SAFETY OF POWERED TWO-WHEELED VEHICLES FOR SOUTHEAST ASIAN AND SIMILAR COUNTRIES

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    - Sustainability
INTRODUCTION
Number of powered two-wheeled vehicles (PTW) fatalities and serious injuries is the highest in the world

Appreciation of the regional conditions needs to be enhanced

Significant work carried out by UNECE; yet more focused attention is needed

IRTE offered a vision for road safety in Southeast Asia

Coalition of Universities
NEEDS

- Targets: PTW
- Sustainable solutions
- Evidence (data and its management)
- New, innovative and practicable knowledge
- Consistency with developmental goals
- Capacity building
- Inclusive approach (stakeholders, industry, users)
- Governments’ commitment
ROAD SAFETY VISION

- Contributes to policy for regional transport development
- Enables sustainable transport connectivity and mobility
- Considers the most vulnerable part of societies
- Part of wider pro-growth and pro-transport policies
PRINCIPLES OF THE GUIDELINES

- Directional
- Transferable
- Adaptable
- Based on current best practice
- Non-prescriptive

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GUIDELINES
CONTENTS OF THE GUIDELINES

- Policy
- Key themes
  - Users' behaviour
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  - Vehicles
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  - Training
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  - Sustainability
POLICY ISSUES

- Clarify ownership and responsibility – very big challenge as road safety is a multi-sectoral issue (transport, health, social welfare)
- Sustainability
- Should include a vision, a mission, objectives and standards
- Should be sensitive to road users and their local needs
- Should be considered in terms of
  - Mobility
  - Economic growth and stability
  - Prosperity
- Be based on appropriate institutional structures
LEGAL AND REGULATORY CONSIDERATIONS

- Infrastructure Considerations
- Road Users
  - Rider Training
  - Licences (Full driving, provisional/probationary) and permits
  - Insurance
  - Safety apparel
  - Helmet use regulations
- Public Health Approach to PTWs’ Safety
- Post-Crash Management
- Vehicle Standards
SPECIFIC CONSIDERATIONS

- Recognise the role of PTW in the transport system of developing countries
- Recognise the role of PTW in both urban and rural areas
- Clarify the economic benefits of PTW transport
- Recognise the vulnerability of PTW
ETHICS AND FINANCING

- Recognise explicitly that **human life is priceless**
- Associate PTW policy with a code of Ethics
- Appropriate financing is necessary for the successful implementation of PTW safety
- Explore new and innovative financing mechanisms such as 2\textsuperscript{nd} generation road safety funds and social impact bonds
POLICY THEMES
SAFE SYSTEM APPROACH

Road Users

Infrastructure

Vehicles
ROAD USERS
Policy should consider riders issues such as
- No lane discipline
- Bus lane intrusion
- Conglomeration of ahead of the stop line
- Overloading of the vehicle with goods or passengers
- Distracting activities such as mobile phone usage
- Inconspicuity
- Safety apparel
PROFESSIONAL SERVICES USING PTW

- Policy should concern
  - Taxi services
  - Carriers who deliver goods
- Should be regulated or licenced
- Drivers skills and character should be of good standing
Policy should seek to modify behavioural change towards PTW - challenging

A pragmatic approach is needed to address social, cultural and religious habits

PTW road safety campaigns can be used
INFRASTRUCTURE

PTW are relatively unstable vehicles and vulnerable
ROAD DESIGN

- Policy should ensure that
  - Design standards should be based on
    - predictable road geometry
    - appropriate visibility
    - constant radii and
    - obstacle free zones
    - appropriate parking areas
  - Road safety audits are included in design and maintenance activities
  - PTW friendly safety features
TRAFFIC ENGINEERING

- Policy should require
  - the use of sound traffic engineering principles in any decision making process.
  - empirical practices to be supported by theoretical concepts
  - the use of evidence (data) in a systematic manner
ROAD MAINTENANCE

- Policy should require
  - Minimum maintenance programmes addressing PTW safety (e.g. routine maintenance) black spots
  - Addressing black spots, uneven surfaces, drainage features, road markings, road features aimed at large vehicles.
  - Use of standards
ROAD DEMAND MANAGEMENT AND REGULATION

- Policy should address the maximisation of road space utilisation through appropriate demand management approaches such as
  - motorcycle exclusive lanes,
  - advanced stop lines/zones,
  - channelization using painted road markings,
  - control of longitudinal and lateral distances,
  - speed management (through enforcement and information and use of appropriate speed limits (e.g. 30 km/h).
  - segregated lanes
  - separate supplementary signs
PTWs or any modifications should adhere to standards and regulations.
Policy should
- Reflect local transport needs of people and goods
- Require and enforce safety standards and regulations
- Encourage collaboration between manufacturers, practitioners, policy-makers and the research community to enable PTW design to evolve and reflect the latest advances which help to mitigate safety concerns.
PTW DEATH AND INJURY MITIGATION

Helmets, other safety apparel, medical care
Policy should enforce
- the use of helmets, as a minimum
- other protective gear such as gloves and boots together with jackets and trousers using appropriate materials available locally

Helmet standards should be
- clearly defined
- standardized and harmonized
- adapted, as necessary, to local conditions
Policy should address the need for
- expeditious medical care at the crash site by appropriately trained staff
- a PTW dedicated register of injuries and outcomes at trauma centres
- linking injury data with public health policy development
TRAINING AND TESTING STANDARDS

They should cover:

- The vehicles that can be driven
- Who can drive them
- When and where they can be driven
- The processes to achieve all of the above
TRAINING AND TESTING SYSTEM KEY COMPONENTS

- Realistic grouping of vehicles
- Administrative arrangements for the system
- Minimum age for entitlement
- A competence framework addressing the needs for a safe and responsible driver and rider
- An associated set of standards for:
  - the characteristics of a safe and responsible driver and rider
  - the content of training
  - the trainers who deliver it
- Operating procedures and standards for driving examiners
- What happens after the test – penalties, post-test or remedial development, restrictions
DATA MANAGEMENT

- PTW policy should clearly address the need for data.
- Data should enable decision making for
  - strategic planning and
  - implementation, operations and evaluation
- Data for PTW should be collected for
  - accident investigation and
  - injury causation
- Crash data should be standardized.
- PTW policy should be linked to key performance indicators derived from accident and injury data
PTW policy should recognise the need to be sustainable in terms of:

- Economic and Financial
- Environmental
- Social

achieved through

- Cost-Benefit Analysis
- Research and Development
PTW POLICY ITEMS CONSIDERED

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THANK YOU
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