

Chapter 6

Reducing Traffic Accidents

6-1. Basic data on traffic accidents

The situation of traffic accidents is serious in Vietnam. It has become a major social problem, in which traffic safety is now regarded as one of the most urgent policy issues of the government.

The open door policy of Vietnam has accelerated economic development with the participation of many economic sectors. Demand for passenger and goods transport also rose sharply since the 1990's. At the same time, Vietnam's road system, which consists of national highways and local and rural roads, is being built or renovated significantly with domestic funding as well as loans from bilateral and multilateral organizations. Income growth and improvement of transport infrastructure together contributed to a sudden increase in the number of motorized vehicles, especially motorcycles, in the last decade. As traffic volume expanded, traffic accidents also increased. Traffic conflicts and bottlenecks in urban areas became apparent, and traffic accidents in rural areas, which used to be very few in the past, began to soar. On the other hand, the level of understanding and compliance of traffic safety requirements remains very low among the public. Authorities have also been largely unaware of their critical role in restoring traffic safety and order.

In terms of transport mode, most traffic accidents occur on roads (96-97%), and most of the fatalities (94-97%) and most of the injuries (98-99%) are also attributed to road traffic. The share of road traffic in total traffic accidents, fatalities and injuries has been highly stable in the

period of 1996-2005²⁷. Clearly, road traffic is at the center of the problem of traffic accidents in Vietnam.

Table 6-1 shows the reported counts of road traffic accidents, fatalities and injuries. According to this data, road traffic accidents increased rapidly from 6,110 in 1990 to 27,993 in 2002, or 4.6 fold with the average annual increase of 13.5%. In the peak year of 2002, the number of fatalities and injuries reached 13,186 and 30,999, respectively. However, reported numbers of accidents and injuries dramatically fell in the period beginning 2003, although the number of fatalities remained high and relatively constant around 12,000 per year. This means that there were 1.5 fatalities per 10,000 persons in recent years.

There may be a systematic bias in the reported data on road traffic accidents since 0.87 fatalities per accident on average (2006 data) is extremely high in comparison with neighboring countries. The corresponding ratios are 0.20 in Thailand and 0.02 in Malaysia. Fairly constant fatalities from 2002 to 2006, in contrast to rapidly declining accidents and injuries in the same period, also point to statistical inconsistency. Significant under-reporting of accidents and injuries are suspected, relative to the number of fatalities which should be more reliable.

According to the sampled data analysis of the National Traffic Safety Committee conducted in 2001, almost half (48.9%) of road traffic accidents occurred on national highways where traffic volume and cruising speed were both high, followed by provincial roads (26.2%), urban roads (17.1%), and district and commune roads (7.8%). By transport mode, 71.4% of road traffic accidents were caused by motorcycle drivers, 22.5% by automobile drivers and 6.1% by other road users²⁸.

²⁷ In 2005, the total number of reported traffic accidents was 14,711, in which road accidents occupied 14,141 or 96.1%. In the same year, road fatalities were 11,184 or 97.0% of total, and road injuries were 11,760 or 97.9% of total. The rest of traffic accidents, fatalities and injuries were attributed to railway, inland waterway and maritime.

²⁸ When many traffic modes are involved in an accident, the one responsible for causing it is counted in this data.

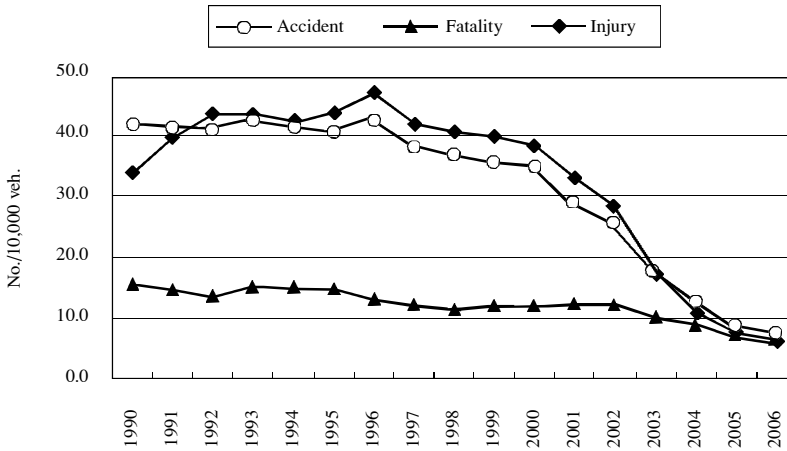
Tab. 6-1 Road Traffic Accidents (1990-2006)

<i>Year</i>	<i>Accidents</i>	<i>Fatalities</i>	<i>Injuries</i>
1990	6,110	2,268	4,956
1991	7,382	2,602	7,114
1992	9,470	3,077	10,048
1993	11,582	4,140	11,854
1994	13,760	4,897	14,174
1995	15,999	5,728	17,167
1996	19,638	5,932	21,718
1997	19,998	6,152	22,071
1998	20,753	6,394	22,989
1999	21,538	7,095	24,179
2000	23,327	7,924	25,693
2001	25,831	10,866	29,449
2002	27,993	13,186	30,999
2003	20,774	11,864	20,704
2004	17,663	12,230	15,417
2005	14,711	11,534	12,013
2006	14,727	12,757	11,288

Source: National Traffic Safety Committee.

The number of road traffic accidents is related to the number of motorized vehicles on the road, including motorcycles and cars, both of which have increased greatly in recent years (chapter 1). However, the relationship between accidents and motorized vehicles may not be simple or linear. In Fig. 6-1, the number of fatalities per 10,000 motorized vehicles fell gradually over the years, but still remained at a critically high level of 6.5 fatalities per 10,000 motorized vehicles in 2006. The numbers of accidents and injuries per 10,000 motorized vehicles declined more sharply, but these trends should be interpreted with care due to the data problem mentioned above.

Fig. 6-1 Traffic Accidents per 10,000 Motorized Vehicles



Source: National Traffic Safety Committee.

Tab. 6-2 Main Causes of Road Traffic Accidents in Selected Years

Cause		2001		2003		2005	
		Count	%	Count	%	Count	%
Number of total accidents		25,040	--	19,852	--	14,711	--
Number of analyzed accidents		14,332	100.0	771	100.0	8,485	100.0
1	Road user's error, of which:	10,896	76.0	647	83.9	5,629	70.7
	Speeding	4,686	32.7	212	27.5	2,656	31.3
	Dangerous overtaking	3,686	25.7	155	20.1	1,317	15.4
	Drunk driving	841	5.9	42	5.4	506	6.0
	Poor road observation	1,183	8.3	103	13.4	1,015	12.0
	Misuse of lanes	-	-	109	14.1	134	1.6
	Pedestrian error	500	3.5	26	3.4	371	4.4
2	Unsafe vehicle condition	191	1.3	3	0.4	56	0.7
3	Roads and bridges	33	0.2	2	0.3	12	0.1
4	Other	3,212	22.4	119	15.4	2,418	28.5

Source: National Traffic Safety Committee.

According to the sampled accident analysis presented in Tab.6-2, about three-fourths of road traffic accidents in Vietnam are identified as caused by road users' errors, among which speeding is the primary cause. Road infrastructure, especially national highways, has improved significantly in the last decade, but drivers' mindset has not changed accordingly. As a result, road users tend to speed up on highways with relatively less traffic. Dangerous overtaking by trucks, buses and passenger cars expose low-speed vehicles, such as motorcycles and bicycles, to great risk in a mixed traffic situation.

Under these circumstances, strict enforcement of traffic rules and effective traffic education of road users are crucial in reducing traffic accidents. In addition, physical measures such as improvement of surface conditions, paving of shoulders, re-designing of roads, and installation of traffic signs and signals are also necessary.

6-2. International comparison

Global Road Safety Partnership (GRSP) data shows that nearly 1 million people are killed and more than 10 million people are injured in road traffic accidents in the world every year. More than 75% of these occur in developing and transition countries.

According to regional data, shown in Tab.6-3, the level of traffic safety in Vietnam is very low. Regarding the total number of fatalities, Vietnam ranked third after Thailand and Indonesia in 2000 but overtaken them to become No.1 by 2006. In terms of fatalities per population, Vietnam's figure is 1.5 per 10,000 persons (2006 data), which ranks third after Malaysia (2.6) and Thailand (2.0). In terms of fatalities per motorized vehicles, which include motorcycles, Vietnam's figure is 6.5 per 10,000 vehicles (2006 data), again ranking third after Myanmar (24.3) and Laos (19.1). In comparison, fatalities in Japan are 0.7 per 10,000 persons and 1.0 per 10,000 motorized vehicles.

Tab. 6-3 Comparison of Road Traffic Accidents in Asian Countries in 2000

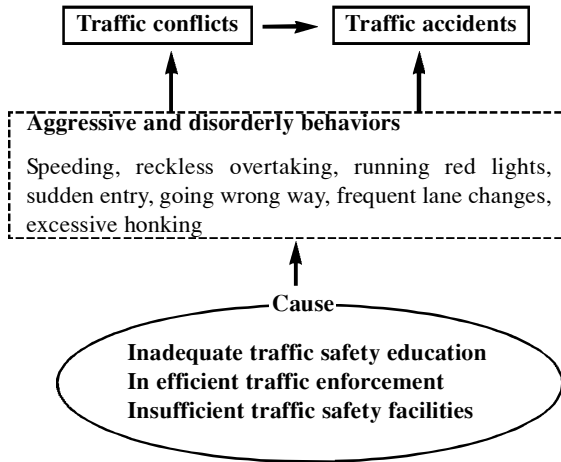
Country	Population (000)	Motorized Vehicles (000)	Accidents	Fatalities		
				Number	Per 10,000 persons	Per 10,000 vehicles
Vietnam (2006)	84,500	19,589	14,727	12,757	1.5	6.5
Vietnam (2000)	77,635	6,695	23,327	7,924	1.0	11.8
Brunei	338	213	2,861	41	1.2	2.0
Cambodia	12,000	331	556	196	0.2	5.9
Indonesia	210,400	18,224	13,000	9,500	0.5	5.2
Laos	5,300	187	3,159	362	0.7	19.1
Malaysia	23,300	10,590	250,417	6,035	2.6	5.7
Myanmar	47,700	424	3,459	1,021	0.2	24.3
Philippines	75,600	3,506	10,595	969	0.1	2.8
Singapore	4,000	689	77,475	189	0.5	2.7
Thailand	60,700	19,728	67,800	12,040	2.0	6.1
Japan	129,260	89,250	917,609	9,066	0.7	1.0

Sources: National Traffic Safety Committee (Vietnam) and Global Road Safety Partnership Conference Report, Hanoi, 2002 (other countries).

6-3. Causes of traffic lawlessness

The basic mechanism of chaotic traffic situation is illustrated in Fig.6-2. In Vietnam, the majority of traffic conflicts and accidents are caused by aggressive and lawless driving such as speeding, reckless overtaking, running red lights, sudden entry into road section, going wrong way, frequent lane changes, and excessive honking. While careless drivers should be blamed and bear direct responsibility for such conducts, shortcomings in public policies also indirectly permit and encourage such dangerous behaviors. These shortcomings include (i) inadequate traffic safety education, (ii) inefficient traffic enforcement, and (iii) insufficient traffic safety facilities. To reduce road traffic accidents, policy effort must be directed to these three areas.

Fig. 6-2 Causes of Traffic Conflicts and Accidents



6-4. Traffic laws and regulations

On June 29, 2001, the National Assembly approved the Road Traffic Law, which came into effect on January 1, 2002. This law laid out the basic traffic policy and became the basis of addressing the problem of traffic accidents in Vietnam. The Road Traffic Law consists of 77 articles and includes 28 road traffic regulations such as (i) road signal system, (ii) speed and distance between vehicles, (iii) use of lanes, (iv) overtaking, (v) changing course, (vi) stopping and parking, (vii) giving way at intersection, (viii) traveling on expressway, (ix) drivers and riders of motorcycles and engine-equipped bicycles, and (x) drivers and riders of bicycle, pedestrian, and others. The Law covers most of the current traffic situations in Vietnam, although some articles need to be elaborated further.

Subsequently, two decrees have been issued to supplement this law. Decree No.14, which includes one amendment and 30 additional articles, prescribes detailed definitions to supplement the Law. Decree No.15 describes penalties for administrative violations.

Even though the present traffic law is relatively complete by international standards, the largest problem in Vietnam is the lack of awareness and

therefore non-compliance of the Road Traffic Law and related regulations among drivers and other road users. Moreover, standard traffic laws and regulations are not specific enough to cope with Vietnam's uniquely mixed traffic with an overwhelming number of motorcycles. Thus, the existence of laws and regulations is not enough to promote traffic safety in Vietnam. Tab.6-4 gives an assessment of the effectiveness of the current Road Traffic Law based on the observation of actual traffic flows.

Tab. 6-4 Evaluation of the Current Road Traffic Law

<i>Traffic Accident Causes and Dangerous Behavior</i>	<i>Prescriptions in the Current Road Traffic Law</i>		<i>Current Situations/Issues</i>
1. Speeding	/	The Minister of Transport shall provide specific regulations.	Article 12 Insufficient usage of the Speed Limit Sign.
2. Reckless Driving	/	Before changing lanes, drivers must give a signal and ensure safety before changing lane.	Article 12 Not many drivers use signals when they change their lane.
	/	When turning, driver must give priority to pedestrians and bicycles and must give way to vehicles running in the opposite direction	Article 15 No priority for vulnerable road users. Turning-traffic and through-traffic competes on road space.
	/	Motorcycles are prohibited from running side by side, to run on pedestrian lane and to use mobile phones.	Article 28 Motorcycles run on sidewalk and drivers using mobile while driving, particularly the young drivers.
3. Careless Overtaking	/	The vehicle intending to overtake another vehicle must give a signal either by light or horn.	Article 14 Practiced by most of the motor vehicle drivers, but not motorcycle drivers.
	/	The vehicle must pass on the left hand side of the other vehicle.	Article 14 Many motorcycle drivers ignore the regulations.
4. Misuse of Lane	/	On one-way roads with lane-separated lanes, light vehicles must run in the right-most lane and other vehicles must run on the left-most lanes.	Article 13 Not strictly enforced thus resulting in mixed and congested traffic flows.
5. Misuse of Lane (Bicycle)	/	Bicycles are prohibited to proceed in pedestrian path or lanes.	Article 29 Most regulations are same as the ones for motorcycles. At least provide safety rules for the left-turners at intersection.

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6. Jaywalking Pedestrian	/	Pedestrian must only use the sidewalk and roadsides.	Article 30	There are many obstructions on the sidewalk; thus, many people walk on the carriageway.
	/	At designated pedestrian crossings which have traffic lights, pedestrians must follow the signal and cross the road accordingly.	Article 30	Many pedestrians ignore the signal and crossing.
7. Failing to give way at intersection	/	Upon reaching intersections, drivers must slow down their vehicles and give way.	Article 22	Drivers sometimes just cross intersections without slowing down. Stop sign should be applied effectively. No mention about 'Stop Sign'.
	/	At intersections without roundabouts, drivers must give way to vehicles coming from its right-hand side.	Article 22	Common among most of the users.
	/	At intersections with roundabouts, drivers must give way to vehicles coming from its left hand side.	Article 22	The traffic from the left side seems to be the priority.
8. Drunk Driving	/	Prohibited Acts, the alcohol content exceeding 80mg per 100ml of blood or 40mg per 1 liter of exhaled breath.	Article 8	Many drunk driving cases are observed but penalties are not being enforce.
9. Helmet Use	/	Drivers and passengers of motorcycle, three wheeled vehicles and motorized vehicles must wear helmet when traveling on the roads where helmet use is required.	Decree 14 Article 8	Helmet use should be enforced at all times and not only limited to designated sections.
10. Motorcycle Drivers and Riders	/	Aside from the driver, motorcycle may carry only one adult and one child as maximum load.	Article 28	Overloading is very common for both goods and people.

Source: JBIC SAPROF Final Report for Traffic Safety Improvement Project in Vietnam, October 2006.

For example, the top cause of traffic accidents is speeding. The Road Traffic Law states that the speed limit will be decided by the Ministry of Transport according to the technical standard. However, the existing technical standard sets speed limits mechanically by official road classification, without regards to actual traffic and roadside conditions.

Thus, in addition to the technical design standard, operational speed limits based on the existing situation must be introduced.

Other important issues include how to control a large volume of motorcycle traffic and how to curb reckless driving. For these, one option is to introduce lane segregation by vehicle type, which is not mentioned clearly in the existing road traffic law or regulations.

In order to implement the road traffic law and regulations effectively, it is necessary to introduce traffic control and management suitable for individual roads, location by location. Traffic safety facilities including signal systems, road signs, pavement markings, and so on, should be installed properly. However, guidelines or standards for installing them are not established yet.

6-5. Law enforcement

Since 1995, the government has issued one road traffic law, two ordinances on punishment of administrative violations, eight decrees, one governmental resolution, and ten instructions on road traffic safety and order by the Prime Minister. In addition, ministries and branches have issued various resolutions, circulars, decisions, and so on, to guide the implementation of these documents.

However, some stipulations require reconsideration. For example, administrative ordinances allow the head of traffic police to penalize violators only up to 200,000VND. If violation requires a higher penalty, he has to submit the case to his superior, which is time-consuming and impractical for officers at the site of traffic violation. Decree 15/CP also contains various problems regarding marking of driver's license, temporary confiscation of violator's vehicle, penalizing the violator, competence of traffic police, etc. Moreover, some violations such as dangerous overtaking and non-helmet use carry very soft penalties.

In addition to the problems in the contents of laws and regulations, the following areas must be cited as currently lacking or insufficient to enforce the traffic law effectively.

- A mechanism to ensure systematic implementation of traffic law
- The amount and content of traffic safety education
- Traffic safety devices, such as traffic signs and markings
- Road facilities such as the necessary number of paved lanes, lane widths, paved shoulders, and bus-bays
- Effective traffic operational strategies such as procedure to turn right or left at intersections
- Fundamental traffic operational methods such as the way to set traffic lanes and which position should be reserved for pedestrians and bicycles
- Criteria for selecting the type, site and time of traffic enforcement appropriate for each traffic situation
- Enforcement equipment for the traffic police such as patrol vehicles, speed gun, and alcohol detector

6-6. Existing traffic safety programs

Traffic safety education is being carried out at various levels of society, for example at schools and work places. Moreover, the government has launched a number of traffic safety programs, often with the assistance of international donors and FDI companies.

- The National Traffic Safety Program for the period 2001-2005 by the Ministry of Transport, together with Ministries of Police, Education and Training, Health, and National Defense, the Civil Aviation Administration of Vietnam, and a number of other agencies. However, most components were not implemented due to the lack of available funds.
- Traffic Safety Enforcement Program implemented by Traffic Police.
- The World Bank's Vietnam Road Safety Project (VRSP), Phase 1.

- The National Road Safety Action Plan by the Vietnam Road Administration with ADB's support (March 2004).
- The Japan International Cooperation Agency (JICA)'s Hanoi Traffic Safety Improvement Project, 2001 to 2003.
- The Japan Bank for International Cooperation (JBIC)'s Pilot Study on Stakeholder Traffic Safety Program on Interurban National Road.
- JICA's Traffic Safety Human Resource Development Project in Hanoi, from 2006.
- Honda Vietnam's "Toi Yeu Viet Nam" media campaign for traffic safety awareness.

6-7. Drivers' licensing

Before 1995, training and testing for issuance of drivers' licenses was conducted by the Ministry of Public Security (formerly the Ministry of Internal Affairs). This responsibility was transferred to the Ministry of Transport in May 1995 based on the Decree No.36/CP. From September 2000, Vietnam Road Administration (VRA) under the Ministry of Transport has set requirements for drivers' licensing and managed licensing activities nationwide. Each province has a testing and licensing committee, which is audited by the VRA.

Driving a motorcycle with an engine capacity less than 50cc does not require a license. Licenses for two- and three-wheeled motorcycles do not require renewal. For all other licenses, renewal is required every five years for non-professional licenses and every three years for professional licenses. For renewal, license holders are required only to go to the provincial licensing committee and pay the renewal fee. Only those who have committed serious traffic violations are required to attend a seminar or a training course to enhance their consciousness on traffic safety.

Applicants for drivers' licenses must be at least 18 years old. First-time applicants for any type of drivers' license must attend a seminar or a

training course in any of the 150 drivers' training schools nationwide. These training schools are operated and managed by various government agencies as well as the private sector. The driver training period varies according to vehicle type. The training for motorcycle drivers requires about 10 hours and includes both theory and practice. The training for car drivers consists of 10 hours of theory and 20 hours of practical experience, which includes on-road training.

To enhance road traffic safety, the following adjustments should be made to the licensing system.

- Licensing should also be required for driving a motorcycle with an engine capacity of less than 50cc.
- Enforcement of elimination of unlicensed driving, particularly drivers of two- and three-wheeled motorcycles.
- A compulsory license renewal system for two- and three-wheeled motorcycles with appropriate re-training programs.
- A compulsory re-training program for renewal of licenses for four- or more-wheeled vehicles.

6-8. Setting clear rules for motorcycle users

Apart from improving the licensing system, Vietnam should organize a taskforce to study its unique traffic safety problems in which motorcycles dominate, unlike any other countries. The taskforce should pay special attention to formulating effective regulation of motorcycle use. Authorities with major responsibility in traffic safety as well as leading motorcycle assemblers in Vietnam should participate in the study. The taskforce should produce a report with concrete policy recommendations with timetables, which will be announced and deliberated publicly. Based on sufficient discussion among users, experts and policy makers, a set of new traffic rules governing motorcycle use should be drafted to supplement the Road Traffic Law.

The new regulation on motorcycle use should cover the following, among others:

- Use of helmet
- Drunk driving
- Maximum number of people on a motorcycle
- How to carry baby or child on a motorcycle
- How to carry cargo
- How to use road lanes among other vehicles such as cars and bicycles
- How to enter main road
- How to make left turns and right turns
- Overtaking
- Use of mobile phone or other devices while driving or riding
- Parking
- Use of headlight
- Honking
- Drivers' licensing and associated training and re-training programs (see section above)
- Owner's duty to maintain motorcycles in good condition
- Motorcycle inspection system (see chapter 7)
- Illegally copied motorcycles (see chapter 8)

Initially, care should be taken not to set rules that are too ideal or advanced for Vietnam as they tend to be ignored by people. Unfortunately, driving manners in Vietnam are extremely hazardous and primitive at present, and realistic steps must be taken to educate people and prepare authorities to implement new regulation fully. In the long run, Vietnam should aim to become a country in which motorcycle use is most sophisticated and safest in the world.

Appendix to Chapter 6

Organizations Responsible for Traffic Safety

<i>Organization</i>		<i>Responsibility</i>
National Transport Safety Committee/ Traffic Safety Project Management Unit (TS-PMU)		Monitoring and managing traffic safety in general.
Ministry of Transport	Planning and Investment Department	Making investment plans on upgrading, rehabilitation and maintenance of transport infrastructures to reduce black spots.
	Financial and Accounts Department	Monitoring and financing investment in upgrading, rehabilitation and maintenance of transport infrastructures.
	Transport Legislation Department	Setting up and monitoring transport legal documents.
	Science and Technology Department	Setting up all technical standards on transport infrastructures and transport means.
	Vietnam Road Administration	Managing, monitoring and investing in transport infrastructures in the assigned sub-sector.
Ministry of Planning and Investment		Making investment plans for construction of infrastructures, including transport infrastructures and transport means.
General Statistics Office		Collecting, managing and monitoring all statistical data.
Ministry of Public Security	Road and Railway Traffic Police Bureau	Managing and monitoring road and railway traffic accidents, and enforcing road and railway traffic rules and regulations.
	Social Order and Administrative Management Police Bureau	Preventing pavement and roadway encroachment, illegal construction, and illegal motorcycle races.
Ministry of Finance		Financing, managing all taxes, charges, fees and penalties (including those in the transport sector).
Ministry of Education and Training		Educating and disseminating traffic laws and regulations in schools and universities.
Ministry of Health		Giving emergency treatment, supporting and curing injuries caused by traffic accidents.
Vietnam Fatherland Front		Coordinating with other organizations in promoting and disseminating traffic safety laws, regulations, and institutions to all population levels, so that people can understand and abide by them.
Youth Union		Mobilizing youths to participate in the movement of traffic safety and order.
Ministry of Justice		Laws in Vietnam.
Ministry of National Defense		Ensuring safety for transport means managed by military force.

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People's Committees in large cities (Hanoi, HCMC, Hai Phong, Da Nang)	State administration on transport, traffic safety in the city.
Provincial and Municipal Traffic Safety Units	Giving advice on local traffic safety to the chairmen of provinces and cities.
Provincial Transport Authorities	Matters related to transport infrastructures, transport means, drivers, traffic accidents and transport inspectors.
Local Traffic Police	Enforcing traffic rules and regulations, dealing with traffic accidents, collecting traffic accidents data at local level, and making reports.