BỘ GIAO THÔNG VẬN TẢI
MINISTRY OF TRANSPORT

World Health Organization
Viet Nam

INTERNATIONAL WORKSHOP

Motorcycle Safety:
Best Practices and Challenges

TDSI

CHD

Johns Hopkins Bloomberg School of Public Health
International Injury Research Unit

Campaign for Tobacco-Free Kids

Foreword

Dr.-Ing. Khuat Viet Hung
President
TDSI

Dear Sponsors, Co-organizing Partners, International Organizations and Colleagues !

The International Workshop on "Motorcycle Traffic Safety: Best Practis and Challenges" held on November 4-5, 2024, in Hanoi, Vietnam, was a significant success thanks to the cooperation of esteemed national and international organizations. This workshop was not only a forum to discuss the pressing challenges and opportunities in enhancing motorcycle safety, but it also served as a foundation for sharing invaluable experiences, advanced models, and collaborative international initiatives. In Vietnam and other countries worldwide, where motorcycles are the dominant mode of transportation, improving safety for motorcycle users is crucial to ensuring public health and safety.

With the support of the World Health Organization (WHO), the Global Health Advocacy Incubator (GHAI), the Center for Health Consultation and Community Development (CHD), and Johns Hopkins University (JHU), the workshop brought together leading experts from international organizations, government agencies, researchers, and industry representatives. The active contributions and engagement of our partners not only made this event a success but also demonstrated our shared commitment to promoting motorcycle traffic safety, creating a lasting positive impact on communities.

In this report, we present the workshop's key outcomes, including major findings, recommended solutions, and future directions to improve motorcycle safety in Vietnam. We hope that the workshop's findings and recommendations will serve as a solid foundation for continued collaboration and inspire the development of safe, civilized, and sustainable traffic environments.

On behalf of the Transport Development and Strategy Institute (TDSI), I extend our deepest appreciation to the sponsors, co-organizers, and international partners who supported and participated in this workshop. We look forward to your continued support and collaboration in future projects and initiatives aimed at building a safer and more sustainable transportation environment.

Sincerely,

Dr.-Ing. Khuat Viet Hung
President
Transport Development and Strategy Institute, Ministry of Transport

Abbreviations and Acronyms

ADB	Asian Development Bank
CHD	Center for Health Consultation and Community Development
GHAI	Global Health Advocacy Incubator
GRSP	Global Road Safety Partnership
ITS	Intelligent Transportation Systems
JHU	Johns Hopkins University
MOT	Ministry of Transport
NARSA	National Agency for Road Safety
NTSC	National Traffic Safety Committee
PCP	Project Concept Paper
PTSC	Provincial Traffic Safety Committee
TDSI	Transport Development and Strategy Institute
VAMM	Vietnam Association of Motorcycle Manufacturers
WB	World Bank
WHO	World Health Organization

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1. Introduction

1.1. Background

In the context of motorcycles being the primary mode of transportation in Vietnam and many other countries worldwide, traffic safety for motorcycle users has become an urgent challenge. Motorcycles play a crucial role in daily life, especially in urban and rural areas where public transportation systems are still underdeveloped. However, the rapid increase in motorcycle usage has led to numerous traffic safety issues and significant socio-economic impacts.

Motorcycles account for 60-70% of all vehicles in Vietnam and are involved in about 70% of all road death. These accidents often result in severe injuries and have substantial socio-economic costs, including medical expenses, insurance costs, and economic losses. The continued increase in motorcycle numbers places significant strain on the infrastructure and traffic management systems, creating serious challenges in ensuring safety and reducing accidents.

Although motorcycles are the primary mode of transport, the current infrastructure has not been optimized to ensure the safety of motorcyclists. Many roads lack dedicated lanes for motorcycles, forcing them to mix with other types of vehicles, which increases the risk of collisions. The traffic signage and signals are often insufficient, failing to meet the safety needs of motorcyclists. The lack of suitable infrastructure is one of the main causes of rising accident rates and underscores the urgent need to upgrade and improve traffic infrastructure to protect motorcyclists.

The motorcycles currently on Vietnamese roads vary widely, from traditional models to newer types; however, most lack optimal safety equipment for riders. The design and safety technology for motorcycles remain limited and fail to meet the traffic safety requirements in Vietnam's complex traffic environment. Additionally, the prevalence of older motorcycles without basic safety features exacerbates the risks faced by road users.

The awareness of traffic laws and driving skills of a portion of the motorcycle-riding public remains limited. Instances of running red lights, riding in the wrong lane, not wearing helmets, and speeding are common, particularly among younger riders. Limited knowledge of traffic regulations and weak driving skills contribute to the high rate of motorcycle-related accidents. Enhancing awareness and providing training for safe riding skills are among the urgent tasks required to improve traffic safety.

While motorcycles remain the primary means of transportation, finding alternative solutions is increasingly essential to reduce accidents and promote sustainable development. However, public transportation systems are still incomplete and cannot fully meet the mobility needs of the population. Alternative solutions, such as developing public transport, environmentally-friendly vehicles, and restructuring transport planning, present complex challenges that require the cooperation of multiple stakeholders.

In response to these challenges, the International Workshop on "Motorcycle Safety: Best Practics and Challenges" was organized to create a forum for discussion among domestic and international experts. The workshop aimed to identify feasible solutions, exchange experiences from other countries, and develop strategies for a safe and sustainable transport system for motorcyclists in Vietnam. It also serves as a stepping stone to foster international cooperation in the effort to improve traffic safety and enhance the quality of life for the public.

1.2. Workshop Objectives

The workshop was organized to achieve the following key objectives:

- Identify major challenges in ensuring motorcycle safety in Vietnam and other countries with high motorcycle usage rates.
- Exchange and learn from international experiences, particularly from countries that have successfully implemented measures to reduce motorcycle-related accidents.
- Propose practical and specific solutions to improve motorcycle safety and contribute to the development of a safer, sustainable traffic environment.
- Establish international partnerships to lay the groundwork for technical and financial support projects in the area of motorcycle safety.

2. Workshop Overview

2.1. Workshop Agenda Summary

Day 1: Held at Pan Pacific Hotel – Main Discussion Sessions

Section 1: Safer Roads for Motorcycles

Discussions on safe infrastructure for motorcycles, traffic conflict analysis using AI and drone technology, the organization of motorcycle lanes in Malaysia, and safety measures in India and Vietnam. Key presentations: "Safe Infrastructure for Motorcycles" (Greg Smith, iRAP), "Motorcycle Lane in Malaysia" (Dr. Kim Beng LUA), and "Safe School Zone in Pleiku City, Vietnam" (Mr. Dang Toan Thang).

Section 2: Safer Motorcycles

Presentations on multifaceted approaches to improve motorcycle traffic safety in Ghana, Mexico, and the experience of ride-hailing companies. Key presentations: "Motorcycle Injury Crisis in Ghana" (Daniel Hardy Wuaku, Ghana), and "Motorcyclist Safety: Prevention and Protection in Mexico City" (Dr. Constanza Delón).

Section 3: Safer Users

Studies on the knowledge, skills, and safety behaviors of motorcyclists in Vietnam, communication strategies, and research on eye health and traffic safety. Key presentations: "STABLE Trial: Eye Care and Road Safety" (Hoàng Na Hương, AIPF) and "Knowledge, Risk Perceptions of Motorcyclists in Vietnam" (Mr.Le Van Dat, TDSI).

Section 4: Motorcycle Alternatives

Development of public transportation systems and the private sector's role in improving traffic safety. Key presentations: "Public Passenger Transport Development" (TS. Vu Hong Truong, Hanoi Metro Company) and "Road Safety Improvement by HONDA Vietnam" (Mr.Tran Ngoc Thang, VAMM).

Day 2: Site Visit

Visit to the Protec factory in Vinh Phuc to learn about the contributions of Protec and AIPF to improving motorcycle safety in Vietnam.

Visit to the Honda Factory and Safe Driving Center to observe Honda Vietnam's production and training activities on traffic safety.

2.2. Participants

There are more than 150 participants in total, representing the following agencies and organizations:

- *Representatives of international organizations:* World Health Organization, Global Health Advocacy Incubator, Johns Hopkins University, Global Designing Cities Initiative,

International Road Assessment Program, Asia Injury Prevention Foundation, Global Road Safety Partnership, Bloomberg Philanthropies Initiative for Global Road Safety, Vital Strategies.

- *Traffic management agencies from several countries:* Vietnam National Traffic Safety Committee; National Agency for Road Safety, Ministry of Transport and Logistics, Kingdom of Morocco; National Road Safety Authority of Ghana; Mexico City's Mobility Department.
- *Representatives from departments of the Ministry of Transport and the Ministry of Public Security:* Department of Transport, Department of Transport Infrastructure, Department of Science, Technology and Environment, Vietnam Register, Directorate for Roads of Vietnam, Traffic Police Department.
- *Provincial representatives:* representatives of PTSC's Executive Office, Provincial Departments of Transport, and Provincial Traffic Police from 18 Provincial Traffic Safety Committees; Hanoi Metro; People's Committee of Pleiku City, Gia Lai Province.
- *Private sector participants:* representatives from major transportation and vehicle manufacturing companies, including the Vietnam Association of Motorcycle Manufacturers, Honda Vietnam, Protec Helmet Factory, Yamaha Vietnam, VINFAST, Grab Company Limited, and Yadea Vietnam.
- Universities, research institutes, and the press: eople's Police Academy; Hanoi University of Science and Technology; University of Transport and Communications; University of Transport Technology; Hanoi University of Public Health; Institute of Transport Science and Technology; National Yang Ming Chiao Tung University, Taiwan; Indian Institute of Technology Kharagpur, India; Engineering, Chulalongkorn University, Thailand.
- Press Media: 31 media agencies, radio, and television stations attended to cover the workshop.

List of Key Delegates in Appendix 1

2.3. Key Speakers

Key Speakers of the Workshop:

(1) **Dr. Khuat Viet Hung** – President, TDSI

(2) **Dr. Angela Pratt** – Head of the WHO Representative Office in Vietnam

(3) **Ms. Roxanne Paisible** – Associate Director of Advocacy, Road Safety Program, GHAI

(4) **Dr. FangFang Luo** – Technical Officer for Legislative Affairs, Safety and Mobility, WHO

(5) **Dr. Qingfeng Li** – Johns Hopkins University (JHU)

(6) **Dr. Tran Huu Minh** – Chief of NTSC's Executive Office

(7) **Major General Nguyen Van Trung** - Director, Traffic Police Department, Ministry of Public Security (MOPS)

(8) **Mr. Said EL Karkouri** – Head of the Infrastructure Safety Department, National Road Safety Agency (NARSA), Ministry of Transport and Logistics, Morocco

(9) **Mr. Greg Smith** – Global Program Director, iRAP

(10) **Dr. Prof. Ka Lo Wong** – National Yang Ming Chiao Tung University, Taiwan

(11) **Dr. Kim Beng LUA** – Asia and Africa Regional Lead, Global Designing Cities Initiative

(12) **Dr. Prof. Bhargab Maitra** – Indian Institute of Technology Kharagpur, India

(13) **Mr. Dang Toan Thang** – Vice Chairman of the People's Committee of Pleiku City, Gia Lai Province

(14) **Mr. Daniel Hardy Wuaku** – National Road Safety Authority, Ghana

(15) **Prof. Dr. Kasem Choocharukul** – Head of the Department of Construction Engineering, Faculty of Engineering, Chulalongkorn University, Thailand

(16) **Dr. Constanza Delón** – Director of Road Safety and Information Monitoring, Mobility Secretariat of Mexico City

(17) **Ms. Dang Thuy Trang** – Director of Public Affairs, Grab Company Limited

(18) **Ms. Hoang Na Huong** – Deputy CEO, Asia Injury Prevention Foundation (AIPF)

(19) **Mr. Le Van Dat** - Vice President, TDSI

(20) **Mr. Le Thanh Hải** – Representation of Policy Advocacy and Communication, Vital Strategies

(21) **Dr. Vu Hong Truong** – Chairman of the Members' Council, General Director, Hanoi Metro

(22) **Mr. Tran Ngoc Thang** – Head of Traffic Safety Department, VAMM

Presentations in Vietnamese and English in Appendix 2

Opening Remarks

Dr.-Ing. Khuat Viet Hung
President of Transport Development and Strategy Institute, Ministry of Transport

In his opening remarks, Dr. Khuat Viet Hung, President of the Transport Development and Strategy Institute, highlighted the urgent need to address motorcycle safety, an issue impacting not only Vietnam but many countries globally. Motorcycles are a primary mode of transport in developing nations like Vietnam, serving as personal vehicles and tools for business and delivery. However, motorcycle-related traffic accidents remain a serious challenge, making up 60% of total road accidents in Vietnam, with over 73 million motorcycles nationwide.

Vietnam has made significant strides in traffic safety for motorcyclists through policies like mandatory helmet use, alcohol control, and public awareness programs. This workshop offers a crucial platform to exchange successful safety practices and discuss challenges in motorcycle safety, with the goal of creating sustainable solutions applicable in Vietnam and other developing regions. Additionally, this workshop is a key step in preparing for the upcoming 4th Global Ministerial Conference on Road Safety in Marrakech, Morocco, in February 2025.

Opening Remarks

Dr. Angela Pratt, WHO Representative in Vietnam

Dr. Angela Pratt, WHO Representative in Vietnam, emphasized the importance of today's International Workshop on Motorcycle Safety.

She praised Vietnam's efforts to improve motorcycle safety, noting that these experiences offer valuable insights for the workshop. Dr. Pratt highlighted the essential role motorcycles play in Vietnam's daily life, being a popular, low-cost, and accessible mode of transport.

With 74 million motorcycles on the road, making up 9 out of 10 vehicles, Vietnam has made significant policy and infrastructure improvements, contributing to a 40% reduction in traffic-related injuries and fatalities from 2010 to 2021. While commending these achievements, Dr. Pratt stressed the need for continued efforts to enhance motorcycle safety worldwide to further reduce fatalities.

She reaffirmed WHO's commitment to partnering with Vietnam to ensure safety, especially for children who frequently travel by motorcycle. WHO looks forward to collaborating with Vietnamese authorities to support the implementation of the new Road Traffic Safety Law and Road Law, effective January 1, 2025.

Opening Remarks

Ms. Roxanne Paisible, Associate Director of Advocacy, Road Safety Program, GHAI

Ms. Roxanne Paisible, Associate Director of Advocacy, Road Safety Program (GHAI), expressed her pleasure in participating in the workshop, discussing challenges, lessons learned, and best practices in motorcycle safety policies.

“We have collaborated with numerous organizations and countries globally to reduce motorcycle-related traffic accidents. At the same time, we work with research partners to develop policies that enhance safety for motorcycle users.

GHAI is part of a broader road safety initiative. In many countries, motorcycles are essential and widely used due to their convenience and accessibility. Many families rely on motorcycles to transport children to school or commute to work. For motorbike taxis and Grab drivers, motorcycles are a primary livelihood, and thus motorcycle usage continues to grow. Unfortunately, motorcycle-related accidents have also increased.

This highlights the need for additional policy solutions for motorcycle safety. We will continue supporting the Vietnamese government in reducing motorcycle accidents and commend Vietnam's achievements in minimizing motorcycle-related traffic incidents,” Ms. Roxanne Paisible added.

She also emphasized the importance of collaboration among all stakeholders to strengthen and refine solutions that ensure road safety for motorcyclists.

Dr. FangFang Luo, Technical Officer for Legislative Affairs, Safety and Mobility, WHO

The 2nd Decade of Action for Road Safety and Priorities for Motorcycle Safety

Dr. FangFang Luo began her presentation by emphasizing the critical global challenge of road safety. With approximately 1.19 million people dying each year from road traffic accidents, road safety remains one of the most pressing public health issues. Notably, motorcyclists and riders of other two- and three-wheeled motor vehicles currently form the largest group of road traffic fatalities, accounting for nearly one-third of all road-related deaths worldwide.

Since 2011, the global number of motorcycles has almost tripled, with a corresponding and alarming increase in motorcycle-related fatalities. Motorcycles are prevalent in 34 countries, covering 62.7% of the world's population, predominantly in middle-income nations. Dr. Luo highlighted that eight countries – Bangladesh, Indonesia, Maldives, Myanmar, Nepal, Pakistan, Timor-Leste, and Vietnam – have motorcycles making up over 75% of all motorized vehicles, leading to substantial risks for motorcyclists. In these countries, motorcycles serve as essential, low-cost, and accessible modes of transport, but their prevalence also heightens the risk of road traffic injuries and fatalities.

Despite their critical role in transportation, only 21% of roads globally meet a 3-star safety rating for motorcycles, according to WHO assessments, indicating that infrastructure remains

insufficiently safe for motorcyclists in most regions. Improving road quality and design is therefore essential to enhance safety for this vulnerable group.

Dr. Luo outlined that legal frameworks for motorcycle safety are often inadequate. Of the 170 countries surveyed, only 68 have one or two specific regulations focused on motorcycle safety. Among these, 102 countries have mandatory inspection requirements for motorcycles, but only 57 countries (representing 33.1% of the world's population) enforce minimum age restrictions for children allowed as motorcycle passengers. Furthermore, helmet laws vary significantly, despite WHO's strong recommendation that helmet use laws cover all riders and include penalties for non-compliance. According to the 2023 Global Status Report on Road Safety, while 163 countries have some form of helmet law, only about one-third meet WHO's best-practice standards. Of these countries, only 78 mandate that helmets be worn properly, and 87 specify helmet quality standards; just 30 countries refer to the UN R22 helmet standard.

Dr. Luo identified three primary global challenges to improving motorcycle road safety:

1. Incomplete data systems: Many countries lack comprehensive data on motorcycle fatalities and injury patterns. In addition, vehicle registration data is inconsistently reported, especially in low- and middle-income countries. This data gap hinders the ability of policymakers to design and monitor effective safety interventions.
2. Insufficient legal frameworks: Motorcycle safety policies and regulations vary widely, often lacking the cohesion and focus necessary to effectively protect motorcyclists. In many regions, the lack of a clear policy framework specifically tailored for motorcycles—distinct from that for other vehicles—limits the impact of safety regulations. Establishing a more standardized legal approach that addresses the unique safety requirements of motorcycles is essential.
3. Inadequate technical standards: Key safety standards for motorcycles remain underdeveloped in many countries. Requirements for helmet quality, anti-lock braking systems (ABS), daytime running lights, and other critical safety features are often missing or not aligned with international standards, reducing their effectiveness in preventing fatalities and injuries.

Dr. Luo concluded by stressing the urgency of international collaboration to address these challenges. She called for enhanced cooperation among countries to develop robust policies, improve data collection systems, and implement technical standards that better protect motorcyclists. WHO remains committed to supporting countries, particularly those with high motorcycle usage, in implementing safety measures that reduce traffic-related deaths and injuries. Dr. Luo emphasized that strengthening road safety for motorcycles requires sustained global action, especially in countries like Vietnam where motorcycles dominate the road and the risks are correspondingly high.

Dr. Qingfeng Li, Assistant Professor, International Health Associate Director, International Injury Research Unit, Johns Hopkins University (JHU)

Global Challenges and Opportunities in Motorcycle Safety

He began by highlighting the staggering toll of road traffic injuries, with approximately 1.19 million people dying in road accidents each year, predominantly in low- and middle-income countries. Additionally, road crashes leave around 50 million people injured or permanently disabled, resulting in significant short- and long-term impacts on families and the healthcare system, as well as financial losses due to medical costs, property damage, and lost productivity.

Dr. Li pointed out that motorcycle and other two- or three-wheeled vehicle users are the most vulnerable group in traffic accidents, as they lack the energy-absorbing protective structures found in four-wheeled vehicles. Head injuries, in particular, are a leading cause of severe injuries and fatalities in motorcycle accidents. Given the high risk to motorcyclists, especially in countries where motorcycles dominate the roads, enhancing protection measures is essential.

In Vietnam, motorcycles are the primary means of transportation, accounting for approximately 95% of all vehicles on the road. Vietnam has made significant strides in promoting helmet use through a combination of strategies, including helmet production, sales, and enforcement of helmet regulations. These efforts have led to a considerable increase in helmet use, particularly in major urban areas. However, challenges remain, as 3 out of every 5 road traffic fatalities in Vietnam are motorcycle-related, with three-quarters of these fatalities resulting from head injuries.

Dr. Li emphasized that proper helmet use is one of the most effective measures to reduce injury and death from motorcycle crashes. According to WHO, wearing a helmet can reduce the risk of death by 42% and the risk of serious injury by 70% in motorcycle accidents. To maximize safety, all motorcycle users, including both drivers and passengers, should be required to wear helmets that meet safety standards and are properly secured. Currently, 167 countries have adopted mandatory helmet laws and regulations to manage motorcycle speed limits.

Dr. Li also provided examples of effective motorcycle safety measures from around the world. In Taiwan, the use of designated motorcycle lanes and waiting areas has helped reduce right-turn collisions by 64%. In Japan, implementing safety messages via signs and voice alerts has led to an 85% improvement in safety behavior among motorcyclists.

In Vietnam, local efforts to improve motorcycle safety have also shown positive outcomes. For example, nearly 100% of road users in Ho Chi Minh City now wear helmets, and since 2021, there has been a marked decrease in speeding violations in Hanoi due to ongoing interventions and enhanced speed monitoring.

Dr. Li further highlighted the potential of technology, especially artificial intelligence (AI), to assist in enforcing helmet laws and managing speed limits. AI can aid in collecting data and detecting violations, such as non-helmet use or speeding, thus supporting enforcement efforts and encouraging safer driving behavior. However, Dr. Li noted that most current systems are designed for four-wheeled vehicles, emphasizing the need for systems specifically tailored to motorcycles.

Finally, Dr. Li underscored the importance of stringent helmet quality control, ensuring that helmets are worn correctly, and researching additional safety measures for children riding on motorcycles, such as child safety harnesses. He called for global collaboration among nations and international organizations to develop effective policies and enforcement strategies to reduce motorcycle-related injuries and fatalities worldwide, particularly in countries with high motorcycle usage like Vietnam.

Dr. Tran Huu Minh, Chief of NTSC's Executive Office

Motorcycle Safety in Vietnam: Achievements and Challenges

Dr. Tran Huu Minh, Chief of the Executive Office of the National Traffic Safety Committee, provided an in-depth analysis of the current situation and challenges surrounding motorcycle safety in Vietnam, a country with one of the highest rates of motorcycle ownership worldwide. As of September 2024, Vietnam has approximately 77 million registered motorcycles, amounting to 770 motorcycles per 1,000 people. Dr. Minh highlighted that this figure reflects the deep reliance of the Vietnamese population on motorcycles as a primary means of transportation, particularly given the inadequacies in infrastructure and urban planning to fully meet the growing demand for road space.

Dr. Minh explained that motorcycles have notable advantages, such as relatively high speeds, flexibility, convenience, maneuverability, and low operating costs, making them highly suitable for Vietnam's transportation needs. Given that many roads in the country are narrow and congested, motorcycles serve as an efficient mode of transport in both urban and rural settings. Furthermore, Vietnam's climate, with 1,700-2,600 hours of sunshine per year and moderate temperatures ranging from 10 to 37°C, allows for year-round motorcycle use, an advantage that contrasts with countries experiencing extreme weather, which limits motorcycle usage to certain times of the year.

However, Dr. Minh also emphasized the safety limitations of motorcycles. Compared to four-wheeled vehicles, motorcycles lack protective structures to absorb crash impacts, making

riders more vulnerable in accidents. Although motorcycles account for around 85% of Vietnam's traffic and generally travel at lower speeds in urban areas (thus somewhat mitigating accident risks), they are still involved in 60-70% of total road traffic accidents, underscoring the need for enhanced safety measures.

Despite various policies aimed at regulating and limiting motorcycle usage, motorcycles continue to be essential for most Vietnamese people, making up 85-90% of daily traffic. Studies indicate that motorcycle ownership in Vietnam is likely to continue rising. Notably, even families with cars often retain motorcycles to meet specific transportation needs, such as navigating narrow alleys or making short trips.

In terms of management and organization, Dr. Minh noted that Vietnam has established a comprehensive set of regulations and control mechanisms covering motorcycle registration, technical standards, driver training and licensing, and traffic rules and enforcement. Furthermore, regulations on helmet use, speed control, and administrative penalties for traffic violations have played a crucial role in improving motorcycle safety. Vietnam has earned international recognition for its successful enforcement of helmet laws, with helmet-wearing rates reaching 90-95% in many regions, making Vietnam's helmet law enforcement model a reference point for other countries.

Dr. Minh also identified several areas for improvement in management and enforcement, such as the relatively low helmet-wearing rate among children, partly due to parents' lack of awareness regarding helmet safety. He highlighted the need for stricter oversight and penalties on violations like alcohol levels and speeding, two major factors that significantly increase the risk of severe motorcycle accidents.

On infrastructure, Dr. Minh pointed out that Vietnam's current road network lacks dedicated motorcycle lanes, leading to mixed traffic that complicates management and increases accident risks. He stressed that establishing motorcycle lane standards and expanding dedicated lanes for motorcycles would be essential to enhance safety for motorcyclists.

In conclusion, Dr. Minh noted that while Vietnam has made significant achievements in improving motorcycle safety, there remain numerous challenges that must be addressed. Priorities include the management of children on motorcycles, enhanced helmet quality control, and infrastructure improvements tailored to motorcycle use. To reduce motorcycle-related traffic accidents, there is a need for closer coordination between regulatory agencies, better infrastructure, and increased public awareness. Dr. Minh emphasized that persistence and continuous efforts to implement current solutions will yield positive results for traffic safety in Vietnam in the future.

Major General Nguyen Van Trung, Director of the Traffic Police Department, Ministry of Public Security

Enforcement of Violations by Motorcycle Riders and Regulations for Improving Motorcycle Safety in the Road Traffic Safety Law

Major General Nguyen Van Trung, Director of the Traffic Police Department, emphasized the importance of motorcycle traffic safety in Vietnam and the urgency of taking action to mitigate escalating challenges. He noted that without intervention, the current rate of 60% of traffic accidents involving motorcycles could continue to rise, particularly with the rapid increase in motorcycle numbers and inadequate adherence to traffic laws.

Major General Trung outlined the proactive measures taken by the Traffic Police to ensure road safety. The department has consistently advised the Ministry of Public Security, which has, in turn, recommended key directives to the Party Central Committee and the Government, such as Directive No. 23 to strengthen the Party's role in traffic safety and Directive No. 10 from the Prime Minister focusing on traffic safety for students. These strategic directions mobilize the entire political system to participate in traffic safety efforts.

In addition to legislative measures, the Traffic Police have intensified public awareness campaigns and enforcement against violations that lead to accidents. These include a rigorous campaign against drunk driving, operating on a zero-tolerance policy—even during holidays—to instill a cultural norm of "no drinking and driving." They also strictly enforce regulations against overloaded vehicles, prioritizing human life over economic concerns.

These decisive actions have led to positive changes in traffic safety; however, risks remain with the ongoing increase in motorcycles, now exceeding 70 million vehicles, with annual growth rates between 10-15%. Analysis shows that in the first 10 months of 2024, motorcycles were involved in 60% of all traffic accidents. Major General Trung emphasized that while enforcement is necessary, improving motorcyclists' awareness and behavior remains key to reducing accidents.

To address gaps in motorcycle management, the Traffic Police have proposed several new regulations in the Road Traffic Safety Law. These include modernizing the traffic command center, enabling data sharing on road traffic safety among state agencies, and applying technology to improve safety management, including a points-based license system.

Additionally, the Traffic Police advocate for policies supporting public transportation development, restricting private vehicle use, and encouraging a shift to electric vehicles and environmentally friendly options. A vital policy focuses on educating high school students on traffic laws and safe motorbike riding skills, especially as over 4 million young people between ages 16-18 regularly use motorcycles. Coordinating with educational institutions to provide safe driving instruction is seen as essential for fostering a future generation with better road safety awareness.

Major General Trung mentioned that the Traffic Police are focusing on student safety, addressing around 80,000 traffic violations among students in recent campaigns, prioritizing guidance and education. He stressed that effective education will cultivate a generation that abides by traffic laws, reducing accidents in the long term.

He concluded by emphasizing that these regulations not only improve the legal framework but also lay the foundation for a safe and civilized traffic environment. Major General Trung called for collective effort and cooperation from law enforcement, institutions, and the public to create a safer traffic environment and reduce motorcycle-related accidents across the country.

Mr. Said EL Karkouri, Head of the Infrastructure Safety Department, National Road Safety Agency (NARSA), Ministry of Transport and Logistics, Morocco

Action Plan for Road Safety in Marrakech 2024 - 2025

Mr. Said EL Karkouri, Head of Infrastructure Safety at the National Road Safety Agency (NARSA) in Morocco, presented the 2024-2025 Action Plan aimed at improving road safety in Marrakech. Morocco has chosen Marrakech as a pilot city to implement this targeted action plan, designed to address the specific safety challenges in urban traffic.

The Action Plan is part of Morocco's broader National Road Safety Strategy (2017-2026), which targets a 50% reduction in traffic fatalities by focusing on five strategic challenges: improving safety for transport services, protecting children under 14, addressing single-vehicle accidents, reducing motorcycle-related incidents, and enhancing pedestrian safety. The strategy revolves around five pillars: post-crash interventions, safer vehicles, safer roads, effective road safety management, and promoting safer road user behavior through training, awareness, and enforcement.

Marrakech was chosen as a pilot site due to its size and specific challenges; it is Morocco’s fourth-largest city, with about 900,000 residents and a significant share of the national vehicle fleet. In 2023, the Marrakech-Safi region reported 16,290 traffic incidents, with 646 fatalities, a sharp increase compared to the previous year. The high rate of accidents involving

motorcycles and pedestrians in Marrakech underscored the urgent need for a targeted action plan.

Key Components of the Action Plan

1. The plan is structured around four main intervention areas:

- Infrastructure Safety: This segment includes projects like enhancing traffic control measures, developing pedestrian paths, and expanding cycling lanes. Key projects include:
- Strengthening traffic control devices on major city roads and enhancing pedestrian crossings ($8.83 million, expected completion by 2025).
- Reconfiguring cycle paths and pedestrian areas.
- Implementing safety improvements in high-risk zones and creating “safe school zones” for 52 schools in Marrakech.

2. Vehicle Safety: Measures under this segment include:

- Acquiring equipment to monitor motorcycle engine capacity to ensure compliance.
- Auditing and regulating motorcycle sales outlets and technical inspection centers.

3. Safer Road User Behavior: Key initiatives focus on education, awareness, and enforcement:

- Distributing 50,000 helmets to motorcyclists and providing 100,000 helmets to elementary students.
- Expanding the installation of fixed speed radars across Marrakech.
- Strengthening local communications, establishing traffic safety awareness clubs in schools, and integrating a traffic safety certification for middle school students.

4. Post-Crash Interventions: This segment includes:

- Increasing the fleet of Civil Protection ambulances.
- Establishing mobile first-aid stations in high-risk zones.
- Setting up a Coordination and Management Center for Emergency Interventions in the Marrakech province.

In total, 24 projects are planned within the Action Plan for Marrakech, with an estimated budget of $34 million. Mr. El Karkouri concluded by stressing the importance of this action plan as a model for future nationwide initiatives to enhance road safety in Morocco, ahead of the 4th Global Ministerial Conference on Road Safety scheduled for February 2025 in Marrakech.

Section 1: Safer road for Motorcycles

Mr. Greg Smith, iRAP's Global Program Director

Safe Infrastructure for Motorcycles

Mr. Greg Smith, Global Program Director at the International Road Assessment Programme (iRAP), presented iRAP's significant achievements and goals in enhancing road safety infrastructure worldwide. According to estimates from Johns Hopkins University, iRAP projects from 2016 to 2024 have helped prevent approximately 700,000 fatalities and injuries from road traffic accidents, illustrating the impact of systematic approaches in reducing traffic incidents.

In iRAP's global action plan, Mr. Smith outlined two primary targets for 2030. The first goal is for all new roads to meet a safety standard of at least three stars or higher, according to iRAP's star rating system, to ensure safety for all road users. The second goal aims to upgrade 75% of existing roads to meet this same three-star minimum by 2030. These targets underscore iRAP's strong commitment to raising road infrastructure standards to create safer traffic environments, minimizing accident risks for all participants.

Mr. Smith emphasized the critical role of data in assessing road infrastructure safety. Data serves as the foundation for determining a road's safety level and assessing accident risk factors, thereby guiding preventive measures. iRAP's star rating system provides an objective assessment tool that helps identify potential hazards without relying solely on crash data. Through star ratings, road authorities can pinpoint weak areas in infrastructure and take appropriate actions to boost safety, enhancing the star rating and reducing risks.

Section 1: Safer road for Motorcycles

Highlighting one of iRAP's notable projects, Mr. Smith referenced the Shaanxi Road Safety Project in China, which iRAP supported. With a $344 million investment, this project improved safety across 850 kilometers of roads, reducing fatalities by 33% and injuries by 53%. This initiative increased the proportion of three-star or higher-rated roads by 52%, saving 32 lives and reducing 868 injuries annually. The project also fostered traffic safety awareness, reaching over 2,400 students, teachers, parents, and community members, thereby laying a solid foundation for sustainable safety improvements.

To address the safety of two-wheeled vehicles, Mr. Smith emphasized the need for safe environments for cyclists, motorcyclists, and pedestrians. As per international recommendations, road infrastructure managers should update and apply design standards, guidelines, and manuals to increase safety knowledge for two-wheeled vehicle users. Mr. Smith also advocated for safe traffic organization through speed limits of 30 km/h in high-density areas and dedicated lanes for two-wheeled vehicles to prevent conflicts with heavy vehicles.

He also called for increased international cooperation to exchange new initiatives and solutions in traffic organization, including advanced solutions for two-wheeled vehicle lanes and speed management. The widespread implementation of star ratings for all roads is another key component in improving infrastructure quality. Based on star rating outcomes, authorities can develop specific plans to control speed, maintain and upgrade infrastructure, and ensure that 75% of roads achieve a three-star rating or higher by 2030.

In conclusion, Mr. Smith stressed that by reducing the number of one- or two-star rated roads and increasing the number of roads rated three stars or higher, the risk of road accidents will significantly decline, creating a safer and more sustainable traffic environment for all.

Section 1: Safer road for Motorcycles

Dr. Prof. Ka Lo Wong, National Yang Ming Chiao Tung University, Taiwan

Traffic conflict and behavior analysis for mixed traffic using drones and AI-based technology for road safety evaluation

Associate Professor Dr. Ka Io Wong from National Yang Ming Chiao Tung University in Taiwan highlighted the urgent traffic safety challenges facing Taiwan, where motorcycles account for a significant share of road accidents. Taiwan has 615 motorcycles and 360 cars per 1,000 people, with motorcycle-related traffic deaths making up 64% of fatalities, particularly among those aged 18-24. Annually, Taiwan records approximately 400,000 traffic incidents, resulting in 3,000 fatalities, 539,000 injuries, and economic losses between 2.8-3.3% of GDP, or around $16 billion.

In response, Taiwan's government has invested $1.3 billion to improve road safety, focusing on high-risk zones. However, Dr. Wong pointed out that insufficient field data tools hinder effective safety evaluation. He emphasized using new technology, including drones and AI-powered traffic cameras, to collect and analyze data, especially at intersections. This approach allows local authorities, consultants, and regulators to make data-driven improvements.

Methods for Traffic Safety Analysis

Dr. Wong discussed both traditional and proactive methods of safety analysis:

1. Traditional Accident Analysis: Relies on past crash data to identify problem areas, yet often fails to address new, emerging risks in real-time.

2. Traffic Conflict Analysis: This proactive approach detects near-miss events before accidents occur. Drones and AI technology are especially beneficial for this method, as drones provide wide visibility over complex intersections, and AI can identify dangerous patterns and predict conflict areas.

Case Studies and Key Findings

Dr. Wong shared examples where traffic conflict analysis led to safety improvements:

- Road Markings and Lane Violations: Analysis revealed that unclear markings caused frequent lane-changing conflicts.
- Motorcycle Waiting Zones at Intersections: Poor design of waiting zones for motorcycles led to congestion and dangerous maneuvers, prompting redesigns.
- Signal Phasing Conflicts: Specific signal phases caused merging conflicts, leading to improved signal phasing and clearer signage.

Recommendations

Dr. Wong called for collaboration among government agencies, technology firms, and consulting engineers to scale these technologies. Key recommendations include:

- Enhanced Technology for Traffic Safety: Drones and AI provide real-time data to monitor high-risk areas and predict hazards, making them ideal for complex traffic environments.
- Dedicated Lanes and Speed Limits: For vulnerable road users, creating separate lanes and reducing speed limits in high-density areas could significantly reduce risks.
- Star Rating System for Roads: Implementing a safety star rating system on all roads would allow authorities to prioritize upgrades and improve overall safety.

In conclusion, Dr. Wong emphasized that integrating both traditional and advanced methods like drones and AI could create a comprehensive approach to road safety. This data-driven strategy enables Taiwan to continue improving road safety and protecting vulnerable road users in high-density, mixed-traffic areas.

Section 1: Safer road for Motorcycles

Dr. Kim Beng LUA, Asia and Africa Regional Lead, Global Designing Cities Initiative

PTWs and the design of our streets

Dr. Kim Beng LUA, Asia and Africa Regional Lead of the Global Designing Cities Initiative, shared insights on Malaysia's road safety efforts aimed at protecting motorcyclists. In Malaysia, the creation of dedicated motorcycle lanes running parallel to highways has helped reduce injury-related accidents by 25%. However, with the rising motorcycle traffic on these roads, fatalities have unfortunately increased, from 518 cases in 2006 to 589 in 2007. Dr. LUA highlighted that from 2006 to 2008, motorcycle accidents continued to rise steadily, even on dedicated lanes.

In urban areas, where motorcycle lanes often lack hard dividers, accidents have shown a significant increase as well, ranging from 155% to 263% during 2005-2014. In 2022, Malaysia started expanding its infrastructure, aiming to build around 220 km of dedicated motorcycle lanes in the second lane from the left. However, initial findings indicate that safety risks persist. Dr. LUA pointed out that the growth in motorcycle numbers correlates strongly with an increase in traffic fatalities, especially where effective traffic management measures are lacking.

Dr. LUA emphasized that thoughtful street design can offer long-term, sustainable solutions to curb traffic accidents. In mixed-traffic systems, establishing dedicated lanes for public transport and bicycles, setting speed limits, regular maintenance of infrastructure and vehicles, driver training, and strictly enforcing traffic rules, including speed violations and

helmet mandates, are essential measures. Such measures need to be implemented in a coordinated manner to foster a safer traffic environment.

Dr. LUA provided an example from Toronto, Canada, where traffic is managed to safeguard vulnerable road users. In Toronto, pedestrian sidewalks are limited to speeds below 5 km/h, followed by dedicated lanes for bicycles and e-bikes with speed limits of 20-25 km/h. The main lanes are reserved for cars and motorcycles with speed limits of 30-50 km/h. This structured lane separation and speed regulation ensure not only road safety but also reduce potential conflicts between various types of vehicles.

Dr. LUA concluded by underscoring that designing appropriate infrastructure for motorcycles and vulnerable road users is critical to creating a safe and sustainable traffic environment. These solutions, when implemented comprehensively, can not only reduce road accidents but also enhance traffic safety awareness, particularly among motorcyclists.

Section 1: Safer road for Motorcycles

Dr.Prof. Bhargab Maitra, Indian Institute of Technology Kharagpur, India

Safety of Motorcyclists in Indian Scenario: Challenges and Way-Forward

Current Landscape and Statistics

Dr. Maitra pointed out that motorcycles comprise 60-70% of all registered motor vehicles in India, with 169 million motorcycles out of a total 230 million motorized vehicles as of 2016. Despite this high percentage, road safety in India remains a severe issue, with 168,000 deaths from 460,000 road traffic crashes annually. Particularly alarming is the fact that although national highways cover only 2% of India's total road network, they account for over 36% of traffic fatalities.

Safety Concerns for Motorcyclists

Motorcyclists fall into the vulnerable road user (VRU) category, which makes up 64.3% of all crashes and 68.1% of fatalities, with motorcyclists alone involved in over 68% of VRU crashes and 65% of VRU fatalities. A concerning statistic is that approximately 30% of motorcyclist fatalities in 2022 were linked to the non-use of helmets.

Challenges and Issues

Key challenges include:

1. Lack of Designated Facilities: High-speed roads lack dedicated lanes for motorcycles,

leading to uncontrolled movement of motorcyclists on highways.

2. Unprecedented Growth of Motorcycles: The COVID-19 pandemic accelerated this growth as people increasingly avoided public transport in favor of personal motorcycles.
3. Overloading: Despite laws limiting passengers, motorcycles frequently carry multiple riders, especially in rural areas.
4. Helmet Compliance: Many fatalities are linked to the non-use or improper use of helmets. Non-standard, low-quality helmets are still widely available and often do not meet safety standards.
5. Speeding: Over 71% of road fatalities in 2022 were caused by speeding, primarily among younger motorcyclists.

Systemic Weaknesses

Dr. Maitra highlighted other structural issues such as a weak driving licensing (DL) system and insufficient emergency response infrastructure. Many motorcyclists lack formal training, and emergency response times are inconsistent, with inadequate training for ambulance personnel.

Recommendations for Improvement

To improve motorcycle safety, Dr. Maitra suggested:

- Regulating Motorcycle Use: Introduce specific rules for different types of motorcycles and the roads they can access, including a review of maximum speed limits.
- Enhanced Licensing: Strengthen the licensing process through Automated Driving Test Tracks and stricter regulations.
- Child Helmet Standards: Implement safety specifications for children's helmets to ensure proper fit and protection.
- Enforcement and Technology: Leverage electronic and AI-based monitoring for speed enforcement and helmet compliance.
- Enhanced Emergency Care: Improve emergency response by training personnel, optimizing ambulance locations, and setting a national emergency number.

Research and Future Directions

Dr. Maitra concluded with a call for increased awareness and enforcement to improve road safety culture. He emphasized the need to adapt policies, leveraging data and research, to address the dynamic challenges facing motorcyclists in India.

Section 1: Safer road for Motorcycles

Mr. Dang Toan Thang - Vice Chairman
The People's Committee of Pleiku City, Gia Lai Province

Safe School Zone in Vietnam: Best Practice in Pleiku City

Mr. Dang Toan Thang, Vice Chairman of Pleiku City People's Committee, presented on the "Safe School Zone - Speed Reduction" project implemented from April 2018 to October 2024. Funded by Botnar Foundation, GRSP, and FIA, this project aims to reduce road injuries and fatalities among students by enhancing safety infrastructure, promoting a traffic safety culture, and establishing regulatory measures around schools. This project has earned international acclaim, receiving **the Bloomberg Philanthropies Initiative for Global Road Safety Award** in New York, USA.

Project Components and Achievements:

1. Infrastructure Improvements: Key upgrades included 1,500 m² of resurfaced road, 3,600 m² of sidewalks, 175 traffic signs, 1,057 m² of road markings, 420 m of stainless steel barriers, 21 flashing yellow lights, and two surveillance cameras.
2. Community Awareness Campaigns: The project produced the educational film "The Cycle," which reached over 1.4 million viewers. Over 500 radio broadcasts, 253 billboards, and 26,632 leaflets were used to raise awareness. A photo contest titled "Preserving Childhood Happiness" gathered over 2,000 entries and nine million interactions on social media.
3. Promoting Sustainable Transport: Various activities like safe cycling training, bike-to-

school campaigns, a cycling marathon, and forums on green transport were organized, drawing participation from students, the community, and sponsors.

4. Speed Enforcement: Traffic police conducted checks during school hours, with violations dropping significantly from 5.25% in the first round to 2.24% in the third, showing improved compliance among parents and students.
5. Digital Road Safety Materials: Road safety resources, developed and piloted from 2018 to 2022, were approved by the Ministry of Education and Training and integrated into elementary and middle school curriculums.
6. Legal and Regulatory Progress: Pleiku successfully established a 30–40 km/h speed limit in school zones and launched the "Safe School Zone" model to institutionalize school zone safety.

Key Results:

- The project benefited over 130,000 people in Pleiku directly and more than 16 million people indirectly nationwide.
- Awareness of speed limits in school zones rose from 16% to 66%.
- Maximum speeds in school zones decreased by 9–13 km/h, with a reduction in traffic collisions involving students from 19.8% to 2.9%.

Future Directions:

Pleiku aims to expand the "Safe School Zone" model city-wide, maintain community awareness campaigns, and continue implementing digital safety education in schools. Efforts will include embedding safety standards in school infrastructure, promoting traffic safety culture, and strengthening enforcement through speed monitoring systems in school zones.

Section 2: Safer Motorcycle

Mr. Daniel Hardy Wuaku, National Road Safety Authority, Ghana

Confronting Motorcycle Injuries and Deaths in Ghana: A Multi-Faceted Approach

Mr. Daniel Hardy Wuaku, Technical Advisor for Road Safety at Ghana's National Road Safety Authority, outlined Ghana's significant challenges in managing motorcycle safety in the context of a rising number of accidents and fatalities. He highlighted that while motorcycle use is growing rapidly across low- and middle-income countries, this rise is paralleled by an increase in crash-related fatalities, which are especially pronounced in countries like Ghana. Globally, 1.19 million people die each year in road traffic accidents, with a staggering 90% of these deaths occurring in low- and middle-income countries, where 88% of the world's motorcycles are also concentrated.

In Ghana, motorcycles have become indispensable, not only for personal transport but also as an affordable and flexible means for passenger services, similar to "xe ôm" operations in Vietnam. This trend has brought both benefits and risks, with motorcyclists facing a 26-fold higher risk of fatality compared to other vehicle users, and motorcycle-related incidents now accounting for approximately 30% of global road traffic deaths. In 2023 alone, Ghana recorded 14,135 road accidents, which led to over 15,000 injuries and more than 2,000 fatalities. Mr. Wuaku noted that head injuries are the leading cause of death among motorcycle users, exacerbated by Ghana's low helmet usage rates, with only 56% of riders and 22% of passengers using helmets. Helmet use, he emphasized, could reduce the risk of head injury by 69% and lower the risk of death by 37% for riders and 41% for passengers.

Ghana currently faces additional structural challenges: the country lacks a national standard

for helmets, leaving helmet quality dependent on the private sector, and there is no comprehensive framework to manage other risks associated with motorcycles, including overloading, excessive speeding, and environmental pollution. Additionally, there is ambiguity around insurance claims for passengers injured in motorcycle accidents, which complicates compensation processes.

Mr. Wuaku emphasized that while there have been discussions on banning motorcycles from passenger services, the widespread dependence on them for transportation in rural and underserved areas makes such a ban difficult to implement. Instead, he advocated for a comprehensive approach centered on infrastructure development, particularly through the creation of designated motorcycle lanes, improved road signage, and clearer road markings to enhance safety.

To address motorcycle safety more effectively, Mr. Wuaku proposed implementing systematic and periodic vehicle maintenance checks, equipping motorcycles with safety devices, and instituting certification processes to ensure that vehicles on the road meet essential safety standards. He also stressed the importance of rider training and education, calling for mandatory motorcycle licensing programs to be embedded in national law and rigorously enforced.

Enhanced law enforcement is another pillar of Mr. Wuaku's recommendations. Leveraging technology, such as speed cameras and mobile surveillance units, could help monitor compliance with helmet laws, speed limits, and traffic signals. Establishing stringent penalties for violations and educating the public about these laws could foster greater adherence to traffic safety rules.

To further mitigate the impact of motorcycle-related accidents, Mr. Wuaku underscored the need to build an efficient emergency medical response system. A robust system could ensure timely intervention, thereby improving the survival rate of crash victims and minimizing the severity of their injuries. Such a system would include well-trained first responders and strategically placed ambulances to ensure rapid access to accident scenes, enabling critical first aid for severe injuries.

In summary, Mr. Wuaku's presentation highlighted the urgent need for a multi-faceted approach to motorcycle safety in Ghana. His recommendations spanned infrastructure enhancements, legal reforms, public education, and stringent law enforcement, combined with the establishment of a responsive emergency healthcare system. This holistic strategy, he asserted, is essential to reducing the prevalence and severity of motorcycle-related accidents and building a safer transportation environment in Ghana.

Section 2: Safer Motorcycle

Prof. Dr. Kasem Choocharukul, Head of the Department of Construction Engineering, Faculty of Engineering, Chulalongkorn University, Thailand

Current Status of Motorcycle Traffic Safety in Thailand: Challenges and Lessons Learned

Prof. Dr. Kasem Choocharukul, Head of the Department of Civil Engineering at Chulalongkorn University, Thailand, highlighted at the workshop that road safety remains a critical global issue, with approximately 1.35 million fatalities annually due to road traffic accidents (as reported by the WHO). Despite significant investment in upgrading transport infrastructure, Thailand has not seen prominent results in reducing traffic-related injuries and fatalities, indicating the need for stronger actions beyond infrastructure improvements.

Current Situation and Challenges

1. High Motorcycle Usage and Severe Traffic Accidents:
    - In Thailand, motorcycles constitute over half of registered vehicles and account for more than 80% of road traffic fatalities each year. Due to affordability and flexibility, motorcycles are a primary mode of transport, especially for low-income groups.
    - Helmet usage rates remain low, especially for pillion riders and in rural areas, with only 48% of drivers and 21% of passengers wearing helmets (according to the Thai Roads Association, 2024).
2. Lack of Safe Infrastructure and Road Conditions:
    - Only about 17% of Thailand's roads are rated 3 stars or higher in terms of safety

for motorcyclists, with a lack of dedicated motorcycle lanes and insufficient road maintenance.

- Young riders make up a significant proportion of motorcyclists, and this age group tends to exhibit risky driving behaviors.

3. Weak Law Enforcement:
    - Legal regulations on road safety, such as helmet use, speed limits, and licensing, are not consistently enforced. Risky driving behaviors such as speeding, drunk driving, and disregarding traffic rules are common.
    - Vehicle safety standards and routine maintenance requirements are also insufficiently enforced.
4. Health and Economic Burden:
    - Motorcycle-related accidents place a significant health burden on communities and negatively impact the national economy through increased healthcare costs and reduced productivity.

Recommendations and Future Directions

Prof. Dr. Kasem Choocharukul proposed several measures to improve motorcycle safety in Thailand:

- Infrastructure Improvement: Implement dedicated motorcycle lanes with barriers separating them from other vehicles and increase maintenance efforts, especially installing signage in high-risk accident zones.
- Strengthening Law Enforcement: Rigorously enforce helmet laws and speed limits, with a focus on young drivers—a group particularly prone to riskier driving behaviors.
- Public Awareness and Education: Promote safety awareness campaigns, emphasizing helmet use and speed reduction, and provide practical safety training for motorcyclists, especially younger riders.
- Enhancing Vehicle Safety Standards: Establish mandatory vehicle maintenance requirements and encourage the production of safer motorcycle models that meet updated safety standards.

In conclusion, Prof. Dr. Kasem Choocharukul emphasized that reducing motorcycle-related fatalities and injuries in Thailand requires a comprehensive strategy. This strategy should combine infrastructure improvements, strict enforcement of safety laws, increased rider education, and higher safety standards for motorcycles. Only through coordinated implementation of these measures can Thailand significantly alleviate the health and economic burden posed by motorcycle accidents.

Section 2: Safer Motorcycle

Dr. Constanza Delón, Director of Road Safety and Information Monitoring at the Mobility Secretariat of Mexico City

Mexico City's Motorcyclist Safety: Prevention and Protection

Dr. Constanza Delón delivered an insightful presentation on “Motorcyclist Safety in Mexico City: Prevention and Protection.” Highlighting the sharp rise in motorcycle use and related injuries, Dr. Delón noted that, driven by economic challenges from the COVID-19 pandemic, increased unemployment, and a fear of public transit, motorcycle ownership has surged, especially among the city's younger population. Motorcycles are more affordable and have lower purchasing requirements than cars, making them an attractive alternative for mobility.

By 2022, the number of registered motorcycles in Mexico City alone reached 608,265, with a broader metropolitan area total of 1,547,418 motorcycles. The annual growth rate for motorcycles between 2014 and 2022 stands at 14.2%, contrasting sharply with just 3.1% for cars and a mere 0.4% population growth rate from 2012-2020. The rapid proliferation of motorcycles has created enforcement challenges, as highlighted by increased motorcyclist injuries and fatalities. Between 2019 and 2023, the percentage of injured motorcyclists rose from 40% to 44%, and motorcyclist fatalities surged from 23% in 2019 to 43% in 2023, according to city data.

In response to these troubling statistics, Mexico City has implemented a series of preventive measures and awareness campaigns. Since 2019, the Road Safety Department has intensified its safety outreach, distributing over 3,500 motorcycle guides and nearly 4,000 informational pamphlets, while conducting more than 59,000 safety checks. Through these efforts, they have

issued thousands of fines for lack of helmet use and other violations, all aiming to reduce high-risk behaviors among motorcyclists.

A special licensing program now requires motorcyclists to pass both theoretical and practical tests, ensuring they possess the necessary safety knowledge and riding skills. The licensing initiative includes A1 and A2 licenses, with seven testing centers throughout the city. Complementing this, over 2,000 experienced riders attended safe-riding workshops offered by Motoescuela, covering critical skills such as managing skids and braking effectively.

To further enhance motorcyclist safety, Mexico City has focused on helmet compliance by providing 1,000 certified helmets, replacing substandard ones that fail to meet safety standards. This program aligns with regulations that now mandate helmet usage, while introducing precise helmet safety standards, including a reinforced shell, impact-absorbing liner, secure fastening system, and eye protection. Enforcement has been rigorous, with "Drive without Alcohol" checkpoints expanded to ensure that intoxicated riders are penalized, impounding motorcycles until fines are paid.

Dr. Delón also mentioned a new initiative to develop further motorcycle safety awareness through collaboration with motorcyclist associations, police training programs, and dialogues with motorcycle groups. To curb speeding, a major risk factor, the city has increased speed limit checkpoints, with a particular focus on addressing risks associated with high speeds and alcohol consumption.

Recent amendments to traffic laws have introduced several key regulations to mitigate risks. These include restrictions against carrying passengers under 12 years old on motorcycles and mandatory A1 or A2 licensing for motorcyclists. Since these regulatory changes, Mexico City has observed a decrease in violations. For example, the number of motorcycles confiscated for lacking appropriate licenses has dropped significantly—from 40% to 6%—since implementation. Additionally, dangerous driving behaviors, such as carrying multiple passengers and transporting young children, have seen fewer occurrences.

Another result of these comprehensive safety strategies has been a decline in motorcycle-related fatalities and injuries: from 2022 to 2023, motorcyclist fatalities decreased by 3%, from 210 to 204, and injuries decreased by 5%, from 15,692 to 14,831. However, Dr. Delón underscored that significant challenges remain, including managing electric motorcycles and scooters that lack regulation.

To sustain these positive outcomes, Dr. Delón concluded that Mexico City must continue expanding its safety efforts by addressing vehicle classification, encouraging safe riding practices, and ensuring sustained public awareness and infrastructure improvements for motorcyclist protection.

Section 2: Safer Motorcycle

Ms. Dang Thuy Trang, Director of Public Affairs, Grab Company Limited

Implementing Safe Rides on the Grab Platform

Ms. Dang Thuy Trang, Director of External Relations at Grab Vietnam, presented on the efforts made by Grab to ensure safe trips for their two-wheel driver partners, who provide services such as passenger transportation (GrabBike), food delivery (GrabFood), online shopping (GrabMart), and parcel delivery (GrabExpress). With hundreds of thousands of these drivers on the road daily, primarily in Ho Chi Minh City and Hanoi, Grab faces a significant challenge in ensuring the safety of drivers, passengers, and the community.

Core Safety Measures

To maintain high safety standards, Grab operates across three main pillars: Safety Policies, Technological Support, and Raising Awareness.

1. Safety Policies
    - Safety Requirements for Drivers: Drivers must meet specific criteria, including valid identification, driver's license, vehicle registration, liability insurance, and a clean criminal record. They also undergo mandatory training to instill essential safety practices before officially beginning operations.
    - Code of Conduct: Drivers agree to a Code of Conduct, outlining service standards and prohibited behaviors, with penalties for violations, including potential suspension or permanent deactivation for serious offenses.
    - Vehicle Compliance: Drivers must use vehicles registered with Grab and maintain them in good working condition to meet safety and legal standards.

2. Technology Support
    - Speed Warning and Rest Reminders: Grab's app includes a speed alert system that notifies drivers when they exceed speed limits. A reminder to take breaks helps prevent fatigue, based on the driver's online time on the app.
    - Safe Driving Reports: Drivers can monitor their driving behaviors, including metrics on speed, harsh braking, and sharp turns, encouraging safe driving adjustments.
3. Awareness and Education
    - Training Programs: Through GrabAcademy, Grab provides online training modules focused on safe driving, emergency response, and handling unexpected situations.
    - Community Campaigns: Grab also uses its platform to promote traffic safety awareness, including campaigns against drunk driving.

Continuous Monitoring and Feedback

Grab actively monitors driver compliance using feedback from passengers, data from the app, and notifications from traffic authorities on violations. This real-time data allows Grab to apply sanctions for infractions, ensuring drivers consistently prioritize safety.

Commitment to Community Safety

Ms. Trang highlighted that Grab's commitment to road safety extends beyond just their drivers, as the company regularly partners with stakeholders to enhance community safety awareness and supports initiatives that promote responsible driving behaviors across Vietnam.

Section 3: Safer user

Ms. Hoang Na Huong, Deputy CEO, Asia Injury Prevention Foundation (AIPF)

Slashing Two-wheeled Accidents by Leveraging Eyecare (STABLE)

Ms. Hoàng Na Hương, Deputy CEO of the Asia Injury Prevention (AIP) Foundation, presented the "STABLE Trial," an innovative study focusing on the relationship between vision care and motorcycle safety in Ho Chi Minh City, Vietnam. This is the first research of its kind by AIP in collaboration with various sponsors and partners (TDSI, UMP…).

Ms. Hương explained that the motivation behind the study stems from the high prevalence of motorcycle use in Vietnam, where over 80% of households own a motorcycle, and approximately 93% of all vehicles on the roads are motorcycles. The study particularly targets young people, as statistics reveal that 79.1% of students use motorcycles as their primary means of transport, and more than 40% of youth have been involved in traffic incidents.

Vision impairment among Vietnamese youth is a critical concern. Only 15-20% of people with myopia own glasses, and a staggering 93% of young myopic individuals do not wear them. Among 1,100 surveyed students, 21.6% were visually impaired, with over 80% due to myopia. This is exacerbated by the fact that 58.7% wear glasses that are unsuitable, leading to further deterioration of vision. Research from the Fred Hollows Foundation indicates that poor central visual acuity increases the risk of traffic accidents by 46%. However, the link between poor vision and road safety among young motorcycle users in low- and middle-income countries remains poorly understood.

Section 3: Safer user

The STABLE project, funded by organizations such as the Wellcome Trust and the Chen Yet-Sen Family Foundation, and partnered with institutions like Queen's University Belfast and Yonsei University, aims to bridge this knowledge gap. The project's primary objective is to examine whether providing appropriate eyeglasses can reduce incidents of crashes and near-crashes (CNC) among students.

The research is divided into three work packages: a formative study to assess local conditions and feasibility, a survey on myopia prevalence among students, and a trial implementation. During the pilot trial, 35 students from the University of Medicine and Pharmacy in Ho Chi Minh City were involved, testing the study's design and the Data Acquisition System (DAS), which helps capture real-world driving conditions. In the main trial, students are randomly assigned to receive free, corrected eyeglasses, with CNC events monitored through DAS technology.

For this study, the research team screened over 5,500 students across five universities and colleges to select 625 eligible participants. The criteria included students aged 18-23 who use motorcycles as their primary mode of transportation and possess a valid driving license. Each participant was evaluated using the World Health Organization's EYEs app for distance visual acuity.

Ms. Hương emphasized the groundbreaking nature of this study, noting the potential for collaboration with other countries to enhance road safety through vision correction for motorcyclists. The STABLE Trial represents a new frontier in understanding how improving visual acuity can contribute to safer roads, especially for young people in rapidly developing countries like Vietnam.

Section 3: Safer user

Mr. Le Van Dat, Vice President, Transport Development and Strategy Institute (TDSI)

Exploratory Research on Motorcycle Safety in Vietnam

The study primarily aimed to analyze the experiences, knowledge, and attitudes of motorcycle users regarding road safety, examining behaviors contributing to risky actions such as speeding, riding under the influence of alcohol, and not wearing helmets. The ultimate goal was to build evidence-based recommendations and communication strategies to influence safer behaviors and to support government agencies in crafting human-centered traffic safety policies, especially for motorcycle users.

Research Methodology and Scope

The study utilized both qualitative (focus group discussions) and quantitative (questionnaire surveys) approaches. A total of 166 individuals participated in 14 focus groups across three major Vietnamese cities—Hanoi, Da Nang, and Ho Chi Minh City—during September and October 2024. Participants were segmented into two age groups, 18–29 and 30–49, with a balanced representation of gender, urban/rural residents, and professional/non-professional drivers. This participant selection aimed to gauge the diversity of attitudes and experiences across different regions and demographics.

The discussion focused on four main themes: (1) Driving experiences; (2) Knowledge, attitudes, and risk behaviors related to road safety; (3) Personal experiences with risky behaviors, and (4) Behavior change motivations.

Key Findings

Speed Awareness and Compliance: Most participants recognized speed limit signs, but 80–90% were unaware of the speed limits in residential areas, with over 60% admitting to speeding in such zones. Only 28.31% of respondents felt confident they would never exceed speed limits. Younger riders, aged 18–29, were more likely to justify speeding due to time constraints, while older participants recognized its risks more and exhibited better compliance.

Alcohol Consumption: Knowledge about alcohol regulations was notably low. Younger respondents displayed more leniency towards drinking and riding compared to the older group, who were generally more cautious due to family responsibilities. Yet, peer pressure and limited transportation alternatives, especially in rural areas, often led younger individuals to continue riding after drinking.

Helmet Use: Only 38.55% of participants consistently wore helmets. Compliance was lower among younger riders, particularly on short trips or in hot weather. Helmet use also varied by region, with Ho Chi Minh City residents less likely to wear helmets during extreme heat compared to those in Hanoi. Key motivators for helmet use included police enforcement and health awareness, but barriers included discomfort and perceived inconvenience.

Risky Behaviors: Among risky actions, driving after drinking was perceived as the most dangerous, with 77.11% of respondents citing it as their top concern, followed by speeding (21.69%) and helmet non-use (1.20%). Older participants reported behavior changes due to stringent penalties, while younger riders only temporarily adjusted behaviors, primarily in the presence of law enforcement.

Policy Recommendations

To enhance motorcycle safety, Mr. Dat proposed a multifaceted approach:

Awareness Campaigns: Focus on educating the public about the dangers of speeding, drinking and riding, and non-use of helmets, especially targeting youth with real-life stories and visual consequences.

Enforcement and Monitoring: Strengthen police presence and use automated monitoring systems (e.g., speed cameras), especially in suburban and low-traffic areas where violations are more frequent. Harsher penalties for drunk driving were also recommended.

Infrastructure and Alternative Transport Options: Develop public transport and ride-sharing services, particularly in rural areas, to reduce reliance on personal motorcycles after drinking.

Helmet Promotion: Promote lightweight, weather-suitable helmets that meet safety standards. Awareness campaigns should underscore the importance of wearing helmets on all trips, including short distances.

Social Influence: Leverage community and family roles in spreading road safety knowledge, thereby creating a broader cultural shift towards safer driving practices.

In summary, Mr. Dat emphasized that addressing motorcycle safety in Vietnam requires both targeted behavioral interventions and supportive infrastructure. By implementing these recommendations, Vietnam aims to foster a safer environment for motorcyclists and reduce traffic accidents significantly.

Mr. Le Thanh Hai, Representation of Policy Advocacy and Communication, Vital Strategies

Evidence for Communicating on Motorcyclist Safety: Experience from Latin America

Mr. Le Thanh Hai from Vital Strategies presented insights on communicating road safety for motorcyclists, using experiences from Latin America as a case study. Vital Strategies is committed to creating a world protected by strong public health systems, focusing on prevention initiatives, with road safety being one of their key areas. Through the Bloomberg Philanthropies Initiative for Global Road Safety, Vital Strategies has supported road safety projects in 14 countries and 27 cities worldwide.

In Latin America, motorcyclist safety has emerged as a critical issue. With an increasing number of motorcycles on the road, riders face high vulnerability, and many car drivers view motorcycles as obstacles rather than equal road users. Mr. Hai explained that the rise in motorcycle-related fatalities and injuries underscores the urgent need for targeted campaigns that encourage safe riding practices.

From their experiences in Latin America, Vital Strategies has drawn several valuable lessons:

1. Importance of Detailed Data for Identifying Target Audiences: Access to precise, localized data is essential to identify and prioritize high-risk groups. For example, in Campinas, Brazil, data showed that speeding motorcyclists were at heightened risk. The campaign thus focused on encouraging these riders to manage their speeds. In Cordoba, Argentina, data indicated that motorcyclists were more vulnerable in crashes involving

speeding cars. Vital Strategies used these insights to craft campaigns specifically addressing the risks associated with both speeding and motorcyclist vulnerability.

2. Social-Behavioral Data to Craft Resonant Messaging: Understanding the target audience's motivations, barriers, and perceptions is crucial for designing effective messages. Behavioral research, such as focus group discussions, was used to grasp what resonates with riders, revealing key insights into both the social norms and psychological factors driving behavior. For example, in Brazil, testimonials from motorcyclists about the real dangers of speeding—even slightly above the limit—proved compelling. By showing riders the potential consequences of minor speed violations, the campaign successfully raised awareness about the importance of speed control.
3. Coordination with Law Enforcement for Enhanced Impact: Partnering with local law enforcement to ensure compliance was a pivotal component of the strategy. In several campaigns, checkpoints were set up with police to monitor speeding, reinforcing the message that the campaign's recommendations were not merely suggestions but real, enforceable rules. This combination of public messaging and visible law enforcement increased the perceived risk of violations, contributing to higher compliance rates. In Colombia, for example, checkpoints increased public awareness about speeding risks and served as a physical reminder of the campaign's message.
4. Evaluation of Campaign Effectiveness and Long-term Strategy: Evaluating the impact of these campaigns is critical to understand if they achieve the desired outcomes, such as reduced traffic fatalities and injuries. Campaigns supported by sustained efforts and consistent enforcement are shown to bring lasting changes in behavior. The Latin American experience demonstrates that changing social norms around driving is a gradual process, requiring ongoing commitment. For instance, sustained communication around speed control and consistent law enforcement gradually helped shape social norms that view speeding as a serious risk, contributing to long-term improvements in driver attitudes and behaviors.
5. Continued Application of Evidence-Based Approaches: Mr. Hai emphasized that the effectiveness of road safety communications relies heavily on an evidence-based approach. Data-driven strategies, well-defined objectives, and strong messaging that resonates with the audience are vital. By focusing on real stories, data-supported messaging, and consistent law enforcement, these campaigns create a foundation for meaningful and lasting changes in road safety behaviors.

In closing, Mr. Hai reiterated the critical role of combining data, targeted messages, and strong law enforcement to shift attitudes and behaviors on the road. Vital Strategies' work in Latin America demonstrates how these principles can be adapted and applied to regions worldwide, including Vietnam, to address the urgent issue of motorcyclist safety and reduce preventable road traffic injuries and fatalities.

Section 4: Motorcycle Alternatives

Mr. Tran Ngoc Thang, Head of Traffic Safety Department, VAMM

The contributions of Private Sector for improvement of Road safety in Vietnam: The case of VAMM

Mr. Tran Ngoc Thang presented the organization's initiatives and action plan to enhance motorcycle safety in Vietnam. As of 2023, over 70 million motorcycles are on the roads across the country, and traffic accidents involving motorcycles remain a major cause of fatalities. To address this, VAMM has committed to supporting the Vietnamese government's target of zero road traffic fatalities by 2045, with a focus on comprehensive safety measures for motorcycle riders.

Three Core Activities of VAMM in 2024

Traffic Safety Training and Helmet Distribution: VAMM has launched a large-scale road safety training program, aiming to reach over 27.9 million individuals. This includes targeted traffic safety training for students, communities, customers, and VAMM's own employees. Alongside the training, VAMM distributes high-quality helmets to children to instill a culture of road safety from an early age. Through these initiatives, VAMM aims to build safe traffic habits in young riders, which can reduce accident risks in the long term.

Traffic Safety Awareness Campaigns: To foster a culture of safe and responsible riding, VAMM has launched awareness campaigns focusing on youth aged 12-27, a group more likely to engage in risky behaviors on the road. Using social media platforms, VAMM shares videos with clear, relatable messages that highlight the dangers of speeding, drunk driving, and not

wearing helmets. These videos are expected to raise awareness among young people and encourage safer behaviors when riding motorcycles.

Supporting Government Efforts to Improve Safety Regulations and Enforcement: VAMM is actively working with government agencies to increase the use of standard-compliant helmets. In Hanoi, about 19% of riders still wear substandard helmets. To address this, VAMM is drawing from successful enforcement practices in Ho Chi Minh City, where strict penalties are imposed on both users of non-compliant helmets and sellers of these products. Additionally, VAMM collaborates with the Traffic Police and the Ministry of Education and Training to develop training and testing materials for motorcyclists. A key proposal from VAMM to the Prime Minister includes legalizing the testing and licensing of students who use e-bikes and motorbikes under 50cc to ensure they possess adequate knowledge and skills for safe driving.

Commitment to a Safer Traffic Environment in Vietnam

VAMM's efforts go beyond accident reduction—they also support the sustainable development of Vietnam's motorcycle industry. Through training, awareness campaigns, and policy support, VAMM aims to create a safer and more resilient traffic environment. This is particularly crucial in a context where motorcycles remain the dominant mode of transportation and infrastructure is still adjusting to the rising number of vehicles.

Dr.-Ing. Khuat Viet Hung
President of Transport Development and Strategy Institute, Ministry of Transport

Dr. Khuat Viet Hung, President of the Transport Development and Strategy Institute, concluded the workshop with insightful reflections on motorcycle safety in Vietnam. He emphasized that this was one of the most comprehensive and high-quality workshops on motorcycle safety he had ever attended, bringing together in-depth discussions and international best practices.

Dr. Hung highlighted the critical importance of ensuring road safety for motorcyclists, as motorcycles account for 93% of Vietnam's vehicles and over 90% of road traffic fatalities involve motorcyclists. Although motorcycles are the primary mode of transportation for both urban and rural areas, including for individuals who also own cars, efforts to create dedicated motorcycle safety measures remain limited, often focused more on cars than on motorcycles.

Dr. Hung outlined three essential pillars to enhance motorcycle safety in Vietnam:

1. Standardizing Road Infrastructure: Dr. Hung suggested building safe lanes dedicated to motorcycles, addressing a need that is essential given the large number of Vietnamese who rely on motorcycles for their daily commute. This is especially crucial as most riders are of working age and contribute directly to Vietnam's economic development. Dr. Hung asserted that road safety infrastructure should be designed to support the safe movement of these motorcyclists and mitigate the risks they face.
2. Comprehensive Training and Education: Emphasizing the role of education in promoting safety, Dr. Hung stressed the importance of building a training system that imparts critical knowledge and skills to motorcyclists. This approach would help instill safe driving habits and increase traffic awareness, particularly for young motorcyclists, who often face a higher likelihood of engaging in risky driving behaviors.

3. Strengthening Legal Frameworks: Dr. Hung called for clear and enforceable legal regulations, particularly mandatory helmet use for motorcyclists. These legal measures would empower law enforcement to penalize violators effectively and ensure public safety. He also acknowledged the upcoming Road Traffic Safety Law, effective from January 1, 2025, which includes several progressive measures but still lacks regulations on driver licensing for sub-50cc vehicles.

Dr. Hung commended the proactive role of the police force in ensuring road safety, noting that, starting in 2025, commune-level police will join in enforcing road traffic safety, raising the total number of enforcement levels to four. This expanded engagement represents a strong commitment from the public security sector to address traffic violations and improve citizens' traffic behavior.

Additionally, Dr. Hung highlighted the notable success of Vietnam's police in managing alcohol-related driving violations, describing it as a significant achievement that tackles one of the most complex aspects of road safety.

At the workshop, Dr. Hung also acknowledged contributions from the Vietnam Association of Motorcycle Manufacturers (VAMM) and Grab, who presented corporate social responsibility initiatives focused on motorcycle safety. He noted that the experiences shared by these companies can serve as a model for other nations, helping to foster a global commitment to motorcycle safety.

In closing, Dr. Hung expressed sincere gratitude to all the participating organizations and individuals, as well as to Transport Magazine for broadcasting the workshop's meaningful discussions. He affirmed that the Transport Development and Strategy Institute will compile the key insights and recommendations from the workshop and submit them to the National Traffic Safety Committee, the Prime Minister, and other relevant ministries. These findings will provide a foundation for developing policies and actions to improve motorcycle safety in Vietnam.

Day 2: Site visit

Visit to Protec Factory (AIPF)

On the second day of the Workshop, delegates were taken on a field visit to the Protec Helmet Manufacture, organized by the Workshop Committee. They were warmly welcomed by Mr. Greig Craft, President of the Asia Injury Prevention Foundation (AIPF), and Ms. Hoang Na Huong, Deputy CEO of AIPF. During the visit, the delegates were introduced to various types of helmets, along with detailed insights into the production process, quality control, and rigorous testing procedures to ensure the helmets meet the highest safety standards. This visit provided the delegates with a deeper understanding of Protec's commitment to road safety by delivering high-quality protective gear for road users.

Day 2: Site visit

Visit to the Honda Factory and Safe Driving Center

At the Honda Vietnam Safe Driving Training Center, delegates were given an overview by a Honda Vietnam representative about the motorcycles and cars produced and assembled in Vietnam. Over the years, Honda Vietnam has supplied millions of motorcycles to the market.

Day 2: Site visit

Alongside its core product lines, Honda also offers additional models to meet the diverse needs of its customers.

Day 2: Site visit

In response to calls from the Vietnamese Government, ministries, and local authorities to reduce traffic accidents, Honda Vietnam has actively supported and committed to ensuring road safety for the people of Vietnam. One of its key initiatives is providing driver training and safe driving guidance, offering essential knowledge and skills to help people drive safely. Through a network of over 800 dealerships nationwide, Honda effectively coordinates and implements safety activities for its customers.

Honda has also participated in the "Keep Dreams Alive" program, which aims to distribute millions of helmets to all first-grade students. Organized in partnership with the Ministry of Education and Training, the National Traffic Safety Committee, and Honda Vietnam, this program has so far provided more than 11 million helmets to elementary students nationwide, a meaningful initiative that helps ensure safety for young learners.

In addition, Honda Vietnam has been investing in research to develop safe, environmentally friendly motorcycles. To enhance product safety, Honda has continuously improved its braking systems, lights, and tires, ensuring these elements are developed with thorough research and attention.

During this on-site visit, delegates and representatives from Honda discussed and clarified numerous issues with the shared goal of maximizing motorcycle user safety. Attendees also observed safe driving demonstrations, where trained drivers showcased complex driving scenarios in a simulated environment, underscoring Honda's commitment to safety in practical, real-world situations.

3. Main Results

3.1. Lessons from International Experience

Based on the content presented by international speakers, several actionable insights emerged that can guide Vietnam in enhancing motorcycle safety. These lessons encompass infrastructure improvements, strengthening legal frameworks and policies, enhancing motorcycle safety standards, and encouraging alternative transportation solutions such as public transit, cycling, and walking.

(1). Strengthening Legal Frameworks and Policy Mechanisms

Mexico City has achieved positive results by refining traffic regulations, including defining motorcycle helmet standards and implementing licensing for motorcycles under 50cc. Clear policies not only protect riders but also provide law enforcement with solid grounds for implementing penalties and effective oversight.

Vietnam can learn from this by enhancing its traffic safety regulations specifically for motorcyclists. This could include mandating certified helmets, setting higher safety standards for motorcycles, and establishing stricter rules for speed limits and blood alcohol concentration. Additionally, introducing a licensing system for under-50cc motorcycles, especially for youth, could elevate road safety awareness. These legal frameworks would support stricter enforcement and minimize traffic violations.

(2). Enhancing Motorcycle Safety Standards

Som countries have developed stringent motorcycle safety standards, focusing on improvements in braking systems (ABS, CBS) and features like daytime running lights and reflective elements, which help reduce risks.

Vietnam could adopt similar safety standards for both domestic and imported motorcycles. Encouraging manufacturers to incorporate safety features such as ABS brakes, reflectors, and improved lighting would significantly reduce accident rates. Additionally, mandatory periodic vehicle inspections would ensure that motorcycles on the road meet the safety standards.

(3). Developing Dedicated Motorcycle Infrastructure

Malaysia's experience with designing dedicated motorcycle lanes has significantly reduced accident rates, especially on highways, achieving up to a 25% reduction in motorcycle-related crashes. However, Malaysia also emphasizes the importance of continuous evaluation, as the growing number of motorcycles has increased pressure on these lanes.

Vietnam can learn from Malaysia by constructing dedicated motorcycle lanes in high-traffic areas. Major urban centers like Hanoi and Ho Chi Minh City, where motorcycle density is high, should be prioritized for pilot implementation. It is also essential to ensure these lanes are separated from other traffic lanes using safety measures like hard barriers or flexible dividers, depending on infrastructure conditions. This approach could substantially decrease motorcycle-related accidents and enhance overall traffic quality in major cities.

(4). Promoting Traffic Safety Awareness Campaigns

In Latin America, public awareness campaigns on road safety have significantly raised awareness of the risks of traffic violations among motorcyclists. These campaigns resonated strongly with the public through realistic messages and personal stories.

With most motorcyclists being young, Vietnam could adopt similar awareness campaigns using social media and popular communication channels. Messages should emphasize the severe consequences of speeding, drinking and driving, and neglecting helmet use, especially targeted at younger age groups prone to risky behaviors.

(5). Promoting Alternative Transport Modes such as Public Transit, Cycling, and Walking

Some countries have invested in bike-friendly infrastructure and promoted walking as safe and sustainable transportation modes. They built dedicated cycling lanes and installed pedestrian-friendly bus stops, integrating public transit with cycling.

Vietnam could encourage alternative modes such as cycling, walking, and public transit by investing in corresponding infrastructure. Building safe cycling lanes and expanding public transit networks would help reduce motorcycle reliance, particularly in major cities. Providing incentives or fare discounts for public transit would also ease congestion and improve road safety.

(6). Effective Law Enforcement and Traffic Monitoring

In South America, strong law enforcement and effective traffic monitoring have helped reduce traffic violations. These countries have combined public awareness campaigns with strict enforcement measures from traffic police.

Vietnam should strengthen traffic monitoring through automated systems, especially in high-risk and accident-prone areas. Traffic police should also be equipped with modern monitoring tools and training to improve adherence to speed and alcohol regulations.

(7). Integrating Road Safety Education in Schools

Thailand has introduced road safety education in schools, helping students understand traffic rules from a young age.

Vietnam can incorporate road safety education in school curricula, instilling safe traffic habits early on. Combining theoretical and practical lessons would help students understand the importance of following traffic rules.

These international insights offer practical, highly adaptable solutions for Vietnam's unique traffic landscape. By integrating infrastructure improvements, awareness-building, strict law enforcement, and alternative transport options, Vietnam can achieve its goals of minimizing traffic accidents and safeguarding citizens' health and safety on the roads.

3.2. Key Findings

The workshop highlighted a series of critical insights into the impact of motorcycles on traffic safety in Vietnam, as well as the pressing challenges and needs for road safety policies. These findings, derived from detailed statistics, in-depth analyses by domestic and international experts, and lessons from global experiences, aim to shape comprehensive and context-specific road safety strategies.

(1). Significant Impact of Motorcycles on Traffic Accidents

In Vietnam, motorcycles account for approximately 93% of all vehicles on the road, contributing significantly to traffic accidents. In 2023, fatalities involving motorcycle accidents comprised over 90% of the total traffic-related deaths. With more than 70 million motorcycles in circulation, Vietnam ranks among the countries with the highest density of motorcycles globally, especially in urban areas like Hanoi and Ho Chi Minh City. In these cities, high

motorcycle density contributes to regular traffic congestion, elevating the risk of accidents, particularly during peak hours when motorcycles weave through gaps in traffic.

Recent reports indicate that the rate of non-compliant helmet usage remains high, particularly in rural areas, where approximately 19% of riders in Hanoi use substandard helmets. This underscores the need for enhanced inspection, enforcement, and additional measures to promote road safety among motorcyclists.

(2). Challenges in Managing and Monitoring Motorcycles

Managing and overseeing the vast number of motorcycles poses one of the primary challenges for authorities. The current legal framework lacks comprehensive regulations and enforcement mechanisms to address road safety violations specifically associated with motorcycles. Although the new road traffic safety law (effective from 2025) has introduced some provisions, there are still gaps, such as the absence of licensing requirements for riders of motorcycles with engines below 50cc.

Experts emphasized the need for data-driven management and behavior monitoring systems, including automated surveillance tools like speed and traffic monitoring cameras. Additionally, sustainable enforcement requires coordinated mechanisms among different agencies. For example, from 2025, a new level of law enforcement will be introduced at the local level, with community officers assisting in rural areas to help ensure better traffic regulation and monitoring.

(3). Urgent Need for Motorcycle-Specific Safety Policies and Standards

The workshop also highlighted the critical need for policies and safety standards that are specifically tailored for motorcycles. Current road safety policies are predominantly focused on four-wheeled vehicles, falling short of addressing the unique risks associated with motorcycles, which remain the dominant mode of transport across Vietnam.

To address this gap, experts proposed implementing dedicated motorcycle lanes in high-traffic areas. Malaysia's experience demonstrates that creating dedicated motorcycle lanes has resulted in a 25% reduction in motorcycle-related accidents. Pilot programs in cities like Hanoi, Ho Chi Minh City, and other densely populated urban centers are recommended. Dedicated lanes with physical barriers could substantially reduce motorcycle accidents and improve overall traffic safety.

Additionally, new policies should prioritize awareness campaigns and road safety training programs, particularly for young riders, who statistically engage in riskier driving behaviors. Educational initiatives could cultivate a safety-conscious riding culture, reducing violations and accidents among young motorcyclists.

(4). Encouraging Alternatives to Motorcycles with Public Transportation and Cycling

The workshop emphasized the importance of promoting alternative modes of transportation to reduce dependency on motorcycles. Experts referenced the successes of Japan and the Netherlands, where public transportation systems and cycling infrastructure are robustly developed.

Vietnam could encourage public transportation usage and expand bike lanes in urban areas to alleviate traffic congestion and improve environmental sustainability. Additionally, supporting policies could incentivize individuals to shift to public transportation and encourage safe

infrastructure for walking and biking. This approach would reduce the reliance on motorcycles while promoting a more environmentally friendly and safer urban mobility culture.

(5). Combining Communications with Law Enforcement for Effective Change

A crucial lesson from global experience is the combination of targeted communication and strict law enforcement to create lasting behavior changes. To make a sustainable impact, communication campaigns must be paired with rigorous enforcement measures to raise risk awareness and emphasize the importance of compliance. Campaigns in Argentina and Brazil have successfully raised safety awareness among motorcyclists by delivering clear, impactful messages in collaboration with law enforcement agencies.

These key findings provide a comprehensive view of Vietnam's motorcycle-related traffic issues while outlining practical and actionable measures to reduce accidents and improve national traffic safety outcomes. By implementing these insights, Vietnam can make significant strides toward building safer, more efficient transportation systems.

3.3. Proposed Solutions

Based on the workshop outcomes and insights from expert presentations, the following comprehensive solutions are recommended to address motorcycle safety in Vietnam. These solutions are organized into seven primary categories to ensure a holistic, scientifically grounded approach:

(1). Legal, Regulatory, and Policy Solutions

- **Strengthening Motorcycle-Specific Legislation**: Introduce and enforce comprehensive traffic regulations specific to motorcycles, such as licensing for riders of all engine capacities, including those under 50cc. Update traffic laws to mandate helmet usage for all motorcycle riders and impose stricter fines on non-compliance.
- **Policy Integration for Safety Standards**: Develop a unified framework that integrates motorcycle safety standards into existing road safety policies, focusing on helmet quality, vehicle standards, and periodic inspections.
- **Improved Licensing Requirements**: Revise licensing policies to include safety knowledge tests and practical exams focusing on motorcycle safety for younger riders, promoting skill acquisition and awareness.
- **Data-Driven Policy Development**: Utilize motorcycle accident data to identify trends and areas requiring regulatory adjustments, ensuring that policies are continuously updated to reflect real-world conditions.

(2). Infrastructure Improvements for Motorcycle Traffic

- **Dedicated Motorcycle Lanes**: Implement separate lanes for motorcycles on high-traffic routes in urban areas. Drawing from Malaysia's experience, dedicated motorcycle lanes can effectively reduce accident rates. Pilot these lanes in cities like Hanoi and Ho Chi Minh City, where motorcycle density is highest.
- **Traffic-Calming Measures**: Install speed bumps, roundabouts, and signage in densely populated areas to control traffic flow and reduce collision risks. Safety infrastructure such as barriers between motorcycle lanes and other traffic lanes should be prioritized on major roads.
- **Improved Roadway Maintenance**: Establish routine maintenance protocols to ensure safe road conditions for motorcyclists, addressing issues such as potholes, poor lighting,

and inadequate signage. Safer road conditions will lower accident risks, especially in rural and high-traffic areas.

- **Urban Design Integration**: Incorporate motorcycle-friendly infrastructure in urban planning. This includes motorcycle parking areas, improved crossings, and protective barriers in accident-prone zones.

(3). Enhanced Traffic Safety Conditions for Motorcycles

- **Helmet Standards and Distribution**: Work with manufacturers to produce and promote quality helmets meeting safety standards. Government programs could subsidize or distribute helmets to promote their use, particularly in rural areas where compliance is lower.
- **Public Awareness Campaigns**: Launch campaigns to educate motorcyclists on safety practices, especially around helmet use, speed limits, and sober driving. Successful initiatives in Argentina and Brazil have shown that impactful messages can shift public behavior.
- **Safety Equipment for Motorcycles**: Encourage motorcycle manufacturers to include standard safety equipment, such as anti-lock braking systems (ABS) and improved lighting on all models. Mandating safety features in new motorcycles can significantly reduce accident risks.

(4). Motorcycle Safety Enhancements

- **Quality Assurance of Motorcycles**: Develop regulations requiring motorcycle manufacturers to adhere to strict quality and safety standards, ensuring that bikes sold in Vietnam are equipped with essential safety features.
- **Environmental Safety Regulations**: Set emissions standards to reduce air and noise pollution from motorcycles, fostering a safer and healthier environment for all road users.
- **Vehicle Inspection Programs**: Implement regular vehicle inspections focusing on motorcycle roadworthiness. Inspections should cover critical safety features such as brakes, lights, and tires, with incentives for compliance to encourage participation.

(5). Motorcyclist Education and Safety Training

- **Compulsory Road Safety Education**: Integrate motorcycle safety training into school curriculums and public driving courses. Young drivers are at high risk; therefore, educational programs can foster early awareness and responsible driving habits.
- **Rider Skill Development Programs**: Establish training programs that cover safe motorcycle handling, defensive driving, and emergency maneuvers. Training could be conducted in collaboration with manufacturers, as seen in programs by Honda Vietnam.
- **Awareness of Consequences of Risky Behavior**: Increase awareness about the dangers of speeding, impaired driving, and failing to wear helmets through storytelling campaigns. This approach has shown success in Brazil, where testimonies from accident survivors shifted public perception.

(6). Law Enforcement and Compliance

- **Strengthening Traffic Law Enforcement**: Increase the presence of law enforcement officers, particularly in high-risk areas. Enforcement should focus on common violations such as speeding, helmet use, and adherence to designated lanes.

- **Use of On-the-Spot Fines and Warnings**: Enforce fines for minor violations, supplemented by warnings and educational materials. Graduated penalties can help change behavior without resorting to punitive measures immediately.
- **Collaboration with Community Policing**: Involve local police units in traffic monitoring and enforcement, as seen in Mexico, where community officers help enforce road safety standards at a grassroots level.
- **Partnerships with Private Sector for Enforcement**: Encourage collaboration with technology companies to develop systems that improve real-time reporting of violations. These systems could utilize mobile apps and GPS to track compliance.

(7). Advanced Science and Technology Applications

- **Automated Surveillance Systems**: Invest in traffic cameras and sensors to monitor speed limits, helmet usage, and other traffic violations in real time. Using automated technology can reduce the need for constant police presence while enhancing compliance.
- **Data Analytics for Safety Improvements**: Employ data analytics to assess accident hotspots, high-risk behaviors, and the effectiveness of safety interventions. This data can then inform targeted policies and resource allocation.
- **Implementation of AI for Risk Prediction**: Develop AI-based systems to analyze traffic data and predict potential accident risks based on weather, traffic flow, and road conditions. This technology can provide early warnings and guide preventive measures.
- **Integration of Mobile Technology for Rider Assistance**: Encourage app-based alerts for riders on traffic regulations, road conditions, and potential hazards. Leveraging mobile technology ensures that riders receive real-time safety updates.

(8). Post-Accident Response Solutionsa

- **Enhanced Emergency Response Systems**: Improve emergency response times and establish a centralized helpline for accident reporting. Partnerships with hospitals to train first responders could further improve post-accident care.
- **First Aid Training for Motorcyclists**: Provide motorcyclists with basic first aid training, enabling them to assist in emergencies, particularly in remote areas where medical help may take longer to arrive.
- **Insurance and Compensation Mechanisms**: Simplify insurance processes for motorcycle accidents to ensure quick and fair compensation for victims and their families. Streamlining these systems will reduce the financial burden on affected families and provide peace of mind for riders.
- **Trauma Counseling and Support Services**: Establish support networks for accident survivors, including counseling and rehabilitation services. These services help victims reintegrate into society and reduce the psychological impact of accidents.

By implementing these comprehensive solutions, Vietnam can effectively reduce the high rates of motorcycle accidents, improve public awareness, and build a safer, more sustainable traffic environment. These solutions combine legislative reform, infrastructure improvements, enforcement, technology, and post-accident care, forming a multi-faceted approach to tackle motorcycle-related road safety challenges across the nation.

4. Impact of the Workshop

The International Workshop on "Motorcycle Traffic Safety: Challenges and Lessons Learned" has generated substantial positive impacts and holds strong potential for wide-reaching influence on motorcycle traffic safety in Vietnam and beyond.

(1). Raising Awareness on Motorcycle Traffic Safety

The workshop attracted considerable attention from governmental bodies, international organizations, and key industry players. With over 60% of road traffic accidents in Vietnam linked to motorcycles, the workshop underscored the severity of the issue and raised awareness among policymakers, the public, and the international community on the urgent need for specific safety measures focused on motorcycles.

(2). Strengthening International Collaboration and Knowledge Exchange

Bringing together experts from various countries and reputable organizations, the workshop facilitated the sharing of experiences and successful practices from nations that have made strides in improving motorcycle safety. For instance, Malaysia's dedicated motorcycle lanes have reduced motorcycle-related accidents by 25%. This gathering strengthened international collaboration and created opportunities for Vietnam to learn and apply suitable models to address its specific traffic safety challenges.

(3). Increasing Corporate Engagement in Traffic Safety Initiatives

Major companies in the transport sector, particularly manufacturers and service providers for motorcycles, emphasized their commitment to joining government efforts to reduce traffic accidents. Honda Vietnam, for example, has delivered millions of motorcycles to the market and actively participates in activities to enhance public road safety. The workshop highlighted the role of private companies in both improving product safety and engaging in community-oriented safety education.

(4). Providing Insights for Policy Development and Regulation

The analyses and recommendations presented at the workshop serve as a foundation for policymakers to enhance traffic safety policies specific to motorcycle users. Detailed suggestions on legal frameworks, infrastructure improvements, and enhanced traffic enforcement offer a roadmap for policy actions that stakeholders can prioritize and implement in the near future.

(5). Fostering Positive Behavioral Change within the Community

The workshop emphasized the need for behavior change among road users through public education campaigns. By addressing the root causes of risky behaviors and promoting a safety-focused traffic culture, these initiatives are expected to yield a lasting positive impact on community behavior, particularly regarding helmet use, speed compliance, and drunk driving prevention.

(6). Promoting Advanced Technology Solutions for Traffic Surveillance

The workshop presented advanced technology solutions for traffic monitoring, such as

automated camera systems and early warning systems, which open the door for deploying intelligent traffic management systems. These technology-driven recommendations have inspired government agencies and companies alike to explore new technological approaches to enhance traffic safety in urban and rural areas alike.

(7). Encouraging Further Scientific Research on Motorcycle Safety

The workshop fostered collaboration among researchers from Vietnam and abroad, creating momentum for in-depth studies on motorcycle traffic safety. Findings from the workshop lay the groundwork for future research that can further elevate traffic safety standards and address motorcycle-specific challenges in Vietnam.

(8). Expanding Media Outreach and Public Engagement

The workshop generated significant media coverage across both domestic and international platforms, with hundreds of articles, news pieces, and features highlighting its content and outcomes. On social media, posts and discussions about the workshop have garnered thousands of interactions, shares, and comments, reflecting widespread public interest in motorcycle traffic safety issues.

Over 30 media agencies, including newspapers, radio, and television stations, covered the Workshop. Some key articles can be accessed via the following links:

https://nhandantv.vn/chuong-trinh-thoi-su-45-phut-chieu-ngay-4-11-2024-d261572.htm

https://vtv.vn/xa-hoi/ty-le-tai-nan-giao-thong-lien-quan-den-xe-may-chiem-khoang-60-20241105063758187.htm

https://redirect.zalo.me/v3/verifyv2/pc?token=OMNrnDzmL0nZ2_F7tXnIOs8AzBRU64zxOXBhip0&continue=http%3A%2F%2Fvnews.gov.vn%2Fvideo%2F3-thach-thuc-ve-an-toan-giao-thong-xe-may-140699.htm

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https://tapchigiaothong.vn/tham-quan-mo-hinh-dao-tao-lai-xe-an-toan-183241105172422326.htm

In summary, the workshop served as a vital platform for discussion and collaboration, marking a turning point in the drive for comprehensive motorcycle traffic safety solutions. With its significant impact and wide-ranging reach, the workshop is expected to contribute meaningfully to the goal of building a safer, more sustainable transport system in Vietnam.

5. Evaluation of the Workshop's Effectiveness

The International Workshop on "Motorcycle Traffic Safety: Challenges and Lessons Learned" achieved significant impact, demonstrated through the following key outcomes:

(1). Raising Awareness of Motorcycle Traffic Safety

The workshop created an essential platform to raise awareness of motorcycle traffic safety issues, which account for a high proportion of traffic accidents in Vietnam. Through various presentations and discussions, participants gained a deeper understanding of the impact of motorcycles on traffic safety, the challenges of managing these vehicles, and the urgent need for dedicated traffic safety policies targeting motorcycles.

(2). Enhancing International Cooperation and Knowledge Exchange

The workshop brought together experts and policymakers from multiple countries, facilitating the exchange of successful experiences in improving motorcycle traffic safety. Lessons learned from countries such as Malaysia, Mexico, India, and Latin American nations offered valuable models and solutions that Vietnam could adopt to address its unique traffic conditions and safety challenges.

(3). Encouraging Corporate Responsibility in Road Safety

The active participation of enterprises, particularly motorcycle manufacturers, reaffirmed their commitment to supporting the government's efforts to reduce traffic accidents. Initiatives by Honda Vietnam, Grab, and other organizations to improve motorcycle safety—from producing

safer vehicles to implementing training programs—were highly appreciated and have contributed positively to community safety.

(4). Providing a Foundation for Policy Development

The analysis and recommendations from the workshop serve as a valuable foundation for Vietnamese policymakers. Suggested solutions for infrastructure improvement, establishing legal frameworks, and enforcement measures were presented in a scientific and practical manner, laying the groundwork for future, effective, and sustainable road safety policies.

(5). Promoting Behavioral Change in the Community

The workshop emphasized the critical role of educational and awareness campaigns in changing road user behavior. Drawing from international lessons, the workshop proposed effective communication strategies, such as using real-life stories and visuals of accident consequences, to impact public awareness, particularly among young people who are more prone to risky behaviors.

(6). Expanding the Use of Advanced Technology in Traffic Monitoring and Management

The workshop provided Vietnamese stakeholders with insights into modern technologies for traffic monitoring and management, including automatic cameras, speed warnings, and AI-driven solutions. These advanced technologies have proven effective in other countries and promise significant benefits if adopted in Vietnam.

(7). Encouraging Scientific Research on Motorcycle Safety

The workshop inspired interest among researchers, opening new directions for in-depth studies on motorcycle safety in Vietnam. The data and information shared during the workshop will serve as a vital foundation for future studies, helping to expand understanding and identify optimal solutions for improving motorcycle traffic safety.

(8). Effective Media Impact

The workshop's influence extended beyond the venue, with strong media coverage. Over 100 articles, news reports, and social media posts in both local and international outlets generated widespread public interest, further raising awareness and prompting practical actions on motorcycle traffic safety.

(9). Commitment from Stakeholders

The workshop highlighted the strong commitment of stakeholders from government, businesses, NGOs, and the international community to collaborate on improving road safety. This multi-faceted cooperation reaffirmed the power of collective action and is a vital force in advancing road safety initiatives in Vietnam.

Conclusion: The International Workshop on Motorcycle Traffic Safety yielded positive outcomes, elevating the importance of motorcycle safety in Vietnam. The proposed solutions and recommendations from the workshop will form a basis for building and implementing long-term strategies to reduce traffic accidents and protect the lives and health of Vietnamese citizens. The workshop not only reinforced national efforts but also opened avenues for cooperation with international partners to create a safer, more sustainable traffic environment.

6. Conclusion

6.1. Overview Summary

This report has provided a comprehensive summary of the Workshop, emphasizing the pressing issues surrounding motorcycle traffic safety, the specific challenges of managing motorcycles on Vietnamese roads, and the need for targeted policies that address both current risks and future developments. The Workshop stands as a landmark event, advancing motorcycle safety not only in Vietnam but also as a regional model, fostering collaboration, knowledge-sharing, and effective strategies for reducing motorcycle-related accidents and fatalities.

6.2. Acknowledgements

We extend our heartfelt gratitude to all sponsors, co-hosting organizations, and international bodies that supported this Workshop. Your contributions were instrumental in the successful gathering of experts and stakeholders, creating a platform for impactful discussions on motorcycle safety. Special thanks go to those who have invested time and resources to bring this critical issue to the forefront, helping set a foundation for safer roads in Vietnam and beyond.

6.3. Commitment from TDSI

The Transport Development and Strategy Institute reaffirms its commitment to motorcycle safety as a national and regional priority. We are dedicated to ongoing collaboration with stakeholders, advancing traffic safety policies, and developing proactive solutions. The Institute pledges to sustain and expand initiatives that protect and enhance safety for all road users, particularly motorcyclists, through continued research, policy advocacy, and implementation support. This Workshop has laid the groundwork, and we are determined to carry forward the momentum towards safer transportation in Vietnam and across the region.

Appendix 1. List of Key Delegates

No.	Name	Title	Organization/Department
1	Dr. Khuat Viet Hung	President	Transport Development and Strategy Institute
2	Dr. Angela Pratt	WHO Representative in Viet Nam	WHO
3	Dr. FangFang Luo	Technical Officer for Legislative Affairs, Safety and Mobility	WHO
4	Ms. Nguyen Hoang Yen	Executive Director	CHD
5	Ms. Roxanne Paisible	Associate Director of Advocacy, Road Safety Program	GHAI
6	Dr. Qingfeng Li	Associate Director	International Injury Research Unit, Johns Hopkins Bloomberg School of Public Health
7	Dr. Tran Huu Minh	Chief of Executive Office	National Traffic Safety Committee
8	Major General Nguyen Van Trung	Director	Traffic Police Department, Ministry of Public Security
9	Mr. Said EL Karkouri	Head of the Infrastructure Safety Department	National Road Safety Agency (NARSA), Ministry of Transport and Logistics, Morocco
10	Mr. Daniel Hardy Wuaku	Road Safety Technical Advisor	National Road Safety Authority, Ghana
	Mr. Greg Smith	Director	iRAP's Global Program
11	Dr. Prof. Ka Lo Wong	Associate Professor Department of Transportation and Logistics Management	National Yang Ming Chiao Tung University, Taiwan
12	Dr. Kim Beng LUA	Asia and Africa Regional Lead	Global Designing Cities Initiative

No.	Name	Title	Organization/Department
13	Dr.Prof. Bhargab Maitra	Dean (Students' Affairs) Professor, Civil Engineering Department	Indian Institute of Technology Kharagpur, India.
14	Prof. Dr. Kasem Choocharukul	Head of the Department of Construction Engineering	Faculty of Engineering, Chulalongkorn University, Thailand
15	Dr. Constanza Delón	Director	Road Safety and Information Monitoring at the Mobility Secretariat of Mexico City
16	Greig Craft	President	AIP Foundation
17	Ms. Na Huong Hoang	Deputy CEO	AIP Foundation
18	Mr. Koji Sugita	Chairman	VAMM
19	Mr. Van Anh Tuan	Director	Quang Nam Provincial Department of Transport
20	Mr. Nguyen Phong	Director	Quang Ngai Provincial Department of Transport
21	Mr. Phan Muoi	Director	Kon Tum Provincial Department of Transport
22	Mr. Tran Van Bon	Director	Tien Giang Provincial Department of Transport
23	Mr. Dang Toan Thang	Vice Chairman	People's Committee of Pleiku City, Gia Lai Province
24	Mr. Le Van Dat	Vice President	Transport Development and Strategy Institute
25	Mr. Le Thanh Hai	Policy Advocacy and Communication	Vital Strategies
26	Mr. Tran Ngoc Thang	Head of Traffic Safety Department	VAMM

No.	Name	Title	Organization/Department
27	Mr. Vu Hong Truong	Chairman of the Members' Council, General Director	Hanoi Metro
28	Dr. Gladys M. M. Nyachieo	Senior Lecturer of Faculty of Social Sciences and Technology	Multi Media University of Kenya
29	Mr. Mohammed Hassen Ahmed	Deputy CEO	Ethiopian Road Safety and Insurance Fund Service
30	Mr. Ayoub Ourahou,	Infrastructure Safety Engineer	National Road Safety Agency (NARSA), Ministry of Transport and Logistics, Kingdom of Morocco
31	Ms. Nadi Chahour,	Traffic Officer at the Wilaya of the Marrakech Safi Region	National Road Safety Agency (NARSA), Ministry of Transport and Logistics, Kingdom of Morocco
32	Mr.Le Hong Diep	Head of Road Traffic Management and Organization Division	DRVN
33	Mr. Nguyen Quang Tuyen	Chief of Office	Ha Nam Provincial Traffic Safety Committee
34	Mr. Van Vu Nguyen	Chief of Office	Tien Giang Provincial Traffic Safety Committee
35	Mr. Thanh Binh Nguyen	Head of Traffic Safety Division	Tien Giang Department of Transport
36	Mr. Minh Ngoan Mai	Chief of Office	Can Tho City Traffic Safety Committee
37	Mr. Minh Nghia Hoang	Head of Urban Management Division	People’s Committee of Pleiku City
38	Mr. Dinh Thang Nguyen	Chief of Office	Kon Tum Provincial Traffic Safety Committee

No.	Name	Title	Organization/Department
39	Mr. Van Thanh Pham	Chief of Office	Quang Ngai Provincial Traffic Safety Committee
40	Mr. Duc Tien Phan	Chief of Office	Quang Nam Provincial Traffic Safety Committee
41	Mr. Thien Vuong Nguyen	Chief of Office	Quang Ninh Provincial Traffic Safety Committee
42	Captain Nhu Linh Nguyen	Institute of Forensic Science	People's Security Academy
43	Ms. Thi Uyen Luong	Head of Administration Department	Yadea Vietnam Company
44	Lieutenant Colonel Hoang Vy Phung	Deputy Head of Traffic Police Division	Quang Ngai Provincial Police
45	Thi Huong Giang Nguyen	Deputy Chief of Office	Quang Ninh Provincial Traffic Safety Committee

Appendix 2. Presentations

Vietnamese and English presentations are available via the following link and QR code:

https://drive.google.com/drive/mobile/folders/1rqpq3BxaFd0OBN44-XNNa_PP4voUu1Iv?usp=drive_link&pli=1