Congratulations

Global Forum for Road Traffic Safety

Source: Global Status Report on Road Safety 2015, WHO
Estimated Global Road Crash Fatalities: 1,233,362
Source: WHO
(b) To accede to existing United Nations road safety legal instruments such as the 1968 Conventions on Road Traffic and on Road Signs and Signals and the 1958 and 1998 Agreements of the World Forum for Harmonization of Vehicle Regulations and, beyond accession, to apply, implement and promote their provisions or safety regulations;
UNECE: 129,402 (10.49% of Global Road Fatalities)
UNESCAP: 733,463 (59.47% of Global Road Fatalities)
UNESCAP 1968 Convention on Road Traffic

Countries Ratified: 35
Countries Not Ratified: 5

UNESCAP 1968 Convention on Road Signs & Signals

Countries Ratified: 34
Countries Not Ratified: 6
The UNESCAP region has 59.47% of the global fatalities. In this region 81% of the countries have yet to sign or ratify to the Convention of Road Traffic of 1968, and 74% have still not signed, adhered or ratified to the Convention of Road Signs & Signals.
South East Asia (with 11 Nations) accounts for 30.4% (highest) of the World’s Road Deaths

Source: Data computed from Global Status Report on Road Safety 2015, WHO
South East Asian-Region
Human Population

Human Population (Percentage Share)

- South East Asia: 29%
- Rest of the World: 71%
30.4% of Road Deaths in the World

Note: South East Asian Region includes: India, Nepal, Bhutan, Bangladesh, Thailand, Vietnam, Malaysia, Indonesia, Philippines, Cambodia, Lao PDR, Sri Lanka and Maldives.
**PTW Fatalities in SEA Nations (2013)**

- **36,803***: India
- **356**: Thailand
- **3000**: Indonesia
- **7876**: Philippines
- **610**: Vietnam
- **9937**: Malaysia
- **1373**: Singapore
- **9510**: Brunei
- **4294**: Myanmar
- **771**: Cambodia
- **964**: Laos
- **7876**: Indonesia
- **3000**: Indonesia
- **1**: NA

*Source: Global Safety Report on Road Safety 2015, WHO
*Road Accidents in India-2015, MoRTH*
Safety of Powered Two Wheelers and Vulnerable Road Users

Source: Global Safety Report on Road Safety 2015, WHO

*Road Accidents in India-2015, MoRTH
Safety of Powered Two Wheelers
(with special focus on South East Asian Region)

Dr. Rohit Baluja
President – Institute of Road Traffic Education
CONFERENCE
SAFETY OF POWERED TWO WHEELERS
(With Special Focus on South East Asia)
FEBRUARY 18-19, 2016
Road Safety Hall of Nations, College of Traffic Management
Faridabad, NCR Delhi
India February 2016
Safety of Powered Two Wheelers and Vulnerable Road Users
Safety of Powered Two Wheelers and Vulnerable Road Users
Safety of Powered Two Wheelers and Vulnerable Road Users
Partners to the Conference:

Ministry of Road Transport & Highways
Government of India

NHTSA
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, USA

FIA Foundation
for the Automobile and Society
The Conference was held in consultation with:
Endeavour to Collaborate
towards developing together practical
“Road Safety Management”
in South East Asia Region
Five Areas of Research

1. Infrastructure Considerations
2. Vehicle Considerations
3. Safety Apparel including Helmet Safety Standards
4. Mitigation of Powered Two Wheeler Injury
5. User Behaviour Consideration & Data Management
Considerations for Road Infrastructure

Good Practices
Height restriction for Traffic Light Pole

Good Practices for Height restriction of Traffic Light Pole For PTWs

Various Shapes of Road Signs

Various Colors of Road Signs

- RED - stop
- GREEN - direction
- YELLOW - general warning
- BLACK&WHITE - regulation
- BLUE - motorist service (e.g., gas, food, hotels)
- BROWN - recreational, historic, or scenic site
- ORANGE - construction or maintenance warning
Concept of Forgiving Roads

Concept of forgiving roads + Crash barriers / Soft barriers = Enhance Two-wheeler safety
Retro reflectivity in road signs plays a big role in road safety and prevent roadway departure crashes by making the signs appear brighter and easier to see and read at night.
Two-Wheelers License and Permits

Learners Permit

Provisional or Probationary License

Full Time Driving License

Training Module for Two Wheeler Riders

1. Basics of Driving
   - Introduction to the problems faced by the driver in the current road and driving environment
   - Attitude of a Driver
   - Expected Qualities of a Good Driver
   - Driver Etiquettes
   - Expectations from the Company (Company Guidelines if any)

2. Traffic Control Devices & the related Legislation
   - Importance and understanding of Road signs, Markings and signals
   - Recognition - Meaning – Action
   - The Rules of the Road Regulation and The Right of Way

3. Road Sense – Art of Defensive Riding
   - Code of Conduct on Road
   - Moving Off, Lane Discipline, Overtaking, Speed Management
   - Use of Mirrors
   - Driving in Adverse Conditions (Night Driving/ Bad Weather)
   - Stopping/Parking

4. Human Behavior
   - Stress and Fatigue
   - Drunken Driving
   - Drugs and Medicines
   - Distracted Driving
   - Aggressive Driving and Road Rage

5. Emergencies and Incidents
   - Handling Emergencies
   - Vehicles/Human Reporting Systems
   - Police and Owners

Evaluation
Motorcycle Helmet laws and Helmet Standards

Source: Global Status Report on Road Safety 2015, WHO
PTW Rider Safety Apparel

- Serious brain injury
- Helmet with eye protection
- Built-in shoulder protection
- Abrasion resistant jacket
- Built-in elbow protection
- Built-in back protector
- Motorcycle gloves (reinforced and padded)
- Leather pants (abrasion resistant)
- Built-in knee pads
- Infections from road contact
- Abrasions and nerve damage
- Motorcycle boots (light, secure and reinforced)
- Severe skin loss
- Severe lacerations
- Hand and finger damage
- Shoulder injury
- Heavy bruising
- Severe skin loss
- Severe lacerations
- Toes amputated
Vehicle Considerations

**Improved safety with motorcycle ABS**

- **26% of all motorcycle accidents with injuries can be prevented by ABS.**
- **In 31% of all motorcycle accidents with injuries, collision speed can be reduced by ABS.**

Source: Bosch accident research, 2009

**Comparing braking distances:**

- **Without ABS:** 58.5 m
- **With ABS:** 49.5 m (reduces braking distance by 9 m)

Motorcycle ABS reduces braking distance.
Mitigation of PTW Injuries
Need

Understand the need in order to define the need

Lookout for Solutions

Available Knowledge

Search/ Research for Solution

Academic, Research Institutions

Define Solution

Corporate/ Non-Corporate

Political Will (Bureaucratic Will)

Legislate

The Process / Need Support
THANK YOU

Let's make Global Roads Accident-free, Pollution-free and Stress-free, through Education, Discipline, Research and Planning. That's the Philosophy of IRTE, a non-profit institution for making people aware of the value of life, so that happiness prevails!!