World Health Organization

Road Safety Institutional and Legal Assessment Thailand

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FOR GLOBAL ROAD SAFETY

Road Safety Institutional and Legal Assessment Thailand

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Contents

PART 2

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World Health Organization Country Office for Thailand

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Acronyms

ASEAN	Association of Southeast Asian Nations
BIGRS	Bloomberg Initiative for Global Road Safety
DDPM	Department of Disaster Prevention and Mitigation
EU	European Union
GDP	Gross Domestic Product
NGO	Non-governmental Organization
RTIs	Road Traffic Injuries
ThaiHealth	Thai Health Promotion Foundation
ThaiRoads	Thailand Road Safety Observatory
TIS BS OHSAS	Thailand Industrial Standards British Standards Occupation Health and Safety Assessment Series
UN	United Nations
WHO	World Health Organization

Currency Equivalent

Currency Unit = Baht

US $ 1.00 = 35.8304

EUR1.00 = 40.5978

(As of October 2015)

Executive Summary

Road traffic injuries (RTIs) are a major public health threat, causing an estimated 1.25 million deaths and about 20 to 50 million injuries each year. As a response to this growing epidemic, the Bloomberg Initiative for Global Road Safety (BIGRS) is providing funding to support legislative improvements in five low-and-middle-income countries. The Kingdom of Thailand was one of the countries selected for this project. This assessment was commissioned by the World Health Organization as part of the BIGRS project to facilitate a common understanding of the organizations involved in road safety legislations and regulations in Thailand and to provide a comprehensive assessment of laws and regulations leading to the development of recommendations. Document review and key-informant interviews were conducted to achieve these objectives.

The institutional assessment revealed that many organizations are currently involved in road safety in Thailand. In order to strengthen coordination amongst these organizations and to achieve the goals of the Decade of Action for Road Safety, a management system was established in 2011 through an executive order ("Prevention and Reduction of Road Accidents"). This management system is comprised of three committees (the *National Road Accident Prevention and Reduction Policy Board*, the *Road Safety Directing Centre and Road Safety Operating Centre)* and suffers many weaknesses. High-level politicians, for example, chair both the policy board and the directing centre which has limited the number of times these committees can meet. Moreover, the secretariats of the three committees are only able to coordinate; they have no actual power or authority over the other organizations.

The in-depth legal assessment revealed that Thailand has most of the necessary laws to address the main road safety risk factors but few of them meet international best practices. There are important loopholes in the existing laws that need to be closed. Furthermore, the country should also enact a child restraint law to protect child passengers and enact laws and regulations to improve vehicle standards.

In view of these gaps, it is recommended that the Royal Thai Government 1) explore ways to bolster political commitment for road safety, 2) explore alternatives for more effective management systems, and 3) establish a robust support system for the secretariat team. In order to ensure that road safety laws are consistent with international best practices, it is also recommended that Thailand (1) enact a child restraint law, (2) reduce urban speed limit, (3) ensure consistency between the two speed laws (Road Traffic Act and Highway Act), (4) lower the legal blood alcohol concentration limit for novice drivers, (5) require rear seat passengers to wear seatbelts, (6) establish helmet standards for children, (7) include a provision for motorcycle impoundment, and (8) enact laws and regulations to improve vehicle standards. Moreover, it will be critical for the country to improve the effectiveness of road safety law enforcement. This will require stronger penalties, including significant increases of fines, adequate equipment, effective fine collection and the establishment of a national demerit point system. It will also entail a concerted effort to increase public awareness of road safety and road safety laws.

Fortunately, there is clear motivation within Thailand to make a substantial effort to reduce RTIs as evidenced by the launching of the Decade of Action for Road Safety in the country. With such enthusiasm, it is hopeful that considerable progress will be made through the BIGRS project and the growing national movement.

1

Introduction

Road traffic injuries (RTIs) are a major public health threat, causing an estimated 1.25 million deaths globally and about 20 to 50 million injuries each year.[1,2] Unless urgently addressed, RTIs will become the 7th leading cause of death by 2030.[1] In order to tackle this growing global public health threat, the United Nation's (UN) General Assembly encouraged all countries to adopt comprehensive road safety laws during the launch of the Decade of Action for Road Safety (2011–2020).[3] The Bloomberg Initiative for Global Road Safety (BIGRS) program (2015–2019) is providing funding to support legislative improvements in five low-and-middle-income countries – China, Philippines, Tanzania, Thailand and Vietnam. This assessment report was commissioned by the World Health Organization (WHO), Thailand Country Office and conducted as part of the BIGRS program in Thailand.

1.1 The Kingdom of Thailand: Country Overview

The Kingdom of Thailand is a middle-income country located within the WHO South-East Asia Region, bordering Myanmar, Laos, Cambodia and Malaysia. With an area of 510 890 square kilometers, it is divided into 76 provinces.[4] As of 2015, the total population of the country was estimated to be more than 67 million, with a growth rate of 0.34% and a Gross Domestic Product (GDP) per capita of $15 600.[5] The median age was 35.7 years for males and 37.7 years for females.[5] Thailand's government is based on a constitutional monarchy where the King serves as the head of state and the Prime Minister acts as the head of government.[6] Political instability in recent years resulted in the 2014 *coup d'etat*. Currently, a junta, known as the National Council for Peace and Order, rules the country.

With regards to health, basic indicators show the health of Thais has been improving. Infant mortality rate, for example, decreased from 31 per 1000 live births in 1990 to 11 per 1000 live births in 2012. Similarly, under-5 mortality rate declined from 38 per 1000 live births in 1990 to 13 per 1000 live births in 2012.[7] The current estimate of life expectancy at birth in Thailand is 71.5 years for males and 78.5 years for females.[8] The country spends 4.6% of its GDP on health.[4]

In 2013, the Global Burden of Disease revealed that the top three causes of death for all age groups in the county were cerebrovascular disease, ischemic heart disease, and lower respiratory infection; the top causes of disability adjusted life years (DALYs) lost were ischemic heart disease, RTIs and cerebrovascular disease.[8] When disaggregated by age groups, RTIs were found to be the leading cause of deaths and DALYs lost for Thais in the most economically productive age group -15 to 49 years.[8]

1.2 Objectives

The specific objectives of this assessment were to:

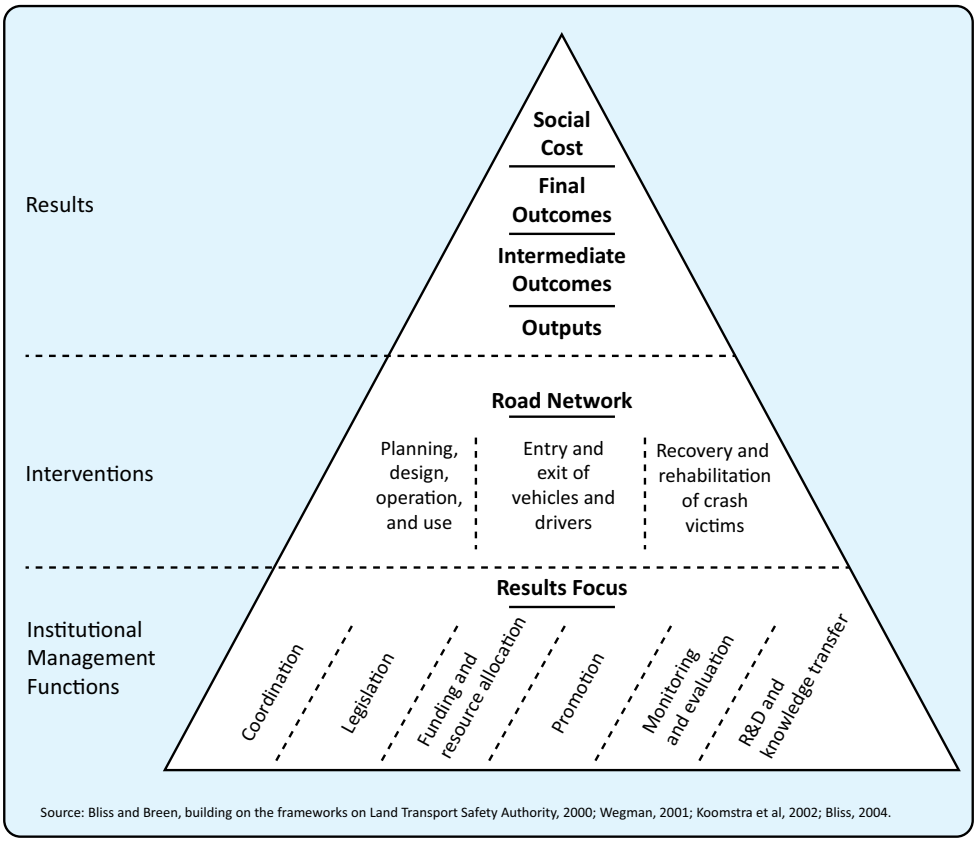
- Facilitate a common understanding of the organizations involved in road safety legislations and regulations in Thailand. Specifically, the assessment identified the roles and responsibilities of the key organizations to facilitate planning for the five year project
- Provide a preliminary institutional legislative assessment which will be used to inform planning
- Provide an in-depth technical assessment of existing legislation to identify recommendations for improvements

1.3 Conceptual Framework

This assessment was guided by the road safety management system framework shown in Figure 1.1 and the *WHO Strengthening Road Safety Legislation Manual*.[9,10] First developed in New Zealand, the road safety management system framework was adopted by the World Bank to guide countries in their capacity assessments. The road safety management system framework is illustrated as having three interconnected elements: *institutional management functions* which create *interventions* that ultimately lead to targeted *results*.[9]

Institutional management functions include seven key functions that are generally performed by governmental organizations: results focus, coordination, legislation, funding and resource allocation, promotion, monitoring and evaluation, and research and knowledge dissemination. *Interventions* are devised to achieve results and commonly involve transport and land-use planning for safety, safe road design and operation, safe vehicles, safe road use, and post-crash care. Finally, a good management system requires clearly defined *results* in the form of outputs, intermediate outcomes and final outcomes.

Figure 1.1: Road Safety Management System



Source: Bill & Breen, 2013

These long-term and intermediate goals are necessary to allow for the evaluation of interventions and ultimately the institutional management function.[9]

As described, legislation is one of the main functions of the road safety management system. According to the *WHO Strengthening Road Safety Legislation Manual*, there are four steps involved in the assessment of road safety laws and regulations: "(1) conduct an institutional assessment, (2) review national laws and regulations, (3) assess gaps in laws and regulations, and (4) assess the comprehensiveness of laws and regulations" (p.17).[10] A thorough understanding of the laws and regulations can allow for gaps to be identified which can lead to the formulation of appropriate recommendations.[10]

1.4 Method

A two-pronged approach was used to achieve the objectives of this assessment. First, relevant key documents were reviewed. These documents included:

- Executive Order "Prevention and Reduction of Road Accidents 2011" from the Prime Minister's Office
- Thailand's Road Safety Master Plan 2009–2012
- Thailand's Road Safety Master Plan 2013–2016
- Thailand's Decade of Action for Road Safety Strategic Plan 2012–2020
- Road Safety Action Plan for the Decade of Action 2015–2020
- Documents from Thailand's main Road Safety committees and sub-committees meetings (2009 to 2015)
- Published literature concerning Thailand's road safety laws

Second, key informants interviews were conducted with individuals who possessed extensive knowledge about road safety in Thailand to better understand the actual process and operations of the road safety management system. These key informants included the secretariat of the *Road Safety Directing Centre*, secretariats of three subcommittees as well as road safety experts in Thailand.

2

Burden of Road Traffic Injuries in Thailand

2.1 Data Sources for Road Traffic Injuries in Thailand

RTIs are a grave public health concern for Thailand. Although data systems for addressing the burden of RTIs in the country currently exist across various sectors, they suffer many challenges. Table 2.1 reveals that there are currently ten data sources for road safety including police information system, e-claims, trauma registries and death certificates. These data are collected by seven agencies for different purposes and with the use of different definitions. Although there is currently a plan to link the police, hospital, and insurance data to improve mortality estimates, these linkages have yet to be undertaken. Presently, the most commonly referenced data are from the Royal Thai Police.

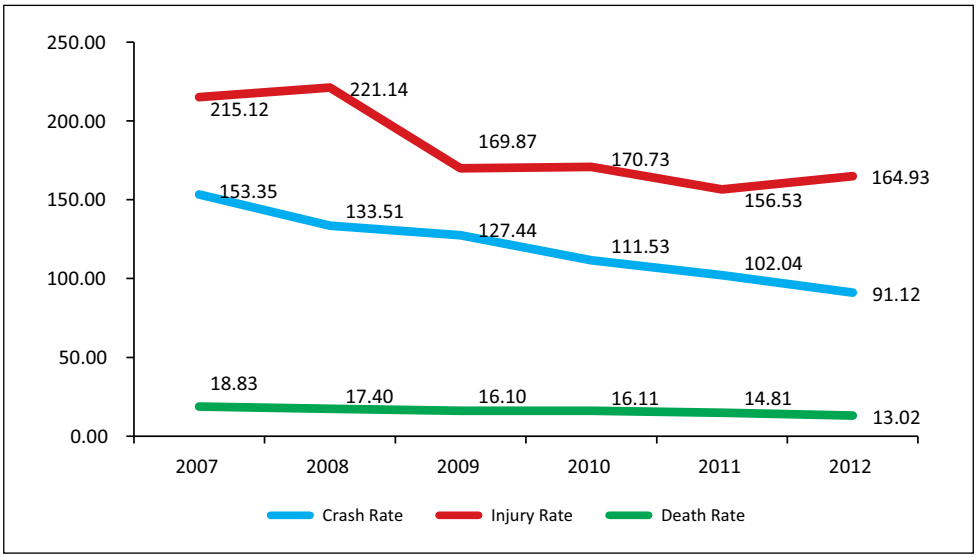
Table 2.1: Data Sources for Road Traffic Crashes in Thailand

Data	Source
Police Information System (POLIS)	Royal Thai Police
TRAMS	Ministry of Transport
E-Claim	Road Victim Protection Company
Injury Surveillance (IS)	Ministry of Public Health
Trauma Registry	Ministry of Public Health
19 External Causes of Injury	Ministry of Public Health
Information Technology for Emergency Medical System (ITEMS)	Emergency Medical Institute of Thailand
Emergency Claim Online (EMCO)	National Health Security Office
OP/PP Individual Record	National Health Security Office
Death Certificates	Ministry of Interior

2.2 Road Traffic Related Deaths, Injuries, and Crashes

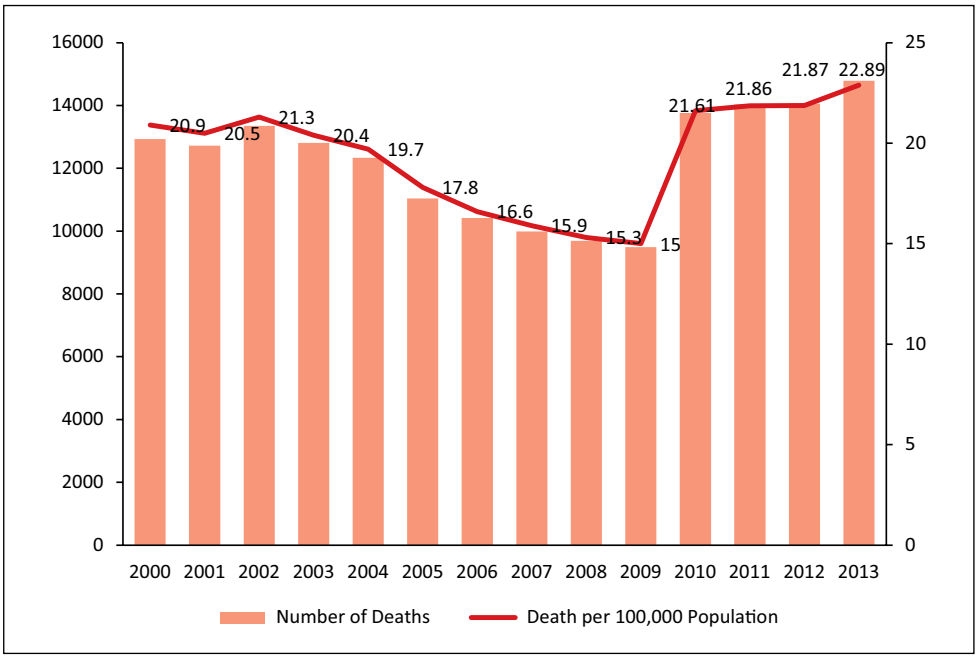
Recent data from the Royal Thai Police show that road traffic crash, injury and death rates per 100 000 population have all been decreasing since 2007 (Figure 2.1). In 2012, there were a total of 61 197 road traffic crashes, 110 777 injuries and 8724 deaths. Using the 2012 population of 67 164 130 as the denominator,[4] this translates to 91.1 crashes, 164.9 injuries and 13.0 deaths, per 100 000 population respectively. This death rate is much lower than the rate estimated by the WHO (36.2 deaths per 10 000 population)[1] and the rate extracted from death certificates issued by the Ministry of Public Health. According to the Ministry of Public Health, death rates decreased between 2003 and 2009 but then increased again in 2010. In 2012 and 2013, there were 21.87 and 22.89 deaths per 100 000 population respectively (Figure 2.2).

Figure 2.1: Crash, Injury and Death Rates per 100 000 Population, 2007–2012



Source: Royal Thai Police, 2007–2012; World Bank, 2007–2012

Figure 2.2: Numbers and Rates of Road Traffic Deaths, 2000–2013



Source: Ministry of Public Health, 2013

Table 2.2 illustrates the ratio of road traffic related injuries or deaths to the number of crashes. Although the number of injury per crash slightly increased between 2007 and 2012, the number of fatality per crash remained relatively stable, ranging from 0.12 to 0.15.

Table 2.2: Ratio of Road Traffic Injuries or Deaths to Crashes, 2007–2012

Year	Number			Number of fatality per crash	Number of injury per crash
	Crashes	Deaths	Injuries		
2007	101 752	12 492	142 738	0.12	1.40
2008	88 721	11 561	146 955	0.13	1.66
2009	84 806	10 717	113 048	0.13	1.33
2010	74 379	10 742	113 862	0.14	1.53
2011	68 269	9 910	104 725	0.15	1.53
2012	61 197	8 746	110 777	0.14	1.81

Source: Royal Thai Police, 2012

2.3 Road Traffic Injuries and Motor Vehicle Type

Based on the most recent data from ThaiRoads, it was found that the number of road traffic crashes among each category of motorized vehicle decreased despite the increasing number of registered motor vehicles; between 2004 and 2013, the number of registered motor vehicles in Thailand increased dramatically, from 19.8 to 33.5 million.[11] This was most notable among public buses; the crash rate decreased from 414.7 per 10 000 buses in 2004 to 72.8 per 10 000 buses in 2012 (Table 2.3).

It is important to note that in Thailand, motorcycle riders comprised approximately 70% of road traffic fatalities[12]; this is substantially higher than high-income countries and may be explained by the rapid growth of motorcycle usage in the last few decades.[13] In 2013, for example, 59.6% of the country's registered vehicles were motorcycles.[12] Motorcycles tend to be more vulnerable to road traffic crashes as compared to other types of motor vehicles. This is due to the fact that they share roads with larger vehicles and are less visible; motorcycle riders also lack physical protection. Fortunately, the ratio of registered motorcycles to cars has been steadily decreasing in recent years.[12,14] However millions of unregistered motorcycles exist in Thailand but their exact number and how often they are on the roads are difficult to estimate.

Table 2.3: Road Traffic Crash Rates by Motor Vehicle Type, 2012

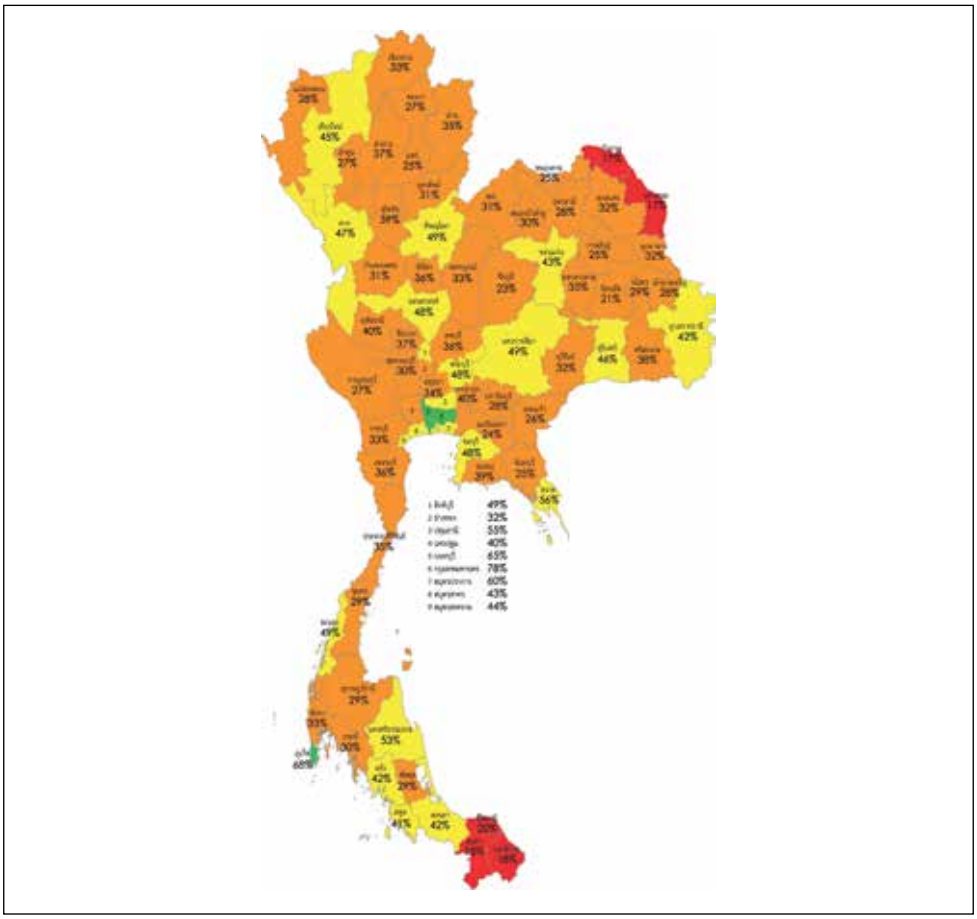
Year	Motorcycle		Passenger Car		Pickup Truck		Commuter Van		Public Bus		Truck	
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*
2004	77 642	58.8	46 658	177.4	34 555	102.1	3 344	91.9	4 433	414.7	10 101	147.5
2005	78 830	54.2	43 527	149.9	32 862	89.7	3 718	100.8	3 954	367.1	9 026	126.0
2006	75 752	48.0	42 091	127.1	27 871	66.8	3 140	79.4	3 391	297.0	7 737	107.7
2007	68 140	42.3	40 687	114.3	28 822	65.9	2 634	69.0	2 961	245.2	6 812	91.1
2008	59 162	36.0	40 334	105.9	24 491	53.8	2 417	63.7	2 534	202.1	5 965	77.3
2009	52 608	31.5	39 275	96.3	23 650	50.4	2 218	57.8	2 370	185.8	4 954	62.6
2010	31 426	18.2	24 453	54.4	14 219	29.1	1 458	37.2	1 289	97.8	3 236	39.6
2011	19 785	10.9	16 422	32.8	8 966	17.5	899	22.3	977	72.4	1 997	23.4
2012	20 674	10.8	17 519	29.9	9 426	17.3	919	22.0	1 002	72.8	2 193	24.4

*Rate is per 10 000 vehicles
Source: ThaiRoads Foundation, 2012

2.4 Road Safety Risk Factors

Some road safety risk factor data are also available in Thailand. Data concerning three (speed, helmets, seatbelt use) of the five main road safety risk factors as identified by the WHO are currently being collected on an annual basis from 74 provinces by Thailand Road Safety Observatory (ThaiRoads) with support from Thai Health Promotion Foundation (ThaiHealth). Figure 2.3, for example, illustrates data collected by ThaiRoads on helmet wearing in 2011. As seen in this figure, helmet-wearing rates were found to be less than 60 percent in all of the provinces except for Bangkok, Nonthaburi and Phuket.

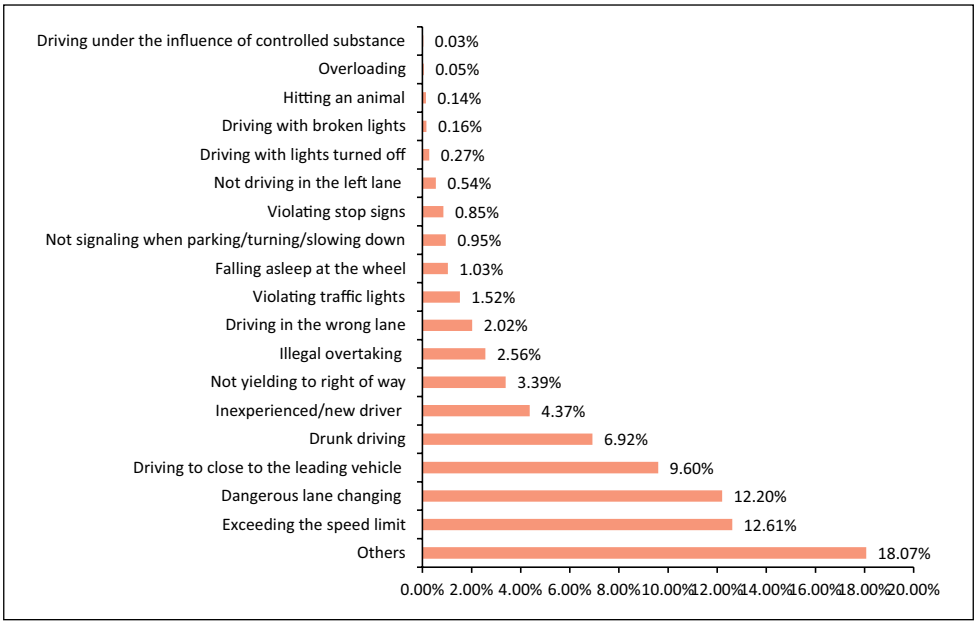
Figure 2.3: Helmet Wearing Rates in Thailand, 2011



Source: ThaiRoads, 2011

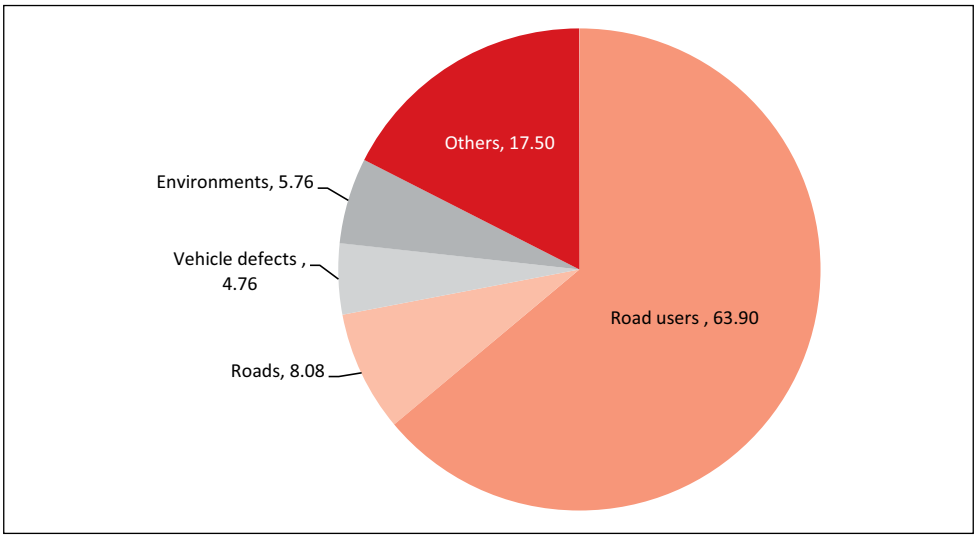
Additionally, the Royal Thai Police also conducts analysis on an annual basis to identify the leading causes of road traffic crashes in Thailand. In 2013, speeding was identified as the main factor (12.6%), followed by dangerous lane changing (12.2%), driving too close to the leading vehicle (9.6%) and drink driving (6.9%) (Figure 2.4). When disaggregated by the categories "human error," "vehicle defects," and "road infrastructure and environments," it was found that in 2013 human errors accounted for the majority of the road traffic crashes (77.5%), followed by vehicle defects (1.3%) and the environment (0.4%). Likewise, figure 2.5 reveals that human errors accounted for the majority of the road traffic crashes in Thailand (63.9%) between 2006 and 2013.

Figure 2.4: Factors Influencing Road Traffic Crashes, 2013



Source: Royal Thai Police, 2013

Figure 2.5: Factors Influencing Road Traffic Crashes, 2006–2013



Source: Royal Thai Police, 2006–2013

2.5 Economic Burden of Road Traffic Injuries in Thailand

The economic burden of road traffic injuries in Thailand is immense. According to the 2015 Global Status Report on Road Safety, the country lost 3.0 percent of its GDP to road traffic crashes.[1] Data from the Royal Thai police also revealed that, on average, 328 million Baht is lost each year as a result of road traffic crashes (Table 2.4). This translates to 0.007 percent of the national GDP.

Table 2.4: Economic Burden of Road Traffic Crashes, 2007–2012

Year	Number of crashes	Economic loss (Baht)	GDP (Million Baht)	Economic loss as % of GDP
2007	101 752	115 003 226	4 259 633	0.003
2008	88 721	115 185 057	4 370 056	0.003
2009	84 806	153 804 223	4 298 954	0.004
2010	74 379	361 101 087	4 395 796	0.008
2011	68 269	577 230 370	4 471 627	0.013
2012	61 197	649 152 504	4 800 209	0.014
Total	479 124	1 971 476 467	26 596 275	0.007
Average	79 854	328 579 411	4 432 713	0.007

Sources: Royal Thai Police Information Centre, 2012; Information Centre, Office of Transport and Traffic Policy, Ministry of Transport, 2012; National Economic and Social Development Board, 2012

In 2007, the Department of Highways also led a study to examine the social cost of road traffic crashes in Thailand using the human capital approach. This method captured costs associated with three categories: human costs, property damage costs and general crash costs.[15] As seen in the table below, the study revealed the cost per fatal case in Thailand, for example, was between 3.9 million and 4.6 million Baht and the cost per disability was between 4.5 million and 5.4 million Baht. When examining Bangkok alone, the cost per fatal case was between 8.3 million and 9.7 million Baht and the cost per disability was 9.1 million and 10.9 million Baht.

Table 2.5: Social Cost of Road Traffic Crashes, 2007

	Cost per fatal case (Baht)	Cost per disability (Baht)	Cost per severe injury case (Baht)	Cost per slight injury case (Baht)	Cost per case of property damage (Baht)
Thailand	3 959 387– 4 658 004	4 503 479– 5 404 175	123 245– 128 836	30 289– 30 461	40 220
Bangkok	8 259 264– 9 708 474	9 081 183– 10 894 420	257 850– 264 419	135 446– 135 695	128 617
Provinces other than Bangkok	3 721 920– 4 379 084	4 386 606– 5 263 927	116 409– 121 951	23 227– 23 394	31 178

Source: Department of Highways, 2007

3

Road Safety Management System in Thailand

3.1 Organizations involved in Road Safety

Road safety is a multi-disciplinary field, involving many sectors. In Thailand, several governmental organizations are directly and indirectly involved in road safety at the policy, management, and operational levels. The key organizations include the Royal Thai Police, Ministry of Education, the Departments of Highways, Rural Roads and Land Transport under the Ministry of Transport, the Department of Disease Control under the Ministry of Public Health, the National Institute for Emergency Medicine, and the Road Accident Victims Protection Company.

Table 3.1 summarizes the roles these eight key governmental organizations (except the Road Accident Victims Protection Company) play in implementing road safety activities in Thailand. The activities are categorized according to the five pillars set forth by the Global Plan for the Decade of Action for Road Safety 2011–2020, which includes road safety management, safer roads and mobility, safer vehicles, safer road users and post-crash response.[16] As illustrated in the table, three organizations (Royal Thai Police, Ministry of Education and Department of Disease Control) are currently responsible for safer road users, and two (Departments of Highways and Rural Roads) are tasked with safer roads and mobility; no organization is solely involved in road safety management.

In addition to governmental organizations, there are also many other types of stakeholders involved in road safety in Thailand, such as the Thai Health Promotion Foundation, non-governmental organizations (NGOs) and private companies.

Thai Health Promotion Foundation (ThaiHealth) plays a unique role in Thailand's road safety landscape. Established by the Health Promotion Fund Act in 2001, this autonomous state agency is primarily funded by a surcharge levied on Thailand's

Table 3.1: Key Governmental Organizations and the Five Pillars

	Pillar 1: Road safety Management	Pillar 2: Safer roads & mobility	Pillar 3: Safer vehicles	Pillar 4: Safer road users	Pillar 5: Post-crash response
Royal Thai Police				X	
Ministry of Education				X	
Department of Highway		X			
Department of Rural Roads		X			
Department of Land Transport			X		
Department of Disease Control				X	
National Institute for Emergency Medicine					X
Road Accident Victims Protection Public Company					X

tobacco and alcohol excise taxes. In 2010, ThaiHealth's budget was approximately USD$ 100 million. About USD$ 9.3 million of this budget was dedicated to alcohol control programs, USD$ 6.6 million to road safety programs, USD$ 6.5 to physical activity programs, and USD$ 5.3 million to tobacco control programs.

The primary role of ThaiHealth in road safety is to foster collaboration between governmental organizations and other types of stakeholders. As such, ThaiHealth works with key governmental organizations including the Department of Disaster Prevention and Mitigation, the Department of Disease Control, the National Institute for Emergency Medicine, the Department of Land Transport, the Department of Highway, the Department of Rural Road and the Royal Thai Police. ThaiHealth also supports and sponsors the Provincial Road Safety Team, Road Safety Group, ThaiRoads, Accident Prevention Network, Thaicycling Club, and Don't Drive Drunk Foundation (Table 3.2).

In addition to fostering collaboration, ThaiHealth's funding for road safety programs is also dedicated to advocacy, research and the dissemination of evidence. Unfortunately, funding support for road safety has been decreasing in recent years due to ThaiHealth's increasing role in health promotion in the country.

Table 3.2: Organizations and Networks Supported by ThaiHealth

	Description
Provincial Road Safety Team	A multisectoral network of organizations including provincial governmental organizations, universities, private organizations, and NGOs that are working together to promote road safety at the provincial and local levels.
Road Safety Group	An organization that promotes road safety knowledge development, utilization, dissemination, and transfer at the policy-level and through the public media.
Thailand Road Safety Observatory (ThaiRoads)	A network of researchers from many institutions in Thailand. ThaiRoads is supported by ThaiHealth funds and aims to disseminate road traffic injury data to all stakeholders, and promotes and supports the use of data. ThaiRoads also monitors and evaluates district, provincial and national level road safety plans to ensure concrete outcomes.
Accident Prevention Network	An advocacy network that is primarily concerned with road traffic crash reduction and prevention. The objectives of this network are to coordinate with ThaiRoads, increase road safety awareness particularly during special times of the year (i.e New Year and Songkran) and develop as well as improve collaborative strategies in promoting road safety campaigns and monitoring of road safety activities.
Thaicycling Club	A club that seeks to promote walking and biking in daily life and other activities for public benefit and peace.
Don't Drive Drunk Foundation	A foundation that seeks to prevent drinking and driving. The specific aims are to increase awareness about the dangers of drink driving, encourage Thai police to strictly enforce drink driving laws, support individuals to encourage others not to drink and drive, and promote the strengthening of laws related to drink driving.

Asia Injury Prevention Foundation (AIP) seeks to prevent road traffic fatalities and injuries in low-and-middle-income countries. In 2006, AIP established a branch in Thailand and launched the Thailand Helmet Vaccine Initiative in collaboration with many governmental organizations. Through this project, AIP trained children, teachers and parents on the importance of helmet use, supported the government's social marketing campaigns, and developed model road safety communities.

Safe Kids Worldwide is a global organization that seeks to prevent child injuries around the world. Safe Kids Thailand supports numerous programs in the country that help create safety culture among school children so that these children would develop safe commuting habits.

Many private companies in Thailand such as Toyota, A.P. Honda, Thailand Motorcycle Enterprise Association, Michelin, British Standard Institute, Chevron, and SCG are also involved in road safety through their corporate social responsibility programs. Activities often include social marketing campaigns, trainings for drivers and riders, school education, and community projects.

3.2 Road Safety Management System

In order to strengthen coordination amongst the diverse set of organizations involved in road safety in Thailand and to achieve the decade's goal, a management system was established on January 14, 2011 by Prime Minister Abhisit Vejjajiva through an executive order known as the "Prevention and Reduction of Road Accidents." This management system has four primary responsibilities[17]:

(1) Prepare the road safety master plan; this includes setting targets and measures to be approved by the cabinet and carried out by all parties

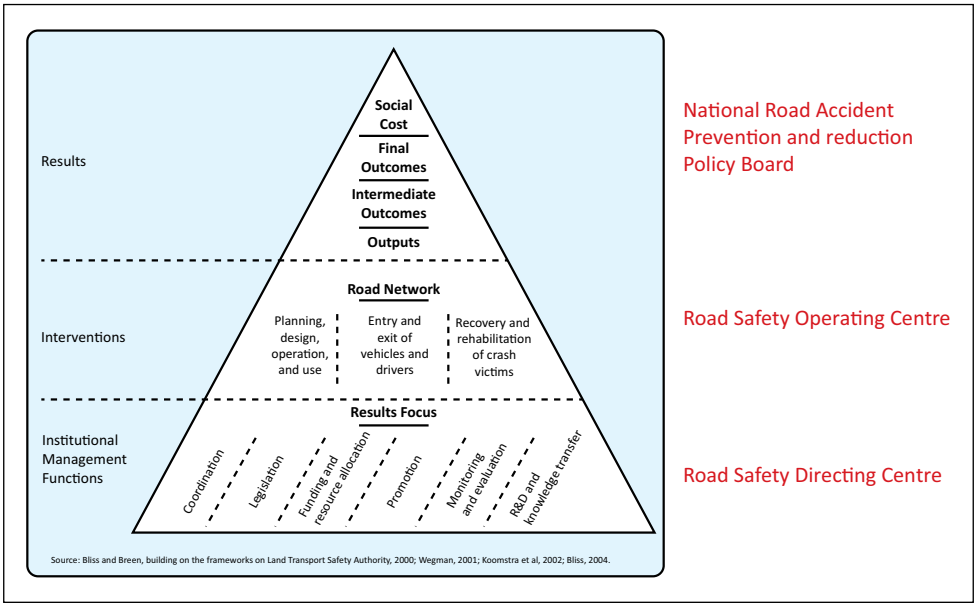
(2) Set up unifying measures through the road safety management system

(3) Promote and support the development of road safety standards. This includes standards for traffic management, roads, vehicle and post-crash care

(4) Promote safety culture in Thailand

This executive order also divided the management system into three levels: policy, management, and operations.[17] When comparing these three levels to the conceptual framework, the *National Road Accident Prevention and Reduction Policy Board* ("the Board") focuses on result by setting targets for final and intermediate outcomes. The *Road Safety Operating Centre* focuses on interventions and the *Road Safety Directing Centre* ("the Centre") focuses on institutional management function (Figure 3.1). It is important to note that these "centres" are in reality boards or committees and not actual "centres."

Figure 3.1: Comparing the Management System with the Framework



Source: Adapted from Bill & Breen, 2013

The *Road Safety Operating Centre* is mainly responsible for implementation at the district, and local levels and is not directly involved in enacting laws and regulations. It is, however, involved in the enforcement of laws and regulations. The structure of the *Road Safety Operating Centre* can vary depending on the issue or interest of provinces, districts and/or local administrations. As such, only the *National Road Accident Prevention and Reduction Policy Board* and the *Road Safety Directing Centre* are described in detail in Boxes 1 and 2.

Limitations of the Management System

Although the establishment of a management system is a positive step towards addressing road safety, this system suffers many weaknesses common to the country's governmental management system. Table 3.3 compares these two systems using the four main structural problems identified by Voradech Jantarason in his study "The Expansion of Government Agencies in Thai Government Management System:" 1) lack of continuity in meetings, 2) the presence of key agencies with roles in all committees, 3) the Prime Minister serving as the chair of many committees, and 4) the presence of organizations with no real tasks or roles in the committees.[18]

Box 1: National Road Accident Prevention and Reduction Policy Board ("the Board")

Position	Assigned Member
Chair	Prime Minister or Assigned Deputy Prime Minister
Vice-chair	Minister of Interior Minister of Transport Minister of Justice Minister of Public Health Minister of Education
Public Sector Member	Permanent Secretary of the Prime Minister Office Permanent Secretary of Ministry of Transport Permanent Secretary of Natural Resources and Environment Permanent Secretary of Ministry of Justice Permanent Secretary of Ministry of Labour Permanent Secretary of Ministry of Education Permanent Secretary of Ministry of Public Health Permanent Secretary of Ministry of Industry Secretary General for the Office of the Council of State Secretary General for the Office of the National Economic and Social Development Board Secretary General for the Office of the Public Sector Development Commission Director Bureau of the Budget Attorney General Royal Thai Police Commissioner General
Expert	Five positions
Secretariat	Permanent Secretary of the Ministry of Interior as Secretary Director-General of the Department of Disaster Prevention and Mitigation as Deputy Secretary

Responsibilities of the Board

(1) Set road safety policies that conform to the Disaster Prevention and Mitigation Master Plan as dictated by the law,

(2) Pre-approve the Road Safety Master Plan before it is presented to the Cabinet

(3) Approve all road safety strategies and plans,

(4) Issue orders, notices, and guidelines in accordance with the executive order,

(5) Provide comments or recommendations to the Prime Minister and the Cabinet,

(6) Perform other works assigned by Prime Minister or the Cabinet.

Source: Translated from the Executive Order "Prevention and Reduction of Road Accidents," 2011

Box 2: Road Safety Directing Centre ("the Centre")

Position	Assigned Member
Director	Minister of Interior
Deputy Director	Permanent Secretary of the Ministry of Interior Permanent Secretary of Ministry of Transport Permanent Secretary of Ministry of Public Health Permanent Secretary of Ministry of Education Royal Thai Police Commissioner General
Public Sector Member	**Ministry of Education** Secretary-General of the Office of the Basic Education Commission Secretary-General of the Office of the Vocational Education Commission Secretary-General of the Office of the Higher Education Commission Secretary-General of the Office of the Private Education Commission **Ministry of Transport** Director-General of the Department of Land Transport Director-General of the Department of Highways Director-General of the Department of Rural Roads Director-General of the Office of Transport and Traffic Policy and Planning **Ministry of Interior** Director-General of the Department of Provincial Administration Director-General of the Department of Public Works and Town & Country Planning Director-General of the Department of Local Administration Bangkok Governor **Ministry of Public Health** Director-General of the Department of Disease Control Secretary-General of National Institute for Emergency Medicine **Ministry of Justice** Director-General of the Department of Probation **Ministry of Labour** Director-General of the Department of Labour Protection and Welfare

Position	Assigned Member
	Office of the Prime Minister Director-General of the Government Public Relations Department **Ministry of Industry** Secretary-General Thai Industrial Standard Institute **Ministry of Natural Resources and Environment** Director-General Natural Park, Wildlife and Plant Conservation Department **Not-under Ministry** Commissioner of Royal Thai Police Strategic Office Director of Thai Health Promotion Foundation Secretary-General of the Office of Insurance Commission Director-General of the Office of the Decentralization of the Local Government Organization Committee Managing Director of Road Accident Victims Protection Company
Expert	Five positions
Non-government Organization	Don't-Drive-Drunk Foundation Office of Accident Reduction Network President of National Municipal League of Thailand President of Provincial Administration Organization Council of Thailand President of Local Administration Organization Council of Thailand
Secretariat	Director-General of the Department of Disaster Prevention and Mitigation as Secretary

Responsibilities of the Centre

1. Prepare recommendations, policies, master plans, strategies, and plans related to road safety to be approved by the Board,
2. Integrate plans and budgets related to road safety of all government and other agencies
3. Manage, monitor, mobilize, coordinate and evaluate all activities related to road safety,
4. Set up road accident database, statistics, and reports,
5. Conduct researches related to road safety and capacity building of those working in road safety,

6. Provide knowledge about road safety activity to the public,
7. Recommend to the board on working incentives for government agencies and employees directly involved with road safety achievements,
8. Provide written reports about the road safety situation in Thailand to Prime Minister and the Cabinet,
9. Recommend to the board for necessary order, notice, and guideline to facilitate this Executive Order more effectively,
10. Enquire representative from agency or individual for fact or opinion as related to this Executive Order,
11. Interpret and conclude any issue related to this Executive Order,
12. Set up subcommittee or working group as necessary,
13. Other works assigned by the Board

Source: Translated from the Executive Order "Prevention and Reduction of Road Accidents," 2011

As illustrated in Table 3.3, the aforementioned road safety committees are primarily led by high-level politicians who are also members of hundreds of other committees in the country. The Prime Minister, for example, currently chairs "the Board" and more than five hundred additional committees. Consequently, it is often challenging for these road safety committees to convene and for most of the members to attend. Since its inception in 2011, "the Board" has only met twice and the Deputy Prime Minister attended only one of the two meetings. During the most recent meeting, the Deputy Permanent Secretary of the Ministry of Interior served as the chair. This Deputy Permanent Secretary also frequently chaired the *Road Safety Directing Centre* meetings during the previous government.

Moreover, due to committee members' heavy workloads and schedules, these members, including essential ones such as the Ministry of Interior and the Bureau of the Budget, often use substitute members in their absences. This in turn creates more communication problems between the different departments. In many instances, the substitute members also have to wait for approval from the administrators before decisions can be made, causing further delays.

There are also budgetary issues. Even though most of the involved governmental departments are members of the committees, they still experience resource limitations within their own departments. This is as a result of the budget management structure within the Ministries where multiple layers of approval are required. Furthermore, under Thailand's budgetary system, each governmental department sets its own programs

Table 3.3: Thailand's Comparing the Government Management System and the Framework of Road Safety Management Systems

Structural Problems	Government Management System	Road Safety Management System
Lack of continuity in meetings	Some committees have not had any meetings in more than 2 years	"The Board" only met twice in the last 4 years
Presence of key organizations with roles in all committees	Some of the high-level politicians from key organizations (i.e. Budget Bureau, Ministry of Interior, Royal Thai Police, and Department of Public Communication) are constantly being appointed to committees, (i.e. Director General of Public Communication Department was appointed to be on about 200 committees)	Only representatives from the appointed organizations attended road safety meetings and most of them have no authority to make decisions. Accordingly, those organizations did not make any policy or implementation commitments
Prime Minister serving as the chair of many committees	The Prime Minister chairs about 500 committees. As such, it is very difficult to set up meetings and most of the time the Prime Minister only chairs meetings that concerns his/her key policies. High ranking executives would also only choose to attend those meetings	The Deputy Prime Minister is the chairperson of "the Board" but only attended one of the two meetings
Presence of organizations with no real tasks or roles in committees	Many agencies are assigned to committees without being given any specific role or tasks. They are only appointed as they appear to have some capacity	An example is the Department of Wildlife Conservation which has rarely attended any meetings since it is unclear what its role is in road safety

and projects for the fiscal year. Most of these departments will prioritize their budgets towards their main functions. As such, when road safety is not the main function, related programs will not be created within those departments.

Table 3.4 compares the expected functions of a lead road safety agency with the existing Thai system. According to the World Bank, key functions of the road safety management system should include result-focused management, promotion, monitoring and evaluation, as well as research and knowledge dissemination.[9] As illustrated in the table, the country recently achieved consensus on eight key road safety problem areas

Table 3.4: Analysis of the Road Safety Management System's Functions

Tasks	Institutional Role	Status of Thailand
Result-focused Management	Manage the process of governmental assessment of road safety performance	One of the subcommittees is responsible for this specific task, but has no human or financial resources to fulfill this task
	Identify and bring together key stakeholders and partners that can and will deliver actual road safety results	Key stakeholders have been appointed to each level of the management system through the executive order
	Initiate Road Safety Capacity Assessments	It was identified as part of the SWOT analysis in developing the Government Road Safety Plan, but no actual assessments were undertaken
	Chair governmental road safety performance assessments	There currently exists an inter-ministerial committee known as "the Board." However, no assessments have been reported during those meetings
	Prepare reports, papers and bulletins reporting on road safety performance	There is an annual report issued by the Road Safety Directing Centre that includes yearly situational report, research papers and activities
	Achieve consensus on key problem areas in the road safety management system	Eight key problem areas have been identified as part of the Decade of Action for Road Safety in Thailand and are being adopted by the government and stakeholders
	Follow up on agreed action	Programs and activities are fragmented due to the lack of funding and poor coordination
Promotion	Study and propose a long term and far reaching road safety vision	The government has adopted a target for the Decade of Action to reduce road traffic fatality to under 10 per 100 000 population by 2020
	Present the road safety vision with government and other partners and with stakeholders and society as a whole	This is not a structured task and no agency has been given this responsibility

Tasks	Institutional Role	Status of Thailand
	Encourage all ministers in the road safety partnership to play an active role in creating awareness of road safety challenges and to promote policy initiatives in the media	Not all ministries are represented; road safety is also not high on the list of priorities for those ministries
	Ensure that regular information is available and accessible on the key road safety problems as well as on upcoming policy initiatives to achieve results	It is not clear which agency is responsible for this although some of this work is currently being done by ThaiRoads with support from ThaiHealth
	Develop in-house capacity for road safety promotion as well as contracting out targeted road safety advertising in support of the major themes of the national road safety strategy	None
	Mobilize local leadership and support to help achieve road safety goals	Local administration's role is more focused on two special campaigns, i.e., New Year and Songkran 7-day campaigns
	Develop and fund targeted community road safety programs and support local road safety coordinators	Local governments are responsible for local initiatives and there currently is no coordination
Monitoring and Evaluation	Establish databases to identify and monitor final outcomes and their outputs	Databases are maintained by various agencies including police, hospital, insurance, road authorities and land transport authority. These agencies use different definitions and sets of parameters
	Establish links between police reports and hospital admissions data so as to assess levels of underreporting	Currently, there is a plan to link police, hospital, and insurance data to gain a more accurate estimate of road fatality
	Conduct before and after studies to establish the effectiveness of specific road safety measures and in-depth studies to ascertain contributory factors, and the causes and consequences of injury	None

Tasks	Institutional Role	Status of Thailand
	Ensure that the results of monitoring and evaluation are presented and discussed at all levels of the road safety strategy coordination hierarchy to improve the focus on achieving results	This is being undertaken by researchers at universities and not at the systems level
Research and Knowledge Dissemination	Ensure in-house capacity for road safety research and management as well as contract out to road safety research organizations[9]	Currently, only ad hoc research studies are being carried out by research universities. It is unclear which agency is responsible for research
	Establish a national road safety research program to address the needs of road safety strategy with annual review of needs and consultation with external experts[9]	There is a proposal to establish a national road safety research program in the national plan but responsibilities have yet to be assigned
	Develop and fund demonstration projects in areas which offer large potential for road casualty reduction and use the successful results to rollout the projects on national scale[9]	Most of demonstration projects that have been carried out were conducted by international organizations (i.e. Global Road Safety Partnership, Asia Injury Prevention) or sponsored by ThaiHealth with no direct link to the management system. Limitations with human resources and budget have prevented the follow up or scale up of these demonstration projects
	Employ a variety of means for training and knowledge dissemination including professional exchange and attendance at road safety courses, seminars, and workshops[9]	Currently, there are numerous trainings organized by multiple agencies, which have resulted in fragmentation of knowledge. A core set of competencies for road safety professionals is needed
	Assign specific annual budgets for road safety research for in-house and external research[9]	Road safety is not a priority research topic for the National Research Council of Thailand which means there is no budget for road safety research studies

and adopted a target to reduce road traffic fatality to less than 10 deaths per 100 000 population by 2020. There was also a plan in 2010 to improve road safety data quality by manually linking the police, hospital, and insurance data. These major steps were taken as part of the Decade of Action for Road Safety in Thailand (Table 3.4).

Unfortunately, many challenges remain. Due to the lack of funding and poor coordination, road safety programs and activities continue to be fragmented. The issue also does not appear to be a priority for many ministries or the National Research Council of Thailand, which translates to insufficient funding for road safety related studies. To date, the majority of the demonstration projects that have been undertaken were largely conducted by international organizations. Resource limitations have also prevented the scale up of these demonstration projects (Table 3.4).

Secretariats of the Management System

The primary role of the secretariat of each of the three centres (*the National Road Accident Prevention and Reduction Policy Board*, *the Road Safety Directing Centre* and *the Road Safety Operating Centre)* is to coordinate the various governmental organizations with road safety responsibilities. The Department of Disaster Prevention and Mitigation (DDPM), which is housed within the Ministry of Interior, serves as the secretariat, hence key coordinator, for all the three centres (Box 1 and 2); the provincial DDPM serves as the secretariat for the *Provincial Directing Centres*.

DDPM was selected for this key function for several reasons. First, all provincial governors and local administrators fall under the Ministry of Interior. Consequently, interest from the Minister will carry more weights, which in turn means that tasks will likely be executed at the provincial and local levels. The Ministry of Interior also has strong ties at the community level through its network of sub-district and village headmen. Second, it is believed that safety culture needs to be built from the bottom-up. This is consistent with one of DDPM's missions to develop safety culture in every community. The selection of DDPM as the key coordinator explains why, in Thailand, road safety committees are named "centres" - a common term used in disaster management.

In order to assist the secretariat of the *Road Safety Directing Centre*, six subcommittees were established under the Centre's orders. These six subcommittee include:

- Road Safety Management Subcommittee
- Safer Road Subcommittee

- Safer Vehicle Subcommittee
- Safer Road User Subcommittee
- Post-crash Care Subcommittee
- Data System Subcommittee

Most members of the subcommittee are assigned on an individual basis based on their expertise; only the chairperson and the secretariats are assigned based on position and organizational affiliation (Table 3.3).

Table 3.5: Subcommittees, Chairperson and Secretariats

Subcommittees	Chairperson	Secretariats
Road Safety Management	Deputy Permanent Secretary General of Ministry of Interior	Department of Disaster Prevention and Mitigation
Safer Road	Deputy Permanent Secretary General Of Ministry of Transport in charge of infrastructure	Department of Highway Department of Rural Road Office of Transport Planning
Safer Vehicle	Deputy Permanent Secretary General Of Ministry of Transport in charge of transport	Department of Land Transport
Safer Road User	Deputy Commissioner General	Royal Thai Police
Post-Crash Care	Deputy Permanent Secretary General Of Ministry of Public Health in charge of Health Development	Bureau of Public Health
Data System	Deputy Director General of Department of Disease Control	Department of Disease Control

Limitations of the Secretariats of the Management System

The secretariats, however, are only able to coordinate; they have no actual power or authority over the other organizations. Their capacity is also influenced by the fact that they cannot approve funds for road safety programs. DDPM, for example, only allocates budget for meetings. As such, members of the committees need to use their own budget to fund the other activities. Moreover, the current team also lacks capacity and sufficient knowledge to fulfil all required tasks. There is also no legislation to support the secretariats' responsibilities and it is unclear whether the secretariats have responsibilities for research and development, knowledge transfer and monitoring and

evaluation. Finally, most subcommittees that were formed to support the *Road Safety Directing Centre* remain inoperative.

There are two additional and unique challenges associated with having DDPM as the key coordinator for all the three centres. First, due to the impact of climate change, disasters have increased in frequency and magnitude. DDPM personnel have thus been assigned to handle these crises and have paid less attention to road safety. Likewise, DDPM's budgets have increasingly been prioritized toward disaster preparedness and mitigation; budget allocated for road safety has, consequently, been decreasing every year. Second, DDPM is not recognized internationally as the lead agency for road safety in Thailand. As such, outside contacts frequently go directly to the Ministry of Transport or the Ministry of Public Health. This further decreases DDPM's role as the key coordinator at the policy level and in the international arena.

4

Road Safety Legislation in Thailand

Thailand is a constitutional monarchy ruled by civil law traditions with strong influences from common law traditions.[19,20] It has three branches of government: executive, legislative and judicial. Laws derive from both the legislative and executive branches.[19, 20] The judicial branch, which is comprised of all courts in Thailand, can try and adjudicate cases and is independent of the other two branches of government.[21]

Since 1932, Thailand has had 19 constitutions including the most recent 2014 interim constitution. Although a new constitution was drafted in 2015, it was ultimately rejected by the National Reform Council. It is speculated that a new constitution will not be in place until late 2016 or early 2017. Accordingly, the legal system and processes that are described in this section primarily concern the old 2007 system that will most likely remain unaffected by the current changes in the constitution.

4.1 Legislative Branch

The National Assembly was a bicameral parliament with a House of Representatives and a Senate. The House of Representative was comprised of 480 members and the Senate consisted of 150 members.[19] Any written law that was enacted by this body of government was known as *Phrarachabanyat* or "Act."[20] Table 4.1 describes the different forms of laws in Thailand.

It is important to note that, in 2014, the National Assembly was replaced by the National Legislative Assembly (*Sapha Nitibanyat).* According to the interim constitution, this new parliament is comprised of not more than two hundred and twenty members appointed by the King in "accordance with the recommendation of the National Council for Peace and Order (Section 6)."[22]

4.2 Executive Branch

The executive branch of the government is led by the Prime Minister and includes a cabinet known as the Council of Ministers. Members of the Council of Ministers can introduce bills to be voted on by the National Assembly.[21] The King of Thailand can also enact *Phrarachakamnot* or emergency decree with the approval of the Council of Ministers to "maintain national or public safety or national economic security or avert public calamity" (Section 184) (Table 4.1). [20,23]

Table 4.1: Forms of Laws

	Description
Constitutional Law	A constitutional based law defines the powers and the relationship of the three branches of the Government to one another, and the relationship between the Government and citizens in regards to fundamental rights and responsibilities.
Acts	An act is the most common known law, and is made by parliament, for example, the Copyright Act, Trademark Act, and Investment Promotion Act.
Royal Decree	A Royal Decree is promulgated by the Executive Branch normally though the Minister of the concerned Ministry authorized under a specific Act to set forth the details from time to time under the guidelines of the Act, for example, a Royal Decree to revise the tax rates under the Revenue Code.
Emergency Decree	An Emergency Decree is enacted by the executive branch, though the cabinet in an emergency to protect the country from imminent harm but subject to subsequent confirmation of the Parliament.
Codes	The Civil and Commercial Code, the Penal Code, and the Civil and Criminal Procedure Codes are well known features of civil law countries legal system. Initially, codified law consisted of multiple chapters of subject matter, but this is no longer necessary.
Administrative Agency Order	Administrative agencies are empowered by the legislature to promulgate rules and regulations to carry out government functions.
Cabinet Resolutions	Cabinet Resolutions have no binding effect but will influence the Government Agencies in the enforcement or interpretation of rules and regulations.
Municipal Ordinances	Building, health and city planning codes are examples of local government laws.

Source: www.ThaiLaws.com

4.3 Legislative Process

Figure 4.1 illustrates the legislative process in Thailand under the 2007 Constitution. In general, bills can be introduced by the Council of Ministers, at least twenty members of the House of Representatives, a court, or petition from at least ten thousand voters.[21] Typically, however, bills are prepared by relevant Ministries or divisions then submitted to the Council of Ministers for approval. If a bill is approved, it will be sent to the Office of the Council of State, which is the central government law agency. Subsequently, the bill will be returned to the Council of Ministers for a second round of approval, before it is sent to the parliament.[20] The bill must be approved by both houses of the National Assembly. The House of Representatives is the first chamber to assess and vote on the bill, followed by the Senate. Once the bill receives approval from both houses, the King will need to formally sign it into law.[21]

Figure 4.2 shows the process under the current 2014 interim Constitution. The process in the current form is faster as the National Legislative Assembly serves as both the House of Representative and the Senate. Generally, it takes about 6 to12 months for a draft to become a law.

4.4 Special Laws under the Current Interim Constitution

Under the current interim constitution in Thailand, the Head of the National Council for Peace and Order can amend a new law without having to go through the normal channels (Box 3).

Box 3: Section 44 of the 2014 Interim Constitution

Section 44. In the case where the Head of the National Council for Peace and Order deems necessary for the purpose of reforms in various fields, for the enhancement of unity and harmony among people in the country, or for the prevention, restraint, or suppression of any act which undermines public order or national security, the Throne, the national economy, or State affairs, irrespective of whether such act occurred inside or outside the Kingdom, the Head of the National Council for Peace and Order, with the approval of the National Council for Peace and Order, shall have power to order, restrain, or perform any act, whether such act has legislative, executive, or judicial force; the orders and the acts, including the performance in compliance with such orders, shall be deemed lawful and constitutional under this Constitution, and shall be final. When those have been carried out, a report shall be made to the President of the National Assembly and the Prime Minister for acknowledgement without delay.

Source: Unofficial Translation of the Council of State on Constitution of the Kingdom of Thailand (Interim), B.E. 2557 (2014)*

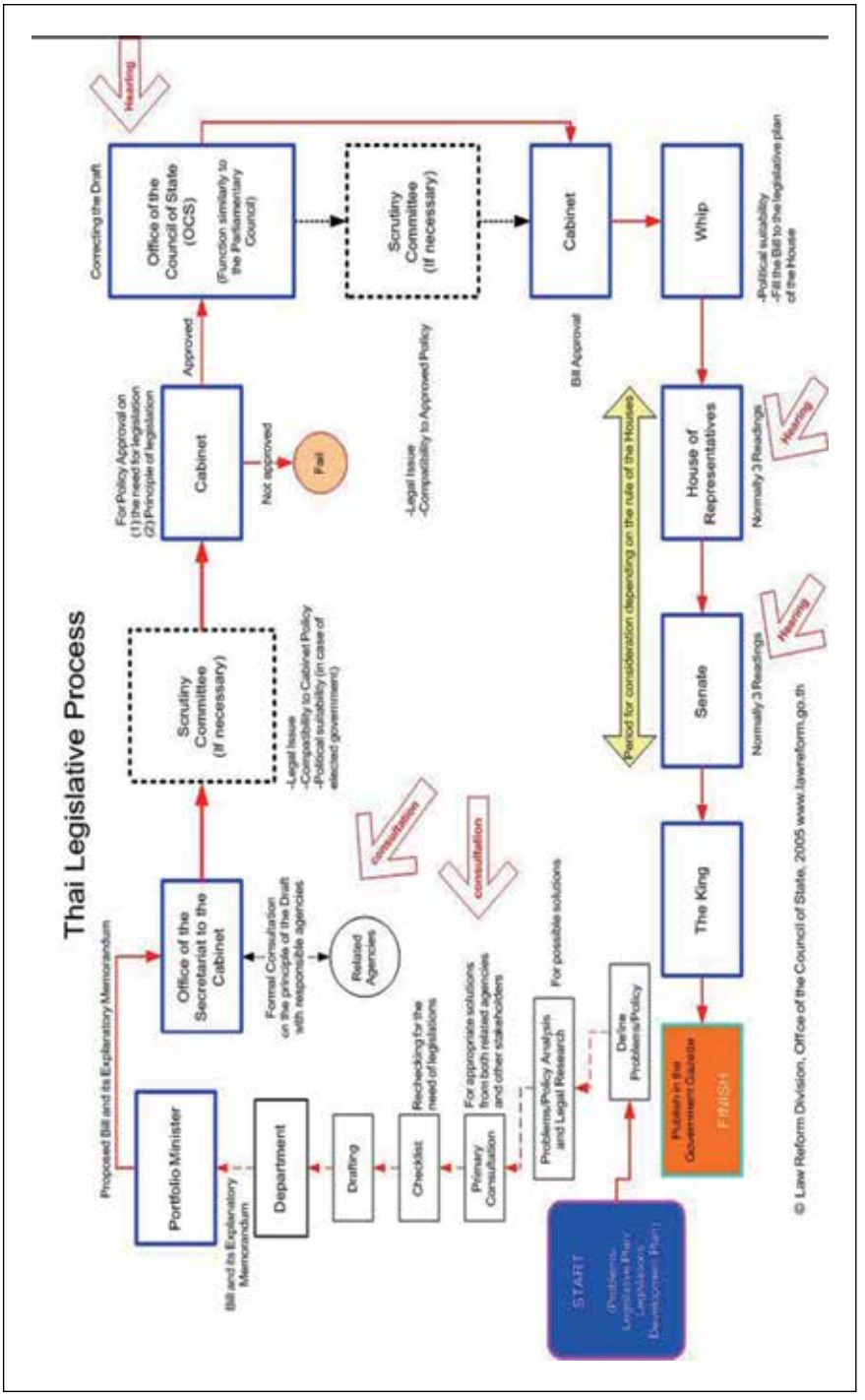
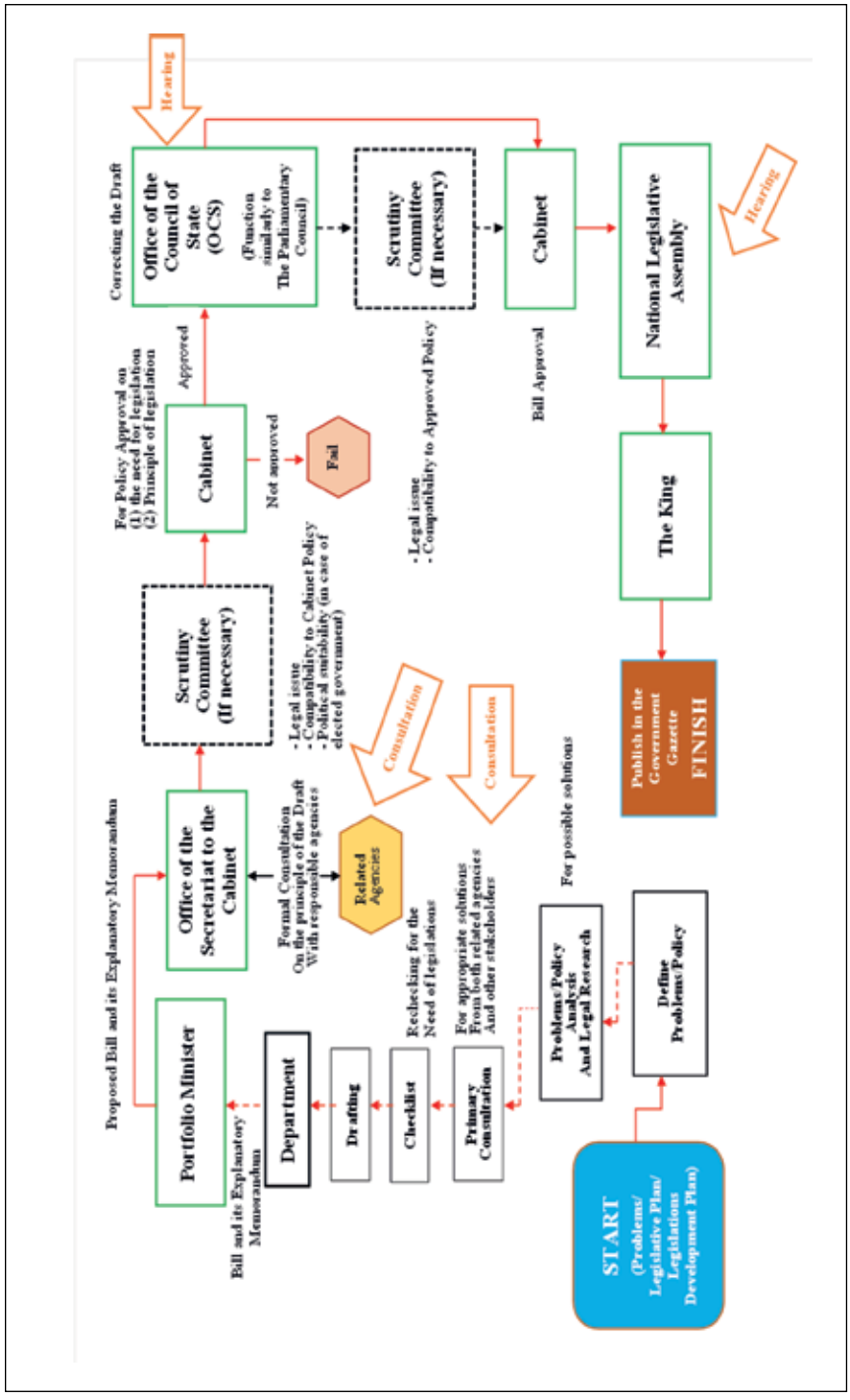


Figure 4.1: Thai Legislative Process, 2007

Source: www.ThaiLaw.com

Figure 4.2: Thai Legislative Process, 2014



Source: Adapted from www.ThaiLaw.com

Although many laws and regulations have been passed or amended with the use of Section 44, none were significant laws related to road safety. An order (Order Number 22/2558 (22/2015), which included two articles related to road safety (drink driving and anti-hoon riding), however, was enacted on 23 July 2015,

The drink-driving article punishes licensed alcohol venues for selling alcohol to anyone under the age of 20 or for allowing customers under the age of 20 to enter their premises. The punishment can range from warning to closure for up to 5 years. The second part of the article prohibits any licensed alcohol venue to be established in the vicinity of an educational institution.

The anti-hoon article focuses on parental responsibility for hoon riders. It states that parents who allow their child to ride a motorcycle without a proper license or in a manner that could lead to injuries of the child or of others can face jail time. This article also sets harsher punishments for motorcycle shops that modify motorcycle parts in such a way that the vehicle could endanger the rider or other people.

4.5 Key Road Safety Laws

Currently, there are five key laws related to road safety (Table 4.2) including the Road Traffic Act 1979, Motor Vehicle Act 1979, Transport Act 1979, Highway Act 1992 and Protection for Motor Vehicle Victims Act 1992.

Table 4.2: Key Laws related to Road Safety

Act	Details
Road Traffic Act B.E. 2522 Consist of 19 Titles 163 Sections (18 January 1979)	Title 1: Use of Vehicles Title 2: Traffic Signals and Traffic Signs Title 3: Use of Roadways Title 4: Use of Roadways with Traffic Lanes Title 5: Prescriptions of Speeds of Vehicles Title 6: Driving through Junctions or Circles Title 7: Emergency Vehicles Title 8: Towing or Pulling Vehicles Title 9: Accidents Title 10: Bicycles Title 11: Passenger Vehicles Title 12: Taxis Title 13: Pedestrians Title 14: Animals and Articles in Ways Title 15: Horse-Drawn Carriages and Bullock Carts Title 16: Safety Zone Title 17: Miscellaneous Title 18: Power of the Traffic Officer and Competent Officer Title 19: Penalty Provisions
Motor Vehicle Act B.E 2522 consist of 4 Titles 72 Section (8 May 1979)	Title 1 Registration of Motor Vehicles Title 2 Vehicle Tax Title 3 Driver's License Title 4 Penalty Provision
Transport Act B.E. 2522 Consists of 10 Titles 169 Sections (15 March 1979)	Title 1 Central Land Transport Policy Board Title 2 Land Transport Control Board Title 3 Transport Services Title 4 Compensation from Transporting Goods Title 5 Transport Operation Title 6 Vehicle Title 7 Vehicle Operation Title 8 Passengers Title 9 Transport Terminal Title 10 Penalty Provision

Act	Details
Highway Act consists of 4 Chapter 76 Section (2 April 1992)	Chapter 1 General Title 1 Type of Highways Title 2 Control of Roadways and Road Works Chapter 2 Control, Preservation of Highway Title 1 Control of Highway Title 2 Control of Special Highway Title 3 Preservation of Highway Title 4 Preservation of Right of Way Chapter 3 Right of Way Acquisition for Highway Development and Expansion Chapter 4 Penalty Provision
Protection for Motor Vehicle Victims Act B.E. 2535 Consists of 4 Chapter 47 Section (9 April 1992)	Chapter 1 Insurance Against Lost Chapter 2 Compensation Chapter 3 Victim Compensation Fund Chapter 4 Penalty Provision

Laws related to the main road safety risk factors (drink driving, helmet, seatbelt and speed) are shown in detail in Table 4.3. The only law missing is the child restraint law.

Table 4.3: Details of Laws related to the Five Main Road Safety Risk Factors

Risk Factor	Details
Child Restraint	None
Drink Driving	**Road Traffic Act** **Section 43 (400–1000 baht fine)** No driver shall drive the vehicle: • while being incompetent to drive • while being intoxicated by liquor or other alcoholic drinks • in a manner that obstructs the traffic • with carelessness or recklessness which may cause danger to persons or properties • in a manner not normally practiced in driving a vehicle or while unable to see the way in front or at the back or either/both sides clearly enough for safety • beyond or on the line dividing traffic lanes, except upon changing lanes, turning or turning around the vehicle • on a footpath without sufficient cause, except a baby-carriage or wheel-chair for sick or disabled persons • without thinking about the safety or suffering of other persons.

Risk Factor	Details
Helmet	**Road Traffic Act** **Section 122 (500 baht fine)** [The rider and the passenger of a motorcycle shall wear a motorcycle helmet. The provision under this Section is not forced for monks, novices, ascetics, persons of other religions which require wearing of a turban, or any persons under Ministerial Regulation.]
Seatbelt	**Road Traffic Act** **Section 123** The driver of vehicle must fasten his or her body with seatbelt while driving, and must render the passenger sitting on the front row seat next to the driver to fasten his or her body with seat belt while traveling. And the passenger traveling in such conveyance must also fasten his or her body with seatbelt. The category or type of vehicle, character and procedure of using seatbelt under paragraph two shall be prescribed by the Commissioner-General by publication in the Government Gazette.
Speed	**Road Traffic Act** **Section 5** The Minister of Interior shall be in charge and control the execution of this Act and shall also have the power to appoint traffic officers, and issue Ministerial Regulations prescribing other activities for the execution of this Act. Ministerial Regulations shall come into force upon publication in the Government Gazette. **Section 67 (1000 baht fine)** [The driver must not exceed the speed limit prescribed by regulation according to the type of the vehicle, or as specified on the traffic signs on the road.]

Source: Unofficial Translation by the Foreign Law Bureau, the Office of the Council of State

4.6 Road Safety Laws and Organizations

Table 4.4 shows the key road safety laws in Thailand in relation to the UN five pillars. It also identifies the governmental organizations responsible for the laws. The Royal Thai Police, for example, is the key organization responsible for the Road Traffic Act. This Act relates to Pillar 4 Safer Road User. The Motor Vehicle, Transport, Alcohol Beverage Control, Occupational Safety, Health and Environment, and Industrial Product Standard Acts also concern Pillar 4. Four different organizations are responsible for these five Acts.

Table 4.4: Road Safety Laws, Organizations and the Five Pillars

Law	Relation to Road Safety	Responsible Organization
Road Traffic Act B.E. 2522 (1979)	Pillar 4 • Speeding • Driving Under Influence • Seatbelt • Helmet	Royal Thai Police
Highway Act B.E. 2535 (1992)	Pillar 2 • Road Standard and Functional Hierarchy • Road Design and Construction • Road Maintenance and Blackspot Improvement • Weight Limit for Vehicle • Speed Limit	Department of Highway Department of Rural Roads
Motor Vehicle Act B.E. 2522 (1979)	Pillar 3 • Vehicle Standard and Homologation and Testing Pillar 4 • Driver's Licensing	Department of Land Transport
Transport Act B.E. 2522 (1979)	Pillar 3 • Quality of Service for Public Vehicles • Safety Standard for Public Vehicles • Permit for Concession for Service Route Pillar 4 • Driver's Licensing and Permit • Working Hours Regulation	Department of Land Transport

Law	Relation to Road Safety	Responsible Organization
Alcoholic Beverage Control Act B.E. 2551 (2008)	Pillar 4 • No alcohol beverage on any vehicle • No Sale of Alcohol on Gas Station • Limit Age for Alcohol Purchase and Penalty for any store that sells it to the underage	Department of Disease Control
Protection for Motor Vehicle Victims Act B.E. 2535 (1992)	Pillar 5 • Insurance and Compensation	Road Accident Victims Protection Company
Occupational Safety, Health, and Environment Act B.E. 2554 (2011)	Pillar 4 • Work-related Road Safety • ISO 39001 • Working Hours Regulation	Department of Labour Protection and Welfare
Industrial Product Standards Act B.E. 2511 (1968)	Pillar 4 • TIS 18001 or BS OHSAS 18001 • TIS 39001 or ISO 39001	Thai Industrial Standard Institute
Emergency Medical Act B.E. 2551 (2008)	Pillar 5 • Emergency Medical Service and Response	National Institute for Emergency Medicine

4.7 Limitations of Existing Road Safety Laws

Despite the presence of these laws, many existing studies suggest issues that have hampered the effectiveness and enforcement of the laws. The following sections explain the key findings.

Amendments Required to Improve Road Safety

In 2011, Kongsan Pongtreekaew et al. conducted a landmark study where they reviewed the state of the road safety laws in Thailand (i.e., Road Traffic Act, Highway Act, Motor Vehicle Act, and Transport Act). This study, which was supported by ThaiHealth, provided recommendations for the organizations responsible for the road safety laws in Thailand

such that they would be able to implement the laws more effectively. The authors offered in-depth knowledge about the Road Traffic Act and reasons why it has not been as effective as similar Acts in other countries. Pongtreekaew et al. also provided recommendations that could help improve the Road Traffic Act including the following:[24]

Drink Driving

- Amend the law such that drivers cannot refuse to take breathalyzer tests; allow police to seize control of the driver or vehicle if the driver refuses to take the breathalyzer test
- Penalize car owners who allow drunk drivers to borrow their cars
- Define penalty (financial and demerit point) based on degree of severity of infraction above established limit

Helmet

- Increase the severity of the punishment
- Enact a helmet law for children under 12

Speeding

- Define penalty (financial and demerit point) based on degree of severity of infraction above established limit
- Consider a traffic fund to support the work of traffic police
- Establish clear central business district zones in metropolitan areas; reduce speed limit in those zones and other areas with high population density
- Set different speed limits for cars and motorcycles

Seatbelt

- Mandate seatbelt use among rear seat passengers
- Enact a child restraint law

Management System

- Create Central and Provincial Traffic Management Committees
- Reduce speed limit for school zones to under 40 km/hr
- Reduce speed limit for intersections to 50 km/hr in urban area and 60 km/hr in non-urban areas

Traffic Control Device

- Enact a regulation to establish a uniform standard for traffic control device

Road Safety Audit and Accident Investigation

- Enact a mandate and regulations to ensure the independence and professionalism of road safety audits and accident investigations

Management of Traffic Police

According to Buddhagarn Ratchatorn et al. (2008), traffic police lack equipment and manpower to handle both traffic management and law enforcement. Moreover, one of the underlying problems is the lack of professionalization within the organization. For example, there is no career path for traffic police officers unlike other Royal Thai Police groups. The position of a traffic police officer is often considered a stepping-stone to a higher position like an inspector.[25] The authors provided recommendations to help improve traffic police management in Thailand:

- Establish a Traffic Police Development Division within in the Royal Thai Police to serve as the centre for training traffic police and managing resources (i.e. equipment and human resource)
- Develop road traffic management experts within the organization and other sectors
- Outsource some of the administrative work from traffic police (i.e. documentation, filing, data management)

Policy Recommendations:

- Inform the government about the current situation of traffic enforcement within the Royal Thai Police; promote more effective enforcement by providing the government with recommendations and encouraging public support
- Provide sufficient budget and equipment to the police to ensure effectiveness
- Examine the possibility of setting up funds to support police work from other budget sources (i.e. fuel tax, road tax).

Road Safety Risk Factors

With regards to road safety risk factors, Peerapon Srising reviewed court rulings on drink-driving cases in 2010, interviewed judges to elicit their opinions about drink-driving cases, and provided recommendations on how to improve social quality as well as the effectiveness. [26] Recommendations included the following:

- Need for in-depth studies that compare intentional and reckless endangerment in drink-driving cases
- Need for further studies on collaborative justice research
- Develop a model to better understand the entire process
- Conduct a public opinion poll to determine public perceptions about the severity of the problem, satisfaction with law enforcement, and the appropriate level of punishment

A study conducted by Kunnawee Kanitpong et al. in 2008 provided recommendations for appropriate speed limits (Table 4.5). For roads where vulnerable road users are frequently present, for example, the authors recommended a speed limit of 30 km/hr.[27]

Table 4.5: Recommended Speed Limit by Type of Roads

Type of Roads	Recommended Speed (km/hr)
Road with vulnerable road users	30
Intersection with high risk of side-impact accidents	50
Roads with unprotected roadside hazards	50
Roads with high risk for head-on collisions	70
Roads with no risk for head-on and side-impact accidents	>100

Source: Kanitpong et al., 2008

A study conducted by Pateep Duangduen et al. in 2014 provided recommendations that can help improve the driver's licensing system as well as its implementation.[28] The main recommendations of the study were as follow:

- Establish a new driver's license classification system (Table 4.6)
- Carry out the short, middle and long-term implementation plans

Table 4.6: Recommended Driver's License Classification System

Class	Description
A	Motorcycles with a cylinder capacity not exceeding 125 cubic centimeters
A1	Motorcycles with a cylinder capacity not exceeding 400 cubic centimeters
A2	Motorcycles with a cylinder capacity exceeding 400 cubic centimeters
B	Three-wheeled vehicles
C	Car
B+, C+	Motor vehicle in Class B or C with a trailer
D	Goods vehicles with a maximum authorized mass of not more than 3500 kilograms
D1	Goods vehicles with a maximum authorized mass of more than 3500 kilograms
D+	Motor vehicle in Class D or D1 with a trailer
E	Light buses with a maximum of 20 seats.
E1	Light buses with a maximum of more than 20 seats
E+	Motor vehicle in Class E or E1 with a trailer
S	Tractor, Roller, or Special-purpose Vehicle

Source: Duangduen et al., 2014

Short-term

- Educate people about the importance of driver's license
- Improve training and testing
- Develop a demerit point system within related agencies, i.e., police, department of land transport and the court
- Increase the number of approved driving schools

Medium-term

- Improve the Motor Vehicle and Transport Acts to support the new driver's license classification system, training and testing, and driving school systems
- Encourage road safety curriculum in schools

Long-term

- Combine the Motor Vehicle and Transport Acts into a single act
- Improve penalty provision
- Combine driver's license with the national ID card

5

Conclusions and Recommendations

This in-depth analysis revealed that Thailand has a management system for road safety and most of the necessary laws in place to provide safety on the roads. In 2011, the country established a management system to coordinate all stakeholders and activities required to achieve the goal of the Decade of Action. This system was endorsed by the government through the executive order and includes all organizations with legislative power to address road safety. Thailand also has laws that target the main road safety risk factors except for a child restraint law. Despite the presence of a management system and the necessary laws, road traffic fatality rate remains exceedingly high in Thailand. Two hypotheses can be generated from this in-depth analysis: the country has 1) a weak road safety management system and 2) road safety laws that are ineffective and poorly enforced.

There is much evidence to support the claim that the current road safety management system is weak. Due to political instability, it is challenging to rely on a system in which high-level politicians chair both the policy and management boards as this limits the number of time these boards can meet. These high-level politicians are often members of hundreds of committees and, consequently, tend to only attend meetings that interest the current government. The *National Road Accident Prevention and Reduction Policy Board*, for example, has only met twice since its inception. This begs the question of whether the level of political commitment for road safety in Thailand is sufficient. Moreover, the secretariats of the three committees are only able to coordinate; they have no actual power or authority over the other organizations.

Ineffective and poorly enforced road safety laws might be a symptom of the country's weak road safety management system. It might also be due to issues with law enforcement management. Studies, for example, suggest the need for stronger penalties for law violators including financial penalties and other types of punishments. Public understanding and awareness of road safety laws also need to be enhanced. Without fostering such an understanding, implementing road safety laws would be even more challenging. There are also some evidences to suggest that poor management of

resources as well as limited resource and capacity within the traffic and highway police agencies have led to ineffective law enforcement. More studies, however, are needed to confirm these findings and to help develop a better understanding of the barriers associated with implementing road safety policies and legislations in Thailand.

5.1 Recommendations

Major changes are required to achieve the decade's goal of less than 10 road traffic deaths per 100 000 population. Recommendations include the following:

- Explore ways in which political commitment for road safety can be bolstered
- Explore alternatives for more effective management systems for road safety in order to increase effective collaboration among multisectoral partners and reduce the challenges associated with the lack of political commitment
- Establish a robust support system for the secretary team in order to build capacity, enhance knowledge, research and other competencies required to be effective
- Amend existing laws such that they are consistent with international standards. This includes:
  - Enacting a child restraint law
  - Reducing urban speed limits
  - Lowering the legal blood alcohol concentration limit for novice drivers
  - Requiring rear seat passengers to wear seatbelt
- Improve the effectiveness of law enforcement. This will require stronger penalties, adequate equipment, effective fine collection and the establishment of a national demerit point system
- Increase public awareness of road safety and road safety laws through social marketing campaigns
- Support research that concerns road safety policies and legislations in Thailand

PART 2

6

In-Depth Analysis of Thailand's Road Safety Laws

The five main risk factors for road safety as identified by the WHO are child restraint, drink-driving, helmet, seatbelt and speed. This chapter assesses the laws related to these five main risk factors in Thailand using the checklists provided by the *WHO Strengthening Road Safety Legislation Manual*.[10]

6.1 Speed

Speed limits, under Thai law, are specified under both the Road Traffic Act. B.E. 2522 (1979) Section 67 and the Highway Act B.E. 2535 (1992) section 5(1). The Highway Act allows the Ministers of Transport and Interior to establish speed limits using ministerial regulations. The details of these laws are provided in Table 6.1.

The checklist reveals several issues associated with the existing speed laws. The speed limits in the country, for example, are not consistent with evidence and recommendations on safe speed. In fact, urban speed limits in Thailand are very high. Penalties are also not defined based on degree of severity of infraction above the established limit. Moreover, it is unclear whether the two existing laws include private streets or driveways. There are also definitional variations between the two laws. Types of roads (i.e. municipal and city), for example, are currently defined differently (Table 6.2).

Table 6.1: Speed Limit Laws in Thailand

Law	Details
Road Traffic Act. B.E. 2522 (1979) Section 67	Section 67. A driver must drive a conveyance at the speed prescribed in the Ministerial Regulation or the traffic sign installed on the road. The installed traffic sign under paragraph one may prescribe the maximum or the minimum speed but not in excess of the speed prescribed in the Ministerial Regulation. Under this law, the speed limit is set by ministerial regulation number 6 (1979) on speed limit as follow (1) Conveyance with gross weight under 1200 kilograms or passenger conveyance shall drive under 60 km/h in Bangkok, Pattaya, and municipal area and drive under 90 km/h outside those areas (2) Those not specified under (1) while towing, with gross weight over 1200 kilograms or three-wheelers shall drive under 45 km/h in Bangkok, Pattaya, and municipal area and drive under 60 km/h outside those areas (3) Those not specified under (1) or (2) or motorcycle shall drive under 90 km/h in Bangkok, Pattaya, and municipal area and drive under 90 km/h outside those areas (4) Any road with traffic sign indicative of unsafe or slowing down must slow down in a manner suitable for safety (5) Any road with speed limit sign lower than above must follow speed limit sign
Highway Act B.E. 2535 (1992) Section 5(1)	Ministerial regulation number 2 was issued in 1999 as follows: (1) The speed limit for small and medium-sized vehicles (such as car, van, pickup and motorcycle) was set at 80 km/h in cities or towns, and 90 km/h on highways outside of the cities or towns (2) For heavy vehicles such as large trucks and buses, the speed limit was set at 60 km/h in cities or towns and 80 km/h on highways in non-built up or rural areas (3) On motorways and expressways with full access control, the speed limit was set at 120 km/h for passenger cars and pickup trucks, 100 km/h for buses and ordinary trucks, and 80 km/h for trailers.

Source: Unofficial Translation by the Foreign Law Bureau, the Office of the Council of State

Table 6.2: Checklist for Assessing the Comprehensiveness of Speed Legislation

	Yes	No
1. Maximum speed limits		
Consistent with evidence and recommendations on safe speed (≤50km/h on urban roads)		√
Establishes speed limits by type of road	√	
Establishes speed limits by type of vehicle	√	
Establishes speed limits for all motorized vehicles	√	
Establishes speed limits by road hierarchy		√
Establishes speed limits for school zone		√
Use of radar detection		√
Further reduction of speed limits by local authorities	√	
Provides narrowly construed exclusions or exceptions, such as for emergency vehicles	√	
2. Enforcement		
Provides notice requirement for certain enforcement activity, if applicable	√	
Specifies covert versus overt automatic speed limit enforcement	√	
Provides authority for enforcement	√	
3. Penalties		
Defines penalty (financial and demerit points) based on degree of severity of infraction above established limits.		√
Provides specific financial penalties	√	
Includes provision for driver remediation		√
Provides for license suspension based on degree of severity of infraction above established limit	√	
Includes provision pertaining to vehicle impoundment	√	
Specifies whether penalty includes criminal punishment, with reference to penal code if applicable		√
4. Other speed management measures		
Includes highway design standards that specify recommended speed limits	√	
Includes road audit requirements		√

6.2 Drink-Driving

Drink-driving law can be found under the Road Traffic Act. B.E. 2522 (1979) Section 43 (2). Ministerial Regulation number 16 under the Road Traffic Act 1994 also established testing procedures for drink-driving (Table 6.3).

Table 6.3: Drink-Driving Laws in Thailand

Law	Details
Road Traffic Act. B.E. 2522 (1979) Section 43 (2)	Section 43 (2) which states no drivers shall drive the vehicle: • (2) while drunk from alcohol or other intoxicants • Section 43 *ter.* 14 In the case where there is a reasonable ground to believe that any driver violates section 43 (1) or (2), the Inspector shall have power to order such person to stop his or her conveyance and render the test to be carried out under section 142. • Section 43 quarter. 15 In the case where the Inspector finds that any driver violates section 43 (1) or (2) or section 43 bis paragraph one, he or she shall expediently deliver such person together with primary evidence to the competent inquiry official for further proceeding; provided that the delivery must be done within six hours from the time of finding the commission of such offence • Section 142 The traffic officer or competent official has the power to order a driver to stop the conveyance when: (1) such conveyance is not in the condition correctly complied with the provisions of section 6; (2) he or she finds that the driver or any person in such conveyance violates or fails to comply with the provisions of this Act or the law concerning such conveyance. In the case where there is a reasonable ground to believe that the driver has violated section 43 (1) or (2), the traffic officer, investigation officer or competent official shall order such driver to be tested whether he or she is incompetent to drive, got drunk of alcohol or other intoxicant or not. In case the driver under paragraph two does not agree to be tested, the traffic officer, investigation officer or competent official has the power to detain such person for an appropriate period as necessary for the case in order to expediently finish the test. If such person agrees to be tested and the result appears to be negative, he or she shall be released without delay. In the case where there is a reasonable ground to believe that the driver is driving the conveyance while he or she got drunk of alcohol or other intoxicant, if he or she does not agree to be tested without reasonable justification, it shall be presumed that he or she has violated section 43 (2). The test under this section shall be in accordance with the rule and procedure prescribed in the Ministerial Regulation.

Law	Details
	Ministerial Regulation number 16 under Road Traffic Act 1994 prescribed the testing procedure for drink-driving as follows: • Test shall be conducted with one of the followings: – Breath Analyzer Test with reading in milligram percent – Urine Test – Blood Test • Second and Third Test shall only be done when the first one is not possible and the third one shall be processed at hospital only – Driver is considered intoxicated only when 1. Blood Alcohol Test is over 50 milligram percent 2. Breath Analyzer Test is using adjustment factor of 2000 3. Urine Test is using adjustment factor of 1 of 1.3th

Source: Unofficial Translation by the Foreign Law Bureau, the Office of the Council of State

Consistent with international standards, the legal limit for blood alcohol concentration in Thailand is 0.05 g/dl. This legal limit, however, needs to be lowered to 0.02 g/dl or less for regular and novice/young drivers (Table 6.4). There are also two additional issues associated with the existing law. Currently, riding a bicycle while drunk is not included in Section 43(2). Insurance policy and Ministerial Regulation number 16 also define illegal drink-driving differently. The legal limit set by the former is at 150 milligram percent while the legal limit set by the Ministerial Regulation is at 50 milligram percent.

Table 6.4: Checklist for Assessing the Comprehensiveness of Drink-Driving Legislation

	Yes	No
1. Blood alcohol concentration limits		
Imposes limits that are consistent with evidence and recommendations on drinking and driving (0.05gdl or below)	√	
Sets limits for both regular and novice or young driver (BAC, 0.02 g//dl or below)		√
2. Restrictions on availability of alcohol		
Specifies a minimum legal drinking age	√	
Imposes restrictions on sales of alcohol to underage people	√	
3. Enforcement		
Provides notice requirements for certain enforcement activity, if applicable	√	
Provides for enforcement by random breath testing or sobriety checkpoints	√	

	Yes	No
Requires alcohol testing of everyone involved in a crash (in hospital or at the site of the crash)		√
Establishes who has authority for enforcement	√	
Provides a mechanism to monitor the sale of alcohol to underage people in certain facilities	√	
4. Penalties		
Defines penalty (financial and demerit points) based on degree of severity of infraction above established BAC limits.		√
Provides specific financial penalties	√	
Includes provision for driver remediation	√	
Provides for license suspension based on degree of severity of infraction above established limit	√	
Includes provision pertaining to vehicle impoundment	√	
Specifies whether penalty includes criminal punishment, with reference to penal code if applicable	√	
5. Other drink-driving measures		
Authority for the use of alcohol ignition interlock programmes, including criteria for offenders		√

6.3 Motorcycle Helmet

The Road Traffic Act B.E. 2522 (1979) Section 122 mandates the use of helmets (Table 6.5). Ministerial regulation number 14 under Road Traffic Act 1992 also established rules concerning helmet type and use of helmet straps. Additionally, helmet standard can be found under TIS 369–2557.

As illustrated in Table 6.6, Thailand's helmet law is quite comprehensive. However, the analysis reveals that, as of yet, helmet standards have not been specified for children. Moreover, penalties currently do not include a provision for motorcycle impoundment. Thailand also does not have laws that require riders of three-wheeled motorcycles and electrical motorcycles to wear helmets.

Table 6.5: Motorcycle Helmet Laws in Thailand

Law	Details
Road Traffic Act. B.E. 2522 (1979) Section 122	Section 122 • Motorcycle driver and passenger must wear crash helmets for safeguarding while driving and traveling. • No motorcycle driver under paragraph one shall drive the motorcycle while the passenger does not wear safeguarding crash helmet. • The character and procedure of using safeguarding crash helmet under paragraph one shall be prescribed in the Ministerial Regulation. • The provisions of paragraph one shall not apply to the monk, novice, priest, other faith follower wearing traditional turban, or any person prescribed in the Ministerial Regulation. Section 148 • Any person who violates or fails to comply with Section 122 shall be liable to a fine not exceeding five hundred Baht. If the driver of a motorcycle commits an offense under section 122 paragraph two, he or she shall be liable to double the penalty prescribed in paragraph one.

Source: Unofficial Translation by the Foreign Law Bureau, the Office of the Council of State

Table 6.6: Checklist for Assessing the Comprehensiveness of Legislation on Motorcycle Helmets

	Yes	No
1. Helmet use		
Includes compulsory helmet-wearing for all riders (i.e. drivers and passengers)	√	
Defines helmet-wearing as including proper strapping and wearing of a helmet that meets national standards	√	
Requires all riders to wear a helmet on all roads	√	
Requires riders of all motorized two-or three-wheeled motorized vehicles (all engine types) to wear a helmet	√	
Sets a minimum age for riding a motorcycle	√	
2. Helmet standards		
Specifies recognized helmet safety standards based on internationally recognized standards	√	
Includes product labelling requirement and addresses tampering	√	
Specifies requirements for child helmets (e.g. age or height) depending on the age at which children are allowed to ride on motorcycles		√

	Yes	No
3. Enforcement		
Specifies who has authority for enforcement	√	
Allow primary enforcement: no other traffic offence is required to stop a violator and enforce helmet-wearing law	√	
4. Penalties		
Specifies financial penalties	√	
Includes provision for motorcycle impoundment		√
5. Other regulatory measures for helmet-wearing		
Establishes penalties for sale of de-specified helmets	√	
Establishes penalties for tampering with product labeling	√	
Sets requirements for passenger helmet-wearing for public service two-and three-wheeled motorized vehicles	√	

6.4 Seatbelt

Seatbelt law can be found under the Road Traffic Act. B.E. 2522 (1979) Section 123, which does not require rear seat passengers to wear seatbelts (Table 6.7 and 6.8). The Land Transport Act B.E. 2522 (1979), Ministerial Regulation Determining the Safety and Public Order to be Maintained by Passengers while Traveling, B.E. 2557 (2014), however, requires every passengers to fasten their seatbelts at all times. Seatbelt standards for passenger cars can be found under TIS 721–2551.

Table 6.7: Seatbelt Law in Thailand

Law	Details
Road Traffic Act. B.E. 2522 (1979) Section 122	Section 123. • No driver of vehicle shall allow more than two other persons to sit on the front row seat next to the driver. • The driver of vehicle must fasten up his or her body with seatbelt while driving, and must render the passenger sitting on the front row seat next to the driver to fasten up his or her body with seatbelt while traveling. And the passenger traveling in such conveyance must also fasten up his or her body with seatbelt. • The category or type of vehicle, character and procedure of using seatbelt under paragraph two shall be prescribed by the Commissioner-General by publication in the Government Gazette.

Source: Unofficial Translation by the Foreign Law Bureau, the Office of the Council of State

Table 6.8: Checklist for Assessing the Comprehensiveness of Seatbelt Legislation

	Yes	No
1. Mandatory seatbelt laws for all occupants		√
2. Manufacturing standards		
Include seatbelt requirements	√	
Sets standards for imported vehicles	√	
Sets retro-fitting requirements for older vehicles and phase-in period	√	
3. Enforcement		
Specifies who has authority for enforcement	√	
Specifies primary versus secondary enforcement	√	
4. Penalties		
Specifies financial penalties for not wearing a seatbelt	√	
5. Other regulatory measures for seat belts		
Prohibits carrying more passengers than seating positions and overloading	√	
Requires periodic inspection		√

6.5 Child Restraint

Currently, Thailand does not have a child restraint law (Table 6.9). The Child Protection Act, however, can be amended to include this provision. As shown in Table 6.10, the content of this act suggests that a ministerial regulation for child restraint can be issued for the safety and welfare of children.

Table 6.9: Checklist for Assessing the Comprehensiveness of Child Restraint Legislation

	Yes	No
1. Use of child restraints		
Mandatory use of child restraints appropriate for age, height and weight		√
Positioning: forward-versus rear-facing		√
Carriage of children in front seats		√
Child restraint standards and product labeling		√
2. Enforcement		
Primary versus secondary enforcement		√

	Yes	No
3. Penalties		
Financial penalties		√
Other penalties		√
4. Other regulatory mechanisms		
Any other measures		√

Table 6.10: Child Protection Act

Law	Details
Child Protection Act B.E. 2546 (2003) Section 22 and 23	Section 22 Treatment of the Child, in any case, shall give primary importance to the best interests of the Child and there shall not be unfair discrimination. In determining if any act is for the best interests of or is discriminatory in an equitable nature to the Child, considerations shall be made to the guidelines stipulated in the Ministerial Regulation. Section 23 Guardians shall care for, nurture, and develop a Child under their guardianship in a manner which is appropriate to such local traditions and culture, but which in any case shall not be below the minimum standards set by the Ministerial Regulation, and shall protect the welfare of the Child under their care against circumstances which may likely harm the physical or mental states.

Source: Unofficial Translation by the Foreign Law Bureau, the Office of the Council of State

6.6 Comparing Thailand's Road Safety Laws with International Practices

Speed

Speed limit varies from around the world depending on the country's road infrastructure. Within each country, speed limit may also differ according to the type of vehicle and the type of road. Germany, with its Autobahns, is the only country that does not have a general speed limit on its highways.

The following table compares the speed limits in Thailand to high-income countries such as Japan, United Kingdom (UK) and United States. As shown in the table, speed

limits were found to be generally higher in Thailand as compared to Japan and the UK. Speed limits in the United States, however, varied depending on the state; the maximum urban speed limit, for example, ranged from 32 km/hr to 105 km/hr.[1]

Table 6.11: Speed Limits in Thailand, Japan, United Kingdom and United States

	Maximum Urban Speed Limit (km/hr)	Maximum Rural Speed Limit (km/hr)	Maximum Motorway Speed Limit (km/hr)	Local authorizes can modify limits	Enforcement (10 maximum)
Thailand	80	90	120	No	3
Japan	60	60	100	Yes	7
United Kingdom	48	96	112	Yes	–
United States	32–105	40–121	105–121	Yes	–

Source: WHO, 2015

Table 6.12 shows the speed limits in Thailand as compared to other Association of Southeast Asian Nations (ASEAN): Thailand, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore and Vietnam. Except for Malaysia, Thailand's maximum urban speed limit was found to be much higher than the other countries. Enforcement was also ranked lowest.[1]

Table 6.12: Speed Limits in Thailand and other ASEAN Countries

	Maximum Urban Speed Limit (km/hr)	Maximum Rural Speed Limit (km/hr)	Maximum Motorway Speed Limit (km/hr)	Local authorizes can modify limits	Enforcement (maximum 10)
Thailand	80	90	120	No	3
Vietnam	50	80	No	No	6
Cambodia	40	90	100	No	4
Malaysia	90	90	110	Yes	6
Singapore	70	No	90	No	8
Lao	40	90	No	No	4
Indonesia	70	100	No	Yes	5
Philippines	40	80	No	Yes	5
Myanmar	48	80	No	Yes	5

Source: WHO, 2015

Drink-Driving

Table 6.13 compares the drink-driving laws in Thailand with high-income countries such as Japan, UK and United States. As illustrated in the table, the legal BAC limit in Thailand is higher than Japan but lower than the UK and the United States. All countries carry out random breath testing.[1]

Table 6.13: Drink Driving Laws in Thailand, Japan, United Kingdom and United States

Country	BAC Limit-General Population	BAC Limit – Young/Novice Drivers	Random Breath Testing	Enforcement (maximum 10)
Thailand	0.05	0.05	Yes	6
Japan	0.03	0.03	Yes	9
United Kingdom	0.08	0.08	Yes	–
United States	0.08	0.00–0.08	Yes	–

Source: WHO, 2015

Thailand's BAC limit for the general population is also equivalent to or less than other ASEAN countries. Thailand's enforcement for drink driving received an average rating of 6, which is higher than the other countries except for Singapore (Table 6.14).

Table 6.14: Drink-Driving Laws in Thailand, United Kingdom, United States, Vietnam, Singapore and South Korean

Country	BAC Limit-General Population	BAC Limit – Young/Novice Drivers	Random Breath Testing	Enforcement (maximum 10)
Thailand	0.05	0.05	Yes	6
Vietnam	0.00–0.05	0.00–0.05	Yes	5
Cambodia	0.05	0.05	Yes	4
Malaysia	0.08	0.08	Yes	5
Singapore	0.08	0.08	Yes	8
Lao	0.05	0.05	No	2
Indonesia	–	–	Yes	5
Philippine	0.05	0.05	Yes	1
Myanmar	0.08	0.08	–	–

Source: WHO, 2015

Motorcycle Helmets

Motorcycles are popular and widespread in Southeast Asia. Accordingly, it is useful to compare helmet laws among these ASEAN countries. As illustrated in Table 6.15, all ASEAN countries have laws that require motorcycle riders to wear helmets; only Cambodia lacks a law requiring motorcycle passengers to wear helmets. With regards to the level of enforcement, Thailand received the same score as the Philippines (6 vs 6) and a higher score than Cambodia and Malaysia (6 vs 5 vs 5). However, helmet-wearing rate in Thailand (52%) was found to be lower than all three countries (Cambodia: 64 %, Malaysia: 97% and the Philippines: 80%).[1] This reveals the inadequacies of Thailand's helmet law enforcement.

Table 6.15: Helmet Laws in Thailand and other ASEAN Countries

Country	Required for Rider	Required for Passenger	Level of Enforcement (maximum 10)	Helmet Wearing Rates
Thailand	Yes	Yes	6	52% Rider 20% Passenger
Vietnam	Yes	Yes	9	96% Rider 83% Passenger
Cambodia	Yes	No	5	64% Rider 6% Passenger
Malaysia	Yes	Yes	5	97% Rider 89% Passenger
Singapore	Yes	Yes	9	N/A
Lao	Yes	Yes	7	N/A
Indonesia	Yes	Yes	8	80% Rider 52% Passenger
Philippine	Yes	Yes	6	80% Rider 51% All Rider
Myanmar	Yes	Yes	5	48–51%

Source: WHO, 2015

Even though Thailand's helmet wearing rate is not very high at the country level, there have been some successes at the provincial level. In the 1990s when helmet use became mandatory, Khon Kaen province succeeded in increasing the percentage of helmet use to 90%, resulting in a 40% decline in head injuries. This success was

attributed to the efforts of the Khon Kaen Province Safety Committee which carried out public education and enhanced enforcement. The committee also established an injury surveillance network to monitor the rates of motorcycle related injuries.[13] Unfortunately, however, Khon Kaen's helmet wearing rate is currently around 48% for motorcycle drivers and 28% for passengers (ThaiRoads 2013).

Seatbelt

All ASEAN countries have laws mandating front seat passengers to wear seatbelts, however, only Singapore and the Philippines have laws requiring rear-seat passengers to wear seatbelts.[1] The level of enforcement in the majority of the countries also received moderate to low scores, ranging from 2 to 6[1] (Table 6.16).

Table 6.16: Seatbelt Laws in Thailand and other ASEAN Countries

Country	Required for Front	Required for Rear	Level of Enforcement (Maximum 10)	Seatbelt Wearing Rates
Thailand	Yes	No	6	58% Driver 54% Front
Vietnam	Yes	No	6	N/A
Cambodia	Yes	No	5	N/A
Malaysia	Yes	No	4	77% Front 13% Rear
Singapore	Yes	Yes	8	N/A
Lao	Yes	No	2	N/A
Indonesia	Yes	No	8	N/A
Philippine	Yes	Yes	5	50% Driver
Myanmar	No	No	N/A	N/A

Source: WHO, 2015

Child Restraint

Except for Cambodia and Singapore, none of the ASEAN countries have child restraint laws including Thailand. Out of the nine countries, only the Philippines has restrictions on children sitting in the front seat[1] (Table 6.17).

Table 6.17: Child Restraint Laws in Thailand and other ASEAN Countries

Country	National Child Restraint Law	Restrictions on Children Sitting in Front	Child Restraint Law Based on	Level of Enforcement (Maximum 10)
Thailand	No	No	–	–
Vietnam	No	No	–	–
Cambodia	Yes	No	Age	0
Malaysia	No	No	–	–
Singapore	Yes	No	Weight/Height	8
Lao	Yes	No	–	1
Indonesia	No	No	–	–
Philippine	No	Yes	–	–
Myanmar	No	No	–	–

Source: WHO, 2015

When examining other regions of the world, the European Union (EU) mandated the use of child restraints in vehicles under the Directive 2003/20/EC of the European Parliament and the Council. The directive specified that all children whose height is less than 150 centimeters must use restraints that conform to the UN ECE Regulation 44/04, Directive 77/541/EEC.[29] In 2013, the EU also introduced the i-Size regulation for children less than 15 months. This regulation uses a height-based classification system and provides additional protection for children by keeping them rearward facing for a longer period of time.[30] Child restraints can also be weight-based as illustrated in Table 6.18.

Table 6.18: Weight-Based Child Restraints

Child's Weight	Child Restraint
0 kg to 25 kg	Rear-facing baby carrier, or rear-facing baby seat using a harness
9 kg to 18 kg	Rear- or forward-facing baby seat using a harness or safety shield
15 kg to 36 kg	Forward-facing child seat (high-backed booster seat) using a seatbelt
Over 22 kg	Booster cushion

Source: GOV.UK, 2015

6.7 Conclusions and Recommendations

This in-depth assessment revealed that although Thailand has most of the necessary laws to address the main road safety risk factors, there are loopholes in the existing laws that need to be closed. Moreover, Thailand should enact a child restraint law to protect child passengers. The specific recommendations for each risk factor are listed below.

Speed

- **Reduce urban speed limit to 50km/hr or less.** The assessment revealed that urban speed limit in Thailand is very high. This recommendation can be achieved by amending Ministerial Regulation number 6 under the Road Traffic Act and Ministerial Regulation Number 2 under the Highway Act
- **Ensure consistency between the two existing speed laws.** The definitions used to define types of roads and vehicles need to be consistent between the two existing speed laws so that the laws can be easily interpreted by the police and other road authorities
- **Improve the classification system for roads.** Thailand currently lacks a clearly defined functional hierarchy of road classes. Moreover, while the Road Traffic Law categorizes vehicles into two classes according to weight limit, the Highway Act uses more than two classes. The latter is more useful for enforcement purposes. Thailand can use UK's example to begin addressing the limitations of its existing laws (Table 6.19)

Table 6.19: United Kingdom's National Speed Limits

Type of vehicle	Built-up areas mph(km/h)	Single carriageways mph (km/h)	Dual carriage ways mph (km/h)	Motorway mph (km/h)
Cars, motorcycles, car-derived vans and dual-purpose vehicles	30 (48)	60 (96)	70 (112)	70 (112)
Cars, motorcycles, car-derived vans and dual-purpose vehicles when towing caravans or trailers	30 (48)	50 (80)	60 (96)	60 (96)
Motorhomes or motor caravans (not more than 3.05 tonnes maximum unladen weight)	30 (48)	60 (96)	70 (112)	70 (112)

Type of vehicle	Built-up areas mph(km/h)	Single carriageways mph (km/h)	Dual carriage ways mph (km/h)	Motorway mph (km/h)
Motorhomes or motor caravans (more than 3.05 tonnes maximum unladen weight)	30 (48)	50 (80)	60 (96)	70 (112)
Buses, coaches and minibuses (not more than 12 metres overall length)	30 (48)	50 (80)	60 (96)	70 (112)
Buses, coaches and minibuses (more than 12 metres overall length)	30 (48)	50 (80)	60 (96)	60 (96)
Goods vehicles (not more than 7.5 tonnes maximum laden weight)	30 (48)	50 (80)	60 (96)	70 (112) 60 (96) if articulated or towing a trailer
Goods vehicles (more than 7.5 tonnes maximum laden weight) in England and Wales	30 (48)	50 (80)	60 (96)	60 (96)
Goods vehicles (more than 7.5 tonnes maximum laden weight) in Scotland	30 (48)	40 (64)	50 (80)	60 (96)

Source: Gov.UK, 2015

- **Ensure coordination and consistency among law enforcement agencies.** Highway Department, Land Transport Department, Highway Patrol, Traffic Police, and other law enforcement agencies need to be well coordinated and consistent in their enforcement activities. This will help drivers comply with laws more easily.
- **Adopt uniform traffic penalties and fines.** Thailand needs to adopt uniform traffic penalties and fines for the laws to be effective. A good example of a central fine collector is the Central Judicial Collection Agency in the Netherland. With a central fine collector, money can be spent to improve the effectiveness of all law enforcement agencies.

Drink-driving

- **Establish a lower blood alcohol concentration limit (BAC 0.02 g/dl or below) for regular and novice or young drivers.** This could be achieved either through the Road Traffic Act or Motor Vehicle Act. However, there is no clear definition for "novice" or "young driver" in the Road Traffic Act. Adding a new definition into the law will take a long time. A better way to approach this would be to add this new BAC limit as a condition to having a temporary license.
- **Require alcohol testing for everyone involved in a crash (in the hospital or at the site of the crash).** This recommendation does not necessitate a new law. Thailand only needs to define suspicion of drink-driving in every case under section 142 of the Road Traffic Act "In the case where there is a reasonable ground to believe that the driver has violated section 43 (1) or (2)[31]".
- **Ensure that the insurance policy reduces its BAC limit from 150 to 50** such that it is consistent with the legal limit set by the Road Traffic Law. This will improve the effectiveness of testing.
- Define penalty (financial and demerit points) based on degree of severity of infraction above established BAC limits. This recommendation can be achieved under the Royal Police Order.
- **Ensure authority for the use of alcohol ignition interlock programs,** including criteria for offenders. This can be achieved under the probation condition.
- **Add drinking and biking to the Road Traffic Act.**

Helmet

- **Establish helmet standards for children based on age.** Although, it is clear that children are not excluded from the helmet law, there remains a need to establish helmet standards for this population.
- **Include a provision for motorcycle impoundment.** This recommendation can be achieved by amending Section 148 of the Road Traffic Act.
- **Enforce existing helmet laws.** Studies have shown the need for enforcement to increase helmet-wearing rates.[32] Taiwan, for example, succeeded at decreasing motorcycle fatalities by 14% after the introduction of a mandatory helmet law.[33]

Seatbelt

- **Require rear seat passengers to wear seatbelts.** This recommendation can be achieved by amending Section 123 of the Road Traffic Act to ensure both front and rear seat passengers are mandated to wear seatbelts (Box 4).

Box 4: Revision to Road Traffic Act, Section 123

Section 123. No driver of vehicle shall allow more than two other persons to sit in the front row seat next to the driver.

The driver of vehicle must use a seatbelt while driving, and must ensure all passengers use seat belts while traveling. And the passenger traveling in such conveyance must also fasten the seat belt.

Source: Unofficial Translation by the Foreign Law Bureau

- **Enforce existing seatbelt laws.** There is considerable evidence to show that the enforcement of seatbelt laws can increase wearing rates. South Korea serves as a good example.[34] In 2000, after enhanced enforcement and the launch of a national campaign by the police, seatbelt use among drivers increased dramatically from 23% to 98% in about eight months. A reward program was also established to incentivize the public to report traffic violations. As a result, deaths and serious injuries decreased by 2000 and 9000 counts in 2001. Similarly, in the United States, seatbelt legislation, education as well as enforcement were found to have saved the country US$ 588 billion between 1975 and 2000.[35]

Child Restraint

- **Ensure children are protected by a child restraint law.** This recommendation will require a ministerial regulation under Child Protection Act Section 22. The child restraint law will also require a standard that follows the UN-ECE Regulation 44/04

7

Appendices

7.1 Thailand's road safety laws

http://www.lawreform.go.th/lawreform/eng/index.php?option=com_homelawreformen&task=showtoc&lid=20&gid=6&eword=L&ename=Acts%20of%20Parliament&elawname=Land%20Transportation%20Act,%20B.E.%202522%20(1979)

7.2 Fines for traffic violations:

The following are examples of fines for violations of traffic laws according to the Land Traffic Act B.E. 2522 (revision B.E. 2538) and the Royal Thai Police regulations dated 9 July 1997 and 3 December 1997 accordingly.

No.	Violation	Clause	Fine (baht)
1	Driving against the flow of traffic	33, 151	200–500
2	Driving on the separating line except 1) there is obstruction on the left lane or the lane is closed, 2) it is a one way traffic, 3) the lane is less than 6 meters wide	33, 151	200–500
3	Driving on the wrong lane	34, 151	200–500
4	Driving near the bus lane is prohibited except 1) there is obstruction on the lane or it is closed, 2) it is a one way traffic, 3) need to switch lane, 4) when overtaking	34, 151	200–500
5	Slow traffic failing to remain on the left side of the road as much as possible	35, 157	400–1 000
6	Driving near the bus lane is prohibited	33, 157	400–1 000
7	Driving under the influence of substance	43, 157	Up to 6 months imprisonment, 5 000–20 000 baht, either or both

No.	Violation	Clause	Fine (baht)
8	Having taken drug while driving and resulting in serious injury	43, 157	License termination, 2–6 years imprisonment, 40 000–120 000
9	Having taken drug while driving and resulting in death	43, 157	License termination, 3–10 years imprisonment, 60 000–200 000
10	Overtaking without giving proper signal (in case where there is no separating line)	44, 148	Up to 500
11	Overtaking while the front car has not given signal to do so	44, 148	Up to 500
12	Overtaking and cutting in front of the front car too closely	44, 148	Up to 500
13	Overtaking on the left side except 1) the front car is turning right or giving signal as such, 2) there are more than two lanes	45, 157	400–1 000
14	Overtaking on the left side where there are at least two lanes and cutting in front of the car behind too closely	45, 157	400–1 000
15	Overtaking while driving uphill	46, 157	400–1 000
16	Overtaking on a curve, except where there is a permitting traffic sign	46, 1557	400–1 000
17	Overtaking while the other car is about to cross a bridge	46(1), 157	400–1 000
18	Overtaking another car less than 30 meters before a crossing	46(2), 157	400–1 000
19	Overtaking another car less than 30 meters before a junction	46(2), 157	400–1 000
20	Overtaking another car less than 30 meters before a roundabout	46(2), 157	400–1 000
21	Overtaking another car less than 30 meters before a street isle	46(2), 157	400–1 000
22	Overtaking another care less than 30 meters before a rail-crossing	46(2), 157	400–1 000

No.	Violation	Clause	Fine (baht)
23	Overtaking when there is fog, dust, rain or smoke causing less than 60 meters visibility	46(3), 157	400–1 000
24	Overtaking when entering critical or safety zone	46(4), 157	400–1 000
25	Crossing the specified separating line overtaking	47, 157	400–1 000
26	Overtaking into a bus lane (except when there is obstruction or instructed by the traffic police officer)	48, 157	400–1 000
27	Driving at a low speed obstructing a faster traffic to overtake after giving a signal	49, 152	Up to 1 000
28	Not allowing another car to overtake when possible to do so	49, 152	Up to 1 000
29	Now lowering speed and allowing the care behind to overtake safely	49, 152	Up to 1 000
30	Failing to give signal when turning, before allowing another car to overtake, changing lane or stopping	36, 148	Up to 500
31	Giving signal in less than 30 meters before turning, changing lane, parking or stopping	36, 148	Up to 500
32	Giving signal incorrectly while driving a car or motorcycle before stopping, turning, changing lane or allowing another car to overtake	38, 148	Up to 500
33	Not driving close to the left side when passing an oncoming car	38, 148	Up to 500
34	Not lowering speed when passing an oncoming car in a narrow lane	39, 151	200–500
35	Violating a one-way traffic sign	41, 148	Up to 500
36	Driving when not competent to drive	43(1), 160	Up to 3 months imprisonment, 2 000–10 000, either or both
37	Driving while intoxicated	43(2), 160	Up to 3 months imprisonment, 2 000–10 000, either or both
38	Driving in an unusual manner or in which the driver cannot see behind enough to ensure safety	43(5), 160	Up to 3 months imprisonment, 2 000–10 000, either or both

No.	Violation	Clause	Fine (baht)
39	Driving without consideration of others' safety or trouble	43(8), 160	Up to 3 months imprisonment, 2 000–10 000, either or both
40	Driving in a manner obstructing the traffic	43(3), 157	400–1 000
41	Driving recklessly causing danger to others and property	43(4), 157	400–1 000
42	Driving on the separating line, except for when changing lane, turning or turning around	43(6), 157	400–1 000
43	Driving on a footpath without reasonable cause	43(7), 157	400–1 000
44	Moving out of the parking without giving signal for another parked car or obstruction in the front	50, 152	400–1 000
45	Moving out of the parking in an obstructive or dangerous manner	50, 152	400–1 000
46	Failing to driving near the right lane 30 meters before turning right	51(2), 148	Up to 500
47	Turning right at a junction without allowing oncoming car to pass first	51(2), 148	Up to 500
48	Driving in the opposite direction around the roundabout or traffic isle	51(23), 148	Up to 500
49	Turning around within less than 150 meters when a car is oncoming or following behind	52, 151	200–500
50	Turning when not allowed	53(1), 157	200–500
51	Turning around when not allowed	53(1), 157	200–500
52	Turning around when critical, crossing the bridge, in safety zone or within 100 meters from the bridge	53(2), 157	200–500
53	Turning around at a junction where there is no traffic sign allowing to do so	53(3), 157	400–1 000
54	Failing to give signal before stopping or parking	54, 148	Up to 500
55	Giving signal in less than 30 meters before stopping or parking	54, 148	Up to 500
56	Stopping or parking in a manner obstructing the traffic	54, 148	Up to 500
57	Parking on the left side of the lane	54, 148	Up to 500

No.	Violation	Clause	Fine (baht)
58	Parking in a manner not parallel with the shoulder or the pavement	54, 148	Up to 500
59	Parking the car more than 25 centimeters away from the shoulder or the pavement	54, 148	Up to 500
60	Failing to park to the direction prescribed by the traffic police officer	54, 148	Up to 500
61	Stopping on the driving lane	55(1), 148	Up to 500
62	Stopping on the pedestrian crossing	55(2), 148	Up to 500
63	Stopping on the bridge or in the tunnel	55(3), 148	Up to 500
64	Stopping at the junction	55(4), 148	Up to 500
65	Stopping in an area prohibited to do so	55(5), 148	Up to 500
66	Stopping at an entrance to a building or traffic lane	55(6), 148	Up to 500
67	Stopping in a safety zone	55(7), 148	Up to 500
68	Parking on a pavement	57(1), 148	Up to 500
69	Parking on a bridge or in a tunnel	57(2), 148	Up to 500
70	Parking at a junction or within 10 meters from the junction	57(3), 148	Up to 500
71	Parking on or within 10 meters before a crossing	57(4), 148	Up to 500
72	Parking when there is a traffic sign prohibiting to do so	57(5), 148	Up to 500
73	Parking within 3 meters away from a fire hose	57(6), 148	Up to 500
74	Parking within 10 meters from the traffic lights	57(7), 148	Up to 500
75	Parking within 15 meters from the railroad crossing	57(8), 148	Up to 500
76	Parking in parallel with another car	57(9), 148	Up to 500
77	Parking within 5 meters from the entrance to a building or a traffic lane	57(10), 148	Up to 500
78	Parking between the safety zone and the shoulder within 10 meters from both ends of the safety zones	57(11), 148	Up to 500
79	Parking in a critical situation or area	57(12), 148	Up to 500
80	Parking within 15 meters before a bus stop or within 3 meters beyond the stop	57(12), 148	Up to 500
81	Parking within 3 meters from a post box	57(14), 148	Up to 500
82	Parking in a manner obstructing the traffic	57(15), 148	Up to 500

No.	Violation	Clause	Fine (baht)
83	Parking on a traffic lane without stopping the engine and putting a brake on when the driver is away from the car	58, 148	Up to 500
84	Parking on a sloping traffic lane without facing the pavement	58, 148	Up to 500
85	Disobeying the traffic officer's instruction to move the car so as to remove obstruction	59, 159	Up to 3 months imprisonment, up to 5 000, either or both
86	Stopping or parking on a traffic lane outside of the municipality area where the car can be seen in less than 150 meters	3, 148	Up to 500
87	Parking on the traffic lane or pavement where there is insufficient lighting, without turning on the light or ensuring the use of lighting system according to the ministerial regulation	61, 151	200–500
88	Failing to reduce speed or stop the car at least 5 meters from the railroad when There is a sign or signal of an oncoming train There is a siren of an approaching train	62, 148	Up to 500
89	Failing to reduce speed when following or passing a school bus parking for students to board or leave the bus	64, 152	Up to 1 000
90	Driving at a higher speed than prescribed or violating a traffic sign	67, 152	Up to 1 000
91	Driving at a higher speed than prescribed in the ministerial order A truck heavier than 1200 kgs./ bus not more than 60km.hr within the municipality area and 80 km/hr outside of the municipality area Other vehicle than as specified in the foregoing such as a trailer with capacity of more than 1200 kgs. and three-wheelers must drive at a maximum of 45 km/hr in the municipality area and up to 60 km/hr outside of the municipality area Other vehicles than as specified in 1 and 2 above or motorcycles must drive at a maximum of 80 km/hr within the municipality area and no more than 90 km.hr outside of the municipality area	67, 152	Up to 1 000
92	Turning without reducing speed	68, 148	Up to 500

No.	Violation	Clause	Fine (baht)
93	Not reducing speed when allowing another car to overtake	68, 148	Up to 500
94	Driving on a traffic lane on the hill without reducing speed	69, 148	Up to 500
95	Failing to reduce speed on a bridge or the foot of a bridge, a narrow lane, a curve, a slope or a critical area	69, 148	Up to 500
96	Approaching a junction, a roundabout or a crossing without reducing speed	70, 148	Up to 500
97	When reaching a junction, not allowing another vehicle on the junction to pass first	71(1), 148	Up to 500
98	Reaching a junction at the same time as another car but not allowing the car on the left to pass first	71(2), 148	Up to 500
99	Violating a traffic sign installed at a roundabout	73, 160	Up to 1 000
100	Driving in a manner causing damage to other person or property (whether the driver is guilty or not), not stopping to provide due assistance to others	78, 160	Either up to 3 months imprisonment or 2 000–10 000 or both
101	Driving in a manner causing damage to other person or property (whether the driver is guilty or not), not stopping to provide due assistance to others, not reporting to the nearest relevant officer immediately in case of an incident	78, 160	Either up to 3 months imprisonment or 2 000–10 000 or both
102	Riding an animal in a manner causing damage to other person or property (whether guilty or not), refusing to inform own name, address and license number to injured	78, 160	Either up to 3 months imprisonment or 2 000–10 000 or both
103	Riding an animal in a manner causing damage to other person or property (whether guilty or not), refusing to inform own name, address and license number to injured, not reporting to the nearest relevant officer immediately in case of an incident	78, 160	Either up to 3 months imprisonment or 2 000–10 000 or both
104	Driving a vehicle or riding an animal incompliant with clause 78 causing serious injury or death to another person	78, 160	Either up to 6 months imprisonment or 5 000–20 000 or both

No.	Violation	Clause	Fine (baht)
105	Driving on a traffic lane and not turning on the light as prescribed by the following ministerial regulation when there is insufficient light Using high beam when there is no car from the opposite direction Using low beam when there is a car in the opposite direction	11, 148	Up to 500
106	Giving other signal than the horn when driving a car or motorcycle	12(1), 147	Up to 200
107	Giving other signal than a bell when riding a bicycle	12(3)1, 147	Up to 200
108	Driving on a traffic lane and using blinking light, siren, whistle or mixed signal or boisterous sound	13, 152	Up to 1 000
109	Using a noise signal unnecessarily, for too long, or repetitively	14, 148	Up to 500
110	Driving a truck loaded with objects, the length of which is longer than the car when there is insufficient light, or failing to install a red light at the end of the loaded objects so that it can be seen from at least 150 meters	15, 152	Up to 1 000
111	Driving a truck loaded with objects, the length of which is longer than the car during the day, without attaching a red flag at the end of the objects so that it can be seen from at least 150 meters	15, 152	Up to 1 000

8

References

(1) WHO. (2015) *Global Status Report on Road Safety.* Geneva: World Health Organization.

(2) Institute for Health Metrics and Evaluation. (2010). *Global Burden of Disease 2010*. Retrieved December 1, 2015 from http://www.healthdata.org/gb

(3) United Nations. (2010). *General Assembly Adopts Text Proclaiming Decade of Action for Road Safety (2011-2020) Aimed at Reducing Traffic-Related Deaths, Injuries.* Retrieved December 10, 2015 from http://www.un.org/press/en/2010/ga10920.doc.htm

(4) World Bank. (2015). *Data*. Retrieved December 20, 2015 http://data.worldbank.org/indicator/AG.LND.TOTL.K2

(5) Central Intelligence Agency. (2015). *The World Factbook: Thailand*. Retrieved December 20, 2015 https://www.cia.gov/library/publications/the-world-factbook/geos/th.html

(6) Leeds, J. (2011). *Update: Introduction to the Legal System and Legal Research of the Kingdom of Thailand.* Retrieved December 20, 2015 from http://www.nyulawglobal.org/globalex/Thailand.html

(7) United Nations Children's Fund. (2015). *Thailand: Statistics.* Retrieved December 20, 2015 from http://www.unicef.org/infobycountry/Thailand_statistics.html

(8) Institute for Health Metrics and Evaluation. (2013). *Thailand.* Retrieved December 20, 2015 from http://www.healthdata.org/thailand

(9) Bliss, T. & Breen, J. (2013). *Road Safety Management Capacity Reviews and Safe System Projects Guidelines, Updated Edition*. Washington, DC: Global Road Safety Facility, World Bank.

(10) WHO. (2013). *Strengthening Road Safety Legislation: A practice and resource manual for countries*. Geneva: World Health Organization.

(11) ASEAN-Japan. (2014). Thailand. Retrieved January 5, 2016 from http://www.ajtpweb.org/statistics/Thailand/index_html

(12) Suriyawongpaisal, P., & Kanchanusut, S. (2003). Road traffic injuries in Thailand: trends, selected underlying determinants and status of intervention. *Injury Control and Safety Promotion*, 10, 95–104.

(13) WHO. (2006). *Helmets: A Road Safety Manual for Decision Makers and Practitioners.* Geneva, Switzerland: World Health Organization.

(14) Berecki-Gisolf, J., Yiengprugsawan, V., Kelly, M., McClure, R., Seubsma, S., Sleigh, A, & Thai Cohort Study Team. (2015). The Impact of the Thai Motorcycle Transition on Road Traffic Injury: Thai Cohort Study Results. *PLoSOne,10*(3): e0120617.

(15) Department of Highway, Thailand. (2007). *The Study of Traffic Accident Cost in Thailand.* Retrieved December 10, 2015 from http://siteresources.worldbank.org/INTTHAILAND/Resources/333200-1177475763598/Sept07-traffic_accident-full-report.pdf

(16) WHO. (2011). *Global Plan for the Decade of Action for Road Safety 2011-2020*. Retrieved December 10, 2015 from http://www.who.int/roadsafety/decade_of_action/plan/en/

(17) Prime Minister's Office. (2011). *Prevention and Reduction of Road Accidents.* Bangkok, Thailand: Prime Minister's Office.

(18) Jantarason, V. (2005). *The Expansion of Government Agencies in Thai Government Management System (in Thai).*

(19) ThaiLaws. (n.d.). *Thailand Acts in English*. Retrieved December 10, 2015 from www.thailaws.com

(20) Thanitcul, S. & Imaizumi, S. (2011). *Legislative Process in Thailand*. Retrieved December 20, 2015 from http://www.ide.go.jp/English/Publish/Download/Jrp/157.html

(21) Leeds, J. (2011). *Introduction to the Legal System and Legal Research of the Kingdom of Thailand*. Retrieved December 20, 2015 http://www.nyulawglobal.org/globalex/Thailand.html

(22) Constitution Project. (2015). *Thailand's Constitution of 2014*. Retrieved December 20, 2015 https://www.constituteproject.org/constitution/Thailand_2014.pdf?lang=en

(23) Constitution Project. (2015). *Thailand's Constitution of 2007*. Retrieved December 20, 2015 https://www.constituteproject.org/constitution/Thailand_2007.pdf

(24) Pongtreekaew, K. et al. (2011). *Road Safety Acts Study for Improvement and Implementation* (in Thai). Bangkok, Thailand: Thai Health Promotion Foundation.

(25) Ratchatorn, B. et al. (2008). *Structure for Traffic Police to Enforce the Law as Required to Prevent and Improve Road Accidents (in Thai).* Bangkok, Thailand: Road Safety Group Thailand.

(26) Srising, P. (2010). *Adequacy of Court Judgment and Punishment in Case of Drunk-driving.* Bangkok, Thailand: Road Safety Group Thailand.

(27) Kanitpong, K. et al. (2008). *Safe Speed for Safe Driving (in Thai).* Bangkok: Thailand: Road Safety Group Thailand.

(28) Duangduen, P. et al. (2014). *Driver's License System Improvements (in Thai).* Bangkok, Thailand: Department of Land Transport.

(29) EUR-Lex. (2003). *Directive 2003/20/EC of the European Parliament and of the Council.* Retrieved December 20, 2015 from http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32003L0020

(30) iSize. (2013). *Home.* Retrieved December 20, 2015 from http://www.i-size.org.uk/index.html

(31) Foreign Law Bureau. (n.d.). *Unofficial Translation of the Road Traffic Act*. Retrieved December 20, 2015 from http://web.krisdika.go.th/data/outsitedata/outsite21/file/Road_Traffic_Act_BE_2522_(1979).pdf

(32) Hyder, A.A., Waters, H., Phillips, T., & Rehwinkel, J. (2007). Exploring the Economics of Motorcycle Helmet Laws- Implications for Low and Middle-Income Countries. *Asia-Pacific Journal of Public Health, 19*(2), 16-22.

(33) Tsai, M. & Hemenway, D. (1999). Effect of the mandatory helmet law in Taiwan. *Injury Prevention, 5*, 290-291.

(34) CDC. (2015). *Injury Prevention & Control: Motor Vehicle Safety- Intervention Fact Sheets*. Retrieved December 20, 2015 from http://www.cdc.gov/motorvehiclesafety/calculator/factsheet/seatbelt.html

(35) Shuey, R. & Myers, D. (2008). *Leadership in Road Policing: Road Safety Traffic Enforcement Training Manual.* Retrieved December 20, 2015 from http://www.afd-ld.org/~handicap-csr/pdf/enforcement-tranning-manual-cam-2008.pdf

World Health Organization