety; to guide ministries, agencies and localities in coordinating with each other to implement these plans and projects once these strategies, projects and solutions have been approved;
- b) to assist the Prime Minister in directing and managing coordination activities among ministries, agencies and localities in order to solve emergent special accidents and complex problems related to traffic orderliness and safety, that require focus throughout the country;
- c) to assist the Prime Minister in examining and spurring on ministries, agencies and localities in their implementation of Government decrees and resolutions and the related decisions, documents and directives of the Prime Minister, to ensure traffic order and safety or approved interdisciplinary measures;
- d) orientation and elaboration of plans on the propagation and dissemination of laws on ensuring traffic order and safety, for which ministries, agencies and localities will organize the implementation thereof;
- e) to guide the Traffic Safety Boards of provinces and municipalities in their implementation of plans and solutions to ensure traffic orderliness and safety in the localities under their respective management; to check the performance of agencies, localities or important traffic hubs; to propose or directly solve local petitions that deal with situations or incidents; and to ensure traffic safety and prevent traffic congestion;
- f) to coordinate with the National Committee for Disaster Preparedness and Search and Rescue in directing rescue work and overcoming the consequences of serious accidents on expressways, national railways, roads and inland waterways;
- g) to coordinate with the people's committees of provinces and municipalities to direct rescues and rescue work and handle traffic accidents and traffic congestion; to propose timely measures to prevent similar accidents and congestion;
- h) to make periodical or extraordinary reports on the traffic order and safety situation, that will be submitted to the Prime Minister, or to report on the traffic order and safety record of the Government to the National Assembly; to direct the analysis, assessment and identification of causes of traffic accidents and congestion throughout the country, and to propose competent authorities that will implement the amending, supplementing or promulgating of mechanisms, legal policy documents and solutions that will ensure traffic order and safety;
- i) to direct the formulation and expansion of best practices in ensuring traffic orderliness and safety;
- j) to engage in international cooperation in the field of ensuring traffic order and safety, and to limit the damage caused by traffic accidents;
- k) to direct research and the application of new scientific and technological research in the field of ensuring traffic order and safety;
- l) to conduct the emulation and commendation of work by collectives and individuals that have made outstanding achievements in activities that ensure traffic orderliness and safety, according to the provisions of law;
- m) to mobilize social resources in assisting victims of traffic accidents, in order to overcome the consequences of traffic accidents, and to help people enjoy life and be able to work in their community;
- n) to perform other tasks assigned by the Prime Minister.

Organizational structure of NTSC

Chairman, Vice Chairman and Members:

- a) Chairman of the Committee: Deputy Prime Minister;
- b) First Vice Chairman: Minister of Transport;
- c) Vice Chairman: Deputy Minister of Public Security;
- d) Specialized Vice Chairman (appointed by the Prime Minister);
- e) Members of NTSC:
 - standing members: Deputy Minister of Transport, Deputy Minister of Health, Deputy Minister of Finance, Deputy Minister of Information and Communications, Vice Chairman of the Office of the Government;
 - other members: leaders of the Ministry of National Defense; Ministry of Justice; Ministry of Education and Training; Ministry of Construction; Viet Nam Television; Voice of Viet Nam; and Viet Nam News;
 - invited leaders: Central Committee of Viet Nam Fatherland Front Committee; Nhan Dan Newspaper; Ho Chi Minh Communist Youth Union; Viet Nam Women's Union; Viet Nam Farmer's Union; and Viet Nam Veterans Union.
- f) Standing agency of NTSC and Office of NTSC

The Ministry of Transport is the standing agency of NTSC.

The MOT assists the NTSC by providing an office and staff. The structure of this office includes the chief office, deputy chief offices, and assisting officers. One of the deputy chief offices leads the Department of Traffic Police, Ministry of Public Security.

g) Structure of Provincial Traffic Safety Board

The Provincial Traffic Safety Board (TSB) is a multi-agency that exists to support the Chairman of the Provincial People's Committee or the Chairman of the Municipality People's Committee, in the coordination and implementation of all traffic safety solutions and in reducing traffic congestion in a province or city.

Box 3. Tasks and duties of Traffic Safety Board of a province or municipality

- i) to propose that the People's Committees of provinces or municipalities:
 - make plans and coordinate between departments and all levels of local government during the implementation of all traffic safety solutions and measures to reduce traffic congestion;
 - principally establish a Traffic Safety Board in a commune, district or city under a province if a complicated traffic safety situation arises, in order to ensure the efficient resolution of traffic safety issues;
- ii) to support the Chairman of the People's Committee of provinces or municipalities in coordinating multi-sector activities and the various activities of agencies and unions geared towards ensuring traffic safety and reducing traffic congestion;
- iii) to design campaigns that propagate targeted information to all local people on the regulations and rules of the Government of Viet Nam, and other rules issued by ministries relating to traffic safety;
- iv) to provide urgent reports to the People's Committees of provinces and municipalities and to the National Traffic Safety Committee, on particularly serious accidents that occur in these areas; to be in charge of overcoming and minimizing the consequences of traffic accidents, identifying their causes and proposing preventive measures in a prompt manner; to carry out periodical or unscheduled reports on the traffic safety situation, and on traffic accidents and traffic jams;
- v) to regulate the regime and scope of the responsibilities of related agencies and all members of the Traffic Safety Board; regulating the functions, tasks, powers and responsibilities of the Office of the Traffic Safety Board;
- vi) to perform other tasks assigned by the Chairman of the People's Committee of the province or municipality.

Participants and agencies assisting the Traffic Safety Board of the provinces and municipality

Organizational structure of Traffic Safety Board under the municipality

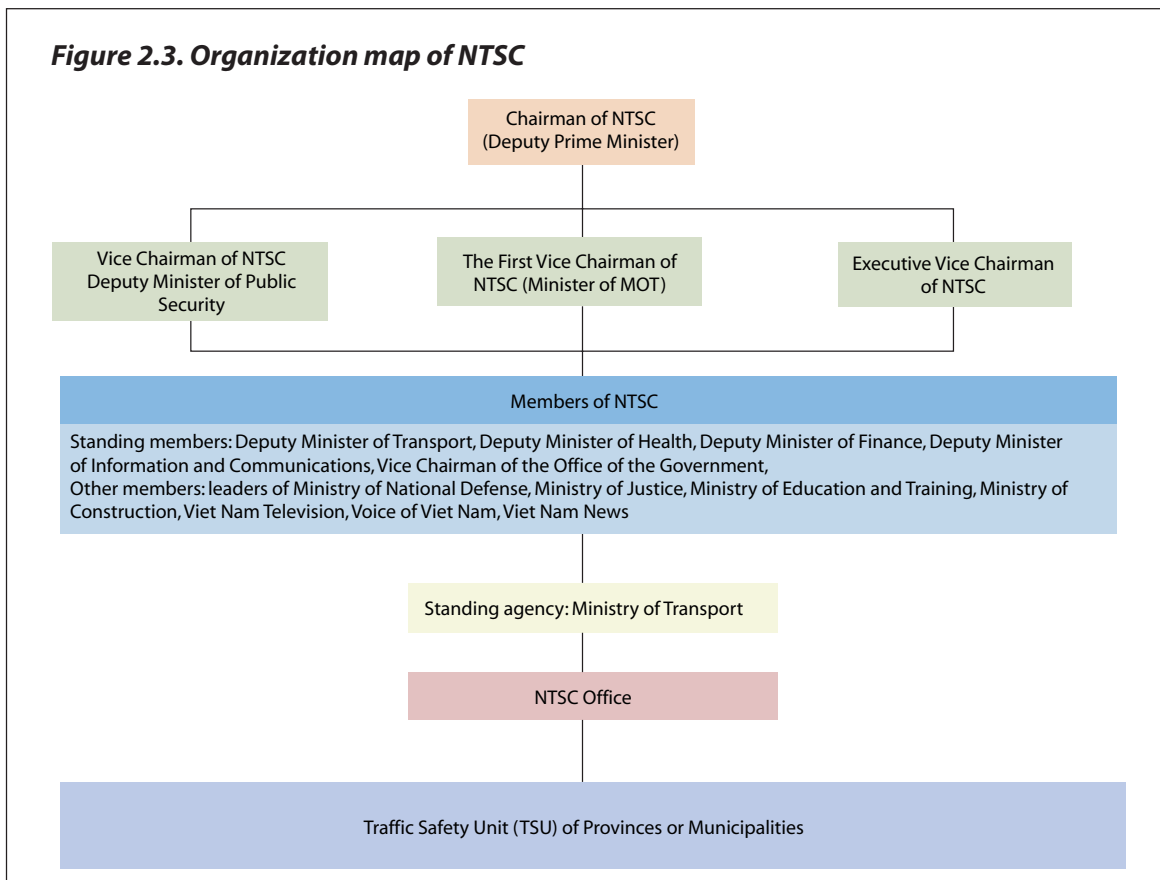
Director, Deputy Director and members of the Traffic Safety Board of the provinces and municipality

- i) Director: Chairman of the People’s Committee of the provinces and municipality;
- ii) Deputy Standing Director: Director of Transport Department

Depending on the practical situation and local characteristics, the Chairman of the People’s Committee of the provinces and municipalities may assign a Vice Chairman of the People’s Committee as the Deputy Standing Director;

- iii) Deputy Director: Deputy Director of the Provincial Police Department or the Police Department of the Municipality;
- iv) Specialized Deputy Director: For provinces and municipalities with a population of over 2 million and complicated traffic order and safety conditions, the Chairman of the People’s Committee, and the Director of the TSB shall consider and appoint a specialized deputy director;
- v) the members of the TSB of provinces and municipalities are leaders of local departments or boards; the Chief Secretarial Office of the TSB is a full-time member. Members of the TSB are appointed by the Chairman of the People’s Committee – Director of the Traffic Safety Board;
- vi) the standing agency of the TSB of provinces and municipalities is the Transport Department;

The Secretarial Office of the Traffic Safety Board is a specialized agency that assists the Traffic Safety Board. The Secretarial Office includes the Chief Office, Deputy Chief Office and several supporting officials. Based on the practical situation, the Chairman of the People’s Committee – Director of the Traffic Safety Board shall assign public servants for full-time or part-time work at the Secretarial Office. The Secretarial Office is located at the Department of Transport or at other locations decided by the Chairman of the People’s Committees of provinces.



3. Recent trends in road safety

3.1. Collecting and analyzing data

Data is collected from official sources issued by the authorized agencies of Viet Nam, such as: the General Statistics Office (GSO), Viet Nam Government Portal, Ministry of Transport Portal, Directorate for Roads of Viet Nam (DRVN) website, Road and Rail Traffic Police Administration, Viet Nam Register, and NTSC. Data is also collected at meetings with related agencies, from the documents of NTSC annual traffic safety seminars and workshops, from conferences organized by MOT and NTSC, etc.

3.2. Road infrastructure

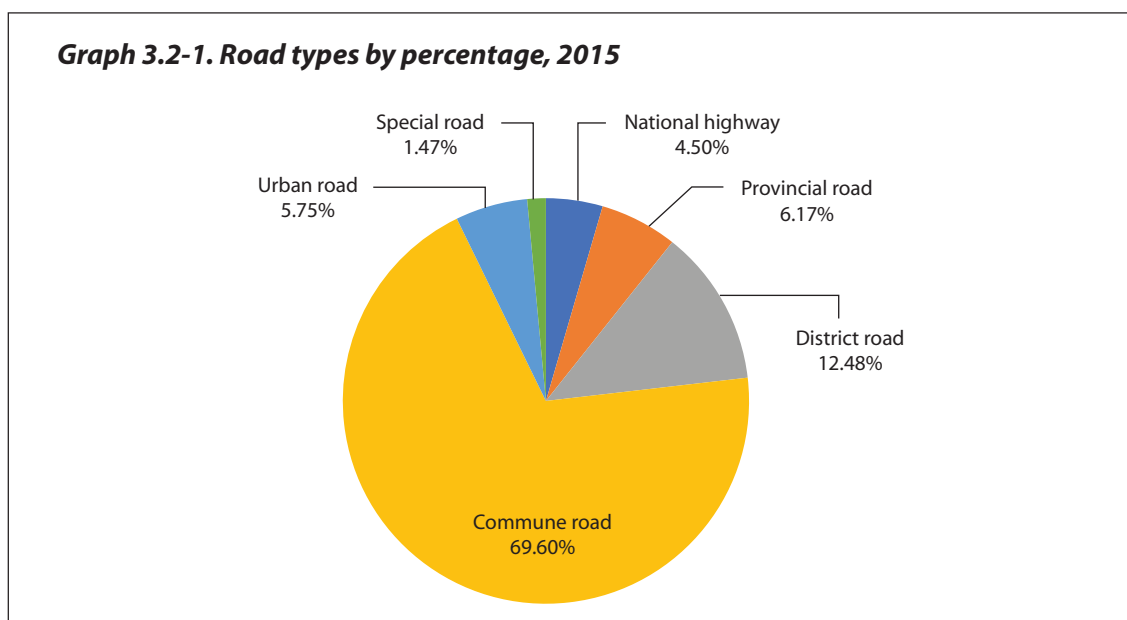
Road infrastructure has developed rapidly over the past 10 years. Contributing to this development are several expressways that have helped to improve the overall quality of road traffic in Viet Nam. According to the Road Traffic Law, the road system of Viet Nam is divided into six types: national highways, provincial roads, district roads, commune roads, urban roads and special roads. Table 3.2-1 below shows the proliferation of such roads in Viet Nam from 2006-2015.

Table 3.2-1. Length of roads

Unit: 1,000 km

Year	National highway	Provincial road	District road	Commune road	Urban road	Special road
2006	17 295	23 138	54 962	141 442	8 567	6 414
2015	21 109	28 911	58 437	325 858	26 921	6 911

Source: Directorate for Roads of Viet Nam.



Source: Directorate for Roads of Viet Nam.

In 2015, compared to 2006, the total length of roads increased by 216,329 km, with the biggest increases seen in commune and urban roads. The current road density is around 1.41 km/km² and 5.1 km/1,000 people.

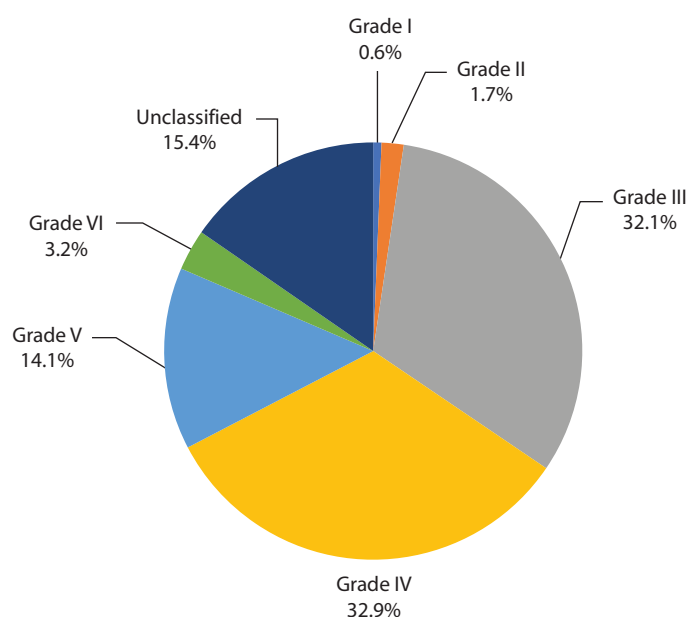
The national highway network of Viet Nam consists of 125 main routes with a length of 21,109 km, and is classified into six technical grades – from I to VI – as follows.

Table 3.2-2. Length of National Highways classified by technical grades, 2015

								Unit: km
Grade	I	II	III	IV	V	VI	Un-classified	Total
Length	134	361	6 786	6 937	2 979	670	3 242	21 109
Percentage share	0.6	1.7	32.1	32.9	14.1	3.2	15.4	100

Source: Directorate for Roads of Viet Nam.

Graph 3.2-2. Proportions of National Highways technical grades, 2015



Source: Directorate for Roads of Viet Nam.

High-quality roads (grades I and II) make up a small proportion of total roads. In recent years, many national highways have been upgraded to grade III (in 2006, only 26.7 per cent were of this grade). Low-quality roads still account for a major proportion of the national highway network's total length. Table 3.2-3 shows the length of national highways classified by pavement structure.

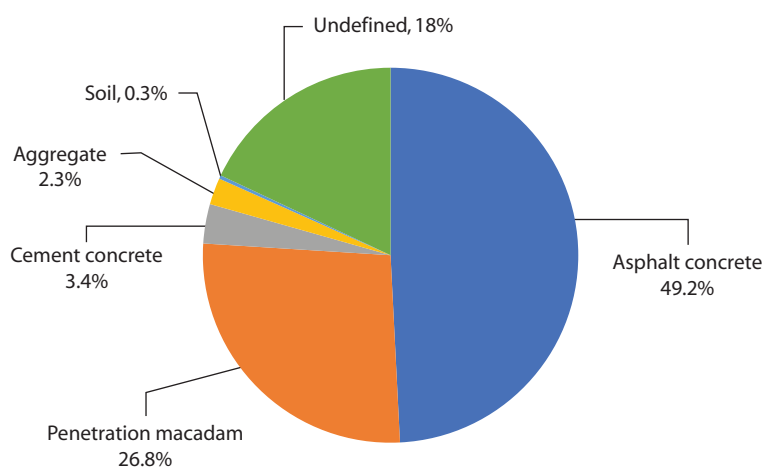
Table 3.2-3. Road lengths by type of pavement structure, 2015

							unit: km
Type	Asphalt concrete	Penetration macadam	Cement concrete	Aggregate	Soil	Undefined	
Length	10 389	5 695	710	493	66	3 792	
Rate (per cent)	49.2	26.8	3.4	2.3	0.3	18	

Source: Directorate for Roads of Viet Nam.

The most prevalent type of pavement structure on the National Highway is asphalt concrete (nearly 50 per cent), followed by penetration macadam, and aggregate or soil in mountainous provinces. On the National Highway, the distances covered by roads of different lane widths are as follows: 1 lane – 3,798 km (18 per cent); 2 to 4 lanes – 13,110 km (62 per cent); 6 to 10 lanes – 112 km (0.5 per cent); and unspecified number of lanes – 4,089 km (19.4 per cent).

Graph 3.2-3. Proportion of National Highway pavement structure by type, 2015 (per cent)



Source: Directorate for Roads of Viet Nam.

The DRVN is in charge of managing and maintaining 17,344 km of roads (accounting for 82.1 per cent of the network). It has handed over 2,042 km (9.6 per cent of the network) to construction companies, while 1,406 km (6.7 per cent) are with Build Operate Transfer (BOT) investors. Some 335 km of national highway has been made into local roads (1.6 per cent).

The expressway network has 13 routes, 745 km of which is operational.

Table 3.2-4. Operational expressways

No.	Name	Operational date	Length (km)	Investment model	Operator
1	Da Lat – Lien Khuong	7/2008	19	BOT	BOT Hung Phat
2	TP Ho Chi Minh – Trung Luong	2/2010	40	State budget	Viet Nam Expressway Administration
3	Lang – Hoa Lac	10/2010	30	State budget	Ha Noi Transport Department
4	Cau Gie – Ninh Binh	7/2012	50	State budget, other	VEC
5	Mai Dich – Thanh Tri (vanh dai)	10/2012	28	State budget	Ha Noi Transport Department
6	Ha Noi – Thai Nguyen	1/2014	64	State budget	Road Administration No. 01
7	Noi Bai – La Cai (Bat Xat)	9/2014	245	State budget, other	VEC
8	Noi Bai – Nhat Tan	1/2015	15	State budget	Ha Noi Transport Department
9	HCM – Long Thanh – Giau Day	2/2015	55	State budget, other	VEC
10	Lao Cai – Cau Kim Thanh	5/2015	19	State budget	Lao Cai Transport Department
11	Phap Van – Cau Gie	9/2015	29	BOT	BOT Phap Van – Cau Gie
12	Ha Noi – Hai Phong	12/2015	105	BOT	VIDIFI
13	Ha Noi – Bac Giang	1/2016	46	BOT	BOT Bac Giang

Source: Directorate for Roads of Viet Nam.

There are eight expressways under construction, with a total length of 472 km. They are shown in Table 3.2-5.

Table 3.2-5. Expressways or sections of expressways under construction

No.	Name	Date of ground breaking	Length (km)	Investment model	Total investment (VND, billion)
1	Da Nang – Quang Ngai	05/2013	131	State budget	27 968
2	Hue (La Son) – Da Nang (Tuy Loan)	12/2013	77	BOT	11 500
3	Hoa Lac – Hoa Binh	05/2014	32	BOT	9 940
4	Ben Luc – Long Thanh	07/2014	58	State budget	31 320
5	Thai Nguyen – Cho Moi	09/2014	40	BOT	2 746
6	Quang Ninh – Hai Phong	09/2014	25	BOT	14 000
7	Trung Luong – My Thuan	02/2015	51	BOT	17 000
8	Bac Giang – Lang Son	07/2015	58	BOT	12 000

Source: Directorate for Roads of Viet Nam.

3.3. Motorized road vehicles

Over the past 10 years, the number of motorized road vehicles has expanded rapidly, pointing to a boom in ownership. The largest increase has been seen in motorcycles and mopeds. Motorized road vehicles are mainly concentrated in big cities, the South-East and the Red River Delta (where there are two big cities, Ha Noi and Ho Chi Minh City).

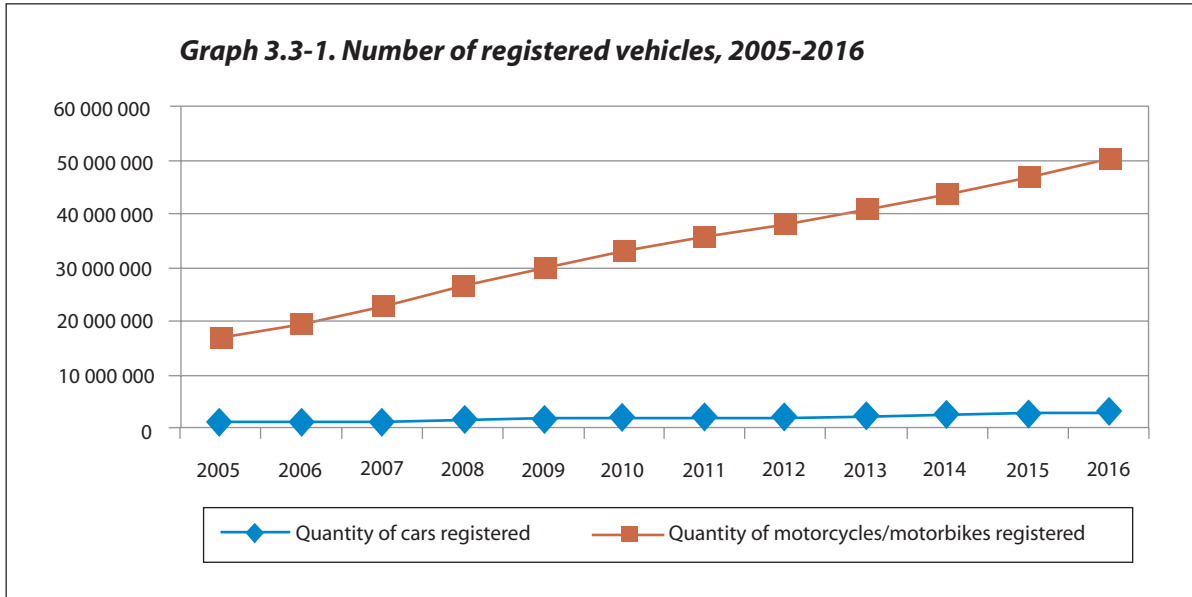
Table 3.3-1. Motorized road vehicles, 2005-2016

Year	Number of cars registered	Increase over previous year	Increase rate (per cent)	Number of motorcycles/mopeds registered	Increase over previous year	Increase rate (per cent)	Total vehicles
2005	891 104	116 280		16 086 644	2 710 625		17 094 028
2006	972 912	81 808	9.18	18 615 960	2 529 316	15.72	19 670 689
2007	1 106 617	133 705	13.74	21 721 282	3 105 322	16.68	22 961 618
2008	1 361 645	255 028	23.05	25 481 039	3 759 757	17.31	27 097 735
2009	1 535 987	174 342	12.80	28 431 079	2 950 040	11.58	30 141 421
2010	1 713 908	177 921	11.58	31 452 503	3 021 424	10.63	33 344 344
2011	1 882 972	169 064	9.86	33 925 839	2 473 336	7.86	35 977 885
2012	1 992 589	109 617	5.82	36 102 943	2 177 104	6.42	32 205 155
2013	2 147 750	155 161	7.79	38 643 091	2 540 148	7.04	40 946 010
2014	2 349 667	201 917	9.40	41 212 965	2 569 874	6.65	43 764 558
2015	2 663 269	313 062	13.35	44 128 822	2 915 857	7.08	47 105 166
2016	3 033 527	370 258	13.90	47 131 928	3 033 106	6.87	50 535 727

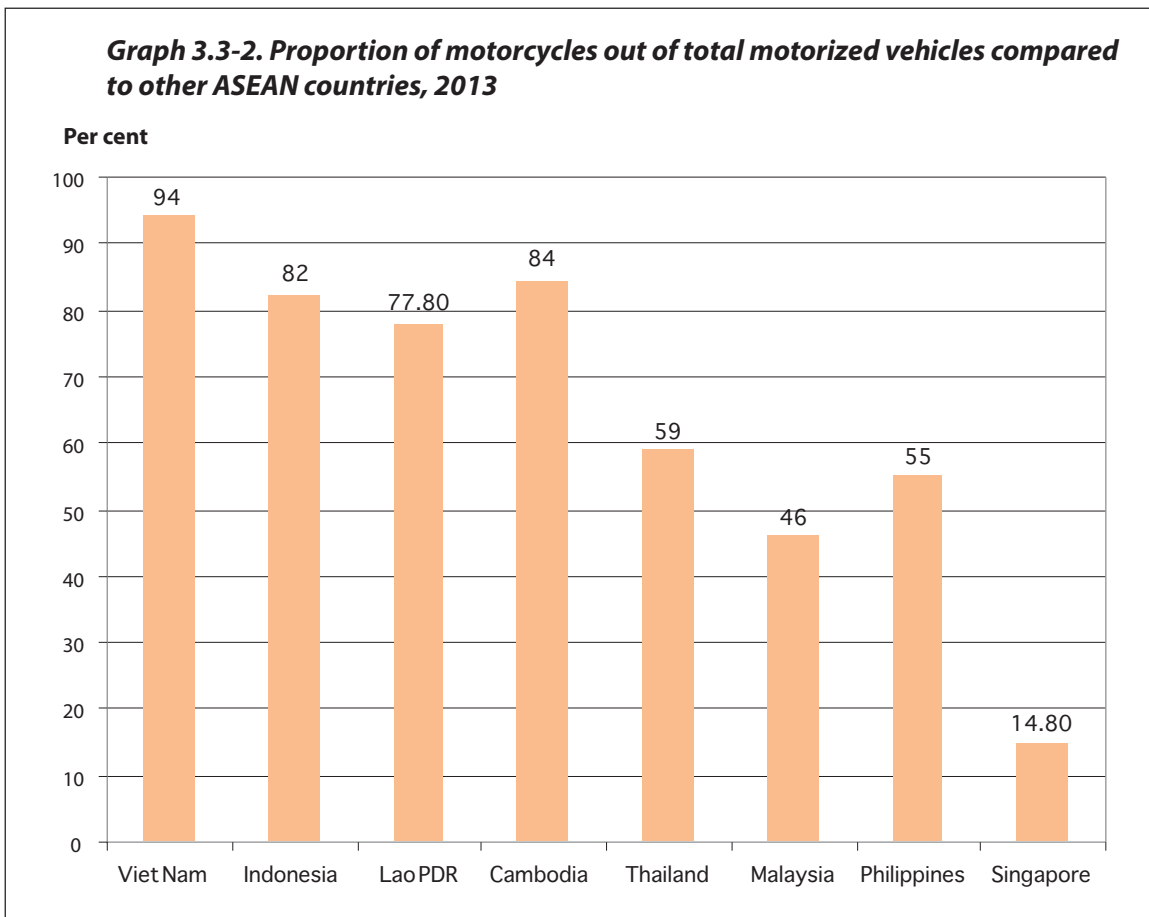
Source: Department of Traffic Police.

Between 2006 and 2016, the number of cars increased by 2,061,615 units (211.8 per cent). The year 2015 saw the rate of increase pick up, a trend that will only accelerate in 2018 when tariffs on cars imported into Viet Nam from ASEAN countries will fall to zero. The other side of this trend is that the number of cars manufactured in Viet Nam will greatly decrease because more and more cheap cars from India, Indonesia and Thailand will be imported into Viet Nam.

The number of motorcycles and mopeds on the road increased by 28,515,968 vehicles (153.2 per cent) between 2006 and 2016. In recent years, the rate of growth in motorcycle and mopeds ownership has decreased. However, there are an enormous number of motorcycles in Viet Nam (accounting for 93.3 per cent of motorized vehicles), the highest number as a proportion of all motorized vehicles of any ASEAN country.



Source: Directorate for Roads of Viet Nam.



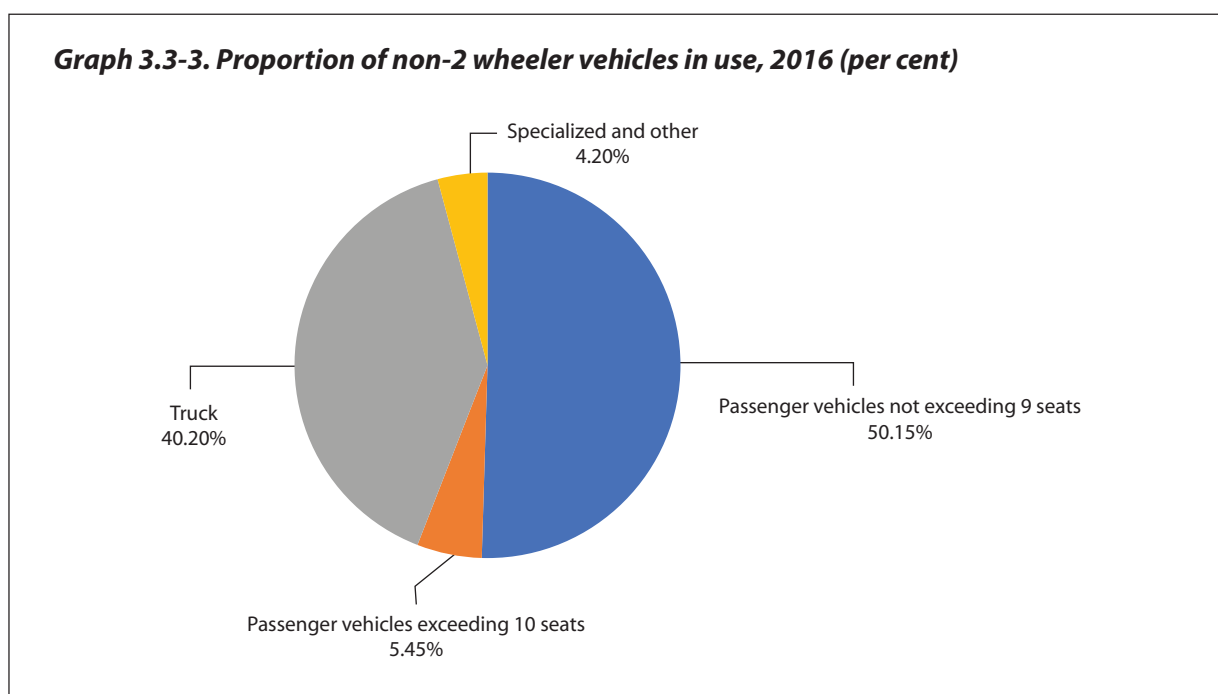
Source: WHO – Global Status Report on Road Safety, 2015.

There is a big gap between the number of motorized vehicles registered and the number of motorized vehicles in use (due to many out-of-operation motorized vehicles still featuring on the statistics list). The number of non-2 wheeler vehicles in Viet Nam is listed in the table below.

Table 3.3-2. Classification of non-2 wheeler vehicles in use

Type of non-2 wheeler vehicles	Quantity		Gross total (seat, ton)	
	2015	2016	2015	2016
1. Total	2 101 401	2 516 144	14 848 537	18 102 913
2. Passenger vehicles not exceeding nine seats	1 033 131	1 270 066	5 918 405	7 305 523
3. Passenger vehicles exceeding 10 seats	118 030	136 727	3 108 518	3 694 906
From 10 to 25 seats	66 277	74 987	1 014 596	1 171 580
From 26 to 46 seats	37 874	45 451	1 327 213	1 617 822
Above 46 seats	13 879	16 289	766 709	905 504
4. Truck	853 735	1 004 499	2 958 747	3 642 215
Weight of up to 2 tons	444 568	516 010	449 784	521 044
Weight from 2 to 7 tons	226 336	270 080	880 764	1 110 795
Weight from 7 to 20 tons	177 967	212 159	1 518 294	1 867 242
Weight over 20 tons	4 864	6 250	109 905	143 134
5. Specialized and other	96 505	10 452	2 862 867	3 460 269

Source: Viet Nam Register.



Source: Directorate for Roads of Viet Nam.

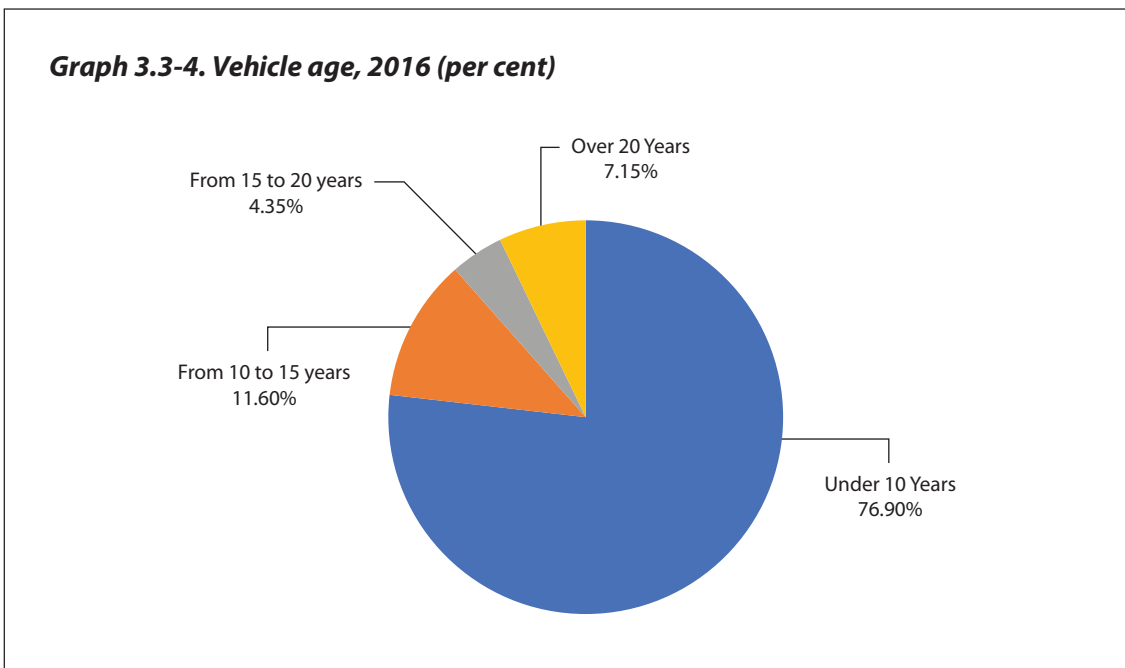
Vehicles with nine seats or less accounted for over 50 per cent of those on the roads, with trucks accounting for 40.2 per cent (mostly small trucks), and passenger vehicles accounting for only 5.45 per cent.

Since the implementation of Decree No. 23/2004/ND-CP of the Government dated 13 January 2004, regulating the age limit of cargo trucks and passenger vehicles, the average age of vehicles is under 10 years (77 per cent of vehicles). Vehicles older than 10 years are mainly passenger vehicles, which are not included in the current age-limit regulations for private cars.

Table 3.3-3. Vehicle age

Type of vehicle	2015	2016
Average age of vehicle		
Under 10 years	1 604 741	1 899 099
From 10 to 15 years	224 871	288 788
From 15 to 20 years	98 806	107 740
Over 20 years	173 383	176 797
Age of passenger vehicle		
Under 12 years	92 588	101 909
From 12 to 15 years	14 705	19 735
From 15 to 17 years	4 177	6 270
From 17 to 20 years	6 960	6 914
Over 20 years		

Source: Viet Nam Register.



Source: Viet Nam Register.

State authorities pay special attention to passenger vehicle age. The registry agency always sends an update or notifies car owners when their vehicle registration has expired. The police adhere to a strict policy of investigation and punishment. As a result, there has been a marked improvement in the age and quality of passenger vehicles on the road, with vehicles aged 12 years or less accounting for over 75 per cent of all vehicles.

3.4. Road safety statistics

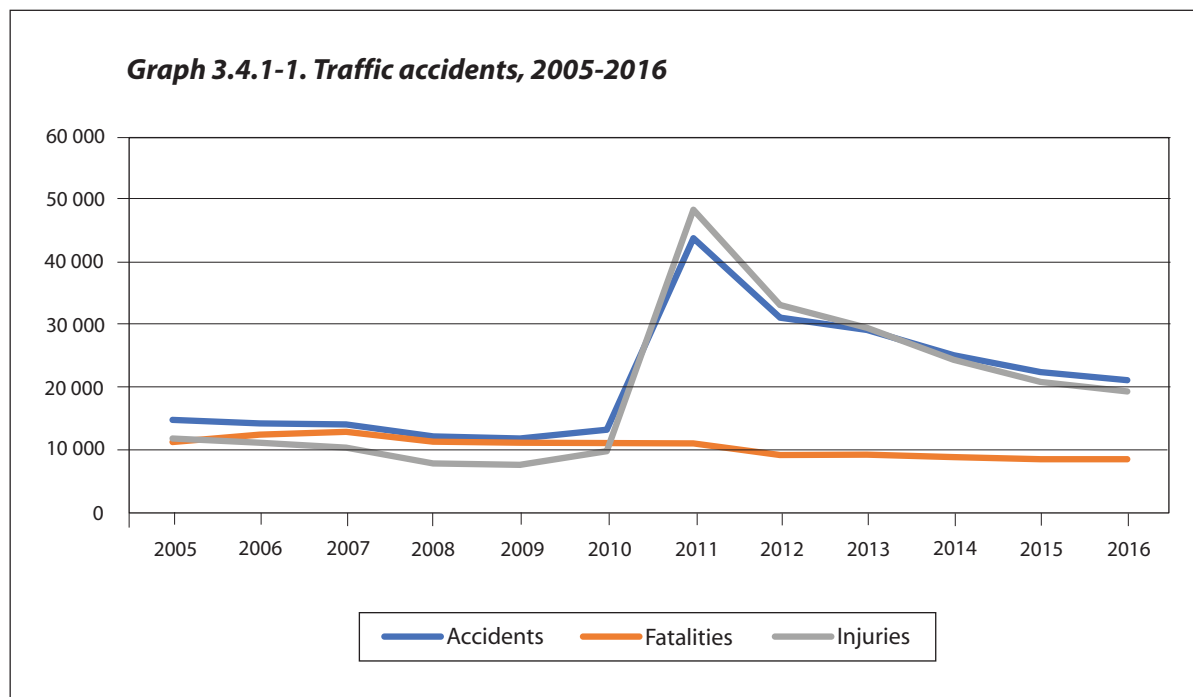
3.4.1. Overall rate of traffic accidents

In 2005-2007, there was a marked increase in the number of fatalities caused by traffic accidents, to a peak of 12,800 deaths in 2007. On 15 December 2007, wearing a helmet became compulsory for drivers of motorcycles and mopeds. The following year there was a 1,557-person drop in fatalities, one of the greatest falls in the number of fatalities related to traffic accidents ever recorded.

Table 3.4.1-1. Traffic accident statistics, 2005-2016

Year	Accident			Fatalities			Injuries		
	Case	Increase/decrease	Per cent over past year	Quantity	Increase/decrease	Per cent over past year	Quantity	Increase/decrease	Per cent over past year
2005	14 711	-2 770	-16.3	11 184	155	1.32	11 760	-3 382	-22
2006	14 161	-550	-3.7	12 373	1 189	10.6	11 097	-663	-5.6
2007	13 985	-176	-1.2	12 800	427	3.5	10 266	-831	-7.5
2008	12 065	-1 920	-13.7	11 243	-1 557	-12.2	7 771	-2 495	-24.3
2009	11 758	-307	-2.5	11 094	-149	-1.3	7 559	-212	-2.7
2010	13 133	1 375	11.7	11 029	-65	-0.6	9 744	2 185	28.9
2011	43 786	30 653	233.4	10 950	-79	-0.7	48 356	38 612	396.3
2012	31 097	-12 689	-29.0	9 117	-1 833	-16.7	33 096	-15 260	-31.6
2013	29 108	-1 989	-6.4	9 156	39	0.4	29 441	-3 655	-11.0
2014	25 068	-4 040	-13.9	8 788	-368	-4.0	24 365	-5 076	-17.2
2015	22 362	-2 742	-10.9	8 435	-353	-4.1	20 815	-3 550	-14.5
2016	21 094	-1 268	-6.67	8 417	-18	-0.21	19 280	-1 535	-7.37

Source: NTSC.



Note: Statistical methods used in 2011 changed the number of cases, number of people injured.

In 2011, the Government issued Resolution 88/NQ-CP dated 24 August 2011, on strengthening the implementation of centralized solutions to ensure traffic safety. This resolution includes strict punishments for drink drivers. The Resolution also strengthened the state management of traffic safety by clearly regulating the responsibilities of agencies and individuals on this issue. The strict guidance of the Government and related ministries and agencies resulted in decreased of fatalities caused by road traffic accidents from 2011 onwards. In the years 2014, 2015 and 2016, less than 9,000 people a year died on roads in Viet Nam.

3.4.2. Relative rate of road traffic accidents

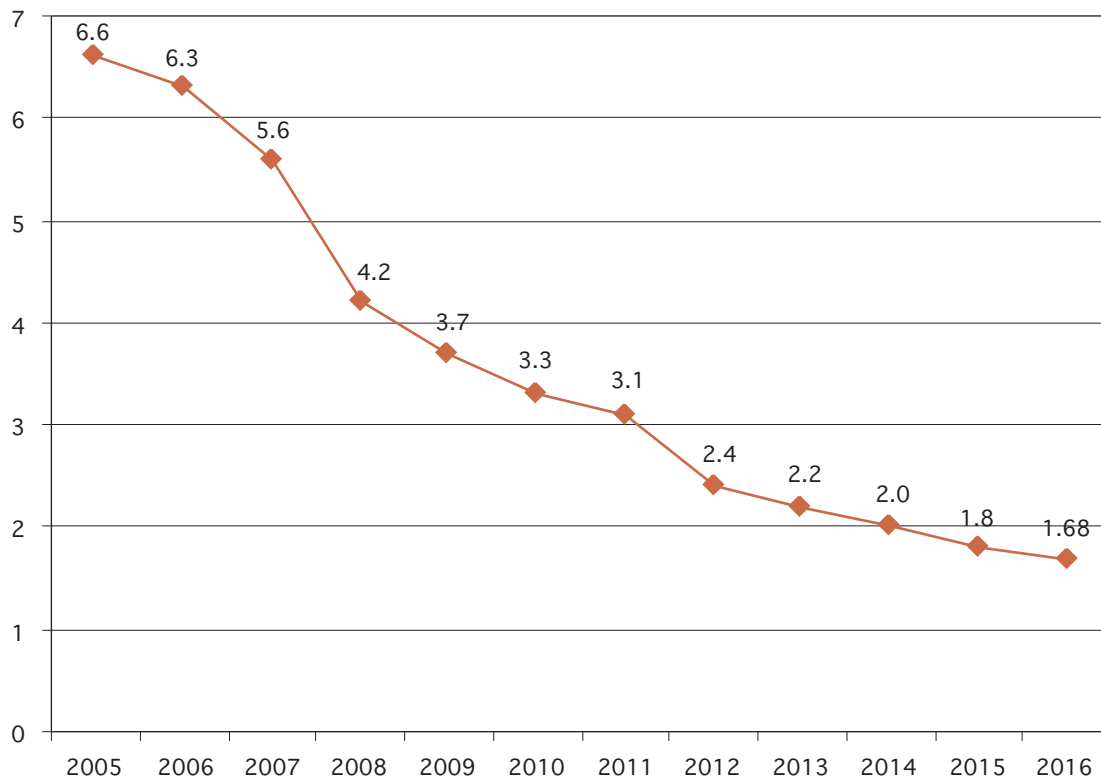
3.4.2.1. Road fatalities per 10,000 motorized vehicles

Table 3.4.2.1-1. Road fatalities per 10,000 motorized vehicles

Year	Road fatalities	Number of motorized vehicles	Fatalities/10,000 vehicles
2005	11 184	16 977 748	6.59
2006	12 373	19 588 872	6.32
2007	12 800	22 827 899	5.61
2008	11 234	26 842 684	4.19
2009	11 094	29 967 066	3.70
2010	11 029	33 166 411	3.33
2011	10 950	35 808 811	3.06
2012	9 117	38 095 532	2.39
2013	9 156	40 790 841	2.24
2014	8 788	43 562 632	2.02
2015	8 442	46 792 091	1.80
2016	8 417	50 165 455	1.68

Source: Department of Traffic Police.

Graph 3.4.2.1-1. Road fatalities per 10,000 motorized vehicles, 2005-2016



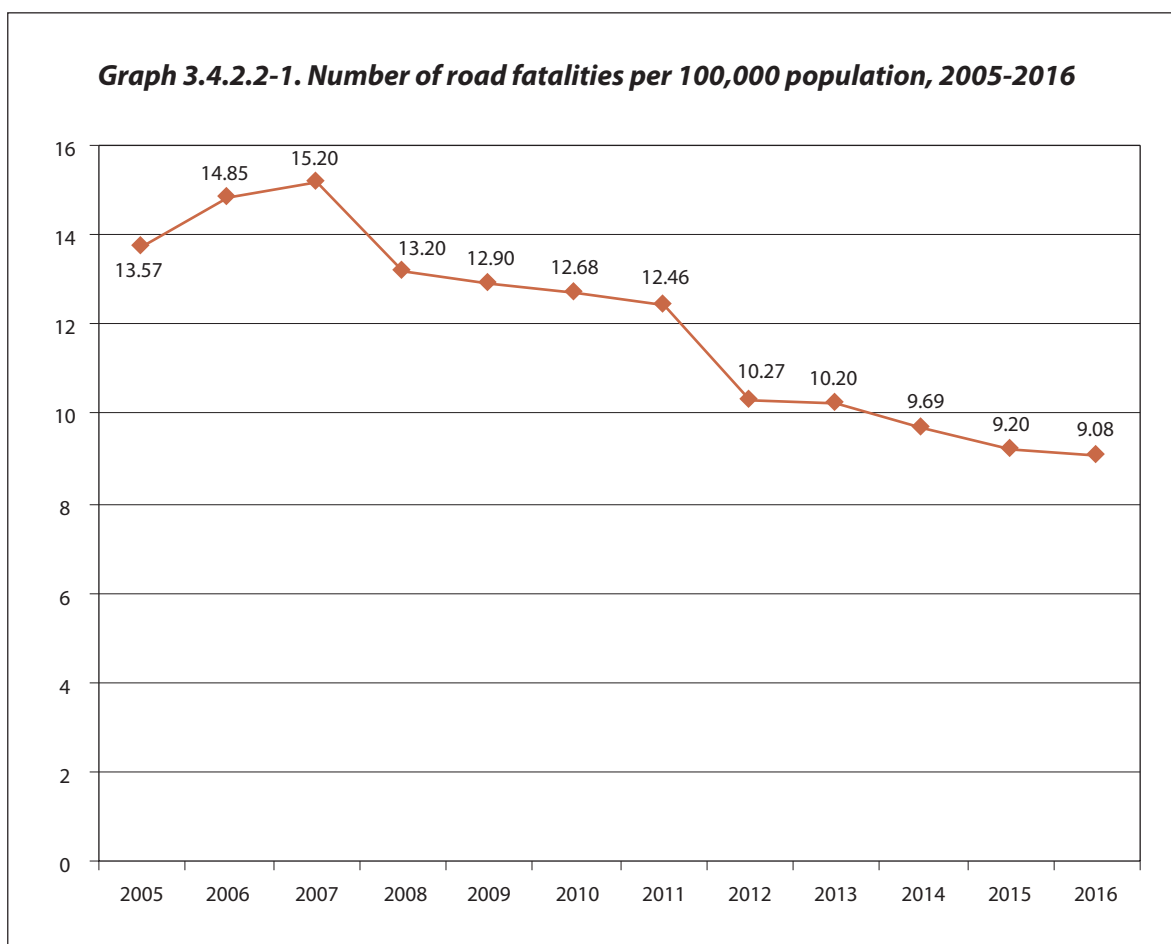
Road fatalities per 10,000 motorized vehicles dramatically reduced from 2005 to 2016. In 2005, 6.6 people were killed per 10,000 vehicles, but the figure in 2016 was 1.68. This achievement shows the attentiveness and political will of the Government in addressing this issue

3.4.2.2. Road fatalities per 100,000 population

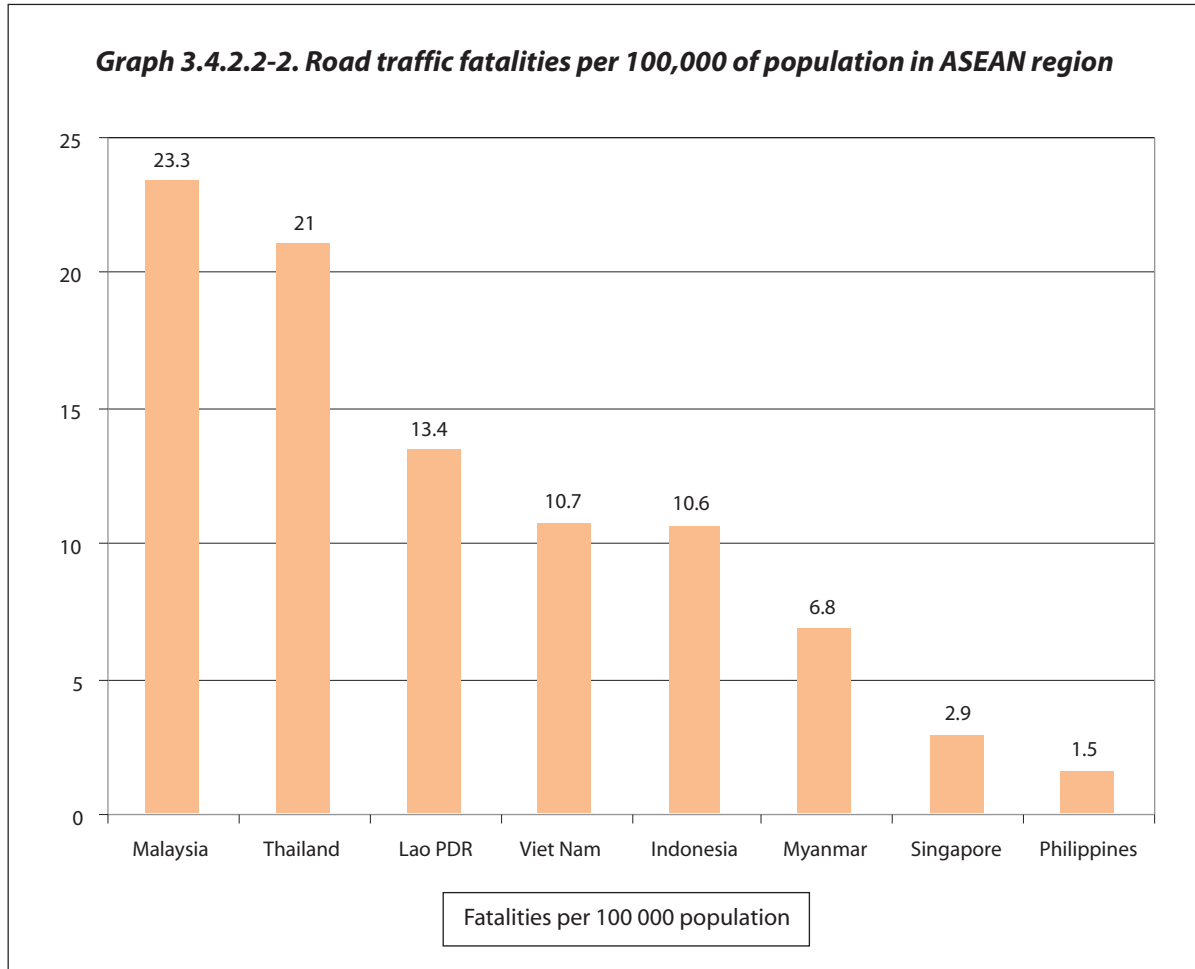
Table 3.4.2.2-1. Road fatalities per 100,000 population

Year	Population (1,000 people)	Fatalities	Fatalities per 100,000 population
2005	82 392	11 184	13.57
2006	83 311	12 373	14.85
2007	84 218	12 800	15.20
2008	85 118	11 234	13.20
2009	86 025	11 094	12.90
2010	86 974	11 029	12.68
2011	87 860	10 950	12.46
2012	88 809	9 117	10.27
2013	89 759	9 156	10.20
2014	90 728	8 788	9.69
2015	91 713	8 442	9.20
2016	92 700	8 417	9.08

Source: Department of Traffic Police.



The rate of road traffic fatalities per 100,000 of population increased from 14.85 in 2006 to 15.20 in 2007, before continuously decreasing towards 9.08 in 2016. The graph below shows a comparison of the per 100,000 of population fatality rate amongst ASEAN countries in 2013.



Source: WHO: Global Status Report on Road Safety 2015

3.4.2.3. Traffic accidents on different types of roads

The highest number of fatalities – 36.01 per cent of total deaths – occur on national highways because of the high speeds and high transport densities that exist along these routes. Urban roads account for 33.9 per cent fatalities, with many of these fatalities occurring where urban roads join national highways.

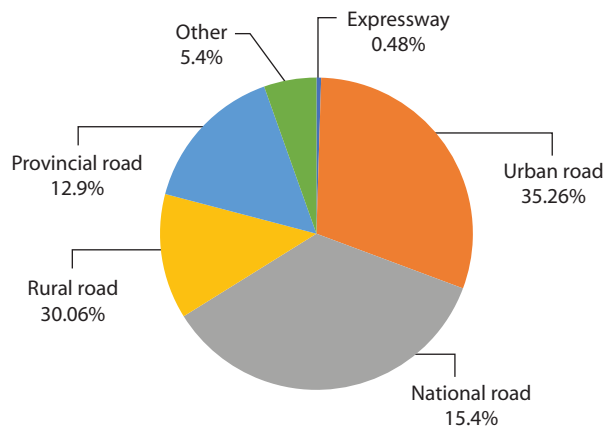
3.4.2.4. Analysis of traffic accidents over time

Regarding the times at which traffic accidents take place throughout the day, some 40 per cent of accidents occur at night between the hours of 18:00 and 24:00. This is followed by the period from 12:00 to 18:00 (30.5 per cent of accidents), meaning that the hours between 12:00 and 24:00 account for some 70 per cent of total traffic accidents.

3.4.2.5. Analysis of road traffic accidents by type of vehicle

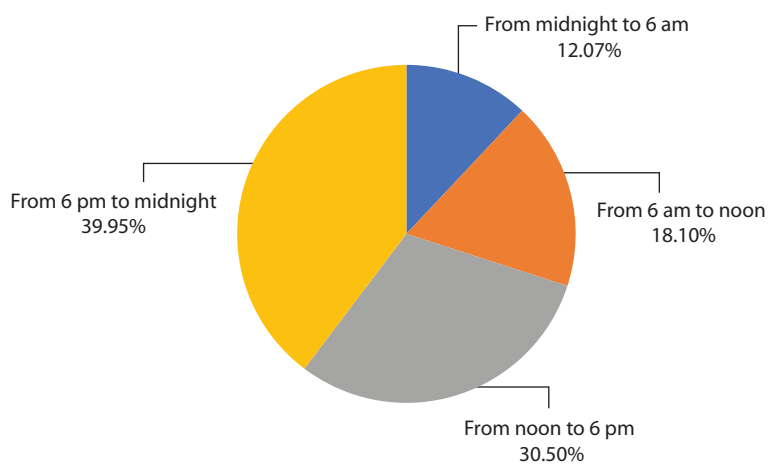
Motorbikes or motorcycles can be considered unsafe vehicles, in that road accidents related to the drivers of these vehicles account for some 70 per cent of total cases.

Graph 3.4.2.3-1. Occurrence of traffic accidents on different types of road, 2016



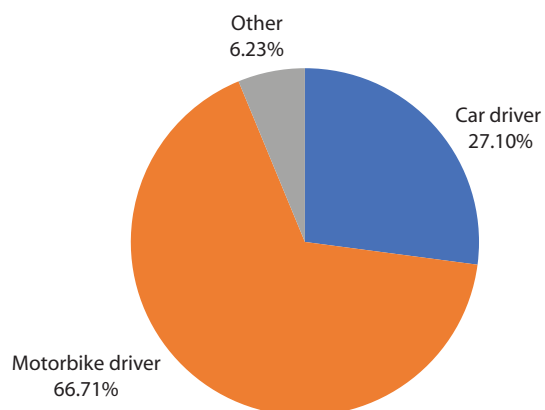
Source: Department of Traffic Police.

Graph 3.4.2.4-1. Analysis of traffic accidents over time, 2016



Source: Department of Traffic Police.

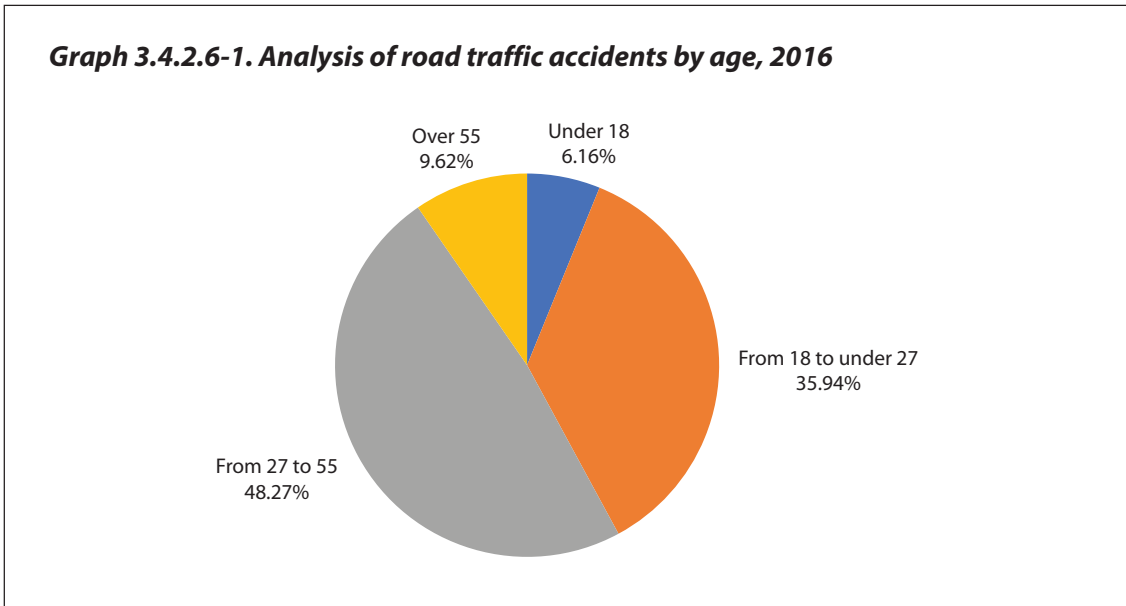
Graph 3.4.2.5-1. Analysis of road traffic accidents by type of vehicle, 2016



Source: Department of Traffic Police.

3.4.2.6. Analysis of road traffic accidents by age

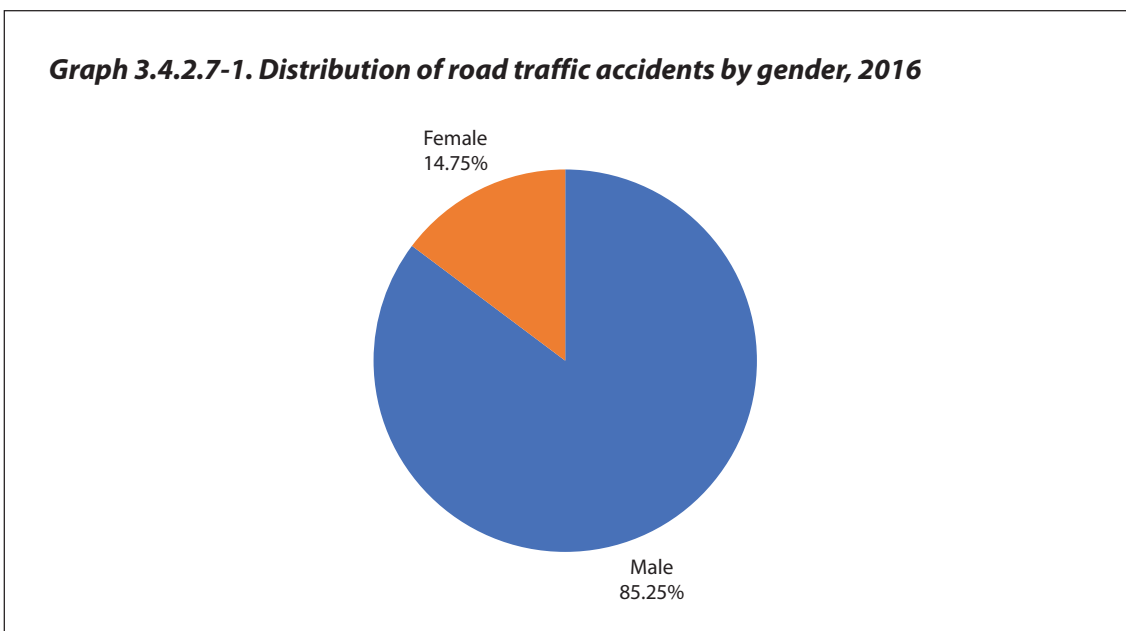
Accounting for approximately 50 per cent of total cases, people between the ages of 27 and 55 are the group most affected by road traffic accidents. Out of this age range, those between the ages of 18 and 27 years of age suffer 35.94 per cent of total road traffic accidents. Some 86 per cent of all accidents occur among people aged 18 to 55, who are of working age.



Source: Department of Traffic Police.

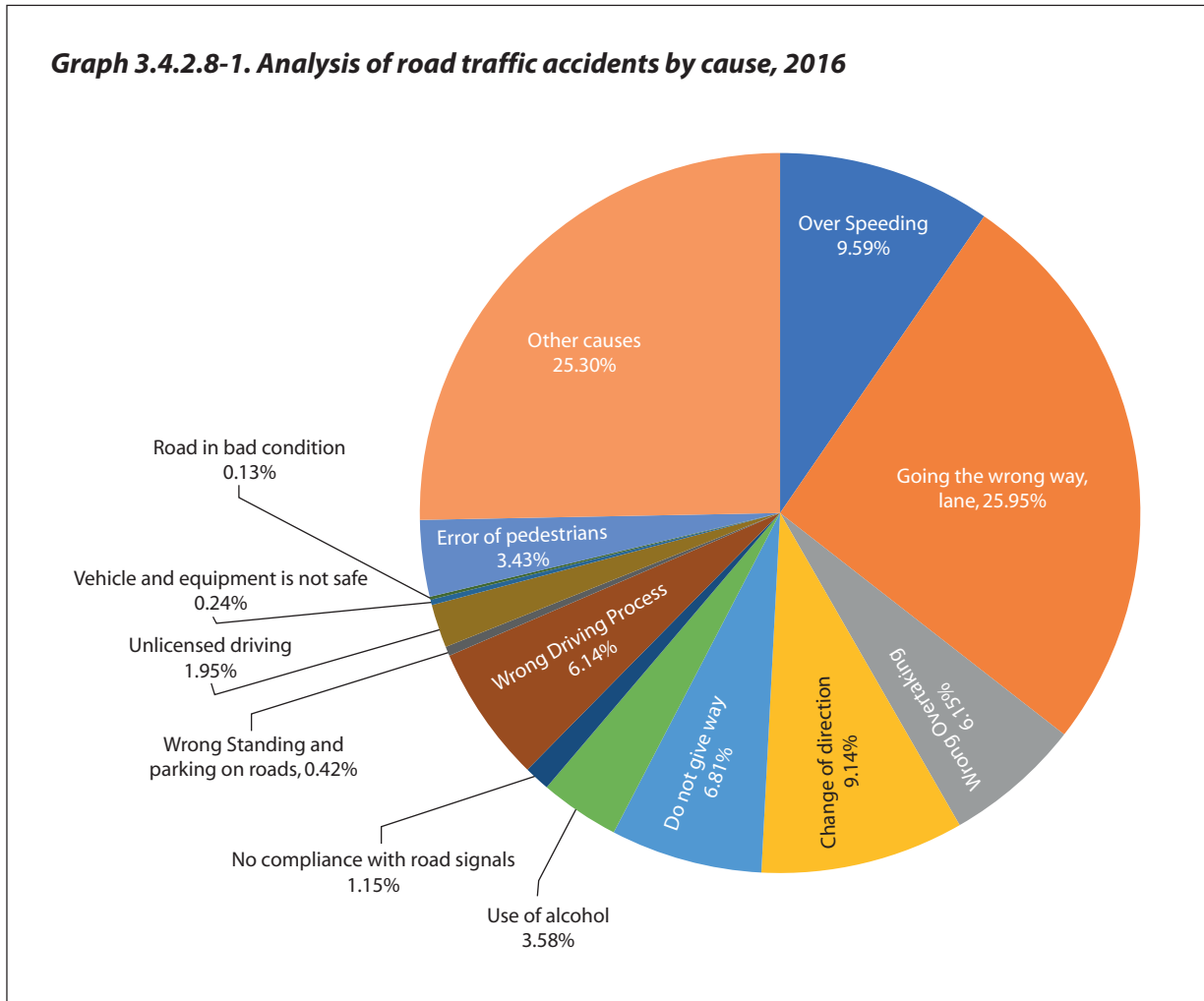
3.4.2.7. Analysis of road traffic accidents by gender

The frequency of road traffic accidents is far higher among men than it is among women, with an occurrence rate of around 85 per cent and 15 per cent, respectively.



Source: Department of Traffic Police.

3.4.2.8. Analysis of road traffic accidents by cause



Source: Department of Traffic Police.

Analyzing road traffic data from 2016, the primary cause of traffic accidents was lane violation, accounting for 25 to 30 per cent of accidents. Speed violation was the second most common cause during that period, at 10 to 13 per cent. In 2015, the speed violation rate dropped to 8.82 per cent, but in 2016 rose again to 9.35 per cent due to more stringent speed regulations.

The percentage of incidents where driving under the influence of alcohol caused traffic accidents was 4 to 5 per cent of total cases, a very low figure compared to the actual situation. This is because when traffic accidents occur, the police do not have blood testing equipment (the test must take place at a medical clinic), so there is insufficient evidence to link traffic accidents to alcohol violations. People under the influence of alcohol also violate other traffic rules such as speeding, driving in the wrong lane, etc., meaning the cause of these traffic accidents are recorded as traffic rule violations; driving over the alcohol limit therefore becomes an indirect reason for road traffic accidents.

3.4.3. Wearing a helmet while driving motorcycles/motorbikes; safety belts

3.4.3.1. Wearing a helmet while driving motorcycles/motorbikes

Viet Nam is the country with the highest amount of motorcycles and motorbikes per capita, for safety purpose, it is essential that its citizens wear helmets when riding such vehicles.

On 10 August 2000, the Ministry of Transport issued Circular No. 312/2000/TT-BGTVT mandating the wearing of safety helmets when driving motorcycles and motorbikes. The National Assembly then issued the 2001 Road Traffic Law. However, the implementation of these legal documents faced many difficulties.

In 2001, the number of deaths due to road traffic accidents increased dramatically on the previous year, by 2,942 people (about 37.1 per cent). In 2002, the number of fatalities due to road traffic accidents rose to a peak of 13,186 people, 21.3 per cent higher than the 12,320 deaths recorded in 2001. Road traffic accidents involving motorbikes and motorcycles account for over 70 per cent of total cases. In light of the above situation, the Government promulgated Resolution No. 02/NQ-CP dated 2 March 2001 on the regular Government meeting in February 2001, and the Prime Minister's Directive No. 08/2001/CT-TTg dated 27 April 2001 on the compulsory wearing of helmets when driving motorcycles or motorbikes, which has been in effect since June 2001. Due to the poor preparation of these documents, the regulations only required motorbike and motorcycle drivers to wear helmets on non-urban roads, so this policy was largely unsuccessful.

In 2007, the number of road traffic fatalities suddenly increased to 12,800. Recognizing the urgency of the situation, the Government found it necessary to be more determined and decisive in implementing road safety solutions. It issued Resolution No. 32/2007/NQ-CP dated 29 June 2007 on urgent measures needed to reduce traffic accidents and congestion. This Resolution contained a regulation on the mandatory wearing of helmets when driving motorbikes and motorcycles anywhere, which has been in effect since 15 December 2007.

Learning from the lessons of previous years, the Government and relevant agencies developed a thorough plan. In the six months before the regulation came into effect, ministries and agencies fully finalized all the regulations and implemented large-scale awareness campaigns combined with strict enforcement efforts. At the same time, the Government ensured that a suitable amount helmets were manufactured to relevant safety standards, and requested all officials to wear helmets as an example for the whole society.

As a result of this meticulous preparation, everyone riding motorcycles or motorbikes in the country were wearing helmets by 15 December 2007. This result has been maintained for the past 10 years. However, the use of low helmets standard continues to be an issue.

After the introduction of the regulation, the number of people who died in traffic accidents related to motorbikes or motorcycles decreased by 1,557 the following year. Over the past 10 years, this regulation has continued to contribute to the reductions seen in road traffic accidents.

However, the following problems have been encountered during the implementation of these helmet regulations:

- the low rate of people wearing helmets when riding motorcycles and mopeds decreases in rural and mountainous regions;
- use of helmets that do not meet safety standards;
- parents are not interested in having their children wear helmets.

The NTSC is focusing on further campaigns to overcome these problems. To strengthen the helmet quality test, on 1 July 2016 the Government issued Decree 87/2016/ND-CP on regulating the conditions for motorcycle helmet businesses.

3.4.3.2. The wearing of seat belts

The road traffic laws of 2001 and 2008 stipulate that "seat belts must be worn by drivers and front seat passengers in cars"; all decrees on the handling of administrative violations in the field of road traffic have stipulated levels of punishment. However, due to the low level of sanctions, state management agencies

have not paid much attention to this particular violation, meaning not many people wear seat belts in cars. According to Decree No. 46/2016/ND-CP dated 26 May 2016, fines given to those who fail to fasten the seat belts are as follows:

Table 3.4.3.2-1. Fines for failure to fasten seat belt

Violation	Penalty
Failure to fasten the seat belt (if available) while the vehicle is running	A fine of VND 100,000 – VND 200,000

3.4.4. Economic losses from road traffic accidents

In developing countries, the value of statistical life (GDP) per capita is a method for calculating economic losses caused by traffic accidents. According to ESCAP,¹ economic costs can be calculated with the following equation:

$$\text{Losses [per cent of GDP]} = 0.0297 * \text{EXP}(-8 * 10^{(-5)}) * (\text{GDP per capita})$$

$$\text{Exp} = 2.718281828$$

Based on above equation, estimation on economic losses by traffic accident in Viet Nam **ranges between 2.49 to 2.68 during 2010 and 2016**

3.4.5. Spending on road traffic safety

The annual expenses allowed for road safety activities are based on administrative fines and the budgets allocated to state agencies.

The administrative fine totals for the whole country in 2013, 2014, 2015 and 2016 are as follows:

Table 3.4.5-1. Total administrative fines related to traffic safety, 2013-2016

Year	2013	2014	2015	2016
Fine (billion VND)	3 920	3 748	3 783	2 696

Source: NTSC.

Expenditures and norms are in accordance with Circular No. 137/2013/TT-BTC dated 7 October 2013, on guiding the management, use and payment of the state budget allocated to traffic safety.

The expenses of programmes, plans and proposals on traffic safety are submitted to the competent authorities for approval. These expenditures are then implemented by ministries and related agencies.²

¹ [E/ESCAP/MCT/SGO/928, September 2006 – Road safety in Asia and the Pacific (Meeting of Senior Government Officials in preparation for the Ministerial Conference on Transport – 6-8 November 2006 – Busan, Republic of Korea); The Study on National Road Traffic Safety Master Plan in the Socialist Republic of Viet Nam until 2010 – Japan International Cooperation Agency (JICA)].

² Data for 2016 are not sufficient, and only show fines accrued by Traffic Police.

Box 4. Expenditure types on traffic safety related activities

The expenditures of the NTSC are as follows:

- a) Expenses dedicated to directing, inspecting line ministries, agencies and localities in the performance of their tasks on ensuring traffic safety, and expenses for pushing for the implementation of such tasks;
- b) Expenses for the propagation and dissemination of the law on traffic safety; replication of best practices or pilot models for ensuring traffic safety;
- c) Expenses for seminars and conferences on the preliminary and final review of traffic safety activities;
- d) Expenses for conducting training on national traffic safety;
- e) Expenses for ensuring international cooperation on traffic safety;
- f) Expenses for rewarding organizations and individuals who made outstanding achievements in carrying out traffic safety activities under the provisions of law;
- g) Expenses for supporting the families of victims, particularly victims of serious traffic accidents or victims in difficult circumstances;
- h) Expenses for equipment and facilities that contribute to traffic safety activities. The expenses for equipment and facilities shall comply with current financial norms and regulations;
- i) Expenses for repairing equipment, facilities; petrol for ensuring traffic safety activities;
- j) Expenses for the initial support of injured staff or the families of staff who died while performing the task of ensuring traffic safety activities;
- k) Expenses for night-shift and overtime work according to current regulations;
- l) Other expenses (if any) for ensuring traffic safety activities.

Expenditures of the Ministry of Public Security are as follows:

- a) Programmes, conferences, seminars on ensuring traffic safety activities;
- b) Inspection activities and petrol expenses for ensuring traffic safety activities;
- c) Professional traffic safety training;
- d) Expenses for carrying out the investigation of traffic accidents;
- e) Expenses for the allowances of personnel directly involved in ensuring night-shift traffic safety (including other police forces directly involved in the task of assuring traffic safety as provided for in Decree No. 27/2010/ND-CP of the Government dated 24 March 2010, stipulating the mobilization of other police and communal police forces in coordination with road traffic police to participate in traffic safety activities; and the Ministry of Public Security's Circular No. 47/2011/TT-BCA dated 2 July 2011 detailing the implementation of a number of articles of Government Decree No. 27/2010/ND-CP);
- f) Expenses for the procurement of equipment and facilities for ensuring traffic safety activities. The procurement of equipment and facilities shall comply with current norms and regulations;
- g) Expenses for repairing equipment and facilities, and for petrol used to ensure traffic safety activities;
- h) Expenses for the repairing and upgrading of headquarters, team offices, unit offices, traffic control stations and places where vehicles are temporarily impounded; repairing equipment, facilities and vehicles used to ensure traffic safety activities;
- i) Expenses for rewarding organizations and individuals who made outstanding achievements in traffic safety activities under the provisions of law;
- j) Expenses for the initial support of injured policemen or the families of staff who died while performing the task of ensuring traffic safety;
- k) Expenses for international cooperation on traffic safety;
- l) Other expenses (if any) for ensuring traffic safety activities.

Traffic safety expenditures of provincial governments are as follows:

- a) Expenses for making plans, providing traffic safety activities and handling traffic congestion among line ministries, multi-level local governments, related agencies;

- b) Expenses for designing programmes, plans on traffic safety; the replication of best practices or pilot models on ensuring traffic safety;
- c) Expenses for propagation and dissemination of the law on traffic safety;
- d) Expenses for directing, inspecting and ensuring the coordination of activities of line ministries, agencies and organizations on ensuring traffic safety and the handling of traffic jams in their local areas;
- e) Expenses for handling traffic safety incidents and traffic jams;
- f) Expenses for international cooperation on traffic safety;
- g) Expenses for rewarding organizations and individuals who made outstanding achievements in traffic safety activities under the provisions of law;
- h) Expenses of visits to the families of victims, in particular the families of those who suffered serious traffic accidents or victims in difficult circumstances;
- i) Expenses for initial support of injured staff or families of staff who died while performing the task of ensuring traffic safety activities;
- j) Programmes, conferences and seminars on ensuring traffic safety activities;
- k) Expenses for night-shift and overtime work according to current regulations;
- l) Other expenses (if any) for ensuring the fulfilment of traffic safety activities.

3.5. Analyzing the reliability of road safety data

3.5.1. Analysis of road traffic safety based on legal statistical data

The 2008 Road Traffic Law stipulates that the Ministry of Public Security is responsible for collecting statistical data, summarizing and establishing a traffic information database, and then providing these databases to agencies, organizations and individuals in accordance with the current law.

Decision No. 43/2010/QĐ-TTg of the Prime Minister dated 2 June 2010 (replacing Decision No. 305/2005/QĐ-TTg dated 24 November 2005) promulgating the indicator system by which the Ministry of Public Security is responsible for gathering statistical data and summarizing reports on the number of traffic accidents, and the number of deaths and injuries caused by traffic accidents.

The Minister of Public Security issued Decision No. 7836/QĐ-BCA dated 29 December 2014 regulating the functions, duties and powers of the Department of Traffic Police. The Department of Traffic Police has the responsibility of “Coordinating with professional units in the police sector and other functional sectors to study the causes and conditions of traffic accidents to propose policies and measures in order to prevent traffic accidents; collecting statistics and provide this traffic accident database on road, railway, inland waterway and other data according to the current law and as required by the Minister”.

In addition, the Minister for Public Security also issued many documents on the reporting regime and statistical work in the police sector, such as: Circular No. 64/2015/TT-BCA regulating the reporting procedures of the public security force; Circular No. 12/2016/TT-BCA regulating the statistical work of the public security force; and Circular 58/2009/TTBCA (C11) dated 28 October 2009 on regulating and guiding, summarizing, building a database and providing information on road traffic safety.

Circular 58/2009/TT-BC regulates some content as follows:

- a) Definition, classification of traffic accident;
- b) General statistical indicators, including six group criteria:
 - group of general indicators on the number of cases, number of deaths, number of injured persons, property losses;
 - group of indicators on routes and areas where traffic accidents occur;
 - group of indicators on means of traffic accidents;
 - group of age indicators;

- group of indicators on causes of traffic accidents;
 - group of indicators on results of investigation and settlement of accidents;
- c) The regime for reports, statistics and summary of traffic accidents;
- d) Assigning responsibility for reports, statistics and the summarization of traffic accidents;
- e) Establishing databases on traffic accidents;
- f) Competence and forms of provided information, the use of statistical databases and synthesis of traffic accidents.

3.5.2. Analyzing the reliability of road traffic accident data

In general, the road traffic accident database has been improved and has made significant progress. Some data play an analytical role in helping specialized agencies develop road safety policies.

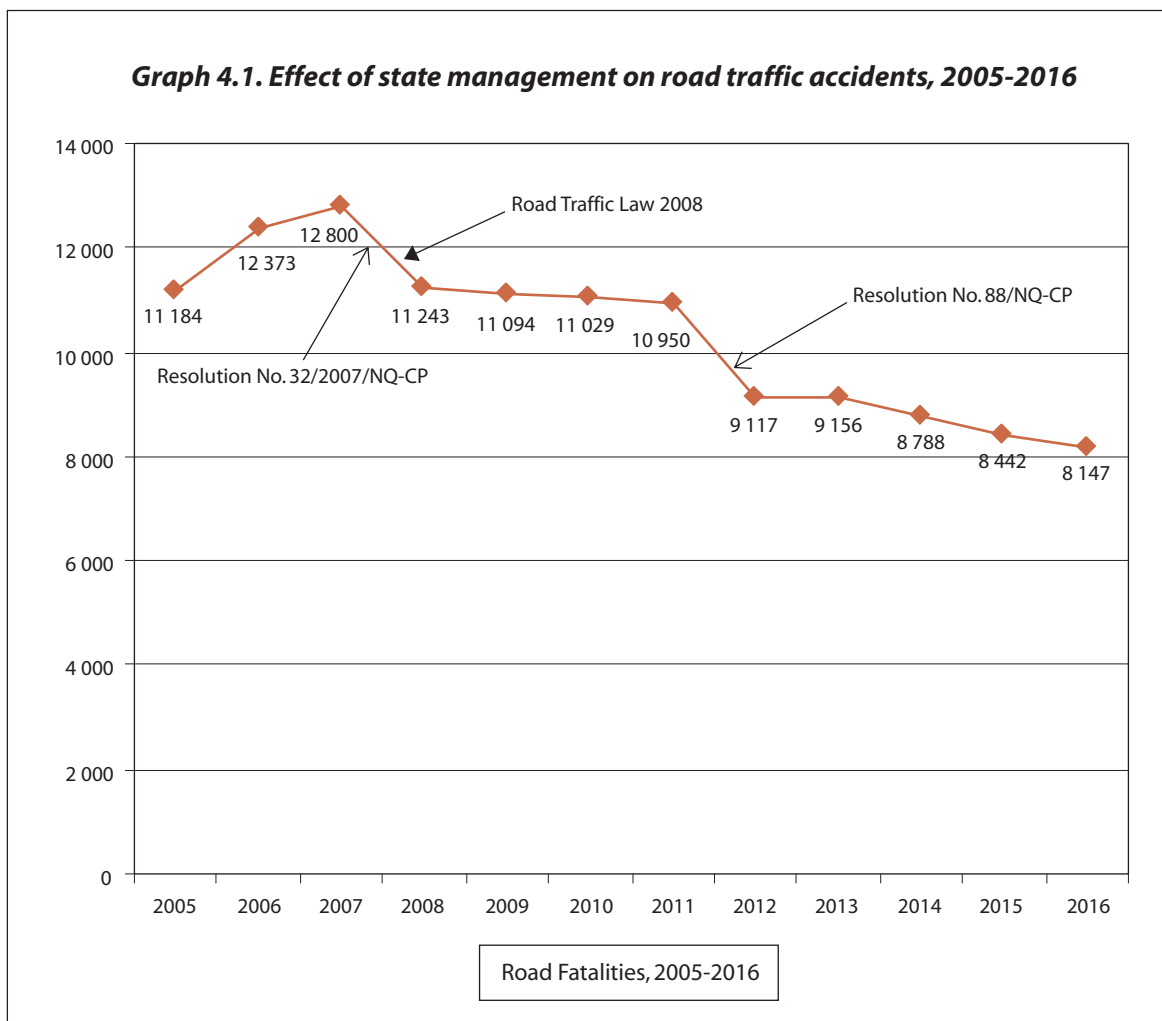
However, there are some shortcomings:

- a) Inadequate data, and limited reliability due to several reasons:
- because they are less serious, some traffic accidents are not reported to the police and are not included in statistics;
 - there is a time limit on the monitoring of deaths after accidents;
 - a lack of specific indicators and details for analyzing the cause of traffic accidents;
 - in some remote areas there is no computer network connected to the database system, so that leads to inaccurate information;
 - currently, statistics on traffic accidents are included in the list of confidential documents, and traffic accident data are published by the Office of the Ministry of Public Security. The content of the published material includes only: the number of accidents; number of deaths; number of injuries; comparison of these indicators with that of previous years; number of accidents by level of severity (not serious, serious and especially serious);
- b) The government has not regulated the mechanism for sharing traffic accident data and its related information between state management agencies. Researching agencies are therefore collecting limited data, leading to incomplete data analysis.

4. Assessment of road traffic safety

4.1. Road traffic safety management

Improving the capacity of state management actors to ensure traffic safety is crucial for reducing traffic accidents. Timely high-level political commitment and good coordination between competent public agencies can result in improvement in traffic safety situation. Over the past 10 years, these issues have gained recognition and are the leading reason for Viet Nam achieving its reduction in traffic accidents.



4.1.1. Strategy framework

4.1.1.1. National Road Safety Strategy by 2020 and a Vision to 2030

On 24 October 2012, the Prime Minister of Viet Nam issued Decision No. 1586/QĐ-TTg on the approval of the National Road Safety Strategy by 2020 and a Vision to 2030 with the overall objectives to develop solutions and policies for road safety in a sustainable manner that will meet current and future requirements; to reduce traffic accidents and road traffic jams in a sustainable way; strive to build a society with safe, civilized, modern, friendly and sustainable traffic; to develop road transport infrastructure that meets transport demands and ensures traffic safety. Specific goals for period 2012-2020 and vision to 2030 are in Box 5.

Box 5. Specific goals under National Road Safety Strategy by 2020 and a Vision to 2030

For the period 2012-2020:

- annually, to reduce by 5 to 10 per cent the number of deaths occurring as a result of road traffic accidents; to reduce traffic congestion in the capital Ha Noi, in Ho Chi Minh City and other big cities;
- to improve the efficiency and responsibility of law enforcement forces, and their capacities to ensure traffic safety;
- develop self-conscious compliance to laws amongst traffic participants, especially among vehicle drivers; to improve public transport culture; ensure 100 per cent of educational levels are taught traffic safety law; to ensure that knowledge and law on traffic safety are disseminated to 85 per cent of traffic participants;
- upgrade, improve and enhance the safety conditions of road transport infrastructure, with a special priority given to highways that have serious traffic accidents, in accordance with the assessment programme of international road traffic safety;
- eliminate blackspots on roads; ensure the existence of traffic safety corridors on highways;
- ensure national highways are built and equipped with traffic safety features such as rest stops along the road, overpasses for pedestrians, emergency escape ramps, automatic warning signs, on-call barriers at intersections between roads and railways, urban side-roads/ring-roads etc., and especially, lanes for motorcycles and mopeds;
- develop a transport system in Grade-1 cities accessible to those with disabilities, the elderly and children;
- reduce traffic congestion in big cities: invest in the construction and development of mass transit public transport such as elevated railways, subways, buses and express buses in Ha Noi and in Ho Chi Minh City, to meet the travel needs of the people;
- construct modern traffic control centres in Grade-1 cities;
- continue to improve the legal instruments of traffic safety, its mechanisms, and the apparatus of traffic safety management from central to local levels;
- develop a modern traffic safety database to meet traffic safety management and research demands;
- equip forces with sufficient means and devices to facilitate patrols and the control and settlement of any violations;
- improve coordination policy between traffic police and other forces; improve the monitoring mechanism and sanctions for law enforcement forces dealing with traffic safety; focus on implementing the inspection and supervision tasks of law enforcement agencies related to traffic safety;
- complete the system of registration management, registry of road motor vehicles;
- upgrade the system of training, testing for driving licenses and the system for their issuance, in compliance with regional and international integration standards;
- fully equip 50 per cent of expressways and national highways with first-aid posts and rescue stations for road traffic; finish all 115 first-aid posts.

The vision to 2030:

- for the period 2021-2030, to control on an annual basis the number of traffic accidents, deaths and injuries resulting from road traffic accidents. To have an established traffic safety management system that works in an effective and stable manner. To have invested in and built modern and complimentary road transport infrastructure that meets traffic safety requirements. Science and technology in traffic safety will have been widely applied;
- continue developing conscientiousness and law compliance among all traffic participants, especially vehicle drivers;
- keep implementing the assessment programme on international road traffic safety, to enhance the safety conditions of road traffic infrastructure;
- continue eliminating accident blackspots on national highways;
- build and equip national highways to have completed rest stops along roads, overpasses for pedestrians, emergency escape ramps, automatic warning signs, on-call barriers at intersections between roads and railways, urban side roads etc., and especially, lanes for motorcycles and mopeds;

- develop a transport system that the elderly, children and those with disabilities can access in cities that are Grade 2 and above;
- reduce traffic congestion in big cities: invest in the construction and development of mass-transit public transport, such as overhead railways, subways, buses and express buses in the capital Ha Noi and in Ho Chi Minh City;
- improve the legal instruments of traffic safety; to have developed a stable and sustainable traffic safety management mechanism, from central to local levels;
- have a modern traffic safety database integrated with a variety of data, to meet the demands of traffic safety management and research;
- gradually modernize the means and devices that serve the recognition, control and settlement of any violations;
- improve the capacity of law enforcement forces in the field of traffic safety, in compliance with the standards of developed countries;
- develop the systems used for the training and testing of driving licenses and those used for their issuance, in line with regional and international standards;
- expressways, national highways are fully equipped with first-aid posts and rescue stations for road traffic.

4.1.1.2. Plan of ensuring road traffic safety

Based on the orientation of the strategy and the actual situation, each year the NTSC will make an implementation plan to ensure traffic safety. In addition to the annual plan, the NTSC will also make specialized short-term and long-term plans, such as plans are campaigns that focus on emerging issues and on times when there is a high risk of traffic accidents, such as special days, holidays and the Tet (new year) holidays.

Based on the annual plan of the NTSC, ministries, localities and related agencies create their own plans for implementation and coordinate many activities among themselves.

These plans undergo evaluation prior to their initiation, and are evaluated at every stage of implementation. However, most plans do not provide quantitative criteria or identify funding sources, so the evaluation of the campaign or plan as a qualitative assessment is sometimes not effective.

4.1.2. Coordination between agencies

Ensuring the success of activities related to traffic safety is defined as a task that requires the efforts of many sectors, the whole society and the political system. Coordination is therefore very important. With that in mind, the Government established the NTSC, which is chaired by the Deputy Prime Minister. Members of the NTSC include many ministries, their branches, and socio-political organizations.

The most important task of the NTSC is to organize inter-sectoral coordination, to assist the Prime Minister in directing ministries, their branches, and localities in implementing national strategies, national plans to ensure traffic safety, and to implement solutions that ensure traffic safety throughout the whole country.

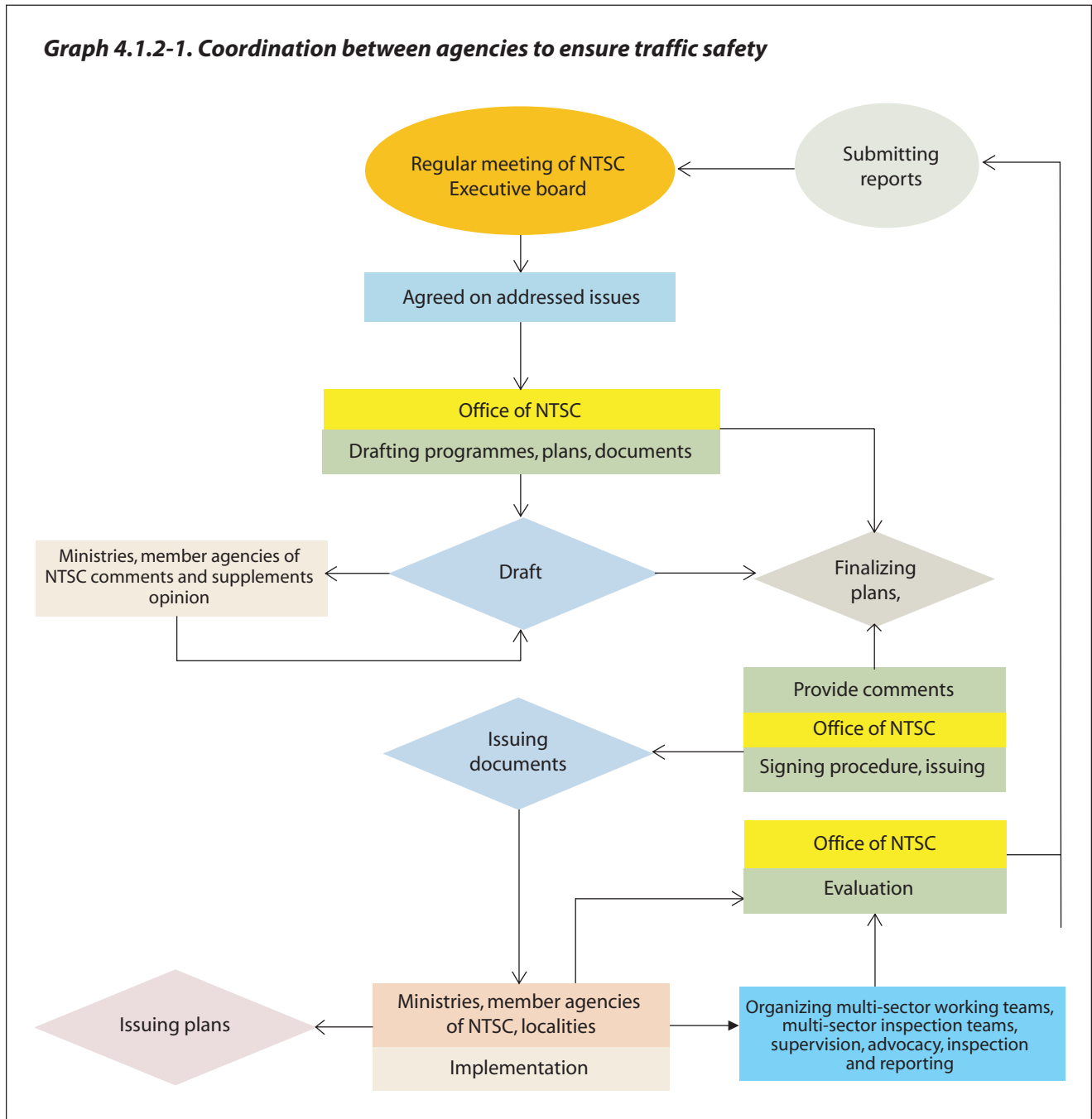
According to the operational regulations of the NTSC, coordination with the ministries and member agencies of the NTSC follows a process: raising problems, making programmes, planning until implementation, monitoring, supervising, inspecting, evaluating and reporting and summing up. The above process ensures consistency and the ability of the ministries and branches to support each other in their operations, and increases the efficiency of state management.

The NTSC has signed decisions to coordinate with unions and socio-political organizations.

In recent years, non-governmental organizations, and domestic and foreign enterprises have actively participated in many of the activities of the NTSC, including the sharing of best practices and the provision of funds for the co-organization of many effective programmes.

However, there are still many shortcomings in the mechanisms and tasks of the NTSC stipulated in Decision No. 57/2011/QĐ-TTg of the Prime Minister dated 18 October 2011: cooperation is not very tight, and some plans have not been fully finished. Currently, related agencies are working to amend Decision 57/2011/QĐ-TTg to facilitate further coordination between state management agencies, unions, and social and political organizations.

Graph 4.1.2-1. Coordination between agencies to ensure traffic safety



4.1.3. Resource policy

4.1.3.1. Personnel

In the field of road safety, Viet Nam still lacks specialized human resources personnel such as engineers and traffic planning and management specialists, traffic enforcement specialists, traffic safety training experts, psychologists, media professionals and assessment experts. Most universities and academies do not have

courses that specialize in road traffic safety, although there are some schools that specialize in this subject but do not meet actual requirements.

Some specialized agencies have a very limited number of road safety experts, but they are often not trained properly. Most staff at local Traffic Safety Boards work part-time and many lack formal training in traffic safety law, law enforcement, media and traffic management. The lack of high-quality human resources personnel in road safety is a long-term problem which will be difficult to overcome anytime soon.

The National Road Safety Strategy by 2020 and a Vision to 2030 contains the following proposals for human resources development in traffic safety:

- to improve undergraduate and postgraduate education related to traffic safety;
- to establish a post-graduate training system that includes training abroad;
- human resources development through official development assistance (ODA) projects;
- human resources development through projects supported by international donors on traffic safety;
- promotion of applied research and development in the field of traffic safety.

4.1.3.2. Financial resources for road traffic safety

- Financial resources for traffic safety activities are mobilized from various sources. insurance.

(a) Annual budget allocated from state fund

Although the state budget still faces many difficulties, the Government always pays attention to traffic safety, and prioritizes it for the following reasons:

- traffic accidents cause huge economic losses (approximately 3 per cent of GDP), which greatly affect people's social lives, their quality of life and the lives of future generations;
- better traffic safety will create a sustainable environment for attracting investors.

This funding source is mainly allocated to the construction, upgrading and improvement of roads, and to traffic works, funding for regular activities, procurement of equipment and facilities for traffic management agencies, traffic police forces, transport inspectors, etc.

(b) Traffic law violation fines (state budget)

This source of funding is also the source of the state budget. According to current policy, all this revenue (about VND 3,000 billion) is spent annually on activities that ensure road safety.

(c) Road Maintenance Fund

This fund has been established in accordance with the Road Traffic Law and is spent solely on road maintenance and the handling of black spots and traffic accident spots. The fund contributes significantly to ensuring the safety of road infrastructure, and also to reducing road traffic accidents.

(d) Contributions from private sector

This is also a significant source of funding. It is possible that this source of funding will expand in the future. According to a comprehensive study on traffic safety planning conducted by Japan International Cooperation Agency (JICA), it was recommended that Viet Nam should establish a Traffic Safety Fund. The Traffic Safety Fund's sources are contributions from non-governmental organizations, volunteers and private companies, in which the key players are the manufacturers and distributors of automobiles and motorcycles, exporters and distributors of road safety equipment, road safety engineering and consulting companies, etc.

(e) Support from international donors

Support from bilateral and multilateral donors is considered a very important issue in developing countries such as Viet Nam. These organizations contribute capital to road safety by providing loans, grants and technical assistance.

The main donors are World Bank, Asian Development Bank, Japan International Cooperation Agency (JICA), Danish International Development Agency (DANIDA), and other organizations such as the Asia Injury Prevention Foundation, the Global Road Traffic Safety Foundation, the International Road Traffic Safety Assessment Program (iRAP), and so on.

(f) Road user fees

Many countries collect fees from traffic participants as follows:

- traffic safety surcharge to be paid on fuel used by engines;
- surcharge on tonnage – distance;
- surcharge on compulsory motor vehicle insurance;
- surcharge on the fee for getting a motorized vehicle license;
- surcharge on road tolls.

However, since these surcharges have an impact on society, a cautious approach is needed for their introduction, with proper calculations and a consensus reached by society.

(g) Compulsory insurance

The Insurance Law stipulates that motorized vehicle owners must buy civil liability insurance for motor vehicle owners, in addition to voluntary insurance such as car insurance and cosmetic car insurance. Companies selling compulsory insurance currently deduct 1 per cent of revenue and give it to the Insurance Association for its work on road traffic safety.

4.1.4. Research, development and transferal of knowledge

Research and the development and transferal of knowledge on road safety in Viet Nam are still a collective weak point. Not much attention has been paid to these issues and they have not yet been mentioned in the National Road Safety Strategy by 2020 and a Vision to 2030.

Standards, codes and key technologies are learned from advanced countries and modified to meet Vietnamese conditions. Many technologies that improve the safety of infrastructure and vehicles and improve the effectiveness of traffic control, supervision and intelligent traffic, have not yet been applied. The reason may be lack of resources or that the technology is not appropriate for application, but what is more important is the attention given and direction taken by state management agencies.

4.1.5. Amendment and supplementation of 2008 Road Traffic Law

4.1.5.1. Shortcomings and inadequacies in 2008 Road Traffic Law

While the 2008 Road Traffic Law has been in place for nearly a decade, there are still shortcomings and gaps in the 2008 Law, such as:

- articles are not consistent with the Convention on Road Traffic made in Vienna on 8 November 1968;
- articles are not consistent with current conditions;
- articles should be added to the Law.

Some of the problems that still exist in the 2008 Road Traffic Law are:

1. The documents guiding the implementation of the Road Traffic Law were issued later than the date the Law went into effect; many documents are not highly feasible, lack stability;
2. Awareness of road users is generally low; the amount of traffic jams and accidents has decreased but remains high;
3. The predictability of planning is not high; the proportion of land used for urban traffic cannot be guaranteed in urban areas;
4. Road traffic infrastructure works well but is insufficient for demand; levels of connectivity and synchronization are not high, especially in rural and mountainous areas;

5. The organization of traffic and road signs at many intersections is still inappropriate; not enough attention has been paid to the road safety audit; the unauthorized use of road safety corridors is still widespread;
6. Financial sources for the maintenance of the national highway meet only 45 per cent of demand; for local roads there is not enough financing;
7. Road transportation's large market share led to a sharp rise in the number of personal vehicles; the market share of public transport is small, and cannot meet demand for travel;
8. The patrolling, controlling and handling of violations under the Road Traffic Law does not cover all areas at all times; the application of information technology in the handling of violations is still limited.

4.1.5.2. Proposal of articles to be amended and supplemented in the Convention on Road Traffic done at Vienna on 8 November 1968

To address the above-mentioned problem, the following suggestions should be considered

- amend and supplement policies on road traffic development. This should include major guidelines and orientations on road transport development that have not been reflected in the 2008 Road Traffic Law, and also include socialization in construction investment for road infrastructure and public services (allowing many economic sectors to participate);
- supplement and detail prohibited acts;
- supplement the list of land funds reserved for road infrastructure facilities;
- supplement road traffic rules to include provisions on use of lanes; overtaking; change of direction; reversing; passing of oncoming traffic; standing and parking on roads; standing and parking on streets; stopping; parking on expressways;
- supplement rules on road administration, use and exploitation of road infrastructure facilities;
- supplement and detail conditions for commercial transportation by car, passenger transportation by car;
- supplement other rules and provisions relating to traffic safety etc.

4.1.5.3. Research into national technical regulations on traffic signs and signals in 2016, and articles for amendment and supplementation

Some facts on the signs and signals system in Viet Nam:

- inconsistencies exist between the meanings of signs and road markings and their actual application: there are many erroneous instruction signs that stipulate penalties and force road users to obey;
- many do not meet actual requirements. There is a lack of regulation on speed restriction signs for types of vehicles or lanes; on mixed signs, combined signs and on reflective tacks;
- the sizes of some signs are not fit for purpose, and some signs are smaller than the norms prescribed by the National Technical Regulations;
- the sizes of some signs are not suitable for given road speeds, leading to impaired recognition; the sizes of letters, numbers, and symbols on some signs are small, and do not guarantee their being seen at the required distance;
- some regulations are not clear, resulting in arbitrary use, lack of unity;
- abuses exist, such as installing more signs than necessary (especially danger warning signs);
- colors, shapes and symbols used on signs are not uniform;
- road marking system: arbitrary allocation of road markings that does not allow for lane changing;
- lack of unity between signs, road markings and signals.

Some changes in the 2016 National Technical Regulation on Traffic Signs and Signals – QCVN 41:2016/BGTVT:

On definitions:

- reviewing, revising and supplementing regulations to ensure accuracy, completeness, and consistency with related legal documents;
- revising and supplementing terms and definitions and providing specific criteria on special-use roads, level crossings, reserved roads, roads crossing populated areas, etc;
- revising and supplementing provisions that are inconsistent with the 1968 Convention on Road Signs and Signals:
 - o classification by the Convention on Road Signs and Signals made at Vienna and signed on 8 November 1968;
 - o clearly distinguish and define the meanings and functions of each group of road signs, especially mandatory signs and direction signs;
 - o reviewing and grouping of some mandatory signs and direction signs in accordance with the Convention on Road Signs and Signals made at Vienna on 8 November 1968.
- limiting abuses such as the placing of too many danger-warning signs, by specifying minimum distance between danger warning signs: Regulate the arrangement of danger warning signs in cases where there are many dangerous elements in the same short distance, by using only one danger warning sign with notes in an additional panel;
- reviewing signs that regulate the maximum speed limit in more precise criteria;
- supplementing regulations on variable electronic signage;
- conducting research into replacing the selection of sign sizes based on road-type speed;
- supplementing regulations on the size and layout of road signs placed in tight spaces – such as rural roads and roads with a large cross-section – and the combining of multiple signs on the same plate;
- supplementing the general provisions for motorway signposts;
- specifying the colors and symbols to be used on road signs in the detailed designing of signs;
- specifying uniform meanings of shapes and symbols used on road signs, so as to ensure the principle that each shape, figure and symbol are used only to express a definite meaning.

On road markings:

- only use the colour yellow for centre line markings;
- specifying road markings for centre line markings in the case of overtaking, and the minimum length of a road segment with continuous and broken lines;
- for supporting road works: specifying the functions and basic requirements of lines that support road works; specifying only open provisions on their shape, size, materials and installation methods;
- supplementing regulations on the arrangement of reflective nail and marker posts.

The amendment and supplementation of the 2008 Road Traffic Law is an individual research topic of this project. The full amendment and supplement to the 2008 Road Traffic Law is enclosed in this document's appendix.

4.1.6. Proposed solutions and conclusions

The state plays an important and decisive role in ensuring traffic safety, and for this reason state management in ensuring road safety is one of the five main pillars of the Decade of Action on Road Safety 2011-2020.

Directive No. 22-CT/TW dated 24 February 2003 by the Secretariat of the Party Central Committee on strengthening leadership in the assurance of traffic safety, addressed the stated issue of the "serious increase of traffic accidents and congestion caused by shortcomings of state management". There is also Government Resolution No. 32/2007/NQ-CP dated 29 June 2007 on urgent measures to control traffic accidents and traffic jams.

Government Resolution 88/NQ-CP dated 24 August 2011 on strengthening the implementation of key solutions aimed at ensuring traffic safety also emphasizes that one of the leading causes of traffic accidents is state management; most recently, Instruction 18 – CT/TW dated 4 September 2012 of the Secretariat of the Central Communist Party pointed to one of the reasons which limits results on ensuring traffic safety as being, “Effectiveness and efficient of state management on ensuring traffic safety are limited; The assignment of responsibilities and duties among functional agencies in ensuring traffic safety is not rational; there is a lack of close coordination between branches and levels; The forces that are responsible for ensuring traffic safety are both lack and weak in capability”.

The National Traffic Safety Strategy by 2020 and a Vision to 2030 mentions solutions for strengthening state management capacity to ensure traffic safety, within the scope of the project. These include:

- strengthening and enhancing the capacity of state management agencies to ensure traffic safety;
 - o strengthening the capacity of the National Traffic Safety Committee and the Traffic Safety Boards of provinces to enhance their responsibility and authority in ensuring the organization, coordination and professionalism of these agencies, especially ensuring the independence of such agencies;
 - o to make clear the responsibilities and the coordination activities undertaken by state management agencies in ensuring traffic safety;
- legal documents;
 - o to amend and supplement the 2008 Road Traffic Law in accordance with the current situation, and the 1968 International Road Traffic Convention and the Convention on Road Signs and Signals;
 - o to review and amend the system of documents active under the Law, at the same time as making amendments to the Road Traffic Law;
 - o in addition to completing the database on road traffic safety, the Government will consider issuing documents on the traffic safety database, and regulations on the sharing of information between state agencies;
- establishing the National Centre of the Road Traffic Database;
- building a centre for research, development and the transfer of knowledge on traffic safety;
- focusing on training high-level traffic safety experts in Viet Nam and abroad.

4.2. Roads and road safety network

4.2.1. Standards, signs, signals, application of ITS

4.2.1.1. Standards, signs, signals on roads

Currently, the standards, signals and signs on roads in Viet Nam are regulated as follows:

Highway – specifications for design

The TCVN 4054: 2005 standard sets out requirements for the design of the highway network, including new construction, rehabilitation and improvement projects. The design of specialized roads such as expressways, urban roads, industrial roads, district roads, and forestry and other roads should comply with the respective sectional standards. When designing rural roads, provisions for the appropriate road class in this standard can be applied.

In cases where highway design involves other works such as railways, irrigation work or the highway passing over residential areas, urban areas or places of cultural or historic interest etc., highway design should follow not only this standard but also existing state regulations for related works.

Expressway – specifications for design

TCVN 5729: 2012 applies to the design of expressways, including the new construction, rehabilitation and improvement of old roads into expressways outside the city and is based on a draft from the Transport Institute for Science and Technology, proposed by the Ministry of Transport, approved by the General Department of Standards – Metrology – Quality Control and issued by the Ministry of Science and Technology.

This standard.

TCVN 5729 – 1997 Highway – Specifications for Design applied to the design of highways outside urban areas, as well as to the improvement and upgrading of all kinds of motorways since 1997. Some 10 years since the entry into force of this standard, Viet Nam did not have any expressways to verify the conformity of the expressways to this standard. In 2007, the first 90 km of expressways (50 km between Cau Gie and Ninh Binh, and 40 km between Saigon and Trung Luong) were designed and constructed according to the TCVN 5729 – 1997 highway standard. Accordingly, there are some “technical norms” of the TCVN 5729 – 1997 highway standard that need to be reviewed and revised accordingly.

TCXDVN 104: 2007 Urban Roads – Specifications for Design specifies requirements for planning, designing, constructing, renovating and upgrading roads and streets in urban areas. When designing the construction of roads and streets in urban areas which are connected to other works on railways, irrigation, hydropower, water supply and drainage, lighting, etc., they must comply with current state regulations and receive approval from the relevant authorities.

TCVN 10380: 2014 Rural Roads – Specifications for Design specifies the design requirements for the new construction, rehabilitation and upgrading of rural roads. When designing rural roads related to other works, in addition to the application of this standard, it is necessary to comply with current regulations on such works.

QCVN 41: 2016/BGTVT National Technical Regulations on Traffic Signs and Signals regulates the road signage system, including traffic controllers’ signals; traffic light signals; signboards; road markings; marker posts; protective walls and fences; barriers; km posts; H posts; landmarks; convex mirrors; road-separating barriers with guardrails; etc. This standard provides for a signaling system applicable to all road routes in the road network of Viet Nam, including highways, national highways, provincial roads, district roads, commune roads, specialized roads and roads within the road system which are included in international treaties to which Viet Nam is a contracting party (GMS-CBTA Agreement, ASEAN agreements and other international agreements).

QCVN 41: 2016/BGTVT applies to road users of the road network in Viet Nam, and to organizations and individuals involved in management, investment in construction, protection, maintenance, and the use of road traffic infrastructure.

4.2.1.2. Implementation of Intelligent Transport Systems

As early as 1999, the Ministry of Transport assigned the Institute of Transport, Science and Technology (Decision No. 651/1999 QD-BGTVT dated 17 March 1999) to conduct research on Intelligent Transport Systems (ITS). The study team outlined three possible areas and the need to apply ITS technology in the early part of the decade until 2010 as follows:

- Advanced Traffic Management System (ATMS);
- toll collection;
- monitoring of the highway system.

One of the first applications of ITS technology was the construction of the Traffic Control Centre in Ha Noi, which featured a SAGEM traffic signal control system and became operational in 2000.

Through more than 10 years of its operation, the SAGEM system has gradually developed into an effective mean for organizing transportation in the city. However, the system has also revealed many limitations that do not meet current traffic command requirements.

The first camera surveillance system on the highway was applied on the Phap Van – Cau Gie section.

The pilot project – which was funded by Hai Chau Group – was called “Building a Visual Traffic Monitoring System on the Phap Van – Cau Gie – Ninh Binh route”, and took place in 2007. The monitoring system performs the following functions:

- detecting and automatically capturing images of violations related to speed, using the wrong path or lane, crossing red lights; reporting violations; transmitting violation data by mobile frequencies to the control centre located at Cau Gie toll station; automatically alerting the police when vehicles that have committed violations pass through Cau Gie toll gate;
- collecting traffic charges: instant payment via banks through the use of on-board unit (OBU) devices.

The success of the project has proven that it is possible to apply ITS and to use such technology to monitor traffic.

In recent years, the adoption of ITS technology has been put into practice, with a focus on the following trends:

- traffic control centres;
- traffic violation monitoring;
- smart cards;
- electronic payments;
- traffic management on motorways (national highways, inter-provincial roads, expressways, etc.);

The Ministry of Transport is actively working to facilitate the rapid deployment of ITS, particularly in the following activities:

- ITS Master Plan for highways and expressways (2008-2009);
- a study on developing ITS standards and a pilot implementation plan in Viet Nam funded by JICA (2010);
- research to support the implementation of an ITS integration project in national highway No. 3 and in the urban areas of Ha Noi;
- research on building intelligent transportation system standards (2013-2014);
- Smart Cards (2013);
- Visual traffic monitoring system on the Ha Noi – Lao Cai expressway (Ha Noi – Phu Tho section);
- Visual traffic monitoring system on 250 kilometres of National Highway No. 1, central section;
- a tracking and monitoring system for commercial vehicles.

In addition, Ho Chi Minh City has also implemented a number of ITS projects, such as the “Pilot ITS Management System Project”; “Building and putting into operation data storage systems and computing tools for ITS solutions”; “Building a GIS database on transport infrastructure...”; “Establishing a traffic management centre”; “Training human resources for the management and operation of ITS”; “Enhancing the operational efficiency of existing traffic lights, to connect and exploit information for the deployment of ITS”.

Challenges in the applying ITS

After many years of implementing ITS, the government needs to solve the following issues:

- systems that are both redundant and lacking in research;
- the lack of a master plan;
- the exploitation and use of ITS systems is not effective due to problems of vision, human resources and maintenance work;
- lack of data sharing on ITS between state agencies;
- institutional constraints during ITS project formulation.

Recently, the Ministry of Transport has used electronic toll collection in its BOT projects. Having been assigned by the Government to employ a contractor, the Ministry of Transport appointed Tasco – VETC as the investor for its non-stop toll collection projects (Phase 1). This investor will apply this technology in 28 toll stations on sections along the Ho Chi Minh highways in the Central Highlands, and National Highway No. 1 (with a total investment of VND 1,524 billion, in a project that takes the form of a BOO [Build-Own-Operate]).

According to statistics from the Ministry of Transport, Viet Nam has 86 toll stations, 72 of which are managed by the Ministry of Transport and 14 of which are being managed by provinces and cities. In addition to the 28 stations that were assigned for Tasco – VETC investment (Phase 1) and some stations that have applied electronic toll collection, more than 50 stations are now without investors. According to the roadmap announced by the Ministry of Transport, the period from 2016-2019 will apply non-stop toll collection on only one or two lanes each side of roads. By 2020, it is expected that all toll stations across the country will have applied electronic toll collection.

In general, Viet Nam has had some very encouraging initial successes in applying ITS. When expressways are now put into operation, ITS must be implemented quickly and in a more urgent manner to ensure absolute traffic safety and to improve transport efficiency.

4.2.2. Management and protection of road transport infrastructure

4.2.2.1. Legal regulations on the protection of road transport infrastructure

Managing the safety of road transport infrastructure is one of the most important tasks a state must manage. On 24 February 2010, the Government issued Decree No. 11/2010/ND-CP on regulating the management and protection of road transport infrastructure. This Decree took effect on 15 April 2010 which , covers the naming and numbering of roads; planning of road infrastructure facilities and technical standards; traffic safety appraisal; protection of road transport infrastructure; use and exploitation of land areas reserved for roads; and responsibilities for managing and protecting road transport infrastructure.

On 3 September 2013, the Government issued Decree No. 100/2013/ND-CP on amending and supplementing a number of articles of Government Decree No. 11/2010/ND-CP dated 24 February 2010, on the management and protection of road transport infrastructure. The Decree amended and supplemented clauses 3 and 4 of Article 14 on the land area reserved for roads; Article 15 on the limits of thoroughfares; and Point b, Clause 2 of Article 16 on the limits of thoroughfares for bridges and culverts (as a side note, Article 25a, Article 25b, Article 25c, Article 25d shall be inserted after Article 25 on the use of roads in cultural activities).

According to the Decree, pavements are permitted to be used temporarily for non-traffic purposes in the following cases: disseminating the guidelines and policies of the party and the laws of the state. The temporary use of street pavements must not exceed 30 days. In cases where the period of temporary use is more than 30 days, it must be approved by the Ministry of Transport (for national highways) or the provincial People's Committee (for local road systems).

For funerals and the parking areas of funerals, the duration permitted for the temporary use of pavements is no more than 48 hours, and in exceptional cases no longer than 72 hours. For weddings and the parking areas used by weddings, the temporary use of pavements must be for no more than 48 hours. Parking areas used for cultural activities, sports, parades and festivals and their temporary use of pavements, must not exceed the times during which such activities take place. The transferring of materials or waste during the construction of households must take place between 10 p.m. and 6 a.m. the following day.

Pavements can be used temporarily for non-traffic purposes when the following conditions are met: the pedestrian section must be at least 1.5 m wide; the street has a suitable weight-bearing structure.

Also, according to the Decree, to temporarily use part of a pavement or road bed for purposes other than traffic, the purpose of this usage must not affect traffic safety.

The Government assigns the People's Committees of the provinces and municipalities to formulate, approve and organize the implementation of plans made for the temporary use of pavements and road beds until 2023, and regulations on administrative procedures for the temporary use of road beds not for traffic purposes.

Decree No. 100/2013/ND-CP takes effect on 20 October 2013.

On 1 July 2016, the Government issued Decree No. 64/2016/ND-CP of the Government on amending and supplementing a number of articles of Government Decree No. 11/2010/ND-CP dated 24 February 2010 regulating the management and protection of road transport infrastructure with the main content on the conditions for running the traffic safety audit service as follows:

- individuals participating in the traffic safety audit (hereinafter referred to as the auditor) must have traffic safety auditor's certificates issued by the Directorate for Roads of Viet Nam, that are still valid;
- an individual who acts as a traffic safety chief auditor must meet one of the following conditions: have acted as a project chief designer on at least three road works projects; possess a bachelor's degree or higher level degree in road works and have at least seven years of experience in designing road works; possess a bachelor's degree or higher level in road works or road transportation and have at least 10 years of experience in traffic management, road transportation, road construction or road maintenance, which includes working experience in handling traffic safety matters for at least three road works projects;
- a contractor providing consultancy services on traffic safety auditing must satisfy the following conditions: with regard to national key projects and group A and group B projects, they must have at least 10 auditors, among which, at least three are highway engineers, one is a road transportation engineer and one person is eligible to act as the traffic safety chief auditor. With regard to group C projects and road works in operation, they must have at least five auditors, among which at least one is a highway engineer, one is a road transportation engineer and one person is eligible to act as the traffic safety chief auditor.

The Decree includes the following new articles:

- conditions on the establishment of a traffic safety auditor training unit;
- procedures for the approval of a traffic safety auditor training unit;
- conditions for lecturers and trainees participating in traffic safety auditor training courses;
- conditions on the issuance of certificates for traffic safety auditors;
- conditions on the renewal of traffic safety auditors' certificates;
- conditions on the re-issuance of traffic safety auditors' certificates;
- conditions on the revocation of licenses for training units, and the revocation of traffic safety auditors' certificates.

Responsibility of relevant agencies for the management and protection of road transport infrastructure are listed in Box 6.

Box 6. Responsibility of relevant agencies for the management and protection of road transport infrastructure

Decree No. 11/2010/ND-CP clearly stipulates the responsibilities for the management and protection of road transport infrastructure to be as follows:

1. Responsibilities of the Ministry of Transport

- a) To perform the unified state management of roads nationwide; to manage the construction and maintenance of the national highway system, roads used for international transport and expressways (including also national highways and expressways running through urban centres).
- b) To submit to the Government for promulgation or to promulgate according to its competence legal documents on the management and protection of road infrastructure facilities, and to guide the implementation of said facilities thereof.

- c) To direct and organize the training and retraining of personnel in charge of the administration and protection of centrally managed road works; to guide provincial-level People's Committees in organizing refresher courses for their cadres engaged in the administration and protection of locally managed road works.
- d) To examine and inspect the implementation of legal provisions on the administration and protection of road infrastructure facilities.
- e) To organize, direct and supervise the activities of the Road Inspectorate nationwide.
- f) To work out plans on the prevention, combat and overcoming of damage to national highway works caused by natural disasters or enemy sabotage, and to organize and inspect the implementation of these plans; to guide and inspect the prevention, combating and overcoming of damage to local roads caused by natural disasters or enemy sabotage.
- g) To coordinate with provincial-level People's Committees and concerned ministries and branches in propagating, disseminating and implementing laws and regulations on the administration and protection of road infrastructure facilities, and to provide education on them.
- h) To coordinate with the Ministry of Finance in balancing funds for road administration and maintenance, the clearance of thoroughfares, and the prevention, combating and overcoming of the consequences of natural disasters and enemy sabotage of the national highway system.
- i) To coordinate with the National Traffic Safety Committee and concerned ministries and branches in formulating the national traffic safety programme, and then submit it to the Government.

2. Responsibilities of the Ministry of Public Security.

- a) To direct and guide public security forces in inspecting and handling violations of regulations on the protection of road infrastructure facilities, according to their competence.
- b) To coordinate with the Ministry of Transport and provincial-level People's Committees in performing the state management of the protection of road infrastructure facilities.
- c) To coordinate with the Ministry of Transport in drawing up a list of important roadworks projects and the plans for their protection and then submit them to the Prime Minister for approval, and to organize the implementation of their protection.

3. Responsibilities of the Ministry of National Defense.

The Ministry of National Defense shall assume the prime responsibility for – and coordinate with the Ministry of Transport in organizing – the protection of national defense works in combination with road works.

4. Responsibilities of the Ministry of Agriculture and Rural Development.

The Ministry of Agriculture and Rural Development shall direct and guide the planning and construction of the system of irrigation works related to road works, and guide the use of land within thoroughfares for cultivation purposes while ensuring the technical and safety requirements of road works are adhered to.

5. Responsibilities of the Ministry of Natural Resources and Environment.

The Ministry of Natural Resources and Environment shall assume the prime responsibility for – and coordinate with provincial-level People's Committees and the Ministry of Transport in – guiding both the elaboration of plans on the use of land reserved for roads, and the formulation of regulations on environmental protection against the impact of road traffic.

6. Responsibilities of the Ministry of Construction.

The Ministry of Construction shall direct and guide the management of construction activities outside of thoroughfares, and coordinate with the Ministry of Transport and provincial-level People's Committees in elaborating and implementing urban traffic infrastructure plans.

7. Responsibilities of the Ministry of Industry and Trade.

The Ministry of Industry and Trade shall direct and guide the planning and construction of the system of gas stations along national highways and roads, subject to separate use regulations. It will also, coordinate with the Ministry of Transport in determining the locations of these gas stations' entry ways to national highways, assuring the minimum distance according to regulations exists on branch roads connecting to national highways.

8. Responsibilities of the Ministry of Finance.

The Ministry of Finance shall assume the prime responsibility for, and coordinate with the Ministry of Transport and provincial-level People's Committees in, summing up and allocating funds for road administration and maintenance (and road infrastructure protection), including funds for the clearance of thoroughfares allocated from the state budget's non-business expenditure source or originating from the state budget.

9. Responsibilities of ministries and ministerial-level agencies.

Ministries and ministerial-level agencies shall appraise and approve plans on the construction of works, industrial parks, urban centres, residential areas, trade-service centres and gas stations related to land areas reserved for roads in accordance with this Decree; and supervise the implementation of these plans and handle violations under regulations.

10. Responsibilities of provincial-level People's Committees

- a) To organize and guide the distribution of publicity and provide education about the law on the protection of road infrastructure facilities in their localities.
- b) To guide and organize the implementation of regulations on the protection of road infrastructure facilities in their localities.
- c) To direct and inspect district-level People's Committees and provincial-level Transport Departments in taking measures to prevent, stop and handle violations and remove works encroaching upon thoroughfares in their localities.
- d) To organize, direct and inspect provincial-level transport departments in:
 - operations of the Road Inspectorate;
 - issuance and revocation of construction permits, termination of activities affecting the safety of traffic and road works within local road infrastructure protection limits;
 - management of the implementation of road infrastructure plans; administration and maintenance of local road systems.
- e) To direct, guide and inspect district-level People's Committees in:
 - protection of road works in their districts;
 - management of the use of land inside and outside of thoroughfares, especially land allocation and issuance of permits for roadside construction;
 - clearance of works encroaching upon protected road infrastructure facilities within their districts.
- f) To mobilize forces, supplies and equipment for the prompt restoration of traffic disrupted by national disasters or enemy sabotage.
- g) To plan and direct the application of measures for preventing, stopping and handling violations and clearing thoroughfares in their localities.
- h) To appraise and approve plans on the construction of works, industrial parks, urban centres, residential areas, trade-service centres and gas stations related to land areas reserved for roads in accordance with this Decree; and supervise the implementation of these plans and handle violations under regulations.
- i) To settle disputes, complaints and denunciations related to the protection of road infrastructure facilities in their localities under law.

11. Responsibilities of district-level People's Committees

- a) To manage and maintain local road systems assigned to them for management.
- b) To organize among local people the propagation, dissemination and education of regulations on land areas reserved for roads and regulations on the protection of road infrastructure facilities.
- c) To manage the use of land inside and outside of thoroughfares under law; to promptly handle cases where there is the illegal encroachment upon, or the appropriation or use of the land of thoroughfares.
- d) To coordinate with road administration units and concerned forces in the application of measures to protect road works.
- e) To organize the application of measures to protect thoroughfares, fight illegal encroachment, and compel the dismantlement of illegally built works for the clearance of thoroughfares.
- f) To mobilize all forces, supplies and equipment for the protection of works or the prompt restoration of traffic disrupted by natural disasters or enemy sabotage.

g) To settle disputes, complaints and denunciations related to the protection of road infrastructure facilities in their districts under law.

12. Responsibilities of commune-level People’s Committees.

- a) To manage and maintain local roads assigned to them for management.
- b) To organize the propagation, dissemination and education among local people of regulations on land areas reserved for roads, and regulations on the protection of road infrastructure facilities.
- c) To coordinate with units directly managing road works and with concerned forces in applying measures to protect road works, including the preservation of road boundary markers and project ground-clearance markers.
- d) To manage the use of land inside and outside of thoroughfares under law; detect and promptly handle cases of the illegal encroachment upon, appropriation or use of thoroughfares.
- e) To mobilize all forces, supplies and equipment for the protection of works or the prompt restoration of traffic disrupted by natural disasters or enemy sabotage.
- f) To settle disputes, complaints and denunciations related to the protection of road infrastructure facilities under their management according to law.

4.2.3. Thoroughfares

4.2.3.1. Legal framework for thoroughfares

The land reserved for traffic safety corridors on roads was first stipulated in 1982 in Decree No. 203/ND-CP, and is also regulated in Article 29 of the Road Traffic Law. Land used for the construction of a road includes land reserved for the thoroughfare. On 5 November 2004, the Government issued Decree 186/2004/ND-CP on regulating the management and protection of road infrastructure. Currently, thoroughfares are stipulated in Decree No. 11/2010/ND-CP as follows:

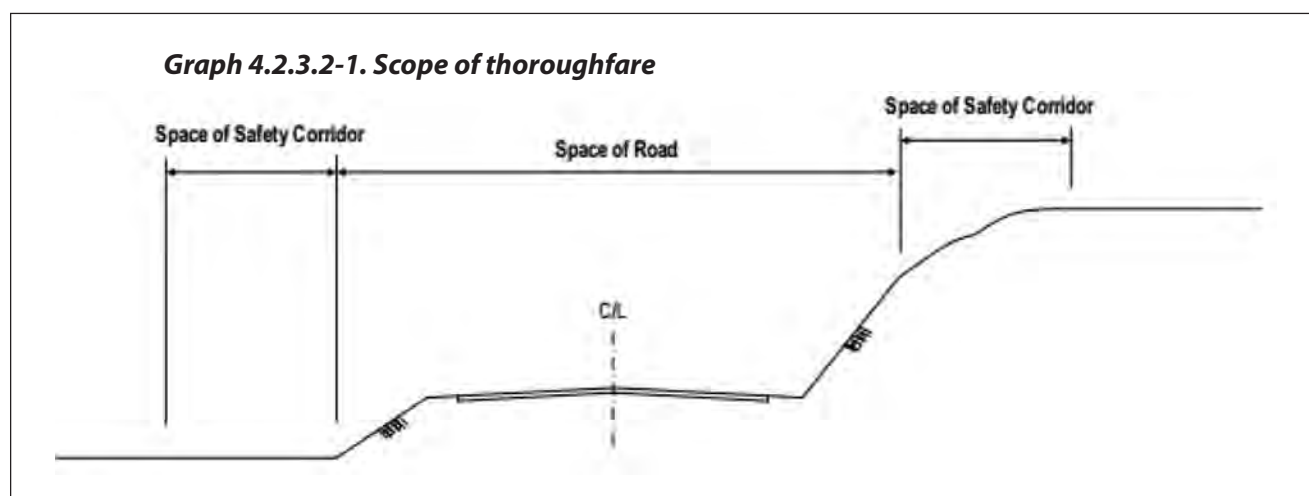
4.2.3.2. Scope of thoroughfares

Decree 11/2011/ND-CP regulated thoroughfares based on the current situation, specifically in Table 4.2.3.2-1.

Table 4.2.3.2-1. Scope of thoroughfare

Classification of road (grade)	Expressway	I	II	III	IV	V	< V
Scope of thoroughfare (m)	47	17		13		9	4

Source: Decree 11/2011/ND-CP.



Source: Ministry of Transport.

4.2.3.3. Situational analysis of thoroughfares

The current situation surrounding thoroughfare violations and illegal connections to highways is very complex. A survey by DRVN showed that in 2009 there were 29,801 roads connected to highways, of which 218 were allowed, 4,058 were not allowed and the remaining 25,525 cases left by history.

As of April 2017, there are 5,793 intersections between railways and roads; 74 per cent of the roads are local roads. On average 1 km of railway has 1.85 crossings:

- crossroads: 1,514 (legal), including:
 - o guarded railway crossings: 641;
 - o automatic alarm crossings: 366;
 - o with signs: 507;
- local roads, commune roads: 4,279 crossing points:
 - o quantity of local roads < 3m wide: 4,095;
 - o quantity of local roads \geq 3m wide: 184.

These are potentially high-risk spots for traffic accidents. According to railway statistics, in recent years traffic accidents at intersections have accounted for 85 per cent of total rail accidents.

According to a survey conducted by the Road Administration (now DRVN), approximately 70 per cent of roads do not meet requirements for thoroughfares.

This situation is due to the following reasons:

- lack of law enforcement awareness amongst people living along road routes; the level of effective publicity on Road Traffic Laws is still low;
- the construction of industrial parks, residential areas and commercial areas is not in accordance with plans;
- illegal violations occurring on the thoroughfares;
- insufficient compensation is provided to land owners for land clearance;
- lack of coordination between state agencies in drawing up construction planning for national highways;
- inconsistent handling of violations of thoroughfare regulations;
- the level of effectiveness of the publicity relating to legal documents on road traffic corridors is still low;
- many provinces and municipalities have not developed planning devoted to connecting local roads to national highways.

4.2.3.4. Plan to ensure the scope of thoroughfares

On 19 June 2014, the Prime Minister issued Decision No. 994/QD-TTg on approving the plan for restoring road and railway safety corridors in the 2014–2020 period. This Decision replaces Decision No. 1856/QD-TTg dated 27 December 2007 on approving the plan to restore road and railway thoroughfares.

According to Decision No. 994/QD-TTg, the plan for restoring road and railway thoroughfares is being implemented as follows:

- a) From 2014 to 2017: On the basis of the implementation results of Phase I, Phase II of the Decision of the Prime Minister No. 1856/QD-TTg dated 27 December 2007, includes the following activities:
 - road management units shall take the main responsibility and coordinate with local administrations (local land-management agencies) in reviewing reserved land for protecting and maintaining roads; to continuously review and update statistics and classify road construction within the thoroughfare grades of the national highway system; to collaborate with local Traffic Safety Boards to determine all works that affect traffic safety, and make submissions to provincial People's Committees for planning and estimation of land compensation and supporting land clearance for thoroughfares; to provide support for damages caused by the limitation of land use ability and damage to property associated with land on the thoroughfares, up until 30 June 2015;

- by the end of 2017, to have ensured all land within the thoroughfare area shall be restored and compensation paid for losses caused by the limitation of land use and damage to assets attached to the land within the thoroughfare area of national highways from level I to level III and their intersections, road end points, and potential spots of risky traffic accidents; at the same time, to plan and provide step-by-step compensation for damage caused by land-use restrictions, to households located within the thoroughfare area, which require the construction of new houses:
 - o before May 31 of every year, the Provincial People’s Committees shall provide a report on the compensation and support plans for the following year to the Ministry of Transport (via DRVN), so they may be submitted to the Government for the allocation of state budget funding;
 - o before July 20 of every year, the Ministry of Transport shall sum up and provide a report to the Government on the financial allocation plan which will be assigned to provincial-level People’s Committees for implementation the following year;
 - provincial People’s Committees shall complete the planning on points connecting to national highways up to 2020 and consult with the Ministry of Transport before 30 June 2015;
 - to fully designate landmarks in the areas of roads and thoroughfares, in the areas of roads handed over to the highway management unit, areas of the thoroughfares handed over to local authorities for their use and management, and to road management units for maintenance and protection;
 - localities shall socialize and exploit land to create capital for the construction of a system of feeder roads in accordance with Government regulations on the management, use and exploitation of road transport infrastructure assets.
- b) From 2018 to 2020:
- all land within the thoroughfare shall be recovered and compensation made for losses caused by the limitation of land use and damage to assets attached to the land within the thoroughfare; to step-by-step compensate land owners for damage to assets attached to land and for households located on the thoroughfares, who need to build new houses, on all remaining national highways;
 - to continue designating landmarks in the areas of roads and thoroughfares, the areas of roads handed over to the highway management unit, the areas of thoroughfares handed over to local authorities for their use and management, and to road management units for their maintenance and protection;
 - to continue socializing and exploiting land funds to create capital for the construction of a system of feeder roads in accordance with the Government’s regulations on the management, use and exploitation of road transport infrastructure assets.

4.2.4. Road safety auditing

4.2.4.1. Process of implementing road safety auditing in Viet Nam

1. System of legal documents for road safety auditing

Road safety auditing is regulated by the 2001 Road Traffic Law. the Ministry of Transport issued decision number 23/2007/QĐ-BGTĐT, which contains specifics on road safety auditing. These were the first legal documents to concretize the regulation of road safety auditing. Because road safety auditing was new in Viet Nam, the number of specialists in this field was limited. The issue is yet to be given sufficient attention by authorities; road safety auditing was not implemented in the period 2001-2008.

Article 44 of the 2008 Road Traffic Law prescribes that: “Road safety audits must be carried out in road projects at all stages including: preliminary design, design, construction, pre-opening and during operation”.

This 2008 Road Traffic Law and the number of Decrees and Circulars providing guidance on road safety auditing are sufficient for the country’s needs. Road safety auditing has been carried out in many road projects. The system of legal documents on road safety auditing is capable of creating both a legal framework and policies to facilitate the implementation of projects, including the new construction and the rehabilitation of roads, and putting them into service.

However, some of the contents on safety auditing in the abovementioned legal documents are still not completely logical or are insufficient or incompatible with reality.

2. Organizing road safety audits

The presence of certain factors – such as the insufficient understanding by relevant agencies of the importance of appraisal and auditing in road safety – mean that many road construction projects require urgent progress (rehabilitation projects, improvements to the NH1, NH14 to the Tay Nguyen section of the Ho Chi Minh highway, etc.). As a result, the activities of planning, appraising and approving a project (all of which take place in a short period of time) could lead to poor management of both the appraisal and auditing of the traffic safety situation in the preliminary design stage and the as-built drawing design stage.

Only a few projects have performed auditing for road safety in the as-built drawing design stage, while some have been audited in the pre-opening stage, such as: New National Highway No. 21, Phu Ly – Nam Dinh section; New National Highway No. 3, Ha Noi – Thai Nguyen section; Ha Noi – Hai Phong Expressway project; National Highway 1 project, Ha Noi – Bac Giang section, etc.

In reality, the activity of auditing and appraising the road safety of in-service roads is to perform the auditing of its black spots or route sections that pose potential hazards.

If many crashes have happened on a route after its opening, the road safety situation must be audited and appraised for a time at the expense of the project, in a manner similar to the road safety auditing that occurred at the pre-opening stage.

3. Training of Road Traffic Safety Auditor

By the end of 2016, DRVN had awarded the Certificate of Auditors Training Centre Acceptance to five training centres, and awarded the certificate to some 700 auditors.

According to Decree 11/2010/ND-CP on the state of road safety audit organization, there are an insufficient number of road safety auditors to meet Government requirements. Training activities for road safety audit work therefore need to be promoted.

4.2.4.2. Challenges in road safety audit Previously, the cost of road safety audits had not been separated from the composition of total investment. Therefore, project clients could not carry out the RSA Consulting Package following the regulation of Decree 11/2010/ND-CP and Circular 50/2015/TT-BGTVT.

According to MOT regulations in Document No. 14684/BGTVT-ATGT dated 4 November 2015 – and the current situation of road projects, at the detailed design stage or the as-built drawing design stage – the work of the RSA is undertaken as an item of the design audit package, but in a separate consultant package. The work of the RSA is only undertaken in a separate package at the pre-opening stage by the RSA Consultant Team.

In some projects, the quality of the RSA Report is still not good. For example, the RSA consultant does not mention an adequate amount of issues in the design phase, as well as potentially hazardous locations along routes; the content of the audit may still not be complete; the audit report does not analyze in detail the appropriateness of the design of road alignment, visibility, or sections that may be difficult for drivers, etc. The audit consultant may also not offer enough solutions for such issues.

The dissemination of legal regulations in road safety auditing does not receive the appropriate level of consideration, which leads to relevant agencies not having a suitably clear understanding of the legal regulations to carry out the audit in the necessary manner.

4.2.4.3. Recommendations for the amendment and supplementation of regulations about appraising and auditing road traffic safety

- a) All new projects involving the construction, rehabilitation and improvement of roads in the national road network (including expressways [motorways]) must be audited for road safety.
- b) Stages of road safety audits

For the new construction, rehabilitation and improvement of roads:

- a road safety audit is mandatory for all stages of projects, including the preliminary design phase, the detailed design phase (three-step project) or for the as-built drawing design (two-step project) and pre-opening stages;
- besides the above mandatory stages, the investment authority agency could decide to undertake the RSA at any point in time during the process of preliminary design, design or construction if necessary.

Roads that are in service should be audited in the following cases:

- the number of crashes increases suddenly on the rehabilitated road, or crashes happen regularly (as reported in the periodic data of management agencies);
 - 12 months and 36 months after they become operational.
- c) Business conditions for the road safety audit consultant's service

Criteria for RSA team members:

- level of education similar to or higher than university level, with a specialty in road construction, traffic operation or traffic safety engineering;
- at least three years' experience in the field of road design, or five years' experience in the fields of traffic management, traffic operation, road construction or road maintenance;
- in possession of a validated Road Safety Auditor Certificate provided by DRVN;
- experience in solving traffic safety issues for at least one road project;
- to have undertaken a minimum of one capacity-building course in the fields of road safety auditing, collision investigation or road safety engineering within the past 12 months.

The RSA team leader must meet the demands of RSA members, and other conditions, as follows:

- experience as a road design team leader in at least three road projects;
- at least seven years of experience in the field of road design, or 10 years of experience in traffic management, traffic operations, road construction or road maintenance;
- experience in solving traffic safety issues for at least three road projects.

The organization to which the Road Safety Audit Consultant belongs must meet the following criteria:

- must be independent of the client, the designer and the contractor in their legal relationship and in financial issues;
- for projects with national importance and projects in groups A and B, the consultant's organization must have a minimum of 10 auditors, comprising a minimum of four road construction engineers, one traffic operation engineer, one engineer who specializes in traffic safety engineering and at least one RSA Team Leader;
- for projects in group C and projects on in-service roads, the consultant organization must have a minimum of five auditors, comprising a minimum of one engineer specializing in road construction, one traffic operations engineer, one traffic safety engineer and at least one RSA Team Leader.

4.2.4.4. Implementation plan

Based on the Decision of planning improvements in road safety audit activity on national roads and expressways dated 27 November 2015 and signed by the Minister of Transport, in order to promote the practical application of the Government's RSA regulations in the national road network, the plan over the next five years to gradually enhance traffic safety quality on roads should be constructed as follows:

For the new construction, rehabilitation or improvement of roads: implement road safety audit activities in line with the road construction plan of the road project.

For roads that are in service: in the next five-year period (from 2017 to 2022), the Ministry of Transport should formulate a plan to audit road safety for all roads, including national roads, provincial roads, district roads, commune roads and expressways. After this period, road safety audit activities shall be undertaken following the analysis of road management agencies' crash data.

Road Safety Audits are an individual research subject of this project, and the full document on RSAs is enclosed in this document.

4.2.5. Proposed solutions and conclusions

Road infrastructure plays an important role in ensuring safe, convenient and fast transportation. The Viet Nam road system in recent decades has developed rapidly and seen step-by-step improvements in quality, especially now that the formation and rapid development of the expressway system has created a new horizon for the road sector. However, the road system is still inadequate for meeting the requirements of rapid economic development, an increase in motorized vehicles and a rise in the circulation of goods and passengers, especially in terms of road safety.

Rapidly developing road transport infrastructure to meet demand for the movement and transportation of goods and passengers is the primary condition for ensuring sustainable traffic safety.

According to the master plan for developing the road transport and expressway system to 2020 and a vision to 2030, the development of the road network should take place as follows:

By 2020, to invest in and upgrade the national highway system, including the north-south axis (National Highway No.1, Ho Chi Minh Road); in the North: belt roads, other highways; Central region (National Highway 217, 45, 46, 47, 48, 49, etc.); the South, the South-East, the South-West: to build and upgrade a number of routes that link up with national highways, to develop coastal road systems, border corridors, provincial roads, urban roads, rural roads, etc.

For the fast-developing expressway network, by 2020 it is expected that the North-South Expressway will have two routes with a total length of about 3,083 km, which will include the North-South East Expressway's 1,814 km of road and the North-South West Expressway's 1,269 km of road.

The northern expressway system consists of 14 centrally connected expressways connecting to Ha Noi that have a total length of 1,368 km, including the Ha Noi – Bac Giang – Lang Son Expressway, at 143 km; Ha Noi – Hai Phong Expressway, 105 km; Ha Noi – Viet Tri Expressway (Phu Tho) – Lao Cai Expressway, 264 km; Highway Noi Bai (Ha Noi) – Bac Ninh – Ha Long (Quang Ninh), 176 km; Highway Ha Long (Quang Ninh) – Mong Cai (Quang Ninh), 128 km; The Ninh Binh – Hai Phong – Quang Ninh Expressway, 160 km; and Dong Dang Expressway (Lang Son) – Tra Linh (Cao Bang), 144 km.

In the Central Highlands, the expressway system consists of three routes with a total length of 264 km. This includes the Hong Linh Express (Ha Tinh) – Huong Son (Ha Tinh), 34 km; Highway Cam Lo (Quang Tri) – Lao Bao (Quang Tri), 70 km; and Quy Nhon Expressway (Binh Dinh) – Pleiku (Gia Lai), 160 km.

Table 4.2.5-1. Solutions for road transport infrastructure

Traffic accident causes	Solutions	Implementation, guidelines, etc.
<p>Infrastructure:</p> <ul style="list-style-type: none"> • Occupying lanes • Lack of safety equipment at intersections • Narrow roads • Sharp bends • Restricted vision • Other problems <p>Behaviour and circulation:</p> <ul style="list-style-type: none"> • Mixed traffic • Speeding • Careless turning around; careless road crossing • Careless overtaking • Other problems 	<ul style="list-style-type: none"> • Ensure safety corridors • Separation by vehicle type: <ul style="list-style-type: none"> – Truck lanes, car lanes – Motorcycle lanes – Bike track • Footpaths • Alarm devices • Dividers • Improve bends in roads • Improve junctions, intersections • Ensure visibility • Equipment at cross-roads – railways • Stopping, parking bays • Overpasses, tunnels 	<ul style="list-style-type: none"> • Road information and signaling system: road marking, signboards, etc. • Lighting systems • Traffic lights • Stopping stations • Traffic organization (speed limits, one-way streets, etc.) • Static traffic management

Source: TDSI & JICA study.

The southern highway system consists of seven routes with a total length of 983 km. This includes the Highway Chau Doc (An Giang) – Can Tho – Soc Trang, 200 km; Ha Tien Expressway (Kien Giang) – Rach Gia (Kien Giang) – Bac Lieu, 225 km; and Can Tho – Ca Mau Expressway, 150 km.

The compatibility solutions found in a JICA study are listed in the table below.

Each road system, based on function and traffic characteristics, will have corresponding solutions.

Table 4.2.5 -2. Main solutions based on road function

Road classification	Short-term solutions	Long-term solutions
Inter-provincial roads: <ul style="list-style-type: none"> • High traffic volume • High speed • Mixed traffic • Heavy equipment 	<ul style="list-style-type: none"> • Improve black spots: <ul style="list-style-type: none"> + Rebuild intersections + Central reservations + Lighting + Road signs • Separating lanes for cars and motorbikes • Speed reduction measures • Construction works for bicycles, motorcycles, and pedestrians (overpasses, tunnels, etc.). 	<ul style="list-style-type: none"> • Thoroughfares, ramps and connections. • Separate lanes for bicycles, motorized vehicles and motorbikes • Improve road alignment • Road information systems, parking areas and stopovers along the road. • Crossing works between roads – railways • Master programme for urban areas
Provincial and district roads: <ul style="list-style-type: none"> • Low traffic density • Poor quality 	<ul style="list-style-type: none"> • Improve black spots • Measures for school areas 	<ul style="list-style-type: none"> • Installation of traffic signal systems • Upgrading of road works to include road extension and improvement
Urban roads: <ul style="list-style-type: none"> • High traffic density • Traffic jams • Mixed traffic • Existence of many commercial activities 	<ul style="list-style-type: none"> • Improve black spots • Measures for school areas • Measures for commercial areas • Separation of vehicles on major urban roads 	<ul style="list-style-type: none"> • Development of public transportation system, limited number of personal vehicles • Development of parking facilities • Intelligent traffic control management system

Source: TDSI & JICA study team.

- Transport infrastructure for motor vehicles and motorbikes

To limit traffic accidents related to motor vehicles and motorbikes, it is necessary to promote the separation of lanes reserved for such vehicles on national highways and urban roads, and to implement them for motor vehicles and motorbike passing through highways and intersections such as overpasses.

- Traffic safety on expressways

The expressway network of Viet Nam has seen rapid investment and construction. However, this high speed of progress has caused issues concerning splitting, merging and passing between lanes. Traffic accidents involving these maneuvers on expressways are often very serious.

- Traffic safety assessment, black spot improvement and road maintenance and management

These are not cost effective but provide good results in accident prevention and reduction.

- Thoroughfares and traffic safety equipment

The restoration of thoroughfares is done not only to ensure road maintenance conditions but also to ensure the visibility of traffic participants and to avoid unexpected incidents.

The application of advanced technology in road safety equipment has seen great progress and helped to reduce traffic accident frequency, while also minimizing injuries and deaths when traffic accidents occur.

4.3. Vehicle safety

The technical safety of vehicles participating in traffic is an important factor for limiting traffic accidents. The registration of motorized means of transport must be kept under strict management. By 2015, there were 132 motorized checking centres and motor vehicle registry branches, with 261 local centres in 63 provinces and municipalities. Over 2.5 million vehicles are inspected every year.

4.3.1. Technical safety standards for motorized vehicles

In 1995, the technical safety and environmental protection standards testing of motor vehicles was transferred from the Ministry of Internal Affairs (now the Ministry of Public Security) to the Ministry of Transport. All checks pertaining to the technical and environmental safety of motor vehicles have been changed and the standards have also been amended many times. On 17 November 2011, the Ministry of Transport issued Circular No. 56/2011/TT-BGTVT on the promulgation of six National Technical Regulations on motor vehicles.

1. National technical regulations on the quality of technical safety and environmental protection standards of motor vehicles QCVN 09: 2011/BGTVT.
2. National technical regulations on the quality of technical safety and environmental protection standards of passenger vehicles in urban areas: QCVN 10: 2011/BGTVT.
3. National technical regulations on the quality of technical safety and environmental protection standards of trailers and semi-trailers: QCVN 11: 2011/BGTVT.
4. National technical regulations on permissible errors and rounding regulations for the size and mass of motor vehicles: QCVN 12: 2011/BGTVT.
5. National technical regulations on the quality of technical safety and the environmental protection standards of specialized vehicles: QCVN 13: 2011/BGTVT.
6. National technical regulations on the quality of technical safety and environmental protection standard of motorcycles, motorbikes: QCVN 14: 2011/BGTVT.

All regulations took effect on 1 January 2012

In addition to the newly issued national technical regulations in accordance with Circular 56/2011/TT-BGTVT, the following documents deal with the testing of technical safety and the environmental protection standards of motorized road vehicles:

- Circular No. 30/2011/TT-BGTVT dated 15 April 2011 of the Ministry of Transport on testing the quality of technical safety and environmental protection standards in the manufacture and assembly of motor vehicles;
- Circular No. 31/2011/TT-BGTVT dated 15 April 2011 of the Ministry of Transport on safety inspection of technical quality and environmental protection of imported motor vehicles;
- Circular No. 54/2014/TT-BGTVT dated 20 October 2014 of the Ministry of Transport on amending and supplementing some articles of Circular No. 30/2011/TT-BGTVT dated 15 April 2011 of the Ministry of Transport on testing the quality of technical safety and environmental protection standards in the manufacture and assembly of motor vehicles;
- Circular No. 55/2014/TT-BGTVT dated 20 October 2014 of the Ministry of Transport on amending and supplementing a number of Articles of Circular No. 31/2011/TT-BGTVT dated 15 April 2011, on the safety inspection of technical quality and environmental protection standards of imported motor vehicles.

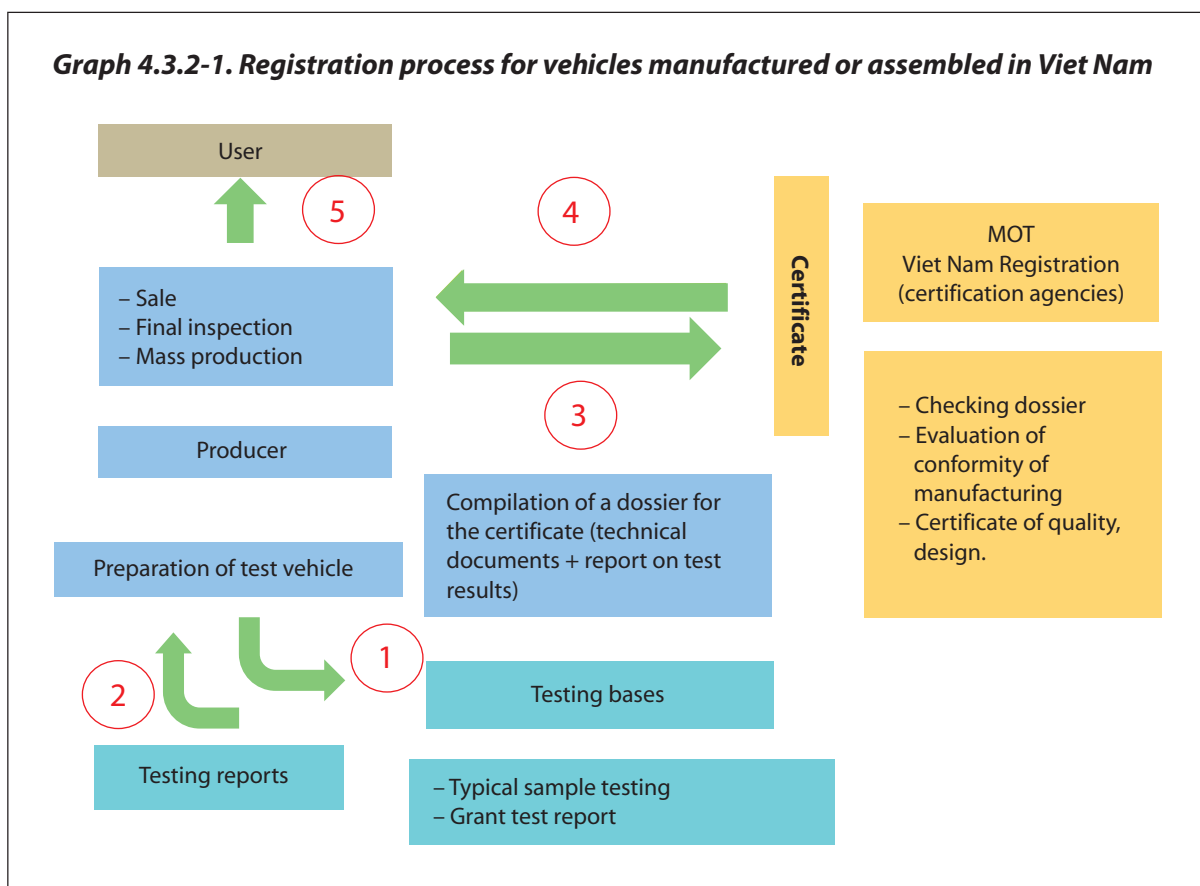
On 1 September 2011, the Prime Minister issued Decision No. 49/2011/QĐ-TTg on a regulating roadmap for the application of emission standards to manufactured, assembled and imported automobiles, which should adhere to Euro 4 emission standards from 1 January 2017, and level 5 (Euro 5) emission standards from 1 January 2022. Meanwhile, new motorcycles that are manufactured, assembled and imported must adhere to level 3 emission standards (Euro 3) from 1 January 2017.

4.3.2. Registration of vehicles

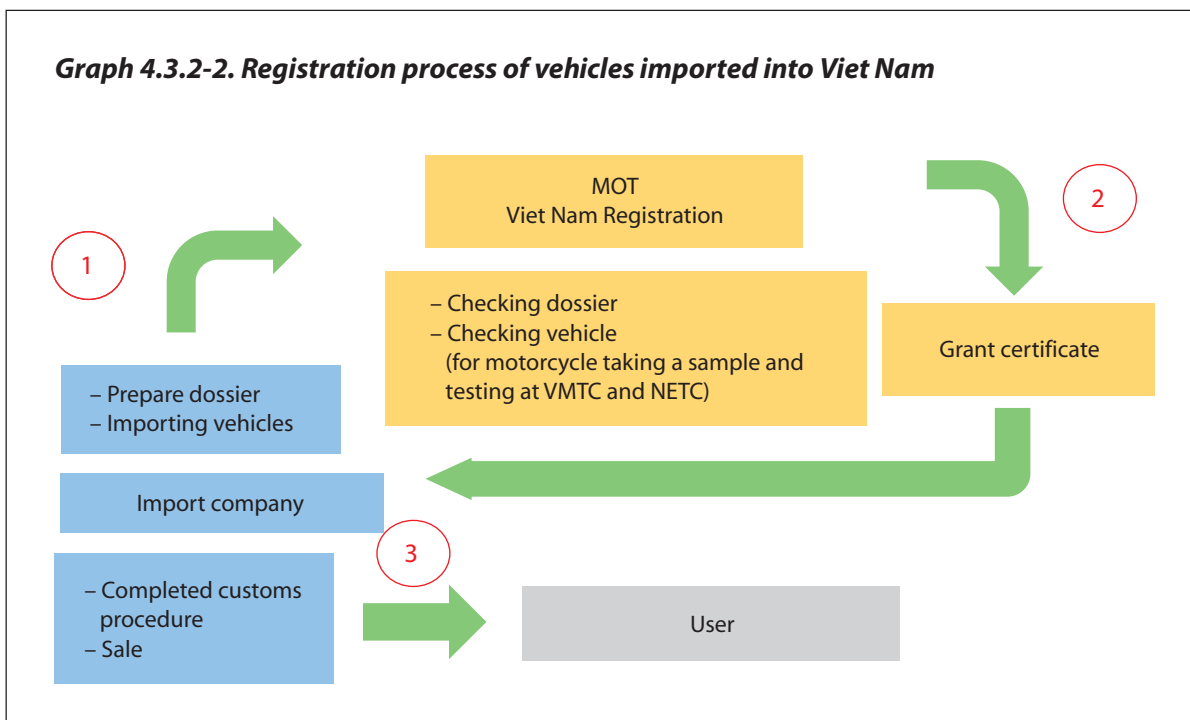
4.3.2.1. Registration of new vehicles

The purpose of the quality control system for the technical safety and environmental protection standards of motor vehicles manufactured or assembled in another country and imported into Viet Nam, is to control the quality of vehicles from their place of origin. Certification methods based on national and international standards and technical regulations will gradually be harmonized with regional standards and the world standards of UNECE.

The process of the inspection and certification of the technical safety and environmental protection standards of motor vehicles manufactured or assembled in Viet Nam is shown in Graph 4.3.2-1, and Graph 4.3.2-2 shows the process for those imported into Viet Nam.



Source: Viet Nam Register.



Source: Viet Nam Register.

Note: VMTC - Motor Vehicle Testing Centre;

NETC - Emission Testing Centre.

4.3.2.2. Inspection of vehicles (in operation)

Currently, only cars are being inspected (motorcycles and mopeds are not subject to periodic testing).

The inspection of cars applies to Circular No. 70/TT-BGTVT dated 9 November 2015 regulating the inspection of technical safety and environmental protection standards of road vehicles.

4.3.2.3. Regular inspection of motor vehicles

The inspection period specified in Circular 70/2015 (see Table 4.3.2-1)

Table 4.3.2-1. Regular inspection of motor vehicles

No.	Type of vehicles	Period (month)	
		1 st period	Regular period
1. All types of passenger vehicle up to 9 seats, non-commercial purpose			
	Produced up to 7 years	30	18
	Produced from 7 to 12 years before		12
	Produced over 12 years before		06
2. All types of passenger vehicle up to 9 seats with commercial purpose, passenger vehicles over 9 seats			
2.1	Not modified ^(*)	18	06
2.2	Modified ^(*)	12	06
3. All types of truck, specialized vehicles, tractor trailers, trailers, semi-trailers			
3.1	All types of truck, specialized vehicles, tractor trailers produced up to 7 years before; trailers, semi-trailers produced up to 12 years before	24	12
	All types of truck, specialized vehicles, tractor trailers produced over 7 years before; trailers, semi-trailers produced over 12 years before		06

Table 4.3.2-1. (continued)

No.	Type of vehicles	Period (month)	
		1 st period	Regular period
3.2	Modified (*)	12	06
4.	Passenger vehicles over 9 seats produced over 15 years before; all types of truck, specialized vehicles, tractor trailers produced over 20 years before.		03

Note: – The first cycle applies only to vehicles which have not been inspected for the first time within two years of their year of manufacture.

– The number of seats of passenger vehicles includes the driver.

– (*) Modification of a feature or one of the following systems: steering, braking (except for the addition of an auxiliary brake pedal), suspension and transmission.

4.3.2.4. The usage life of vehicles

The expiry date for the use of an automobile is stipulated in Article 4 and Article 5 of Decree No. 95/2009/ND-CP dated 30 October 2009 of the Government on regulating the usage life of passenger and cargo vehicles, specifically as follows:

- Not to exceed 25 years, for cargo automobiles.
- Not to exceed 20 years, for passenger automobiles.
- Not to exceed 17 years, for passenger automobiles transformed from other vehicles before 1 January 2002.

Time for calculating the usage life of automobiles:

- The usage life of an automobile is counted from the year of its manufacture.
- In special cases when it is permitted by the Prime Minister, the usage life of an automobile may be counted from the year of its first-time registration.

By 1 January 2017, there were 23,075 vehicles with an expired usage life (3,007 passenger vehicles, 20,068 cargo vehicles)

4.3.3. Checking technical safety and checks on roads

4.3.3.1. Inspection for technical safety of motorized road vehicles

The parameters of inspections, along with inspection methods to detect the defects of and damage to motorized vehicles, are detailed in Circular No. 70/2015/TT-BGTVT.

Road vehicle defects that are detected during an inspection are classified into three levels:

- Minor defects – MiD mean those which do not harm technical safety or cause environmental pollution when then the vehicle is being driven on the road. In this case, road vehicles are still eligible for inspection certificates.
- Major defects – MaD mean those which may harm technical safety or cause environmental pollution when the vehicle is being driven on the road. In this case, road vehicles are not eligible for inspection certificates and need repairing before re-inspection.
- Dangerous defects – DD mean those which may cause direct and instant danger during traffic participation. In this case, road vehicles are not eligible for inspection certificates, are not allowed to participate in traffic networks and need repairing before re-inspection.
 - Road vehicles containing defects graded at different levels shall be considered to be classified at the highest level of said defects.
 - Road vehicles containing different defects at the same level shall be considered the same as those containing defects at the next highest level if a combination of such defects may possibly pose more dangers to such road vehicles.

- The examination and assessment of compliance with the requirements for technical safety and environmental protection standards for road vehicles must be conducted by registered officers, and one or more registered officer shall be assigned to carry out the inspection.

Vehicle owners and drivers are responsible for the technical safety of motorized vehicles between the two inspection cycles pursuant to Clause 5, Article 50 of the Road Traffic Law:

“Vehicle owners and motorists shall be responsible for maintaining the technical condition of the vehicles according to the prescribed standards when participating in road traffic between two inspection periods.”

4.3.3.2. Checking the technical safety of vehicles on the road

When vehicles on the main road undergo technical safety inspections by traffic police, they are usually only visually checked for defects or damage because traffic police are not equipped with appropriate equipment.

Currently, the Viet Nam Register is equipped with two mobile inspection stations that came about under the framework of the project “Road traffic safety Viet Nam”, funded by the World Bank. These stations have modern technology and were imported from Germany in 2010. They can support the inspection of brakes, lights, steering, tires, exhaust gas, etc., and can measure and analyze parameters automatically and print test results directly. Each station is loaded onto a truck of about the same size as a 30-foot container, and is highly mobile. However, the stations can only carry out tests for average weight vehicles with tonnages not exceeding 15 tons (including their gasoline and diesel).

4.3.4. Transportation of dangerous goods

On 9 November 2009, the Government issued Decree No. 104/2009/ND-CP on regulating the list of dangerous goods and transporting dangerous goods by motorized road vehicles.

- a) Depending on their chemical and physical properties, dangerous goods are classified into nine classes, which are subdivided into groups as follows:
 - Class 1: Explosives; industrial explosive substances and materials;
 - Class 2: Flammable gases; non-flammable and non-toxic gases, toxic gases;
 - Class 3: Flammable liquids and desensitized liquid explosives;
 - Class 4: Flammable solids, self-reactive substances and solid desensitized explosives; substances liable to spontaneous combustion; substances which, in contact with water, emit flammable gases;
 - Class 5: Oxidizing substances; organic peroxides;
 - Class 6: Toxic substances; infectious substances;
 - Class 7: Radioactive materials;
 - Class 8: Corrosive substances;
 - Class 9: Miscellaneous dangerous substances and articles;
 - Packaging and tanks containing dangerous goods which have not yet been cleansed inside and outside after dangerous goods are removed, are also considered dangerous goods of corresponding types.
 - The list of dangerous goods is classified by type and group, together with the United Nations code and dangerous good serial number specified in Decree No. 104/2009/ND-CP; labeling of dangerous goods shall comply with the provisions of Government Decree No. 89/2006/ND-CP of 30 August 2006, on goods labels.
- b) Competence to grant dangerous goods transport permits:
 - The Ministry of Public Security shall grant permits for the transport of goods of classes 1, 2, 3, 4 and 9 specified in Clause 1, Article 4 of this Decree.
 - The Ministry of Science and Technology shall grant permits for the transport of goods of classes 5, 7 and 8 specified in Clause 1, Article 4 of this Decree.

- The Ministry of Health shall grant permits for the transport of dangerous goods that are toxic chemicals for medical use, and insecticides and bactericides for household use.
 - The Ministry of Agriculture and Rural Development shall grant permits for the transport of dangerous goods that are plant protection drugs.
 - The Ministry of Natural Resources and Environment shall grant permits for the transport of other toxic chemicals included in various classes and groups of dangerous goods.
- c) Ministries competent to grant dangerous goods transport permits defined in Clauses 1, 2, 3, 4 and 5 of this Article shall specify the order of and procedures for the granting of dangerous goods transport permits:
- The Ministry of Public Security issued Circular No. 35/2010/TT-BCA dated 11 October 2010 on granting permits for the transportation of industrial explosive materials and dangerous goods; and Circular No. 04/2014 dated 21 January 2014 on amending and supplementing a number of articles of Circular No. 35/2010/TT-BCA dated 11 October 2010 on granting permits for the transportation of industrial explosive materials and dangerous goods.
 - The Ministry of Health issued Circular No. 08/2012/TT-BYT dated 17 May 2012 on guiding the transport of dangerous goods in the medical field by road vehicles.
 - The Ministry of Natural Resources and Environment issued Circular No. 52/2013/TT-BTNMT dated 27 December 2013 on regulating the transportation of dangerous goods, including toxic substances and contaminants.
 - The Ministry of Science and Technology promulgated Circular No. 25/2010/TT-BKHCHN dated 29 December 2010 on guiding the procedures for granting permits for the road transportation of dangerous goods including oxidants, organic oxide compounds and corrosives.
 - The Ministry of Agriculture and Rural Development issued Circular No. 21/2015/TT-BNNPTNT dated 8 June 2015 on the management of plant protection drugs.

4.3.5. Proposed solutions and conclusions

Regarding the state management of road transport vehicles, the management of technical safety and environmental protection standards has improved and is approaching the levels of the many standards, methods, technologies and audited databases used in developed countries. From 1995 to the current day, the inspection of technical safety and environmental protection standards has been relatively successful. The number of traffic accidents caused by defects in motor vehicles is very low. At present, the biggest difficulty is dealing with box truck bodies modified to enable overloading.

The management of technical safety and environmental protection standards for motorcycles and mopeds is almost non-existent, due to the impossibility of issuing a compulsory inspection regulation and due to the usage life of such vehicles. The Prime Minister recently issued Decision 16/2015/QĐ-TTg dated 22 May 2015 on providing regulations on the recall and treatment of discarded products, in which motorcycles and mopeds have been included. Their collection started on 1 January 2018, but at present there is no documentation available from the relevant ministries or sectors to guide the implementation of this policy.

To overcome and further improve the technical safety of motorized vehicles, the implementation of the following measures is suggested:

- Building a centre for the testing and quality inspection of motorized vehicles. Viet Nam is a member of the Asia Pacific Economic Cooperation Forum (APEC) and the World Trade Organization (WTO), and it is therefore necessary to build this centre to carry out tests in compliance with European regulations on controlling the quality of road motor vehicles;
- Enhance and modernize the registration process of motor vehicles:
 - o to continue developing the network of centres in localities according to the plan;
 - o to replace old testing equipment that is of poor quality and not able to connect to the computer network of registry units within the new modern test facilities;
- To implement the plan on controlling the emissions of motorcycles and mopeds participating in traffic under Decision No. 909/QĐ-TTg of the Prime Minister dated 17 June 2010;
- To study technical safety control for motorcycles and mopeds, together with studying emission control.

4.4. Road safety for people

4.4.1. Publicity and education on road safety

Traffic regulation awareness is still low, and is the leading cause of traffic accidents. Errors made by road users account for more than 80 per cent of total traffic accidents. Publicity, education and the dissemination of information on the law are always considered by the Government to be the best solutions for reducing traffic accidents.

4.4.1.1. Publicity, education at schools

According to the Ministry of Education and Training, there were around 22.21 million pupils and students in 2015, of which: 4.42 million were pre-school children and 15.08 million were high school pupils. Some 0.35 million students were in vocational training and there were 2.36 million college and university students. The total number of teachers and lecturers nationwide is 1.24 million. Among them, 277,684 are pre-school teachers, 856,730 are high school teachers, 10,911 are vocational training teachers, 91,183 are college and university teachers, and 300 thousand are educational managers at all levels.

With the total number of pupils and students accounting for nearly 24 per cent of the population, they require special attention and must be considered as important targets for law dissemination, publicity and education. They are also vulnerable road users when it comes to traffic accidents. If there is good publicity, information dissemination and law education in schools, then a generation with good traffic safety habits will emerge – this is key to improving traffic safety in a sustainable way.

The policy of implementing traffic safety education in schools was initiated in the early 1990s. In 2007-2008, the Ministry of Education and Training issued Directive No. 52/2007/CT-BGDDT dated 31 August 2007 on enhancing traffic safety education in educational institutions. The NTSC currently plays a more active role in coordinating with the Ministry of Education and Training (MOET) to bring traffic safety education to the school curriculum. The coordination between the education sector and other related sectors at provincial level has created positive changes.

On 20 November 2009, the Prime Minister issued Decision No. 1928/QĐ-TTg on approving the scheme on the quality improvement of law dissemination and education at schools.

The introduction of traffic safety education has been implemented for many years at school level, from kindergarten to university, through two methods:

- the main curriculum;
- extracurricular activities.

Details are as follows:

a) Pre-school education level

Traffic safety education at this level has been compiled and put into practice since 1995 in the main curriculum, and has the following content:

- to help children learn about traffic safety;
- to help children understand about drivers and the staff of vehicles;
- to help children know key things about seating in vehicles;
- to help children understand key regulations in the traffic law, how to cross a street, how to walk on pavements and how to find a safe place to play.

Currently, the materials for this course include modules on traffic law, road trips, what parents should know, crossroad pictures, walking on sidewalks, and the logos of transport vehicles.

b) Elementary school

From 1998 to 1999, the NTSC in collaboration with MOET organized a pilot education project on traffic safety in elementary schools. In its first year (1998-1999), this pilot programme attracted 370 elementary

schools with 377,372 students. In the second year (1999-2000), some 739 schools with 698,260 students participated. In the third year (2000-2001), 2,341 schools and 1,919,196 students participated in this programme. In the fourth year (2002-2003), a textbook and lecture books on traffic safety for school grades 1 through 5 were evaluated as being effective and enduring documents. At present, traffic safety has been taught at elementary schools in all 63 provinces.

c) Secondary schools

In 1998, the compilation pack "Education in Traffic Safety Law" was made available to teachers. It provided two sessions in sixth grade classes, one in seventh grade, one eighth grade class and was integrated into ethics classes for high school students. In 2001, this document was supplemented and revised in line with existing legal documents under the new name "Traffic Safety Education", and a set of "Traffic Sign Drawings" was compiled for use as teaching tools in classes and for activities outside of schools.

These materials and drawings have been taught in all high schools and secondary schools nationwide. The main classes are recorded in the curriculum and it is guaranteed that 100 per cent of secondary schools nationwide fully and seriously use these materials.

d) Universities, colleges and vocational schools

At the end of 2003, the book "Traffic Safety Education Materials for Pupils, University Students, Colleges and Vocational Schools" was compiled and widely disseminated to pupils, students and organizations. Training for staff teaching its contents took place at all universities, colleges and vocational schools nationwide.

During "citizen-student week" at the beginning of each school year, traffic law education is included in compulsory school content for students at the start of the course, and the top students are assessed through the marking of papers.

In addition to mainstream subjects, traffic safety education at schools is also provided through extra-curricular activities at all levels and grades. These include:

- the organization of various activities which are suitable for students, including exams, dialogues and performances on traffic safety, along with clubs on traffic safety and activities on the education and dissemination of traffic law in society;
- organizing pupils to sign commitments – on strict adherence to traffic rules – between classmates and students at the same school, and between the schools, families, localities etc.; strictly prohibiting underage students from driving motorcycles or mopeds to school; encouraging students to use public transport;
- organizing volunteer student teams and red flag teams to ensure traffic safety on school streets and at their gates during peak hours;
- universities, colleges and vocational schools include the assessment of traffic safety awareness into the evaluation of the training results of pupils and students. For high schools, students who violate regulations on traffic safety will be punished strictly.

4.4.1.2. Education and dissemination of traffic safety law in society

The Government has paid great attention to ensuring that society is educated in traffic safety law, and that information on the topic is propagated and disseminated in society. The Government considers such activities to be the leading solution for reducing the number of traffic accidents in a sustainable manner. These activities should occur regularly on a widespread and continuous basis and in many diverse forms; the purpose of this policy is that dissemination and education must reach every citizen. One of the special features of Viet Nam is the system of socio-political organizations that are actively involved in the dissemination of traffic safety law and its teaching.

However, the general efficacy of such measures is not high, as traffic safety authorities are not very proficient in road safety campaigning, publicity and enforcement are not effectively combined, and there is limited available budget for the dissemination of knowledge.

4.4.2. Driver training, driver licensing

4.4.2.1. Categories of driving licenses

The 2008 Road Traffic Law and Circular 12/2017/TT-BGTVT provide regulations on categories of driving licenses and drivers' ages as follows:

1. Category A1 is granted to:
 - a) Drivers of motorcycles with a cylinder capacity of between 50 cm³ and 175 cm³;
 - b) Disabled people operating three-wheeled motor vehicles that have been designed for them shall be granted category A1 driver licenses.
2. Category A2 is granted to drivers of motorcycles with a cylinder capacity of 175 cm³ or higher, and those prescribed for category A1 driver licenses;
3. Category A3 is granted to drivers of three-wheeled motor vehicles and those prescribed for Category A1 driver licenses and similar vehicles.
4. Category A4 is granted to drivers of tractors of a mass of up to 1,000 kg;
5. Category B1 with automatic transmission is granted to non-professional drivers of the following vehicles:
 - a) Vehicles with automatic transmission and up to 9 seats, including the seat of the driver;
 - b) Trucks and tractors with automatic transmission and a maximum mass of 3,500 kg;
 - c) Cars for disabled people.
6. Category B1 is granted to non-professional drivers of the following vehicles:
 - a) Vehicles of up to 9 seats including the seat of the driver;
 - b) Trucks and specialized trucks with a maximum mass of 3,500 kg;
 - c) Tractor trailers with a maximum mass of 3,500 kg.
7. Category B2 is granted to professional drivers of the following vehicles:
 - a) Specialized vehicles with a maximum mass of 3,500 kg;
 - b) All vehicles prescribed for Category B1;
8. Category C is granted to drivers of:
 - a) Trucks and specialized trucks of a mass of 3,500 kg or higher;
 - b) Tractors of a mass of 3,500 kg or higher;
 - c) Vehicle types prescribed for Category B1 and B2 driver licenses.
9. Category D is granted to drivers of the following vehicles:
 - a) Passenger vehicles of between 10 and 30 seats;
 - b) All types of vehicles prescribed for Categories B1, B2 and C.
10. Category E is granted to drivers of the following vehicles:
 - a) Passenger vehicles of over 30 seats;
 - b) All types of vehicle prescribed for Categories B1, B2, C and D.
11. People who already have driving licenses of Category B2, D or E and drive vehicles prescribed for these categories can pull a trailer of maximum mass of 750 kg;
12. Category F is granted to drivers who already have driving licenses of Category B2, D or E and drive vehicles prescribed for these categories that can pull a trailer of mass 750 kg or over, semi-trailers, passenger trailers, or those as follows:
 - a) Category FB2 is granted to drivers of vehicles prescribed for Category B2 pulling a trailer, and all kinds of vehicles prescribed for Categories B1 and B2;
 - b) Category FC is granted to drivers of vehicles prescribed for Category C pulling a trailer, tractors pulling trailers and those who drive all kinds of vehicles prescribed for Categories B1, B2, C and FB2;

- c) Category FD is granted to drivers of vehicles prescribed for Category D pulling a trailer, and all kinds of vehicles prescribed for Categories B1, B2, C, D and FB2;
 - d) Category FE is granted to drivers of vehicles prescribed for Category E pulling a trailer, and all vehicles including passenger trailers and the kinds of vehicles prescribed for Categories B1, B2, C, D, E, FB2 and FD.
13. The type of driving licenses used for passenger cars with beds and buses (used for business transportation by bus) shall comply with the provisions of Clauses 9 and 10 of this Article. The number of seats in the car is calculated according to the number of seats in passenger cars of the same type or cars with the same limited size which have installed seats only.

4.4.2.2. Duration of driving licenses

1. Driving licenses A1, A2, A3: no time limit.
2. Driving license B1: valid until the driver is 55 years of age for women and 60 years of age for men; for female drivers over 45 years of age and for male drivers over 50 years of age, an issued driving license is valid for a period of 10 years from the date of issuance.
3. Driving licenses A4, B2: valid for a period of 10 years from the date of issuance.
4. Driving licenses C, D, E, FB2, FC, FD, FE: valid for a period of 5 years from the date of issuance.

4.4.2.3. Age of drivers

- a) Persons aged a full 16 years or older may drive mopeds with a cylinder capacity of under 50 cm³;
- b) Persons aged a full 18 years or older may drive motorcycles, three-wheeled motor vehicles with a cylinder capacity of 50 cm³ or higher, and vehicles with a similar structure; trucks, tractors with a mass of under 3,500 kg; passenger vehicles of up to 9 seats;
- c) Persons aged a full 21 years or older may drive trucks, tractors with a mass of 3,500 kg or more; Category B2 vehicles pulling trailers (FB2);
- d) Persons aged a full 24 years or older may drive passenger vehicles of between 10 and 30 seats; Category C vehicles pulling trailers or semi-trailers (FC);
- e) Persons aged a full 27 years or older may drive passenger vehicles of over 30 seats; Category D vehicles pulling trailers (FD);
- f) The maximum age of drivers of 30 seat-plus passenger vehicles is 50 for women and 55 for men.

4.4.2.3. Driver training programme

The Ministry of Transport issued Circular No. 58/2015/TT-BGTVT on 20 October 2015 on driver training, driver testing, and the issuance of driving licenses for road motor vehicles; on 19 April 2017, the Ministry of Transport issued Circular No. 12/2017/TT-BGTVT on regulating driver training, driver testing, and the issuance of driving licenses for road motor vehicles in order to replace Circular No. 58/2015/TT-BGTVT.

Driver training takes place as follows:

4.4.2.3.1. Methods of training

Persons wishing to obtain driving licenses A1, A2, A3, A4 and B1 are self-taught in theoretical subjects, but must register at training institutions for training and examination; for A4 and B1 drivers, they must be checked and awarded training certificates. Persons wishing to obtain B2, C, D, E and F-type driving licenses must be trained centrally at the authorized centre and must be certified for primary training certification.

4.4.2.3.2. Duration of training programmes

Training programmes and schedules for A1, A2, A3 and A4 classes

Graph 4.4.2-1. Training programmes and schedules for A1, A2, A3 and A4 classes

No.	Criteria for calculation of subjects	Unit	Driving license class		
			A1 class	A2 class	A3, A4 class
1	Road Traffic Law	hour	8	16	28
2	Common structures and repairs	hour	–	–	4
3	Transport profession	hour	–	–	4
4	Driving techniques	hour	2	4	4
5	Driving practice	hour	2	12	40
	Number of hours for driving practice/learner	hour	2	12	8
	Number of kilometres of driving practice/learner	km	–	–	60
	Number of learners/car	learner	–	–	5
6	Number of hours/learner/training course	hour	12	32	48
7	Total number of hours/training course	hour	12	32	80
Training time					
1	Number of days	day	2	4	10
2	Number of holidays, closing and opening days	day	–	–	1
3	Total number of days/course	day	2	4	11

Test subjects:

- a) Road Traffic Law (for A2, A3 and A4 classes);
- b) Driving practice for A3 and A4 classes.

Training programme and timetable for B1, B2 and C class drivers

Graph 4.4.2-2. Training programme and timetable for B1, B2, C class drivers

No.	Criteria for calculation of subjects	Unit	Driver license class			
			B1 class		B2 class	C class
			Automatic transmission cars	Manual transmission cars		
1	Road Traffic Law	hour	90	90	90	90
2	Common structures and repairs	hour	8	8	18	18
3	Transport profession	hour	–	–	16	16
4	Driving ethics and traffic etiquette	hour	14	14	20	20
5	Driving techniques	hour	24	24	24	24
	Total number of hours of driving practice/car	hour	340	420	420	752
	Number of hours for driving practice/learner	hour	68	84	84	94
	Number of kilometres of driving practice/learner	km	1 000	1 100	1 100	1 100
6	Average number of learners/car	learner	5	5	5	8
7	Number of hours/learner/training course	hour	204	220	252	262
8	Total number of hours/training course	hour	476	556	588	920

Graph 4.4.2-2. (continued)

No.	Criteria for calculation of subjects	Unit	Driver license class			
			B1 class		B2 class	C class
			Automatic transmission cars	Manual transmission cars		
Training time						
1	Review and tests (to close the course)	day	3	4	4	4
2	Number of days of learning	day	59.5	69.5	73.5	115
3	Number of holidays, closing and opening days	day	14	15	15	21
4	Total number of days/course	day	76.5	88.5	92.5	140

Test subjects:

- Examination of all subjects in the study course; regarding the common structures and repairs and transport profession courses for B2, students can study by themselves but must be inspected by the training institution;
- Examination for the initial certificate and the training certificate at the end of the course, including testing on Road Traffic Law in the form of a set of theoretical examination questions, and practical driving with continuous tests, driving forwards and backwards and driving on roads.

To upgrade driving licenses

Upgrading conditions:

Those who study to upgrade their driving licenses must have safely driven for the following amount of time and safely covered the following number of kilometres:

- B1 class (automatic transmission) upgraded to B1: at least one year and 12,000 km of safe driving;
- B1 class to B2: at least one year and 12,000 km of safe driving;
- C, D, E classes to FC: at least one year of practicing as a driver and at least 50,000 km of safe driving;
- B2 to C, C to D, D to E; B2, D, E to F: at least three years of practicing as a driver and at least 50,000 km of safe driving;
- B2 to D, C to E: at least five years of practicing as a driver and 100,000 km of safe driving;

Those who learn to upgrade their driving licenses to D or E classes must have obtained a lower secondary education degree or higher:

Test subjects:

- Tests shall include all subjects;
- Tests for enhancement to B1, B2, C, D and E classes include at the end of the course: a test on Road Traffic Law in the form of a set of theoretical examination questions, and practical driving with continuous tests, driving forwards and backwards and driving on the road;
- Tests for enhancement from B1, B2, C, D and E classes to F class respectively at the end of the course include a test on Road Traffic Law in the form of a set of theoretical examination questions, and practical driving with continuous tests, driving forwards and backwards and driving on roads following the requirements for an F Class license.

Training programme and training duration

Graph 4.4.2-3. Training programme and timetable for classes B1, B2, C drivers

No.	Content	Unit	License class enhancement training									
			B1 (automatic transmission) to B1	B1 to B2	B2 to C	C to D	D to E	B2, D, E to F	C, D, E to FC	B2 to D	D to E	
1	Road Traffic Law	hour	–	16	16	16	16	16	16	16	20	20
2	Knowledge about cars for class enhancement	hour	–	–	8	8	8	8	8	8	8	8
3	Transport profession	hour	–	16	8	8					8	8
4	Driving ethics and traffic etiquette	hour	–	12	16	16	16	16	16	16	20	20
5	Total number of practice hours per driver	hour	120	50	144	144	144	144	224	280	280	
	Practical driving hours per student	hour	24	10	18	18	18	18	28	28	28	
	Number of practice driving km/km	km	340	150	240	240	240	204	380	380	380	
	Number of learners/ 1 practice vehicle	learner	5	5	8	8	8	8	8	10	10	
6	Number of hours/trainees/ training	hour	24	54	66	66	66	66	76	84	84	
7	Total hours of course	hour	120	94	192	192	192	192	272	336	336	
Training time												
1	Examination and finishing the course	days	1	2	2	2	2	2	2	2	2	2
2	Number of days of study	days	15	12	24	24	24	24	34	42	42	
3	Number of public holidays, opening and closing	days	2	2	4	4	4	4	4	8	8	
4	Number of days/course	days	18	16	30	30	30	30	40	52	52	

4.4.2.4. Tests and issuance of driver licenses

To be issued a driving license after training, a learner must pass the driving license examination.

Driving tests for the issuance of driving licenses must be organized in driving test centres qualified for such operations (hereinafter referred to as 'test centres').

Driving tests for the issuance of A1, A2, A3 and A4 licenses in urban areas from second class and over must be organized in test centres qualified for such operations; in other areas, driving tests may be organized in test yards which accommodate basic work facilities, theoretical test rooms, test yards and motor cars used for tests in accordance with the national technical regulation on driving test centres.

Content of driving tests

- a) Theory tests for A3, A4 class licenses include questions relating to Road Traffic Law, driving techniques, common structures and repairs, and transport professions; for B1 class licenses tests include questions on common structures and repairs, and driving ethics; and for licenses from B2 class and over, questions on common structures and repairs, transport professions, and driving ethics.

Candidates who sit tests for A1 class licenses and have obtained the driving permit granted by transport authorities are exempt from theory tests;

- b) For practical tests on testing tracks for A1 and A2 classes, candidates shall control their motorcycles through four test lessons: driving through eight tracks; driving in a straight line; driving along roads with obstacles; and driving on rough roads.

- c) Practical tests on testing tracks for A3, A4 classes
Candidates must drive their vehicles in zigzags and reverse in the opposite direction.
- d) Practical tests on automated driving test tracks for B1, B2, C, D and E classes:
Candidates must follow sequences and control their cars through the test lessons as arranged in the test centre. Such lessons include departing; giving way to pedestrians; stopping and starting a car on a slope; driving through cross-roads with traffic lights; driving on winding roads; pulling over in a parking position (vertical position for B1, B2 and C classes, and horizontal position for B1, B2, D and E classes); making a temporary stop at railway crossings; maneuvering the car in dangerous situations; changing gears on flat roads, and stopping;
- e) Practical tests on automated driving test track for FB2, FD and FE classes:
Candidates move through a track with five standard marks and return;
- f) Practical tests on automated driving test track for FC class
Candidates control their cars through two test lessons: move down an automated driving test track with five standard marks and return again; and pull over in a horizontal position;
- g) Practical tests on roads: candidates shall control their cars, handle situations on the road and take orders from the examiner.

4.4.2.5. Regulations for professional drivers

a) Working time of professional drivers

Regarding Article 65 of the Road Traffic Law of 2008, in a day, a professional driver can work for 10 hours at most and must not be at the wheel for more than 4 hours in a row. Carriers and automobile drivers must comply with this regulation.

However, the law does not stipulate a minimum break time for the 4-hour cycle of non-stop driving, and any starting milestone for the maximum 10 hours per day. At present, transportation business vehicles are equipped with GPS devices and data is transmitted to the Department of Transport and DRVN. It is therefore possible to monitor and supervise the working times of professional drivers. However, data obtained from these devices have not yet been used by the traffic police for administering fines for violations.

b) Regulations for professional drivers

In addition to compliance with regulations on driving licenses, age and health, professional drivers must be trained in the professional and legal provisions of their transportation activities, which are stated in Government Decree 86/2014/ND-CP dated 10 September 2014 on transport business and conditions by vehicle, and in Circular 63/2014/TT-BGTVT dated 7 November 2014 on the organization and management of transportation business by vehicle and supporting services.

In practice, it is said that the effectiveness and quality of training for professional drivers and the regulation of transportation activities needs to be improved.

4.4.3. Vulnerable traffic participants

Vulnerable traffic participants are high-risk road users. According to population data for Viet Nam in 2014, the number of people considered to be vulnerable traffic participants is high: people under 15 years of age account for 23.5 per cent of vulnerable traffic participants; people over 65 years of age account for 7.1 per cent; and some 6.7 million people in Viet Nam have disabilities, equivalent to 7.8 per cent of the population.

Vulnerable road users are not adequately looked after in Viet Nam. According to research by NCS Nguyen Duc Nghiem and MA Nguyen Van Bich on traffic safety for pedestrians and cyclists at the road safety conference in Viet Nam in 2015, fatalities amongst pedestrians accounted for 14 per cent of the total number of casualties from traffic accidents.

The amount of traffic accidents caused by pedestrians account for more than 3 per cent of total accidents.

Table 4.4.3-1. Traffic accidents caused by pedestrians

Year	2011	2012	2013	2014	2015	2016
Total accidents	839	1 535	577	581	596	619
Rate (per cent)	3.1	3.8	3.6	3.4	3.04	3.35

Source: Department of Traffic Police.

Vulnerable traffic participants often lack awareness of traffic law or do not observe it properly. This results in their careless crossing of roads; not using pedestrian overpasses; cycling after drinking alcohol; and carelessly turning their vehicles or changing direction, entering the blind spots of cars, etc. Other causes are due to impairment of body function (weaknesses, defects), reduced reflexes, vision, hearing, etc;

In addition, pedestrians, cyclists, the elderly and people with disabilities often move slowly and are passive in traffic situations,

To minimize traffic accidents for vulnerable traffic participants, the following measures should be taken:

- campaigns and education on traffic safety: these campaigns and education programmes needs to be implemented for both vulnerable traffic participants and other road users, with a particular on emphasis on humanity, understanding, and helping to support the disadvantaged in society;
- improving road infrastructure, prioritizing traffic organization and helping and protecting vulnerable traffic participants as much as possible. There is a need to enhance the use of advanced technologies in this area.

4.4.4. Enforcement

Traffic violations are currently at a high, and law enforcement plays an especially important role in preventing traffic accidents.

4.4.4.1. Forces that deal with traffic law violations

- Traffic police;
- The Public Order Police, Rapid Reaction Police, Mobile Police, Police Guard, Police Administrative Management of Social Order and Safety, Commune Police, and Ward Police are all mobilized as required;
- The Commune Police and Town Police – where there is no regular police unit – are mobilized as required;
- Transport inspectors.

4.4.4.2. Road traffic patrols and traffic control activities of traffic police

The road traffic patrols and traffic control activities of the traffic police must comply with the provisions of Circular No. 01/2016/TT-BCA of 4 January 2016 of the Ministry of Public Security, on defining the tasks, powers, methods and content of patrols and traffic control of the traffic police.

This circular stipulates duties and powers; equipment, vehicles used, technical equipment, weapons, tools and resources; the form and content of patrols, control methods and handling of administrative violations; the assignment of responsibilities and relations in the coordination of the patrols and traffic control measures of the traffic police. Mission patrol or traffic control teams perform the duties of the People's Police Force.

Box 7. Duties and powers of traffic police

Specific duties

- a) To implement the directions of the Ministry of Public Security; the Traffic Police Department; the director of public security of provinces or municipalities; the head of the guidance patrol; the head of traffic control; the chief of patrol; the chief of traffic control of the Expressway Traffic Police Bureau; the chief of the Traffic Police for roads and rail; the head of traffic police for public security at provincial level; the police chief at district level. The control plan has to be approved by the authority;
- b) To ensure order and the safe passage of traffic on routes and in assigned areas, and to patrol, detect and handle all law violations in a timely manner;
- c) Reporting to the authorized agencies and proposing and recommending the handling of shortcomings in the governance of security and order related to road traffic safety, in a timely manner; to cooperate with the road administration to prevent violations of road works and thoroughfares;
- d) Providing instructions and publicity on obeying the Road Traffic Laws;
- e) Organizing emergency help for people in traffic accidents, protecting the scene of accidents, handling accidents under the provisions of the law and regulations of the Ministry of Public Security; coordinating and engaging in search and rescue, and in rescue operations made necessary by natural disasters on roads;
- f) Coordinating with other public security forces to fight crime and the violation of laws on roads and assigned areas according to the provisions of the law.

Powers

- a) To stop vehicles participating in road traffic; checking vehicles and their papers; checking persons and the papers of vehicle owners, the personal papers of passengers, and the implementation of regulations on road transport activities according to the provisions of law;
- b) To handle administrative violations in road traffic, security, order and social safety as well as other administrative violations in state management according to the provisions of the law;
- c) To apply measures that both prevent and ensure the handling of administrative violations according to the provisions of the law; to temporarily hold driving licenses, vehicle registration documents and other papers related to a vehicle, or driver or persons in that vehicle when violations occur, or papers related to transport activities. This is to ensure the implementation of the decision on sanctioning administrative violations in accordance with the law;
- d) To request agencies, units, organizations and individuals to coordinate and support each other in the handling of traffic accidents, congestion, traffic jams or other cases;
- e) To use weapons, support tools and means, and professional technical equipment as prescribed by the law;
- f) To use vehicles; means of communication; other means and the technical equipment of agencies, organizations, individuals and drivers. The use of such means and equipment is allowed according to the provisions of the law;
- g) To temporarily hold people and transport vehicles at certain sections of roads; to re-distribute lanes, re-divide routes and places where vehicles are stopped; stopping vehicles when traffic jams occur or taking other measures necessary for ensuring security, social order and safety;
- h) To use other powers as provided for by the law.

Forms of patrol and inspection

- a) Public patrol, inspection;
- b) Undercover public patrol, inspection;
- c) Inspecting through supervision, and handling violations of road traffic safety order.

Mobilize other police forces and communal police to coordinate patrols and inspection

According to Decree 27/2010/ND-CP of the Government dated 24 March 2010 and Circular No. 47/2011/TT-BCA dated 2 July 2011 of the Ministry of Public Security on detailing the implementation of a number of articles of Decree No. 27/2010/ND-CP, other police forces and communal police forces will be mobilized together with the road traffic police, to perform the patrolling and inspection of road traffic order and safety when needed.

The mobilized forces mentioned above include:

- the Public Order Police, Rapid Reaction Police, Mobile Police, Police Guard, Police Administrative Management of Social Order and Safety, Commune Police, Ward Police (other police) are mobilized as required;
- the Commune Police and Town Police when no regular police unit can be mobilized (commune police).

There are some instances where it is necessary to mobilize other police forces and commune police, to coordinate with road traffic police participating in patrols and inspecting road traffic order and safety. These include:

- a) During celebrations; socio-political events; and the major state cultural and sports activities and those of localities;
- b) At peak times for ensuring traffic order and safety, directed by the Ministry of Public Security and the General Department of Police, for the administrative management of social order and safety, or by directors of the Police Department of the provinces or municipalities;
- c) In situations that involve violations of traffic order and traffic safety, and when traffic accidents and traffic jams become complicated;
- d) In other cases where road traffic safety and order adversely affect political security, social order and safety.

4.4.4.3. Powers to impose administrative penalties for road traffic offences

Decree No. 46/2016/ND-CP of the Government dated 26 May 2016 on administrative penalties for road traffic violations and rail transport violations, assigns powers to many forces to impose administrative penalties. These include the presidents of people's committees, the traffic police, police officers, rapid reaction forces, mobile police officers and administrative police officers, chiefs of police stations of communes, and transport inspectors (persons assigned to carry out specialized road inspection tasks).

The Decree also regulates powers to impose administrative penalties in road traffic for each of the abovementioned job titles.

4.4.4.4. Comments on enforcement

In recent years, enforcement has played a major role in reducing road traffic accidents. During high-intensity periods of road traffic accidents, the Government should make use resolutions and actions such as implementing Resolution 13/NQ-CP, Resolution 32/NQ-CP, Resolution 88/NQ or special campaigns such as checking driving licenses, checking coaches, and making sure road users wear helmets and are not drink driving.

Regarding enforcement, the organizational structure and powers of the traffic police have been crucial and decisive. The Government has paid attention to the step-by-step modernization of patrols and inspections, and to the application of advanced technologies in monitoring traffic, controlling traffic and detecting violations. However, there are some remaining difficulties.

Over the years, much modern equipment has been imported from developed countries, such as speedometers with video recorders, vehicle-weighing scales, and CCTV systems that record traffic accidents. In general, the amount of this equipment has met initial requirements, but there is still insufficient equipment to meet practical requirements as listed in the equipment chart issued by the Ministry of Public Security (the plan approved by the Prime Minister). As a result, monitoring system violations are detected late and not in a systematic manner, meaning road traffic police usually perform

manual inspections; there are not enough traffic police to meet the needs of the current traffic situation, which is becoming more and more complex.

4.4.5. Drinking alcohol and driving

Based on the International Alliance for Responsible Drinking in the situational assessment of drink driving in Viet Nam (Annex I),³ the Vietnamese people have started to consider responsible drinking as an alternative way to consume alcohol. However, everything is at a starting point; changing behaviour takes time and sustainable effort. Drinking alcohol is part of the culture in Viet Nam; the Vietnamese drink at important events and holidays, as well as for business-related events. Refusing an offered drink is considered unfriendly.

Increasingly, road crashes are becoming a serious social and developmental problem, and drink driving is a high-risk factor. The Government of Viet Nam has been paying increasing attention to road crashes in general, and to drink driving in particular. For the past several years, Viet Nam has been implementing the Beer, Wine and Spirits Producers' Commitments to Reduce Harmful Drinking initiative. A 2014 independent evaluation found an accelerated change in the behaviour of local stakeholders, and an awareness of road-safety risks in the implementing provinces. Different provincial governments are also now working together to develop shared plans for drink-driving and road-safety campaigns.

Both technical and financial assistance programmes have been shown to be effective as the "seeds" for combatting drink driving in the country. Models and good practices such as the Global Actions on Harmful Drinking initiative are available for roll-out and expansion. Revisions to the BAC and BrAC limits have been completed. All these and enforcement procedures for drink driving have been put into regulations.

International best practices for drink driving prevention are in place in Viet Nam, and the different drink driving projects have enhanced the awareness and attitudes of the Vietnamese people. However, the effects seem unsustainable, and not many provinces are willing to or can afford their implementation.

If efforts stopped at this point, all the knowledge, attitudes and especially the behaviours that have been affected could potentially revert to prior patterns. Maintaining the technical and funding assistance to the provinces (which have been supported by the Global Actions initiative or by the International Road Assessment Program [RS10] programme) will help to further promote the enforcement of drink-driving legislation.

4.4.5.1. Production and consumption of beer and wine in Viet Nam

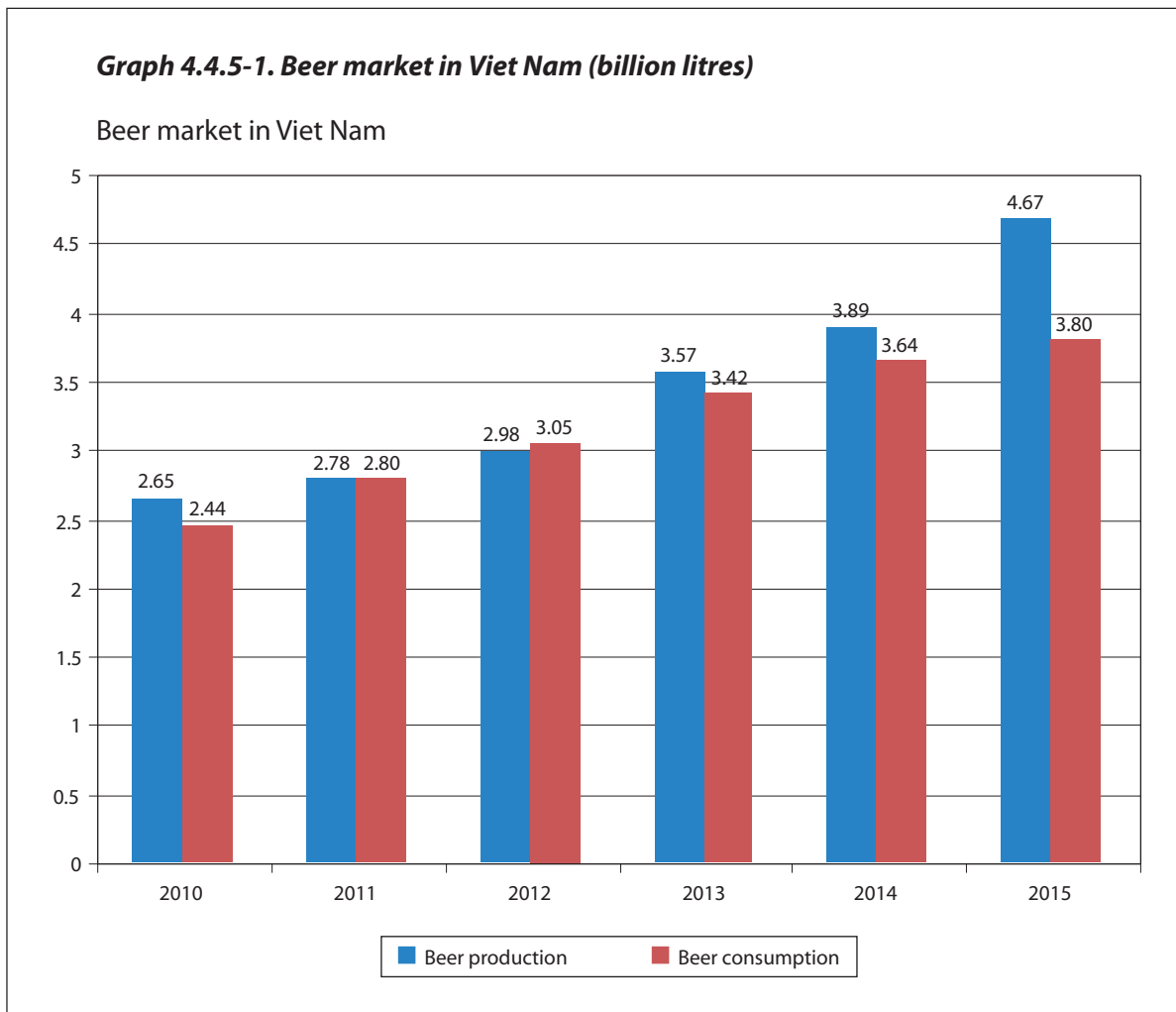
The use of alcoholic beverages has become habitual. In a report submitted to the Government on the proposal to draft the Law on the Prevention of Harm from Liquor and Beer, the Ministry of Health provided the following figures: Alcohol consumption per capita (among people over 15 years of age) rose from 3.8 litres of alcohol/person/year (2003-2008) to 6.6 litres of alcohol/person/year (2008-2010), a 74 per cent increase in which the proportion of beer consumed is growing faster than that of liquor. In 2010, the liquor industry had an output of 80 million litres. In 2011, the total output of licensed industrial alcohol was 127 million litres, while the total volume of handmade licensed liquor was 32 million litres. It is estimated that there are still over 230-280 million litres of uncontrolled handmade liquor.

According to the Viet Nam Beer-Alcohol-Beverage Association (VBA), in 2015 beer production stood at 3.37 billion litres, while industrial alcohol production reached 70 million litres.

Viet Nam's beer output increased from 1.38 billion litres in 2005 to 4.67 billion litres in 2015, moving from the 24th highest in the world to eighth place.

According to the development plan for the beer and wine industry to 2025 with a vision to 2035, promulgated under Decision No. 3690/QD-BCT of the Ministry of Industry and Trade and dated 12 September 2016, beer output is projected to increase to 4.6 billion litres by 2025, and 5.5 billion litres by 2030.

³ The International Alliance for Responsible Drinking (IARD) prepared assessment of drink driving situation in Viet Nam. Full assessment is available in Annex I.



Source: Kirin Beer University Report, Heineken, BSC.

4.4.5.2. Alcohol-related traffic accidents

Liquor and beer are products that affect the health of users and threaten to cause other socio-economic problems. The consequences of liquor and beer can appear right after their consumption (regardless of cases of abuse) and if a user drives vehicles or operates machinery it is easy for them to have accidents. The irresponsible or frequent use of liquor and beer raises the chances of alcohol abuse, which in turn causes serious problems such as illness, death and those of a socio-economic nature.

According to statistics from the Department of Traffic Police, the number of road traffic accidents caused by the consumption of alcohol accounts for about 3-5 per cent of annual traffic accidents. This data does not reflect the actual situation (see Section 3.4.2.8. for an explanation).

Submitting to the Government a draft of the Law on the Prevention of Harm from Liquor and Beer, the Ministry of Health provided the following data:

Liquor and beer are one of the three leading causes of the increase in traffic accidents in Viet Nam among men aged 15-49. According to a 2014 WHO report, traffic accidents involving alcohol in Viet Nam are estimated to account for 36.2 per cent of total accidents caused by men and 0.7 per cent of those caused by women. In the WHO study, of 18,412 hospitalized traffic accident victims, 36 per cent of motorcyclists had a blood alcohol level higher than the permitted 50 mg/dl, and 66.8 per cent of four-wheeler drivers had a blood alcohol level higher than the allowed 0 mg/dl. Information from the Emergency Department of the Viet Duc Hospital shows that in just five days of the Tet Holiday in 2016, more than 600 traffic accidents resulted in hospitalization, of which more than 50 per cent involved the use of liquor and beer.

4.4.5.3. Dealing with drink driving

Provisions of the law

Road Traffic Law regulations:

- “Article 8 – Prohibited acts
 - o Driving cars, tractors, special vehicles on roads, while blood or breath has alcohol content.
 - o Driving motorcycles or mopeds with blood alcohol levels exceeding 50 milligrams/100 millilitres of blood, or 0.25 milligrams/litre of breath”.
- Regarding Decree No. 46/2016/ND-CP of the Government dated 26 May 2016 on administrative penalties for road traffic violations and rail transport violations, depending on the level of blood alcohol concentration or alcohol concentration in breath, the highest level for drivers with alcohol is a fine of between VND 16,000,000 and 18,000,000 and a suspension of the right to use a driving license for 4 to 6 months.

Handling drivers of motorized vehicles in violation of alcohol levels

Although the 2001 Road Traffic Law specifically banned the use of alcohol over certain limits during the control of road traffic vehicles, many difficulties – especially in equipping forces with alcohol breath analyzers – have led to this not being fully realized. In 2011, the Government issued Resolution 88/NQ-CP dated 24 August 2011 on strengthening the implementation of key solutions that help to ensure traffic safety. The parts of this Resolution that strengthen the control of motorized road vehicle users who violate alcohol consumption regulations are considered the most effective measures available.

District level traffic police forces have been equipped with alcohol breath analyzers. Some 48 out of 63 traffic police forces in the provinces and municipalities of Viet Nam have been trained to inspect and handle alcohol concentration violations in line with international standards. The country is currently implementing plan No. 530/QD-UBATGTQG dated 4 December 2015 on handling alcohol concentration violations for motorized road vehicle drivers during the period 2015-2020.

Traffic police forces have recorded 180,000 alcohol concentration violations,⁴ and have analyzed over 91,026 identified violation cases: 4,339 cases involved car offenders (4.77 per cent), while 86,687 cases involved offenders on motorcycles (95.23 per cent). In general, there has so far been a significant decrease in the number of car drivers – especially commercial car drivers – violating alcohol regulations. However, the same cannot be said for motorcyclists.

According to Decree No. 46/2016/ND-CP dated 26 May 2016, the fines given to drivers operating vehicles under the influence of alcohol are as follows:

Selected recommendations (see Annex I for the full list)

- strengthen the safety management divisions of transportation companies in selected provinces;
- enhance the enforcement practices of the traffic police and transport inspectors in selected provinces, to comply with international standards;
- continue to support provinces so that traffic police and transport inspectors can remain well trained and able to effectively coordinate drink-driving enforcement campaigns;
- build the capacity of provincial traffic councils so that they can implement effective drink-driving campaigns with the relevant entities in their provinces;
- “best practices” interventions should be sustained and expanded to facilitate more rapid behaviour change.

⁴ White Paper on Road Traffic Safety 2016-2017. Police Science Institute. People’s Police Academy.

Table 4.4.5.3. Alcohol content and respective fine levels in Decree No.46/2016/ND-CP

Level of fine	Alcohol content	Fine	Additional penalties	Notes
Cars				
1	Alcohol content in blood or breath does not exceed 50 mg per 100 ml of blood or 0.25 mg per litre of breath	A fine of VND 2,000,000 – VND 3,000,000	Suspension of driving license for 1-3 months	If a traffic accident happens, suspension of driving license for 2-4 months
2	BAC exceeds 50-80 mg per 100 ml of blood or BrAC exceeds 0.25-0.4 mg per litre of breath	A fine of VND 7,000,000 – VND 8,000,000	Suspension of driving license for 3-5 months	
3	<ul style="list-style-type: none"> BAC exceeds 80 mg per 100 ml of blood, or BrAC exceeds 0.4 mg per litre of breath; Disobeying traffic conductor's or law enforcement officer's order for alcohol testing 	A fine of VND 16,000,000 – VND 18,000,000	Suspension of driving license for 4-6 months	
Mopeds and motorcycles (including electric motorcycles)				
1	BAC exceeds 50-80 mg per 100 ml of blood, or BrAC exceeds 0.25-0.4 mg per litre of breath.	A fine of VND 1,000,000 – VND 2,000,000	Suspension of the driving license for 1-3 months	
2	<ul style="list-style-type: none"> BAC exceeds 80 mg per 100 ml of blood or BrAC exceeds 0.4 mg per litre of breath. Disobeying a law enforcement officer's order for alcohol or drug testing; 	A fine of VND 3,000,000 – VND 4,000,000	Suspension of the driving license for 3-5 months	
Specialized vehicles				
1	BAC does not exceed 50 mg per 100 ml of blood or BrAC does not exceed 0.25 mg per litre of breath;	A fine of VND 400,000 – VND 600,000	The license to drive a tractor (of the tractor operator) or the certificate of training in traffic rules (of the heavy-duty vehicle operator) shall be suspended for 1-3 months	If a traffic accident happens, the license to drive a tractor (of the tractor operator) or the certificate of training in traffic rules (of the heavy-duty vehicle operator) shall be suspended for 2-4 months.
2	BAC exceeds 50-80 mg per 100 ml of blood, or BrAC exceeds 0.25-0.4 mg per litre of breath;	A fine of VND 2,000,000 – VND 3,000,000	The license to drive a tractor (of the tractor operator) or the certificate of training in traffic rules (of the heavy-duty vehicle operator) shall be suspended for 1-3 months	If a traffic accident happens, the license to drive a tractor (of the tractor operator) or the certificate of training in traffic rules (of the heavy-duty vehicle operator) shall be suspended for 2-4 months.

Table 4.4.5.3. (continued)

Level of fine	Alcohol content	Fine	Additional penalties	Notes
3	<ul style="list-style-type: none"> BAC exceeds 80 mg per 100 ml of blood, or BrAC exceeds 0.4 mg per litre of breath; Disobeying a law enforcement officer's order for alcohol or drug testing; 	A fine of VND 5,000,000 – VND 7,000,000	The license to drive a tractor (of the tractor operator) or the certificate of training in traffic rules (of the heavy-duty vehicle operator) shall be suspended for 2-4 months;	

4.4.6. Speeding

4.4.6.1. Speed regulations

According to Circular No. 91/2015/TT-BGTVT dated 31 December 2015, which took effect on 1 March 2016, speed regulations are specified as follows:

Table 4.4.6.1-1. Maximum speed of road vehicles in densely populated areas (except when on expressways)

Type of road vehicle	Maximum speed (km/h)	
All road vehicles excluding specialized vehicles, mopeds (including electrical bikes) and similar	Two-way roads (with central reservations); one-way roads with at least two lanes	Two-way roads (without central reservations); one-way roads with only one lane
	60	50

Table 4.4.6.1-2. Maximum speed of road vehicles outside of densely populated areas (except when on expressways)

Type of road vehicle	Maximum speed (km/h)	
	Two-way roads (with central reservations); one-way roads with at least two lanes	Two-way roads (without central reservations); one-way roads with only one lane
Cars, passenger vehicles with up to 30 seats (excluding buses); trucks with maximum mass of 3,500 kg;	90	80
Passenger vehicles with over 30 seats, trucks with a maximum mass of over 3,500 kg;	80	70
Buses, trailers, semi-trailers, specialized vehicles, motorcycles	70	60
Car-pulling trailers or other trailers	60	50

4.4.6.2. Fines for speeding violations

According to Decree No. 46/2016/ND-CP dated 26 May 2016, fines for speeding violations as follows:

Violations	Fines	Additional penalties
From 5 km/h up to 10 km/h	VND 600,000 – 800,000	
From 10 km/h up to 20 km/h	VND 200,000 – 3,000,000	
From 20 km/h up to 35 km/h	VND 5,000,000 – 6,000,000	Suspension of driving license for 1-3 months
Over 35 km/h	VND 7,000,000 – 8,000,000	Suspension of driving license for 2-4 months

4.4.7. Proposed solutions and conclusions

Safe traffic participants are a core factor of road traffic safety measures because only when people are aware of traffic safety and when traffic participants are protected, can the number of deaths and injuries caused by traffic accidents be minimized in a sustainable manner.

First of all, it is necessary to ensure the efficient propagation of road safety law, and that it is disseminated amongst the population in tandem with an education initiative. The government must create a legal environment in society, to not only make traffic participants aware of the importance of obeying road safety laws but to also make compliance a habit for everyone. This provides a move towards respect for traffic safety laws as well as an awareness of how to combat traffic law violation.

Changing people’s habits and behaviour is often difficult, so education on traffic safety laws in the society must be done on a regular and continuous basis, and people must be made aware of the penalties for disobedience. Secondary media campaigns only work if linked to campaigns that stress punitive measures.

In this scenario, the NTSC is the main public body and the focal point for unity in the activation of a national plan, and thus responsible for public awareness. To improve the effectiveness of communication campaigns, a team of professional staff is needed to develop the plan, to organize its implementation and to perform evaluation. It is necessary to train a wide range of auditors from central to local levels (communes, wards and hamlets) and to recruit the help of core members of socio-political organizations. The NTSC is the body that provides a unified message and communication materials throughout the country.

Driver training should improve road traffic quality, especially with regard to streamlining training and tightening licensing for motorbikes, making it harder to get a driving license than it is today. The Probationary License should be considered as a means of regulating driving licenses. Consideration and study the regulation on driving licenses must go through the Probationary License. As regular participants in road traffic, commercial drivers must have more rigorous training and the examination and licensing of commercial drivers is required.

For more effective enforcement and controlled traffic conditions, it is necessary to detect more violations while reducing the number of staff employed. There must be more investment in modern equipment and this system must be linked from the Traffic Control Centre of the Department of Traffic Police to local traffic police control stations.

Drinking alcohol when driving a means of transport is a behaviour that is dangerous for society. It is necessary to handle such cases under criminal law, regardless of whether there are any consequences of drivers’ actions. A successful public campaign needs to be organized to help persuade motorized vehicle drivers of the dangers of consuming alcoholic drinks, and Plan 530/QD-UBATGTQG dated 4 December 2015 must be implemented.

4.5. Post-crash response

4.5.1. Road traffic accident medical rescue

4.5.1.1. Road traffic accident medical rescue issues

Solutions for minimizing traffic accidents are often divided into solutions before traffic accidents (preventive solutions for their avoidance), solutions during their occurrence (aimed at minimizing injuries and deaths during collisions), and solutions for after accidents (to minimize deaths and the severity of injuries).

Emergency medical activities are one of many solutions that happen after traffic accidents, and they are rapid interventions aimed at saving lives, restoring functional living standards, limiting long-term repercussions for victims and reducing costs and the burden on families as well as on society.

The process of victim medical care is made up of pre-hospital care, hospital treatment and then rehabilitation. Pre-hospital care is crucial, often saving a lot of victims, especially if performed during the critical timeframe. Studies from around the world have shown that 50 per cent of casualties die from traumatic injury at the scene of the accident, 30 per cent of deaths occur in the next three to four hours, and only 20 per cent occur during the treatment process in hospitals.

Good pre-hospital injury care must do four things well:

- note information;
- provide emergency transportation;
- apply first aid at the scene;
- provide advanced care at a medical facility.

Within the framework of the project, only pre-hospital trauma care has been analyzed.

The development and operation of an effective pre-hospital trauma care system might contribute to a 20-25 per cent reduction in mortality caused by road traffic accidents (*World Health Organization, Pre-hospital trauma care systems. Geneva, 2006*). Pre-hospital care standards in Viet Nam still face limitations, and as a result many traffic accident victims have a reduced chance of enjoying a full or long life.

4.5.1.2. Real situation of pre-hospital trauma care

Viet Nam has "115" emergency centres which can be reached by dialling this number. The system is only available in some of the larger provinces and cities, and its capacity is limited as responses can be made to only about 10 per cent of emergency calls. According to 103 Viet Nam military hospital, 91 per cent of victims are rescued by traffic participants, 3.2 rescue themselves and 4.9 per cent are saved by the emergency services. More than 60 per cent of traffic accident victims are transported to hospital within the first 6 hours, while over 8 per cent went to hospital after 72 hours.

In terms of first aid quality, Viet Duc hospital offers the following statistics: some 5.52 per cent of bone immobilization and 7.16 per cent of haemorrhage prevention is conducted in a technically incorrect manner. According to a JICA study from 2009, 61.2 per cent of the bandaging is appropriate (no bleeding), and 38.8 per cent of bandaging is inappropriate (not sealed and still bleeding). Meanwhile, 51.4 per cent of bone fixation is satisfactory (fracture is immobilized), and 48.6 per cent of such procedures do not meet this requirement.

The current situation also shows that health facilities (districts, provinces) are still very inexperienced at dealing with traffic accident cases that have many victims, due to a lack of training, equipment and human resources. Traffic accident emergency systems are mainly concentrated in hospitals, while external emergency services (at home, office, off-street, etc.) have not received suitable attention or a reasonable level of investment. Most victims are given first aid by traffic participants or are transported by taxi, motorbike or bicycle, and the majority of first aid givers are not trained in rescuing the victims of traffic accidents. This is a truly worrying situation, and many such cases lead to unfortunate consequences for the victims of traffic accidents.

One of the hurdles limiting the amount of help victims receive from other traffic participants is the fear of problems from the victims' families, communities or even Government agencies. Many countries have enacted laws to protect individuals who provide support to others who are injured, ill, in danger or who have lost their faculties.

4.5.1.3. Some solutions

The Prime Minister has approved the traffic accident rescue project for the expressway network up to 2020. This project has the goal of quickly transporting victims to the nearest medical facility in a safe and effective way, to reduce the chances of mortality for the victim.

The Ministry of Health has issued Circular No. 49/2016/TT-BYT dated 30 December 2016 regulating the organization and operation of traffic accident rescue on highways. From 1 March 2017, per 50 km of highway, there should be at least one emergency station. This first aid station is integrated with the medical examination and treatment facilities available on the expressway, which include commune health stations, wards and district health centres that perform medical examination and treatment, 115 emergency centres and both public and private hospitals.

However, the decision only mentioned the organization of first aid for expressways, while serious traffic accidents that occur on the national highways account for a high percentage of all accidents. First aid provided by medical staff is always the best, but it is feasible to organize teams of collaborators from people who are frequent road users, such as traffic police, motorbike taxis and taxi drivers, and people who live along roads, to help rescue victims in a timely manner.

The Ministry of Health's goal is to provide first aid equipment in the shortest possible time, and to have at least one ambulance every 15 km to serve at least three emergency stations. Provincial or equivalent emergency centres are responsible for operating the ambulance fleet, ensuring they reach accident sites within 10 to 15 minutes of being informed of the accident.

Responsible agencies need to develop plans for coping with serious traffic accidents that involve many victims.

4.5.2. Insurance

Third-person liability insurance – which covers third parties and passengers in vehicles – is compulsory for motor vehicle owners aiming to address the problem whereas . The motor vehicle owners, may not have enough money to compensate for the damage they cause, and so are obliged by law to buy civil liability insurance.

Civil liability insurance for motor vehicle owners is essentially the sharing of financial responsibility between the insurer and the insurance buyer, specifically if the insured party has caused damage to a third party. To pay compensation, insurance enterprises bear part of the financial responsibility for the cost of damage that insurance buyers cause.

4.5.2.1. Legal framework for the liability of motor vehicle owners

The Law on Insurance Business No. 24/2000/QH10 dated 9 December 2000 and the Law on Amendment of and Addition to a Number of Articles of Insurance Business Law No. 61/2010/QH12 dated 24 November 2010, stipulate:

“Article 8. – Compulsory insurance

1. The compulsory insurance means a type of insurance for which the conditions, premium rates and minimum insurance sum are prescribed by law for compulsory implementation by both the organizations and individuals participating in insurance and the insurance enterprises.

The compulsory insurance shall only apply to a number of insurance types for the purpose of protecting the public interests and social safety.

2. The compulsory insurance shall include:

- a) Motorized vehicle owners' civil liability insurance, insurance of air carriers' civil liability toward passengers".

Details of motor vehicle liability insurance are regulated in: Government Decree No. 103/2008/ND-CP of 16 September 2008, on compulsory insurance for civil liability of motor vehicle owners; Decree No. 214/2013/ND-CP of the Government dated 20 December 2013 on amending and supplementing a number of articles of Decree No. 103/2008/ND-CP dated 16 September 2008 of the Government on compulsory insurance for civil liability of motor vehicle owners; Decree No. 73/2016/ND-CP of 1 July 2016 on detailing the implementation of the Insurance Business Law and the Law amending and supplementing a number of Articles of the Insurance Business Law; and Circular 22/2016/TT-BTC on stipulating the rules, terms, premium rates and compulsory insurance liability of the civil liability of motor vehicle owners.

Table 4.5.2-1. Brief on compulsory insurance liability of the civil liability of motor vehicle owners

Civil liability	
1. Insured person/ Applicable subjects	<ul style="list-style-type: none"> Motor vehicle owners participating in traffic in the territory of the Socialist Republic of Viet Nam shall be obliged to have compulsory insurance for motor vehicle owners' civil liability, as ruled in the Circular and other relevant legal regulations. "Motor vehicle owners" (organizations or individuals) are the actual motor vehicle owner, possession transferee or driver. "Motor vehicles" include cars, tractors, vehicles used for construction, specific agricultural vehicles, industrial vehicles, vehicles used for security and national defense purposes (even trailers or semi-trailers that are pulled by cars or tractors), two-wheeled motorcycles, three-wheeled motorcycles, motorbikes and similar motorized means of transport (even vehicles for the disabled) that participate in traffic.
2. Scope of damage compensation	<ul style="list-style-type: none"> Injury to people, loss of life and damages to property caused by the motor vehicle for a third party. Injury to people and loss of life of contractual passengers in motor vehicles suffering accidents.
3. Exclusion from insurance	<ul style="list-style-type: none"> Intentional damage and losses caused by the owner, driver or accident victim. The driver intentionally leaves the scene of the accident. The driver does not have a valid/suitable driving license. In cases where property is stolen or robbed in the accident. In cases of war, terrorism or earthquakes. In cases where there is damage to special property consisting of gold, silver, precious stones, valuable papers such as money, antiques, precious and rare paintings, human corpses and remains.
4. Limit of insurance liability	<ul style="list-style-type: none"> For damage to people: 100 million VND/person/accident. For damage to property (caused by cars): 100 million VND/accident.
5. Insurance duration and validity	<ul style="list-style-type: none"> The validity of the insurance certificate shall be included in the insurance certificate, but only after full premium payment by the motor vehicle owner. The duration of the insurance certificate is one year. In some cases, the insurance period may be less than one year.

Table 4.5.2-2. Premium table for motor vehicle owner's civil liabilities (Attached to Circular No. 22/2016 / TT-BTC of the Ministry of Finance dated 16 February 2016)

No.	Type of vehicle	Civil liabilities per year (VND)
I	Mopeds	
1	Up to 50 cc	55 000
2	Over 50 cc	60 000
II	Motorbikes, motorcycles and similar vehicles	290 000
III	Non-commercial cars	
1	Up to 6 seats	437 000
2	From 6 to 11 seats	794 000

Table 4.5.2-2. Premium table for motor vehicle owner's civil liabilities (continued)

No.	Type of vehicle	Civil liabilities per year (VND)
3	From 12 to 24 seats	1 270 000
4	Over 24 seats	1 825 000
5	Pickups, minivans (both cargo and passenger vehicles)	933 000
IV	Commercial vehicles	
1	Up to 6 seats as registered	756 000
2	6 seats as registered	929 000
3	7 seats as registered	1 080 000
4	8 seats as registered	1 253 000
5	9 seats as registered	1 404 000
6	10 seats as registered	1 512 000
7	11 seats as registered	1 656 000
8	12 seats as registered	1 822 000
9	13 seats as registered	2 049 000
10	14 seats as registered	2 221 000
11	15 seats as registered	2 394 000
12	16 seats as registered	3 054 000
13	17 seats as registered	2 718 000
14	18 seats as registered	2 869 000
15	19 seats as registered	3 041 000
16	20 seats as registered	3 191 000
17	21 seats as registered	3 364 000
18	22 seats as registered	3 515 000
19	23 seats as registered	3 688 000
20	24 seats as registered	4 632 000
21	25 seats as registered	4 813 000
22	Over 25 seats as registered	[4 813 000 + 30 000 x (number of seats – 25 seats)]
V	Trucks (cargo vehicles) of which loading capacity is	
1	Less than 3 tons	853 000
2	From 3 to 8 tons	1 660 000
3	From 8 to 15 tons	2 746 000
4	Over 15 tons	3 200 000

VI. Premium table for other cases

1. Training vehicle

Equal to 120 per cent of the same vehicle regulated in items III and V.

2. Taxi

Equal to 170 per cent of the charge for commercial vehicles with the same number of seats prescribed in item IV.

3. Special vehicles

- Premium for ambulances is calculated at 120 per cent of pickup truck premium.
- Insurance premium for vehicles carrying money is equal to 120 per cent of the premium for vehicles of less than 6 seats, specified in item III.
- Premium for other special vehicles shall be equal to 120 per cent of the premium of a cargo vehicle of the same tonnage, specified in item V.

4. Tractors

Equal to 150 per cent of annual premium charge for trucks over 15 tons. The premium for trailer tractors is the fee for both tractors and trailers.

5. Specialized machinery

Equal to 120 per cent of the premium charge for goods vehicles less than 3 tons, specified in item V.

6. Buses

Equal to the insurance premium of non-commercial vehicles with the same number of seats, specified in item III.

(The above premium does not include 10 per cent Value Added Tax).

4.5.2.2. Insurance status

For cars there are five types of insurance:

- Car insurance, including full-body insurance or cover insurance only;
- Accident insurance for passengers, related to the number of seats;
- Third party civil responsibility insurance for motor vehicles, including compulsory civil liability insurance;
- Compulsory liability insurance of car owners for passengers in the car (if the vehicle is commercial);
- Civil liability insurance of vehicle owners for goods in the vehicle (if the vehicle is commercial).

For motorcycles and mopeds, there are the following insurance types:

- Compulsory third-party liability insurance;
- Accident insurance for passengers on motorcycles;
- Motorcycle insurance.

Depending on the business, there are other voluntary insurance products within the framework of the law.

According to statistics from the Viet Nam Insurance Association, almost all (99.9 per cent) of motorcycles in use in Viet Nam do not have physical insurance, and about 80 per cent do not buy compulsory civil insurance. For cars, the situation is better, but only 90 per cent of motor vehicle owners participate in compulsory motor vehicle liability insurance. Meanwhile, very few people have car insurance or accident insurance for people sitting in cars.

According to a survey by PVI Insurance Company, only about 50 per cent of car owners buy car insurance, only about 10 per cent of car owners buy accident insurance for people sitting in cars, and the rate of uptake for voluntary civil duty insurance is only 5 per cent.

With the abovementioned motor vehicle insurance situation, it can be said that the ideal of protection and the sharing of difficulties between vehicle owners and participants in traffic accidents is unfulfilled.

The reason for this situation is:

- people's insurance awareness is insufficient; poor promotion of insurance benefits;
- the compensation procedures of insurance companies are complicated, not reliable;

- enforcement takes place without handling motorists who do not buy civil liability insurance for motorized vehicles.

4.5.3. Conclusion

Since the issuance of Government Resolution No. 32/2007/NQ-CP dated 29 June 2007, more attention has been paid to minimizing death and to the effects of injuries. Further measures taken towards this goal include Decision No. 44/2012/QĐ-TTg on regulating rescue, fire prevention and fighting forces, issued by the Prime Minister on 15 October 2012, and Decision 1203/QĐ-TTg of 19 July 2013 on approving the rescue plan on the expressway network up to 2020, which aims to improve emergency medical treatment in traffic accidents.

However, it can be seen that carrying out the tasks of rescue and medical rescue are not simple. There is a need to establish a medical system to serve traffic accident victims quickly and effectively, and for this a great amount of equipment, transport vehicles and treatment facilities are required. To help in this drive, first aid personnel can use volunteer forces to provide first aid training and give first aid to the victims of traffic accidents. The need to provide equipment and medicine to volunteers is urgent, and requires funding.

Insurance cost is one of the contributing factor that discourage car owner from buying. Research is needed to revise legal documents on insurance so as to reduce charges for well-managed transport operators and reduce premiums for drivers with histories of safe driving. This will also encourage enterprises to perform well in the safety management of their transport business enterprises. Meanwhile, the Traffic Police force should increase the frequency of its checks for civil liability insurance.

4.6. Urban transport and accessible transport

4.6.1. Urban transport

4.6.1.1. Situational analysis

There are shortcomings in traffic in urban areas such as the number of motorcycles and mopeds making up a very large proportion of traffic, while there is also an increasing number of cars and a low level of public passenger transport. In addition, there is a shortage of suitable transportation facilities and infrastructure. Traffic congestion is serious problem in Ha Noi and Ho Chi Minh City.

More than 10 million people live and work in Ho Chi Minh City (8.7 million permanent residents and 2 million temporary residents), and there are too many vehicles: 6.2 million motorbikes, more than 600,000 cars, buses and trucks, and each day around 1 million vehicles entering the city. Around 100 new cars and 1,000 new motorcycles and mopeds take to the streets each day. The city has more than 11,000 taxis, over 15,000 contracted cars under nine seats, and 2,764 buses. While the amount of land reserved for transportation is very small, by 2016 the city will have more than 4,000 km of roads, and a road density of about 1.98 km/km². As of 15 November 2016, the city has only 30 hectares of bus terminals and no taxi station (regarding planning, it needs 81 hectares for bus stops, and 3 hectares for taxis).

Ha Noi has a population of 7,216,000 and around 5 million motorcycles and 535,000 cars. Similar to Ho Chi Minh City, the rate of motorized vehicle use is over 70 per cent. The density of urban roads in Ha Noi is only about 0.74 km/km², while the required street density is 6.5 to 8 km/km². The proportion of land reserved for static traffic in Ha Noi is only 0.3 per cent, while the required rate is between 3 and 5 per cent. With increasing population density and motorization rate, the traffic congestion challenges in Ha Noi and Ho Chi Minh City will continue and require comprehensive measures to solve.

4.6.1.2. Causes of big city circulatory problems

The causes of the above situation can be outlined as follows:

- a) Traffic congestion is now a costly result of a lack of long-term vision in urban planning, and its skewed implementation.

- b) There is a lack of connecting infrastructure between service sectors, businesses and production zones, and a lack of connections between means of transport travelling from station to station, stations to terminals, and living areas to stations.
- c) Public transport is very limited: buses are the only main type, and elevated railways were constructed too late, causing more traffic jams.
- d) Although a huge amount of money has been invested in urban traffic construction to solve congestion, such projects have been ineffective after only a short time.
- e) The static traffic systems of the cities are very underdeveloped. Even urban taxi ranks are mainly spontaneous, and have not yet been planned in a scientific way.
- f) There are many high-rise apartment buildings in the city centres. When they are built, the employer only considers commercial factors without considering transport infrastructure. Those carrying out the renovation of traditional markets, the construction or relocation of stations, or the relocation of factories to the suburbs for “environmental reasons” are permitted to build high-rise buildings. In addition, the amount of people coming to the city increased too fast at a time when transportation infrastructure was insufficient. As a result, transport infrastructure is becoming increasingly overloaded.
- g) The traffic control system is outdated, the traffic system cannot connect to the command centre, and its traffic light cycles are not reasonable.
- h) Awareness of the need to respect traffic laws is limited amongst some of the road users of the cities.

4.6.1.3. Solutions

Ha Noi and Ho Chi Minh City have implemented a number of solutions including:

Diverting traffic in urban environments; enhancing traffic control; improving and widening intersections where congestion occurs; investing in stations and the development of public passenger transport networks; accelerating key transport infrastructure works; disseminating information and publicity and organizing education programmes to improve awareness of traffic law and rules of urban management; protecting sidewalks; enhancing the effectiveness of the law on traffic safety and urban order; and reallocating communes, agencies, enterprises, hospitals, schools in urban areas and strengthening management. The above solutions have been implemented in recent years, but the congestion issue has not been resolved because these measures are still only temporary solutions.

4.6.2. Accessible transport

Viet Nam has experienced a prolonged war and has a high number of people with disabilities, especially due to the long-lasting impact that Agent Orange has had on the population. According to the Ministry of Labour, Invalids and Social Affairs (MOLISA), as of June 2015 Viet Nam had about 7 million disabled people, accounting for 7.8 per cent of the population. People with serious and severe disabilities account for 28.9 per cent of this group, about 58 per cent of disabled people are women, 28.3 per cent are children, 10.2 per cent are elderly, and about 10 per cent of disabled people belong to poor households. About 60 per cent of people with disabilities are of working age.

The Vietnamese Government always cares about the disabled and creates all the necessary conditions for people with disabilities to socialize well. On 17 June 2010, the National Assembly approved Disability Law No. 51/2011/QH12, and on 28 November 2014, the National Assembly issued Resolution 84/2014/QH13 on the ratification of the United Nations Convention on the rights of the disabled.

A civilized society must create the best possible conditions for disabled people, the elderly and people with mobility problems to access transportation, health care and employment.

Regarding Decree No. 28/2012/ND-CP dated 10 April 2012 on detailing and guiding the implementation of a number of articles of the law on the disabled:

- people suffering from particularly serious impairments and people suffering from serious impairments are exempt from fares or service charges when using buses;

- people suffering from particularly serious impairments and people suffering from serious impairments are eligible for a reduction in fares and service charges when using the following means of transport on domestic routes:
 - o a reduction of at least 15 per cent for air tickets;
 - o a reduction of at least 25 per cent of fares for trains, trams, ships and coach services on fixed routes;
- the ratio of buses meeting the technical regulations on accessible transportation must be assured for each period up to 2015, 2020 and 2025, under the regulations of provincial People's Committees;
- at least one carriage of each passenger train on the north-south route must meet the technical regulations on accessible transportation by 2015, and by 2020 at least one carriage of each passenger train on all routes should meet technical regulations on accessible transportation.

Decision No. 1019/QĐ-TTg dated 5 August 2012 on approving the plan to support the disabled in the period 2012-2020, specified some objectives on accessible transportation to be as follows:

Period 2012-2015

- at least 50 per cent of the works for accessible transportation should be completed for all offices of state agencies; stations, bus stations and berths; medical clinics or hospitals; educational, vocational, cultural, physical training centres and sport facilities; and apartment blocks have to ensure accessible conditions for the disabled;
- at least 50 per cent of people with disabilities who wish to participate in traffic should be able to use vehicles that meet accessibility technical standards or provide equivalent assistance.

Period 2016-2020

- 100 per cent of the works are on the offices of state agencies; stations, bus stations and berths; medical clinics or hospitals; educational, vocational, cultural, physical training centres and sport facilities; and apartment blocks that must ensure accessible conditions for the disabled;
- 80 per cent of people with disabilities who wish to participate in traffic should be able to use vehicles that meet accessibility technical standards or provide equivalent assistance.

The Ministry of Transport issued Circular No. 39/2012/TT-BGTVT dated 24 September 2012 on guiding the implementation of national technical standards on traffic infrastructure supporting tools and policies for disabled people participating in public transport.

Accessible transport for the disabled has been implemented and had initial results, most clearly in aviation. For road traffic, the deployment of accessible transport is still slow. Persons with disabilities can only be involved in traffic on a number of urban bus routes developed in Ho Chi Minh City and Da Nang.

The Ministry of Transport instructed some of its departments and transport businesses in the city to renovate their vehicles (installation of lifting devices, anchors and seat belts, removable seats to create space for wheelchairs, etc.), to renovate some stations, stops, and parking lots (supplement information, signs, creating ramps for wheelchairs, etc.), and to train staff who support disabled passengers and operate equipment for disabled passengers.

Implementing the plan to assist people with disabilities in the period of 2006-2010, the Ministry of Transport also assigned the 1-5 automobile factories to be subsidiary units producing accessible buses for the disabled. The buses can accommodate 45 passengers and have arranged areas and safety structures for wheelchairs, as well elevators, hydraulic drives and automatic controls for wheelchair accessibility.

As of December 2015, there are a total of 323 accessible buses supporting the disabled, and around 30 per cent of the 457 bus terminals have accessible facilities that can be used by the disabled.

4.6.3. Conclusion

Urban transport, mainly in Ha Noi and Ho Chi Minh City, is currently very chaotic, even though the Government has focused on dealing with traffic jams in these two cities for years. Resolution number 16/2008/NQ-CP dated 31 July 2008 on steps to solve traffic congestion in Ha Noi and Ho Chi Minh City, and

Government Resolution number 88/NQ-CP dated 24 August 2011 on reinforcing the implementation of core solutions to ensure traffic safety and order, suggested many synchronous solutions which reduced traffic jams at certain stages. However, this situation will become worse in due course, and the Government, its ministries and local governments drastically need to carry out reactive solutions in conjunction with longer-term measures that will introduce fundamental changes.

Short-term solutions

- a) To organize the urban traffic system logically and scientifically, prioritizing road systems that serve a high volume of traffic commuting into and out of the cities and which as a result frequently suffer traffic jams;
- b) To immediately revise the current overall existing transport system and connect all means of transport from station to station, from terminal to station, to residential areas, etc., by means of transport; to resolutely rearrange routes, roads and sidewalks in cities in a scientific way, so as to add more parking spots in the city, prevent road and pavement encroachment to create parking areas and goods-selling spots, etc.;
- c) To rearrange the static traffic system in the area and to plan parking lot and spots for taxis to pick up customers, to avoid the current chaotic and spontaneous situation;
- d) To complete the elevated railway early, to contribute to reduced congestion;
- e) To stop licensing the construction of high-rise apartment blocks in urban districts. Such building investments should be made in suburban areas to form the “New Ha Noi” urban region;
- f) To regularly place police forces at traffic sites where congestion often occurs, and if there is a lack of human resources, make it possible to also use youth volunteers from universities.

Long-term, sustainable solutions to prevent traffic jams

- a) To plan the development of urban transport infrastructure:
 - to plan the construction of terminals and parking lots; promote the implementation of projects to build underground or multi-story parking lots; accelerate the implementation of urban transport works in accordance with planning; to only permit the construction of high-rise apartment buildings or service establishments if the area for motorcycles, motorbikes and automobiles is maintained as prescribed;
 - to build, renovate and expand radial axes, highways, belt roads, major urban axes, traffic junctions and urban railways; to expeditiously build the system of overpass bridges, pedestrian tunnels, and to reasonably redesign traffic flow at places with these traffic facilities; to upgrade and add traffic control equipment at intersections where congestion frequently occurs;
 - to modernize urban traffic control centres;
 - to carry out the overall inspection, addition and finalization of regulations on pavements and urban roads management; to set aside a place for motorbikes and motorcycles on large pavements, making sure not to obstruct traffic and to ensure enough space for pedestrians.
- b) To plan and relocate the head offices of state administrative agencies, universities, colleges, vocational training centres and hospitals away of the city centre;
- c) To propagate and popularize traffic laws, organize “traffic culture” and “urban civilization” promotion campaigns, and increase law enforcement for traffic safety order and urban order:
 - the police forces of the two cities should apply appropriate traffic control methods, improve the capacity of the city traffic control centre to detect traffic jams early in order to work out appropriate measures in time, and strictly punish actions that violate laws and lead to traffic jams;
 - to review, add to and adjust plans on the dividing and separating of lanes for each type of means of transport, and complete the plans for the organization of traffic in the inner city; to install a complete system of traffic signs, traffic lights, dividers;

- to immediately rectify the management and use of pavements; handle in a strict way organizations and individuals illegally encroaching on roads and pavements for their own purposes, and administrations at all levels that permit the use of roads and pavements in contravention of regulations.
- d) To promote the development of public passenger transport, limit personal vehicles participating in traffic, and rationally and effectively organize traffic:
- to continue to maintain the subsidy policy for public transportation by buses;
 - to research and increase investment in roads with dedicated bus lanes;
 - to develop a roadmap to apply car charges and to regulate the prohibition of motorcycles, motorbikes and automobiles from circulating on certain streets at certain hours in accordance with the specific conditions of each area in the city.

5. Evaluation of road traffic safety policy scenarios

An evaluation of the road traffic safety policy scenario after five years of implementing the “National Road Traffic Safety Strategy by 2020 with a Vision to 2030” is needed to assess the impact of policy on the road traffic safety order situation. It will help in policy adjustment and allow learning from the experience gained in management and implementation. The consultant team will make qualitative comments.

The number of people who died because of road traffic accidents in 2016 was 4,383 lower than the number in 2008. The two years that saw the most reduction compared to their preceding year were 2008 and 2011 (by 12.2 per cent and 16.7 per cent, respectively). The greater reductions in these years can be attributed to the impact of Resolution 32/2007/NQ-CP and Government Resolution 88/NQ-CP. These resolutions focus on implementing urgent issues related to road traffic safety order. It is important that since 2008, the number of people dying as a result of road traffic accidents continues to decrease year on year (except for in 2013, when the number of deaths increased by 39 people in comparison with 2012, up by 0.4 per cent). Despite the great reduction seen in some years, the fact that there was little reduction in others means that the goal of reducing the number of people who die in traffic accidents by 5 to 10 per cent each year has not been met. However, the downward trend seen over many years has proved that the policy on road traffic safety is effective and on track.

In general, the policy on road traffic safety is comprehensive, and includes: institutions; state management organizations; coordinated organization between state management agencies; a traffic accident database; improvements in transport infrastructure and management of traffic means; registration of motorized means of transport; enforcement; education; driver training; human resources; traffic safety financing; accident response measures; implementation, etc. The policies are built on the basis of analysis of the current situation and lessons learnt from both successful and unsuccessful experiences in Viet Nam and around the world.

Policies and goals

- to reduce the number of people who die in road traffic accidents by 5 to 10 per cent each year;
- 100 per cent of all educational levels must be taught about the law on traffic order and safety, while 85 per cent of traffic participants are provided knowledge of the law on traffic order and safety;
- to invest in the construction and development of large-capacity public transport such as elevated railways, subways, buses and rapid buses in Ha Noi and Ho Chi Minh City to meet 25 to 30 per cent of people’s commuting needs;
- to construct modern traffic control centres in Grade I cities;
- 50 per cent of highways and national highways are part of the system of emergency medical stations and road traffic rescue centres. Also, to complete the 115 emergency stations.

Fields of work

Specific tasks have been earmarked for traffic safety education and propagation, traffic organizations and traffic institutions, policies and infrastructure, law enforcement, means of transport and drivers, and traffic accident rescue and emergency medical services. The implementation schedule has been defined.

The development of policies on road traffic safety has received the attention of the Government, which formulated appropriate policies that have recently been seen to be effective and are highly appreciated in society. However, the following issues remain:

- due to limited resources, priority should be given to short-term, low-cost, high-efficiency solutions, such as: strict implementation of seatbelt wearing; strict punishment of motorbike drivers who use alcohol, drivers of vehicles using mobile phones, those who are distracted while driving, fatigued drivers of container trucks, etc. In addition, some other issues also need to be given priority, such as completing the database and improving the traffic safety coordination mechanism;

- it might be difficult to identify resources for implementing the entire traffic safety policy, but the resources for implementing prioritized solutions should be identified;
- it is necessary to develop a five-year plan to further concretize the policies and annual plans in detail for each activity, campaign, allocated funding and the tasks of every agency;
- the need to place emphasis on evaluation activities, including the evaluation of campaigns, the assessment of the annual plan and also of the phase plan. Evaluation programmes should be conducted by agencies with expertise in public policy appraisal.

6. Conclusions and suggestions

On the basis of the conducted analysis, each section has its own proposed specific solutions. To conclude the assessment, the team recommends the following specific tasks:

- the Government will soon consider the work of the national traffic safety committee and the traffic safety boards of municipalities, and should better define the roles and positions of these agencies in the state apparatus, especially their authorities in checking, carrying out, reporting on and evaluating activities. These agencies are also the focal points for organizing high-level human resources training in the field of traffic safety.
- to assess the implementation of the National Road Traffic Safety Strategy by 2020 with a Vision to 2030.
- in 2017 and 2018: to organize campaigns to implement solutions for the handling of motorcyclists and motorbike users who drink drive, correcting those who do not use seatbelts in cars or who use telephones while driving vehicles; of these, the main emphasis will be on the campaign to handle motorcyclists who drink drive.
- to promulgate Government-level documents on the traffic safety database and traffic safety data sharing.

This assessment of road traffic safety in Viet Nam is considered to be for the period from 2005 to 2016. The content of the assessment has been developed at the request of UNESCAP and based on the approved proposal.

In addition to the general introduction on population and demographics, economic development, climate, weather, and energy for transportation in Viet Nam, the report contains a thorough review of road traffic safety trends over the past 10 years such as: the legal framework for road traffic safety; the institutional structure of traffic safety; the statistics of the road network and means of transport; and the absolute and relative criteria of road traffic safety and road traffic safety assessment according to the five pillar approach of the Global Decade of Action for Road Safety (Traffic Safety Management, Road Safety and Road Networks, Safe Road Vehicles, Safe Traffic Participants, and Post-Traffic Accident Response).

In conjunction with the task of evaluating the road traffic safety situation in Viet Nam, the project has two in-depth studies on amending and supplementing the 2008 Road Traffic Law and on traffic safety assessment.

With the help of the relevant agencies of Viet Nam that deal with traffic safety – and especially under the direction of the focal point of Viet Nam, the Department of Traffic Safety of the Ministry of Transport – the evaluation has been carried out in accordance with project progress.

7. Appendix

Annex I: A situation assessment of drink driving

Introduction

The goal of this assessment was to identify and describe the current situation of drink driving in Viet Nam, and to include data, the extent and nature of the problem, stakeholders and their roles, institutional capacity, and interventions implemented thus far.

The research problem addressed in this assessment is how to understand and most effectively address drinking and driving in Viet Nam.

Drinking alcohol is part of the culture in Viet Nam, so this assessment is timely and relevant. The Vietnamese drink at all major events, such as the Vietnamese lunar new year, weddings, funerals, reunions, and remembrance days, as well as for business-related events and celebrations. Refusing an offered drink is considered unfriendly, or even rude.

Background and context

Viet Nam is a long, narrow country in Southeast Asia with coastal beaches and deltas, and a mountainous interior. Its population of 92 million⁵ places it among the 15 most populous countries in the world, although per capita income is in the bottom third globally.

Increasingly, road crashes are becoming a serious social problem, and drink driving is a high-risk factor. The Government of Viet Nam has been giving increasing attention to road crashes in general, and to drink driving in particular.

For the past several years, Viet Nam has been implementing the Beer, Wine and Spirits Producers' Commitments to Reduce Harmful Drinking initiative. A 2014 independent evaluation found an accelerated change in the behaviour of local drivers, and an increase in awareness of road safety risks in the implementing provinces. Different provincial governments are also now working together to develop shared plans for drink-driving and road-safety campaigns.

Research strategy

The International Alliance for Responsible Drinking (IARD) Situation Assessment Guidelines was used as a guide for semi-structured interviews with key national experts. Data were also collected from additional background materials.

Findings

Drink driving is one of the most serious social problems in Viet Nam. The Government of Viet Nam has made drink driving a top priority to help reduce traffic crashes. The Vietnamese people have now started to reconsider the way they drink alcohol and have a tendency to drink responsibly. However, everything is at a starting point; changing behaviour takes time and sustainable effort. Viet Nam needs continued support to help change the socially harmful habit of drink driving.

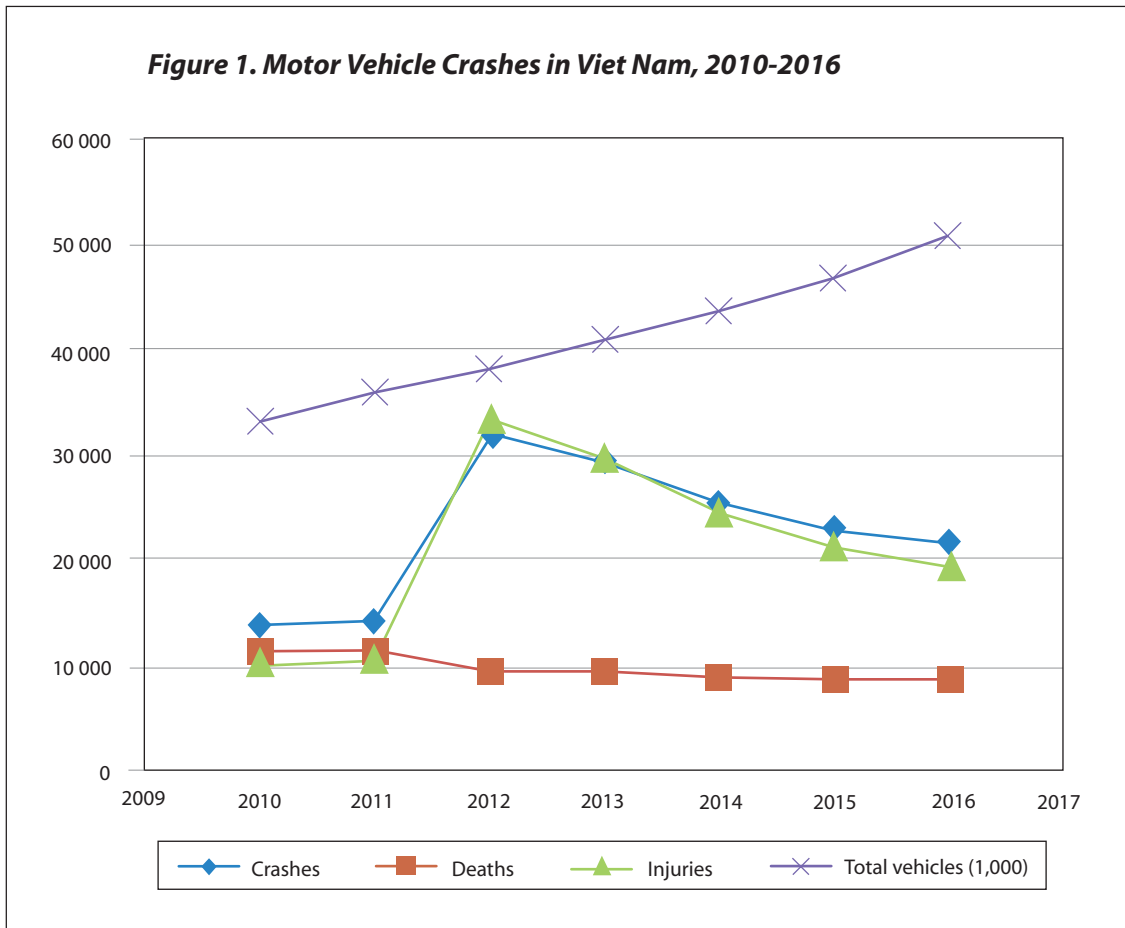
Available data

The Ministry of Transport (MOT) collects data on registered vehicles and individual driving licenses. Data sources on traffic safety and vehicle crashes related to drink driving come mainly from the police, national transportation authorities, and health care agencies. Official data are published by the National Traffic Safety Committee (NTSC) of Viet Nam. Published on the 16th of each month, these data include the number of crashes, deaths and injuries from the prior month.

⁵ <http://data.worldbank.org/country/vietnam>.

The accident reports of the NTSC rely on data collected by the police. Data are first collected at crash sites from the police in the region. These data are reported to the district police to be summarized. In turn, provincial police then summarize data received from the district police. Finally, the Ministry of Public Security’s (MOPS) Traffic Police Department (also referred to as the MOPS C67) summarize the data submitted by the provincial police to develop the national data.

Every month, the MOPS C67 sends the national monthly statistics (numbers of deaths, injuries and crashes) to the NTSC. At the same time, the NTSC also receives reports from each of their 63 Provincial Traffic Safety Councils (PTSCs), whose statistics are provided by the provincial police departments.



Source: NTSC, 2017.

In addition to the NTSC, the Viet Nam Ministry of Health (MOH) collects crash data through their national health system. The MOH requires that hospitals under their jurisdiction take the Blood Alcohol Concentration (BAC) levels of traffic crash victims admitted to hospitals. However, this regulation has been poorly implemented due to a local lack of blood-testing kits.

Data from the MOH regarding traffic safety and the number of drink-driving crashes always show much higher rates than the official data published by the NTSC. Reasons for this include: (1) data collection criteria being different between agencies; (2) the duplication of data in the MOH system; and (3) for insurance purposes, labour-related victims are reported as having been in “traffic accidents” at hospital emergency departments. While hospitals count up to 30 days after a crash before reporting on the cause of death, the police only collect death figures at the crash site or up to 24 hours after hospital admission.

In addition to this, many crashes are reported at district level, then again at the provincial level, and perhaps even again at central hospitals, when seriously injured patients are transferred to higher-level hospitals for more specialized treatment. It would appear as well that the number of reported injuries might not be exactly factual; due to the complicated procedures of establishing an examining board to conclude how the

percentage of each injury will be classified (as non-serious or serious), most non-serious injuries will not be reported.

At the time of this report, the MOPS was drafting a decree on traffic safety statistics. Also at the time of this report, a workshop was conducted to develop a national data system of statistical criteria with government agencies that collect data. The police will be the key agency for a data sharing system that will link the data provided to the health care, transportation and insurance systems.

In early 2017, the relevant data in Viet Nam from the MOPS, the MOH, and the MOT were not completely linked to each other. The police and transportation authorities share their data to some extent, but the police and medical agencies do not. Data from the Directorate for Roads of Viet Nam (DRVN) and the Viet Nam Register (VR) are shared fully with the police, but police data conversely are not shared with these two entities.

Data on drink driving are quite limited. Breath alcohol concentration (BrAC) testing units are provided to only a small number of district police stations (some cities and urban areas only, and not rural or mountainous areas). Blood Alcohol Concentration (BAC) testing kits are provided to only a small number of provincial hospitals. These deficiencies lead to underestimates of data related to drink driving. For example, during the current Tet holiday (the Vietnamese lunar new year, late January to early February 2017, and the country's most important annual celebration), Ninh Binh province reported no traffic crashes, while the media reported two deaths. Official data from the NTSC state that 3 to 3.5 per cent of traffic crashes are due to drink driving. Nguyen Van Thach, the Director General of the Transport Safety Department of the MOT, personally thinks that this figure has been underestimated.

Official statistics from the MOPS C67 show that from 2013 to mid 2016, there were 389,530 recorded BrAC-level violators fined (2013: 86,256 cases; 2014: 126,630 cases; 2015: 139,684 cases). In the first quarter of 2016, some 36,651 BrAC violators were fined. Automobile drivers make up 2,883 of the cases (7.86 per cent), while motorcycle drivers make up 33,768 cases (92.14 per cent). Some 25,370 driving licences were retained by police; in addition, they confiscated 2,883 cars and 12,973 motorcycles. The total penalties assessed came to 110.5 billion Vietnamese dong (VND) (over \$5 million).

MOPS C67 statistics citing drink driving as the cause of traffic crashes reveal:

- for 2013: 30,874 crashes, in which 1,154 cases resulted from drink driving (3.7 per cent);
- for 2014: 25,238 crashes, in which 883 cases resulted from drink driving (3.5 per cent);
- for 2015: 23,217 crashes, in which 589 cases resulted from drink driving (2.75 per cent);
- for Q1, 2016: 4,938 crashes, in which 89 cases resulted from drink driving (1.75 per cent).

Source: Ministry of Public Security, Traffic Police Department C67, 2016.

Beverage Production

The production of beer has steadily risen in Viet Nam in recent years. Spirit and wine production, on the other hand, has risen and fallen over the same period, while the production of non-alcoholic beverages has seen more-or-less steady growth.

Stakeholders and roles

The issues of traffic safety and drink driving are of concern to many agencies (both national and international). In Viet Nam, the National Traffic Safety Committee is the coordinating government body; members include the MOT, MOPS, and MOH, and additional ministries such MOET, the Ministry of Culture and Information (MOCI), and MOF. Also included are political and social organizations such as the Viet Nam Youth Union. The most active NTSC members on the issues of road safety and drink driving are the MOT, DRVN, MOPS, C67, MOCI, Viet Nam Television (VTV), MOET, and the Viet Nam Youth Union.

At the provincial level, each Provincial Traffic Safety Council (PTSC) is the coordinating agency; members are relevant provincial departments and organizations. However, coordination between the NTSC and its members, and the PTSC and its members, is not yet strong.

Figure 2. Production of Beverages in Viet Nam

	Production (millions of litres)						Average increase 2008-2015 (per cent/year)
	2008	2010	2012	2013	2014	2015	
Beer	1 847	2 420	2 979	3 190	3 247	3 400	9
Spirits and wine	343.47	360.27	343.20	328.60	312.40	325	-0.79
Non-alcoholic beverages	1 987	3 220.75	3 943.4	4 308	4 901	4 800	13.4

Source: Viet Nam General Department of Statistics.

Each year, the NTSC signs a National Drink-Driving Plan and distributes it to their members. From this national plan, each member will develop their own, separate drink-driving plan. However, the coordination of the NTSC is weak, so members implement their own plans on their own schedules; the combination of enforcement and education is therefore weak. Similar situations are found at provincial levels.

International organizations such as the World Health Organization (WHO), World Bank (WB), Asian Development Bank (ADB), the Japan International Cooperation Agency (JICA), and foreign non-governmental organizations (NGOs) such as IARD and the Global Road Safety Partnership (GRSP), are the most active partners with the NTSC in combating drink driving.

Relevant international projects include:

- a WB loan of \$9.1 million to improve the capacity of the traffic police, and to develop a database system for road-traffic crashes;
- a Road Safety for 10 Countries (RS10) programme funded by the Bloomberg Family Foundation, implemented by WHO and GRSP in Ha Nam, Ninh Binh, Vinh Phuc, and Quang Ninh provinces;
- Global Actions on Harmful Drinking, funded by international alcohol industry members, implemented by ICAP (now IARD) in the cities and provinces of Da Nang, Thanh Hoa, Nghe An, Dac Lac, Khanh Hoa, and Ho Chi Minh City;
- Safe Routes for Youth, funded by Pernod Ricard, implemented by Handicap International (HI) in Binh Thuan and Bac Giang provinces.

With the central coordination of the NTSC, each NTSC international partner has chosen a different geographical region for their respective projects: WHO is in the north, and IARD is in the central and southern regions and along the National Highways. There is therefore no duplication of efforts.

The Viet Nam Beer-Alcohol-Beverage Association (VBA), registered under the Ministry of Industry and Trade (MOIT), through its hosted Viet Nam Association of Responsible Drinking (VARD) programme, has recently been fostering more and more collaboration with the NTSC to implement several drink driving activities, such as the provision of breathalyzers, the Seventh Film Festival 2016 (with a drink-driving theme), and also activities on road safety with responsible retailers.

To date there has been no study published on the costs of drink-driving vehicle crashes in Viet Nam. The IARD in 2015 carried out a national study on the production, sale, and use of unrecorded alcohol (SURA project). The findings and recommendations had not been published at the time of this report.

Institutional capacity

There are a number of regulations in Viet Nam concerning drink driving, although enforcement activities vary, and the relevant equipment is not available in all cases. Laws and policies continue to be developed and revised by different governmental departments.

Legislation and enforcement

The Viet Nam Road Traffic Law 2008 stipulates a blood alcohol level of zero for automobile drivers; for motorcycle drivers it lowered the legal BAC to 50 mg/100 ml of blood, or BrAC to 0.25mg/1 litre of breath (compared to the 2001 law of 80 mg/100 ml of blood, or 40 mg/1 litre of breath). Since 2016, several

workshops have been held to discuss the revisions of the regulated BAC and BrAC for both automobile and motorcycle drivers; a level of 30 mg/100 ml blood levels has been proposed for all drivers, both automobile and motorcycle.

Decree 46/2016/ND-CP, dated 26 May 2016, and valid as of 1 August 2016 (which replaces Decree 171/2013/ND-CP dated 13 November 2013 and Decree 107/2014/ND-CP dated 17 November 2014), assigns administrative penalties of up to VND 18 million (approximately \$900) and a 6-month confiscation of the vehicle for drink driving, which is a much more serious penalty than previous decrees. Decree 46 also regulates different penalties for motorcycle and automobile drivers, as well as different penalties for different BrAC or BAC levels.

As of 1 January 2014 (per Decree 171/2013/ND-CP, dated 13 November 2013), along with the traffic police, traffic inspectors have also been able to test the BrAC of professional drivers, and to fine violators at bus stations and checkpoints. This decree resulted from the Global Actions' pilot professional drivers project in Dac Lac, Khanh Hoa, and Ho Chi Minh City, developed by ICAP/IARD.

In 2014, the Global Actions and RS10 campaign teams realized a long-term goal of ensuring the sustainability of their pilot projects in eight provinces, which were aimed at conforming local drink-driving enforcement procedures to international standards of practice. The pilot procedures were signed into law and adopted as official procedures in all 63 provinces nationwide.

Prior to this intervention, procedures at checkpoints were time-consuming and tedious; it could take up to 20 minutes to complete the protocols for testing just one driver. The pilot projects introduced international best practice for checkpoints and breathalyzer testing, such as conducting breathalyzer tests inside the car, and letting drivers who tested at zero continue on their way immediately. The procedures reduced the time required to test a driver to one or two minutes, which made conducting the checkpoints less of a burden for police officers. Evaluation results showed that checkpoint breath testing became more feasible and efficient, because the police could test more people and the enforcement was visible to many more passers-by. However, an international good practice procedure requires at least eight police officers for one checkpoint, which presents a capacity challenge for many district police forces.

As a result, at the time of this report, the police in each province could decide whether or not to implement international BrAC testing procedures, depending on their available resources (such as personnel or breathalyzers).

Policies

The policies addressing the development of the Vietnamese alcohol industry have differed through the decades.

1954-1975: The policy aim was to produce and provide products to meet the beverage needs of the Vietnamese people. During this period, the government did not stipulate a separate policy to develop the alcohol industry, but only to develop the beverage industry in general. All the activities of investment, production and sales for all industry members were under a central set of plans and management. These plans included investment, production, materials purchases, sales, salaries, and benefits division.

1975-2000: The aim of the policy was to produce and provide products to meet the beverage needs of the Vietnamese people. The policy was the same as the one for the period 1954-1975.

2002-2007: The policy aim was also to produce and provide products to meet the beverage needs of the Vietnamese people. However, during this period, the Vietnamese economy was open and the Government did not interfere with businesses. The policy to develop the alcohol industry was clearly defined in Decision 28/2002/QD-TTg (6 February 2002), a general plan to develop the alcohol and beverage industry toward 2010.

2007-2015: Because Viet Nam participated in the World Trade Organization (WTO) and because of WHO's strong requirements for public health, the policy to develop the industry was revised. The aims are to:

- build the beer, spirits and wine industry as an important economic industry, producing more products to meet both domestic and export needs, and contributing more to the state budget; the beer, spirits

and wine produced should be of high quality, and they have to be safe, have diverse packages with good branding, and should be competitive regionally as well as globally;

- limit the production and sale of spirits and wine;
- prevent harm from abuse of alcohol.

The relevant policies are:

- Plan 2435/QD-BCT, dated 21 May 2009, approving the plan to develop the beer, spirit and wine, and beverage industry toward 2015, with a view toward 2025;
- Decree 40/2008/ND-CP, dated 7 April 2008, on the production and sales of spirits and wine; Circular 10/2008/TT-BCT, dated 25 July 2008, on guiding some articles under Decree 40/2008/ND-CP;
- Decree 94/2012/ND-CP, dated 12 November 2012, on the production and sales of spirits and wine; Circular 39/2012/TT-BCT, dated 20 December 2012, detailing regulations on some articles of Decree 94/2012/ND-CP; and Circular 60/2014/ND-CP, dated 27 December 2014, to replace Circular 39/2012/TT-BCT;
- Decision 244/QD-TTg, dated 12 February 2014, by the Prime Minister on National Alcohol Policy, to prevent the harm from abusing alcohol toward 2020.
- a new decree to replace Decree 94 was ready to be signed by the Prime Minister in 2017.
- the drafting of a Law on Prevention of Alcohol Harm has been undertaken by the MOH.

The law prohibits retailers from selling alcohol to children under the age of 16. However, the legal purchase age is rarely enforced; it is very easy for children to buy alcohol for their parents. Sixteen is also the minimum age to acquire a motorcycle driving license.

From 2012 to 2016, MOPS C67 provided 2,220 breathalyzers to their provincial traffic police. In addition, some provincial police have also procured their own equipment in very small numbers. Also, through their different international projects of RS10, Global Actions on Harmful Drinking, and the Bloomberg Initiative for Global Road Safety (BIGRS), the WHO, IARD and GRSP have provided 110, 24, and 52 breathalyzers, respectively, to provincial police and traffic inspectors.⁶

Interventions

Awareness and education

Traffic safety is not yet a mandatory subject at all levels of Vietnamese schools. Instead, road-safety lessons are merged into other subjects, such as the natural and social sciences (primary level) and Good Citizen Education (secondary and high school levels), or into extra-curricular activities such as the National Traffic Safety Month school event (in September at high school and university levels). In fact, for many high school students, the only opportunity they will have to experience drink-driving education is in the years when the school selects traffic safety as the theme of the year.

Some projects aimed specifically at youth include:

- Safe Routes for Youth, sponsored by Pernod Ricard, and implemented by HI;
- Annual Responsible Day, sponsored by Pernod Ricard, and implemented by IARD;
- No Underage Drinking, sponsored by Diageo, Moët Hennessy, and Pernod Ricard, and implemented by VARD;
- Global Actions on Harmful Drinking, sponsored by the international alcohol beverage industry, and implemented by IARD (one of the groups of focus is Da Nang University students).

Three communications programmes supported the enforcement of drink driving laws:

- RS10, implemented by WHO and GRSP (2010-2015);
- Global Actions on Harmful Drinking, implemented by IARD (2010-2015);
- Bloomberg Initiative for Global Road Safety (2016-2017).

⁶ Sources: MOPS C67, WHO, IARD, GRSP, 2016.

For the RS10 and the Global Actions programmes, enforcement activities are well-integrated with education and advertising activities.

Annually, drink driving receives much greater emphasis from safety officials, regional officials, NGOs, and others, in both public awareness and enforcement, before and during the calendar new year (December and January) and the Vietnamese lunar new year (January and February).

Nationally since 2014, the police have been allowed to implement BrAC roadside testing, either by traditional or international enforcement procedures, depending on the respective province's capability and resources. However, this enforcement is limited and not yet effective. Police officials indicate many difficulties in testing BrAC, such as the lack of breathalyzers, lack of disposable testing tubes (which must be imported), lack of human resources, and traffic jams in cities. Even in those cases when some BrAC testing is carried out under the approved campaign, the necessary coordination between relevant agencies is rare.

Professional bus drivers are responsible not only for the lives of all passengers on their buses but also for the safety of many other road users. Current legislation requires that each transportation company have a division responsible for managing the safety of their professional drivers. However, in reality, these divisions do not function properly; the divisions do not even exist in many transportation companies. It would be effective to invest in this area in order to develop best practices in the transportation field; successful models can then be rolled out further.

At present, only IARD's Global Actions has implemented a drink-driving programme with professional drivers as the target group. Drivers are trained on the dangers of drink driving and on the relevant, current laws. Training also calls for no drink driving while on duty.

In the future, it would be much more effective to work also with provincial transport departments to establish and maintain the safety divisions in each transportation company; targeted messaging about prohibition of drink driving and drug driving among company professional drivers would be much easier.

Community-based initiatives

Recently in Bac Lieu province, the provincial traffic safety committee promoted the model of a "Traffic Safety Business Restaurant." Awareness banners are hung in the restaurant, and clients are taxied home in case they become drunk. Other events on drink driving are also held in the province by VARD and Handicap International.

Research and evaluation

There were intensive campaigns organized by ICAP/IARD under the Global Actions initiative, and by WHO under the RS10 programme, in which qualitative and quantitative evaluations and assessments were carried out before, during, and after campaigns.

Conclusions and recommendations

Over the past six years, several aid programmes have been strongly supported by the Government of Viet Nam. Both technical and financial assistance have been shown to be effective as "seeds" for combating drink driving in the country. Model programmes and good practices such as Global Actions are available for roll-out and expansion. Revisions to the BAC and BrAC limits have been completed, and enforcement procedures for drink driving have been put into regulations.

The different drink driving projects have increased knowledge and changed the beliefs and attitudes of Vietnamese drivers, but this effect seems unsustainable. If efforts stopped at this point, all the knowledge, attitudes, and especially the behaviours that have been affected could change, leading to a reversion to old habits that would become even harder to break.

International procedures to enforce drink-driving prevention are in place in Viet Nam. However, not many provinces are willing to (or can) afford their implementation. Maintaining the technical and funding support to the provinces (which have been supported by the Global Actions initiative or by the RS10 programme) will help to further promote drink-driving enforcement.

- NTSC has done well in coordinating international technical and financial support for the Global Actions on Harmful Drinking and RS10 programmes. If support could be maintained to build the capacity of more provincial traffic councils, the provinces could develop and maintain a routine of implementing drink driving initiatives, and the combined provincial efforts of the different entities active in their provinces could be more effective.
- Enhance the enforcement practices of the traffic police and the transport inspectors in selected provinces to comply with international standards.
- Traffic police in some provinces, and transport inspectors in other provinces, have been trained to enforce drink driving in line with international procedures; efforts would be more effective if these provinces continued to receive support so that traffic police and transport inspectors can remain well trained and able to effectively coordinate drink driving enforcement campaigns.
- Strengthen the safety management divisions of transportation companies in selected provinces.
- Safe driving divisions should be created and enforced at all transportation companies through the provincial departments of transport, and best practices should be developed.
- Various “best practices” interventions should be sustained and expanded to facilitate more rapid behaviour change.

Author: Nguyen, Lan Huong, International Alliance for Responsible Drinking (IARD), Ha Noi, Viet Nam.

List of interviewees

Expert provided by UNECE

Mr. Nguyen Van Thach, Director General
Transport Safety Department
Ministry of Transport

Other National Experts

Mr. Bui Huynh Long, Former Chief Secretary
National Traffic Safety Committee (NTSC)

Mr. Tran Quang Binh, Director
Transportation Department
Directorate for Roads of Viet Nam
Ministry of Transport

Mr. Nguyen Trong Thai, Chief Secretary
National Traffic Safety Committee (NTSC)

Viet Nam Road Traffic Law 2008 (relevant articles)

Article 8. The following actions are sanctioned by the law:

8.8: Driving a car or similar vehicles while [any level of] BAC or BrAC is found.

Driving a motorcycle or similar vehicle while BAC is over 50 mg/100 ml of blood, or BrAC is over 0.25 mg/1 litre of breath.

Article 88: Effectiveness

1. This Road Traffic Law is effective from 1 July 2009.
2. This Road Traffic Law replaces the Road Traffic Law dated 29 June 2001.

Available evaluation reports:

ICAP/IARD Global Actions on Harmful Drinking initiative
WHO Road Safety in 10 Countries programme
Global Actions in Harmful Drinking in Viet Nam
Project End-Line Report. Initiatives for Prevention of Drink Driving in Viet Nam, Phase 2

Annex 2

Additional data and information

Population of Viet Nam, 2005-2016 (million people)

Year	Population	Year	Population
2005	82 392	2011	87 860
2006	83 311	2012	88 089
2007	84 218	2013	89 759
2008	85 118	2014	90 738
2009	86 025	2015	91 713
2010	86 974	2016	92 700

Source: General Statistics Office.

Age structure – gender of the population of Viet Nam, 2014

Age group	Male	Female	Age group	Male	Female
0-4	8.89	7.77	45-49	6.35	6.42
5-9	8.18	7.33	50-54	5.51	5.97
10-14	7.71	7.08	55-59	4.23	4.92
15-19	8.17	7.59	60-64	2.74	3.35
20-24	10.03	9.45	65-69	1.89	2.33
25-29	9.33	9.01	70-74	1.34	1.88
30-34	8.53	8.37	74-79	1.07	1.65
35-39	7.52	7.33	80+	1.4	2.61
40-44	7.11	6.94			

Source: General Statistics Office.

Traffic accidents by vehicle type

	No. of accidents										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Road	14 161	13 985	12 065	11 758	13 133	43 786	31 097	29 108	25 068	22 026	21 094
Rail	292	379	436	468	480	533	444	165	165	261	360
Inland waterway	215	213	256	197	178	169	114	82	73	94	114
Maritime	59	47	59	69	42	60	33	30	16	23	21
Total	14 727	14 624	12 816	12 492	13 833	44 548	31 688	29 385	25 322	22 404	21 589
	No. of fatalities										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Road	12 373	12 800	11 243	11 094	11 029	10 950	9 117	9 156	8 788	8 442	8 417
Rail	136	169	190	226	226	271	219	149	139	214	191
Inland waterway	210	165	143	181	132	152	99	45	59	71	72
Maritime	38	16	18	15	19	22	11	19	10	1	5
Total	12 757	13 150	11 594	11 516	11 406	11 395	9 446	9 369	8 996	8 728	8 685

No. of injuries											
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Road	11 097	10 266	7 771	7 559	9 744	48 356	33 096	29 441	24 365	21 072	19 280
Rail	158	237	260	324	281	353	299	48	43	86	229
Inland waterway	18	27	28	27	18	23	12	11	9	13	16
Maritime	15	16	5	4	16	2	4	0	0	3	0
Total	11 288	10 546	8 064	7 914	10 059	48 734	33 411	29 500	24 417	21 174	19 252

Source: NTSC.

Traffic accidents in provinces, 2015

No.	Province	No. of accidents			No. of fatalities			No. of injuries		
		2015	increase/ decrease over 2014		2015	increase/ decrease over 2014		2015	increase/ decrease over 2014	
			+/-	per cent		+/-	per cent		+/-	per cent
1	TAY NINH	200	-43	-17.7	90	-25	-21.7	216	-6	-2.7
2	BAC LIEU	56	-41	-42.3	50	-12	-19.4	29	-51	-63.8
3	T. QUANG	79	-23	-22.5	51	-12	-19.0	65	-15	-18.8
4	NINH BINH	193	-16	-7.7	56	-13	-18.8	155	-7	-4.3
5	T. GIANG	378	-53	-12.3	190	-43	-18.5	296	-93	-23.9
6	LAO CAI	151	-52	-25.6	74	-16	-17.8	159	-129	-44.8
7	QUANG TRI	205	-57	-21.8	115	-24	-17.3	177	-109	-38.1
8	LONG AN	355	-56	-13.6	184	-38	-17.1	354	-99	-21.9
9	CAO BANG	185	-21	-10.2	46	-9	-16.4	206	-60	-22.6
10	DONG NAI	457	-39	-7.9	347	-65	-15.8	305	-26	-7.9
11	SON LA	158	-41	-20.6	89	-16	-15.2	139	-38	-21.5
12	DAK NONG	55	-12	-17.9	65	-11	-14.5	22	-7	-24.1
13	K. HOA	191	-40	-17.3	158	-26	-14.1	96	-44	-31.4
14	LANG SON	63	-15	-19.2	64	-10	-13.5	36	-7	-16.3
15	HA GIANG	57	-7	-10.9	46	-7	-13.2	54	-3	-5.3
16	N. THUAN	357	-19	-5.1	71	-9	-11.3	419	-46	-9.9
17	B. THUAN	662	-72	-9.8	221	-28	-11.2	616	-3	-0.5
18	Q. BINH	258	-56	-17.8	119	-14	-10.5	241	-40	-14.2
19	TTHUE	542	-293	-35.1	150	-16	-9.6	533	-288	-35.1
20	HOA BINH	110	-4	-3.5	82	-7	-7.9	92	0	0.0
21	LAM DONG	227	-19	-7.7	136	-11	-7.5	183	-36	-16.4
22	HA NAM	155	-11	-6.6	92	-7	-7.1	93	-7	-7.0
23	HAU GIANG	83	-10	-10.8	53	-4	-7.0	52	-4	-7.1
24	B. PHUOC	319	-34	-9.6	165	-12	-6.8	356	-17	-4.6
25	Q. NAM	274	-19	-6.5	171	-12	-6.6	265	-26	-8.9
26	T. NGUYEN	185	-53	-22.3	100	-7	-6.5	150	-73	-3.7
27	TH. HOA	589	-41	-6.5	179	-12	-6.3	485	-11	-2.2
28	S. TRANG	226	-61	-21.3	106	-7	-6.2	273	-125	-31.4

No.	Province	No. of accidents			No. of fatalities			No. of injuries		
		2015	increase/ decrease over 2014		2015	increase/ decrease over 2014		2015	increase/ decrease over 2014	
			+/-	per cent		+/-	per cent		+/-	per cent
29	BINH DINH	402	-108	-21.2	199	-13	-6.1	333	-168	-33.5
30	DAKLAK	464	-52	-10.1	247	-16	-6.1	445	-146	-24.7
31	B. GIANG	265	-46	-14.8	109	-7	-6.0	230	-42	-15.4
32	V. PHUC	47	-3	-6.0	37	-2	-5.1	21	-2	-8.7
33	BAC NINH	122	-7	-5.4	94	-5	-5.1	50	-3	-5.7
34	BEN TRE	312	-125	-28.6	197	-10	-4.8	220	-185	-45.7
35	KONTUM	86	-18	-17.3	80	-4	-4.8	68	-29	-29.9
36	HUNG YEN	173	-26	-13.1	126	-6	-4.5	121	-31	-20.4
37	THAI BINH	78	-3	-3.7	68	-3	-4.2	33	-1	-2.9
38	D. THAP	127	3	2.4	127	-5	-3.8	56	15	36.6
39	H. DUONG	159	-122	-43.4	162	-6	-3.6	143	-6	-4.0
40	Q. NINH	147	-8	-5.2	84	-3	-3.4	137	-7	-4.9
41	TP. HCM	3 712	-626	-14.4	703	-24	-3.3	3 302	-727	-18.0
42	PHU THQ	127	-9	-6.6	69	-2	-2.8	114	-3	-2.6
43	LAI CHAU	69	-12	-14.8	41	-1	-2.4	75	-17	-18.5
44	PHU YEN	302	-29	-8.8	131	-3	-2.2	302	-44	-12.7
45	H. PHONG	103	-2	-1.9	90	-2	-2.2	48	-9	-15.8
46	DA NANG	153	-21	-12.1	96	-2	-2.0	116	-38	-24.7
47	NGHE AN	320	2	0.6	208	-3	-1.4	241	-15	-5.9
48	HA NOI	1 697	-290	-14.6	603	-8	-1.3	1 431	-432	-23.2
49	CAN THO	77	-1	-1.3	80	-1	-1.2	32	-20	-38.5
50	V. LONG	403	-181	-31.0	146	-1	-0.7	455	-307	-40.3
51	BR-VT	871	-50	-5.4	258	0	0.0	1 093	-36	-3.2
52	B. DUONG	2 205	-531	-19.4	324	6	1.9	2 479	-899	-26.6
53	Q. NGAI	139	2	1.5	143	8	5.9	66	3	4.8
54	K. GIANG	318	-67	-17.4	143	10	7.5	314	-81	-20.5
55	HA TINH	179	5	2.9	148	11	8.0	132	0	0.0
56	DIEN BIEN	63	5	8.6	31	3	10.7	71	3	4.4
57	YEN BAI	224	-23	-9.3	65	8	14.0	269	-49	-15.4
58	NAM DINH	163	14	9.4	78	14	21.9	147	-1	-0.7
59	AN GIANG	115	5	4.5	110	21	23.6	90	5	5.9
60	GIA LAI	226	37	19.6	269	58	27.5	187	57	43.8
61	CA MAU	64	10	18.5	25	7	38.9	87	22	33.8
62	BAC KAN	67	-2	-2.9	30	9	42.9	82	-7	-7.9
63	TRA VINH	156	19	13.9	107	34	46.6	181	20	12.4

Source: NTSC.

Analysis of road traffic accidents, 2011-2016

Analysis of road traffic accidents		Year 2011		Year 2012		Year 2013		Year 2014		Year 2015		Year 2016	
		No.	Rate (per cent)	No.	Rate (per cent)	No.	Rate (per cent)	No.	Rate (per cent)	No.	Rate (per cent)	No.	Rate (per cent)
1	Accident causes	(Analysis of 26 754 accidents)		(Analysis of 40 820 accidents)		(Analysis of 16 097 accidents)		(Analysis of 16 554 accidents)		(Analysis of 19 604 accidents)		(Analysis of 18 025 accidents)	
	Speeding	3 620	13.5	3 850	9.5	1 846	11.50	1 792	10.50	1 730	8.82	1 728	9.35
	Going the wrong way, lane	8 312	31.1	4 807	11.9	4 530	28.25	4 769	27.97	5 190	26.47	4 678	25.30
	Incorrect overtaking	1 496	5.6	10 246	25.2	1 826	11.00	1 209	7.00	1 919	9.79	1 109	6.00
	Change of direction	3 221	12.0	2 573	6.4	1 284	8.00	1 350	8.00	1 734	8.85	1 647	8.91
	Not giving way	1 597	6.0	2 362	5.9	548	3.40	1 127	6.60	1 406	7.17	1 228	6.64
	Use of alcohol	1 169	4.4	2 831	5.9	600	3.74	757	4.44	781	3.98	645	3.49
	Non-compliance with road signals	283	1.1	1 821	4.5	65	0.40	178	1.04	235	1.20	208	1.12
	Incorrect driving process	948	3.5	2 084	5.2	718	4.48	1 112	6.52	1 308	6.67	1 107	5.99
	Incorrect standing and parking on roads	82	0.3	1 984	4.9	66	0.41	62	0.36	112	0.57	76	0.41
	Unlicensed driving	134	0.5	1 713	4.2	145	0.90	156	0.90	305	1.56	351	1.89
	Unsafe vehicle and equipment	161	0.6	1 869	4.6	233	1.45	63	0.37	72	0.37	44	0.23
	Road in bad condition	27	0.1	1 570	3.9	65	0.40	7	0.04	27	0.14	24	0.13
	Pedestrian error	839	3.1	1 535	3.8	577	3.60	581	3.41	596	3.04	619	3.35
	Other causes	4 865	18.2	1 575	3.9	3 594	22.40	3 391	19.90	4 189	21.40	4 561	24.70
2	Drivers causing accidents	(Analysis of 30 938 accidents)		(Analysis of 10 797 accidents)		(Analysis of 15 732 accidents)		(Analysis of 17 092 accidents)		(Analysis of 20 221 accidents)		(Analysis of 19 161 accidents)	
	Car driver	6 783	21.9	2 395	22.2	3 301	21.00	3 921	23.00	5 075	25.10	5 185	27.10
	Motorbike driver	22 485	72.6	6 427	59.5	11 613	73.82	12 098	70.78	13 945	68.96	12 782	66.71
	Other	1 670	5.3	1 975	18.3	818	5.20	1 073	6.28	1 201	5.94	1 194	6.23

Analysis of road traffic accidents		Year 2011		Year 2012		Year 2013		Year 2014		Year 2015		Year 2016	
		No.	Rate (per cent)	No.	Rate (per cent)	No.	Rate (per cent)	No.	Rate (per cent)	No.	Rate (per cent)	No.	Rate (per cent)
3	Accident by road type	(Analysis of 30 602 accidents)		(Analysis of 102 474 accidents)		(Analysis of 15 333 accidents)		(Analysis of 17 265 accidents)		(Analysis of 19 643 accidents)		(Analysis of 196 310 accidents)	
	Expressway	208	0.7	4 539	4.4	65	0.42	74	0.43	94	0.48	82	0.40
	National road	9 292	30.3	12 080	11.8	6 036	39.37	5 962	34.50	6 926	35.26	6 932	36.01
	Provincial road	4 917	16.1	76 167	74.3	2 638	17.20	2 526	14.63	3 016	15.40	2 917	15.20
	Urban road	11 613	38.0	1 601	1.6	3 888	25.36	5 928	34.34	6 010	30.60	6 527	33.90
	Rural road	2 656	8.7	4 905	4.8	1 861	12.10	2 105	12.20	2 537	12.90	2 286	11.90
	Other	1 916	6.2	3 182	3.1	845	5.51	670	3.88	1 060	5.40	505	2.62
4	Time	(Analysis of 29 561 accidents)		(Analysis of 18 308 accidents)		(Analysis of 13 289 accidents)		(Analysis of 16 140 accidents)		(Analysis of 19 965 accidents)		(Analysis of 18 441 accidents)	
	From 0 a.m. to 6 a.m.	3 656	12.3	6 663	36.4	1 304	9.81	1 627	10.10	2 138	10.71	2 225	12.07
	From 6 a.m. to 12 a.m.	5 452	18.5	6 206	33.9	2 474	18.62	2 736	16.95	3 650	18.30	3 343	18.10
	From 12 a.m. to 18 p.m.	9 658	32.7	2 856	15.6	4 490	33.80	5 200	32.20	6 149	30.80	5 617	30.50
	From 18 p.m. to 24 p.m.	10 795	36.5	2 583	14.1	5 021	37.78	6 577	40.75	8 028	40.21	7 256	39.95
5	Age of person involved in accident	(Analysis of 32 601 accidents)		(Analysis of 19 386 accidents)		(Analysis of 14 173 accidents)		(Analysis of 17 740 accidents)		(Analysis of 21 187 accidents)		(Analysis of 19 794 accidents)	
	Under 18	2 270	7.0	2 107	10.9	927	6.54	1 150	6.48	1 329	6.27	1 171	6.16
	From 18 to 27	13 647	41.9	12 042	62.1	5 735	40.46	6 951	39.18	7 786	36.75	6 864	35.94
	From 27 to 55	13 798	42.3	2 875	14.8	6 504	45.89	8 379	47.23	10 458	49.36	9 921	48.27
	Over 55	2 886	8.9	2 362	12.2	1 007	7.10	1 260	7.10	1 614	7.62	1 838	9.62
6	Gender							(17 742 accidents)		(21 460 accidents)		(19 156 accidents)	
	Male							15 467	87.18	18 776	87.50	16 331	85.25
	Female							2 275	12.82	2 684	12.50	2 825	14.75

Source: Department of Traffic Police.

List of centres for driver training and examination that are in operation
(On 31 December 2015)

No.	Name of centre	Class	Line agency
1	Centre for driver training and examination No. 1	1	Hai Duong Transportation Department
2	Centre for driver training and examination Transport Vocational Training College Chi Minh	1	People Committee of Ho Chi Minh City
3	Centre for driver training and examination – Central Transport Vocational Training College III	1	Ministry of Transport
4	Centre for driver training and examination – Vocational Training College Viet Bac	1	Ministry of Industry & Trade
5	Quang Ninh Centre for driver training and examination	1	Quang Ninh Transportation Department
6	Centre for driver training and examination – Rural Mechanical Vocational Training College	1	Ministry of Agriculture & Rural Development
7	Phu Tho Centre for driver training and examination	1	Phu Tho Transportation Department
8	Nam Dinh Centre for driver training and examination	1	Nam Dinh Transportation Department
9	Centre for driver training and examination Vocational College Thanh Hoa	1	Thanh Hoa Transportation Department
10	Nghe An Centre for driver training and examination	1	Nghe An Transportation Department
11	Centre for driver training and examination Transport Vocational Training College Thua Thien Hue	1	Thua Thien Hue Transportation Department
12	Centre for driver training and examination – Transport Vocational Training College Da Nang	1	Da Nang Transportation Department
13	Centre for driver training and examination – Transport Vocational Training College Binh Dinh	1	Binh Dinh Transportation Department
14	Centre for driver training and examination Hong Bang, Khanh Hoa	1	Enterprise
15	Centre for driver training and examination – Transport and Construction Company Gia Lai	1	Enterprise
16	Centre for driver training and examination Nam Trieu	1	Enterprise
17	Centre for driver training and examination Thai Binh	1	Thai Binh Transportation Department
18	Centre for driver training and examination – Vocational Training College No. 3	1	Ministry of Defense
19	Centre for driver training and examination Long An	1	Enterprise
20	Centre for driver training and examination Joint stock Hanoi Ship Company	1	Enterprise
21	Centre for driver training and examination Thanh Nam	1	Enterprise
22	Centre for driver training and examination Son La	1	Enterprise
23	Centre for driver training and examination Binh Duong	1	Binh Duong Transportation Department
24	Centre for driver training and examination Tay Nguyen	1	Enterprise
25	Centre for driver training and examination Hung Vuong, Phu Tho	1	Enterprise
26	Centre for driver training and examination – People’s Police Academy	1	Ministry of Public Security
27	Centre for driver training and examination Transport Vocational Training College Dong Nai	1	Dong Nai Transportation Department

No.	Name of centre	Class	Line agency
28	Centre for driver training and examination Ha Noi (Soc Son)	1	Ha Noi Transportation Department
29	Centre for driver training and examination An Giang	1	An Giang Transportation Department
30	Centre for driver training and examination Tay Do	1	People Committee of Can Tho city
31	Centre for driver training and examination – Asian Vocational College Hung Yen	1	Enterprise
32	Centre for driver training and examination Kon Tum	1	Enterprise
33	Centre for driver training and examination – Vocational Training College No. 8	1	Ministry of Defense
34	Centre for driver training and examination, Vietnamese – Australian transport and Construction Vocational Training College	1	Enterprise
35	Centre for driver training and examination – Vocational Training College Dong Khoi	1	Vietnamese Trade Union
36	Centre for driver training and examination Vocational College No. 14, Ministry of Defense	1	Ministry of Defense
37	Centre for driver training and examination Hai Van – Ba Ria Vung Tau	1	Enterprise
38	Centre for driver training and examination 1 Vinh An, Nghe An	1	Enterprise
39	Centre for driver training and examination – Technical Vocational College in the middle	1	Ministry of Defense
40	Centre for driver training and examination Dong Do, Bac Ninh	1	Enterprise
41	Centre for driver training and examination – Vocational Training College No. 9 – Ministry of Defense	1	Ministry of Defense
42	Centre for driver training and examination Cu Chi	2	Enterprise
43	Centre for driver training and examination Au Lac	2	Enterprise
44	Centre for driver training and examination – Joint stock automobile transportation Company No. 2	2	Enterprise
45	Centre for driver training and examination – Vocational Training College No. 10 – Ministry of Defense	2	Ministry of Defense
46	Centre for driver training and examination Ngoc Ha	2	Enterprise
47	Centre for driver training and examination – Joint stock Transport Company Lao Cai	2	Enterprise
48	Centre for driver training and examination Quang Binh	2	Quang Binh Education & Training Department
49	Centre for driver training and examination Quang Nam	2	Enterprise
50	Centre for driver training and examination An Cu	2	Enterprise
51	Centre for driver training and examination Mien Dong	2	Ministry of Public Security
52	Centre for driver training and examination Viet Thanh	2	Enterprise
53	Centre for driver training and examination Kien Giang	2	Kien Giang Transportation Department
54	Centre for driver training and examination Dai Lam	2	Enterprise
55	Centre for driver training and examination Hung Yen	2	Hung Yen Transportation Department
56	Centre for driver training and examination Bac Giang	2	Bac Giang Transportation Department
57	Centre for driver training and examination Hai Phong	2	Hai Phong Transportation Department
58	Centre for driver training and examination Hung Vuong in Ha Tay	2	Enterprise

No.	Name of centre	Class	Line agency
59	Centre for driver training and examination Tuyen Quang	2	Tuyen Quang Transportation Department
60	Centre for driver training and examination Thanh Cong	2	Enterprise
61	Centre for driver training and examination Hung Do	2	Enterprise
62	Centre for driver training and examination Can Tho	2	Enterprise
63	Centre for driver training and examination – Automobile Transportation Company Gia Lai	2	Enterprise
64	Centre for driver training and examination Quang Tri	2	Quang Tri Transportation Department
65	Centre for driver training and examination – People’s Security University in Thanh Hoa	2	Ministry of Public Security
66	Centre for driver training and examination Ha Tinh	2	Enterprise
67	Centre for driver training and examination Hung Vuong, Vinh Phuc	2	Enterprise
68	Centre for driver training and examination Quang Ngai	2	Q. Ngai Transportation Dept.
69	Centre for driver training and examination Vinh Phuc	2	Vinh Phuc Transportation Department
70	Centre for driver training and examination – Trade Union Ha Nam	2	Ha Nam Trade Union
71	Centre for driver training and examination – Joint stock Company Dat Phuc	2	Enterprise
72	Centre for driver training and examination – Economical and Technical and Industrial Vocational College Hoa Binh	2	Enterprise
73	Centre for driver training and examination Thanh Dat	2	Enterprise
74	Centre for driver training and examination – Vocational College No. 1 – Ministry of Defense	2	Ministry of Defense
75	Centre for driver training and examination – University Fire Protection	2	Ministry of Public Security
76	Centre for driver training and examination Song Than		Enterprise
77	Centre for driver training and examination – Industrial and constructional Vocational Training College Quang Ninh	2	Ministry of Industry & Trade
78	Centre for driver training and examination Thuan Thanh, Bac Ninh	2	Enterprise
79	Centre for driver training and examination – Vocational Training College No. 5 – Ministry of Defense	2	Ministry of Defense
80	Centre for driver training and examination Duc Thinh	2	Enterprise
81	Centre for driver training and examination Bac Ha	2	Enterprise
82	Centre for driver training and examination – Vocational College VISTCO	2	Enterprise
83	Centre for driver training and examination – Joint stock Construction and Trade Company Ha Long	2	Enterprise
84	Centre for driver training and examination Hoang Gia	2	Enterprise
85	Centre for driver training and examination – Ba Thien Company	2	Enterprise
86	Centre for driver training and examination Binh Vang	2	Enterprise
87	Centre for driver training and examination Chien Thang	2	Enterprise
88	Centre for driver training and examination Lap Phuong Thanh	2	Enterprise
89	Centre for driver training and examination Viet My	2	Enterprise
90	Centre for driver training and examination Thien Phuc Duc	2	Enterprise
91	Centre for driver training and examination Hai Van	2	Enterprise
92	Centre for driver training and examination – Vocational Training College No. 23 – Ministry of Defense	2	Ministry of Defense

No.	Name of centre	Class	Line agency
93	Centre for driver training and examination Hong Cam	2	Ministry of Industry & Trade
94	Centre for driver training and examination – People’s Security University	2	Ministry of Public Security
95	Centre for driver training and examination Transport Vocational Training CollegeTW2 – Hai Phong	2	Ministry of Transport
96	Centre for driver training and examination Dong Thap	2	Dong Thap Transportation Department
97	Centre for driver training and examination Dien Bien	2	Education & Training Department
98	Centre for driver training and examination Lang Son	2	Enterprise
99	Centre for driver training and examination Cao Bang	2	Enterprise
100	Centre for driver training and examination – Rubber Industrial Vocational Training College	2	Enterprise
101	Centre for driver training and examination Thai Viet Ha Noi	2	Enterprise
102	Centre for driver training and examination Nhut Trung Anh, Soc Trang	2	Enterprise
103	Centre for driver training and examination Thai Ha, Thai Nguyen	2	Enterprise
104	Centre for driver training and examination Vocational Training College No. 21 – Ministry of Defense	2	Ministry of Defense
105	Centre for driver training and examination Vocational Training College No. 11 – Ministry of Defense	2	Ministry of Defense

Source: Directorate for Roads of Viet Nam.

Viet Nam traffic crashes, deaths, injuries, and number of cars and motorcycles, 2010-2016

Year	Crashes			Deaths			Injuries			Cars			Motorcycles			Road accident deaths/ 10 000 automobiles
	Crashes	Compared to the previous year		Deaths	Compared to the previous year		Injuries	Compared to the previous year		Cars	Motorcycles	Compared to the previous year				
		Increase, Decrease	Per cent		Increase, Decrease	Per cent		Increase	Per cent			Increase	Per cent			
2010	13 833	1 341	70.7	11 406	-110	-1	10 059	2 145	27.1	1 713 908	177 921	11.6	31 452 503	3 021 424	10.6	3.33
2011	14 026	193	7.4	11 395	-11	-0.1	10 611	552	5.5	1 882 972	169 064	9.9	33 925 839	2 473 336	7.9	3.06
2012	31 688	-11 189	-26.7	9 446	-1 591	-14.42	33 411	-11 908	-26.28	1 992 589	109 617	5.8	36 102 943	2 177 104	6.4	2.39
2013	29 385	-1 610	-5.2	9 369	-55	-0.58	29 500	-3 045	-9.36	2 147 750	155 161	7.8	38 643 091	2 540 148	7.0	2.24
2014	25 322	-4 063	-14	8 996	-373	-3.98	24 417	-5 083	-17.23	2 349 667	201 917	9.4	41 212 965	2 569 874	6.7	2.02
2015	22 850	-2 918	-12	8 728	-325	-3.61	21 072	-3 861	-15.81	2 663 269	313 602	13.3	44 128 822	2 915 857	7.1	1.80
2016	21 589	-1 261	-5.5	8 685	-43	-0.49	19 280	-1 792	-8.50	3 033 527	370 258	13.9	47 131 928	3 003 106	6.8	1.66

Source: NTSC, 2017.

Note: Since 2012, statistics have included light crashes and non-serious injuries, thus the numbers will be higher than in previous years.

8. References

National Road Safety Strategy by 2020 and a Vision to 2030 (Document No. 1586/QĐ-TTg dated 24 October 2012);

Study on the National Road Traffic Safety Master Plan in the Socialist Republic of Viet Nam until 2010 – Japan International Cooperation Agency (JICA)]

Road Safety Performance Review

Country

Road safety is an important sustainable development goal, yet relatively underappreciated and greatly underfunded. Every year, more than 1.2 million people die and another 50 million are injured in road traffic accidents around the world. Approximately 90 per cent of all road accidents occur in low- and middle-income countries.

Recognizing the need to support member States in urgently and effectively addressing road safety challenges, three of the United Nations regional commissions initiated the project *Strengthening the National Road Safety Management Capacities of Selected Developing Countries and Countries with Economies in Transition*. The project, which focused on assisting four countries to enhance their national road safety management capacities and to effectively address and improve national road safety, was implemented in Albania, Dominican Republic, Georgia and Viet Nam.

The Road Safety Performance Reviews were conducted to assess the current road safety situation, to help the beneficiary countries to identify the most critical road safety issues and to recommend actions to be taken. Based on the critical issues identified, capacity-building workshops for national road safety stakeholders were organized. The project raised public awareness on road safety issues and sensitized national experts and the non-government sector to the need to set ambitious road safety targets and take specific measures to improve road safety.

The project was funded by the United Nations Development Account.