Road and Passenger Car Safety
In Indonesia

Sigit P. Santosa Sc.D

Center for Industrial Engineering
Bandung Institute of Technology (ITB)
Summary/Agenda

- Factual Data - Indonesia
- Traffic challenges
- Motor vehicle population
- Road capacity
- Fatality statistics
- Master plan on national traffic safety - Indonesia
Indonesia – Factual Data

• 1 Megapolitan City (Jakarta – Population 28 million), and 3 metropolitan cities with population about 4 million (Bandung, Surabaya, Medan).

• Urban migration from secondary and tertiary cities resulted in the rapid growth of population on megapolitan/metropolitan cities.

• Motor vehicle population: 41 motor vehicle per 100 persons. Total motor vehicle: 104 million, 83% motor cycles, 10% passenger cars.

• Indonesian automotive industries enjoy the largest and fastest market growth in ASEAN. Passenger car sales reach 1.2 million/year, motor cycle sales reach ~8 million/year.
Traffic Challenges in Indonesia

- **Traffic congestion**
  - High growth of motor vehicles is not followed by balance growth of road capacity –
  - Parking space – Part of road section is used as parking space, slowing down the traffic flow

- **Energy consumption**
  - City transportation is dominated by motor cycles and passenger cars using fossil fuel (gasoline/diesel fuel) – Heavily subsidized by government

- **Health Issue**
  - City population faces air and noise pollutions produced by heavy volume of motor vehicles and congestion, impacting their health condition

- **Safety and Security**
  - Fatality due to traffic accident rank the 3rd cause of death in Indonesia
  - Comprehensive traffic regulation was enacted as part of regulation no 22/2009. However, there are issues with regulation enforcement

  - **No comprehensive vehicle safety requirement**
Number of Vehicles on The Road

By Dec 2013:
- 104 million motor vehicles on the road
- Dominated by motor cycles (83% = 86 million),
- Passenger cars: 10% = 10.5 Million
Total Number of Motor Vehicles - Indonesia

By Dec 2013:

- 104 million motor vehicles on the road
- Dominated by motor cycles (83% = 86 million), with ~20% growth
- Passenger cars: 10% = 10.5 Million

Source: Indonesian Central Bureau of Statistics
Total Road Capacity - Indonesia

- Road Growth ~ 4%
- Potential risk of traffic congestion

(Source: Indonesian Central Bureau of Statistics)
Traffic Accident Fatality Data

- High number of fatality rate in Indonesia – Similar to EU and US fatality rate since 2011
- Fatality due to motor cycle accident ~40%
- Fatal accident due to road condition ~ 28%

**Traffic Fatalities In Europe, USA, Indonesia 2001-2013**

Source: BPS, FAR, EC
Number of Accidents By Segment

Vehicle Type

- Bike
- Motor cycle
- Passenger car
- Car
- Truck
- Not Known

Source: Korlantas POLRI

Number of Vehicles

Source: BPS 2011

Source: Korlantas POLRI

ASEAN Safety Forum
Type of Accident

Source: Korlantas POLRI

Number of Accidents

Front Impact

Rear Impact

Source: Korlantas POLRI

5-Sep-14 ASEAN Safety Forum 10
Injury Classification / Age Grouping

Casualties by Age Group

Source: Korrantas POLRI
Master Plan on National Traffic Safety - Indonesia

• Aggressive goal: To reduce traffic fatality by 80% within 25 years
• Roadmap for safety as part of the global plan on national road safety synchronized with United Nations Decade of Action for Road Safety
• 5 Pillars/Action Plans to Improve Traffic Safety:
  1. Safer Traffic management – By regulation
  2. Safer road – Road safety enhancement
  3. Safer vehicle – Crash Protection
  4. Safer driver – Traffic Education
  5. Faster response on post crash treatment – Rapid emergency responders
Thank You