Traffic Safety in Indonesia

Ministry of Regional Infrastructure and Settlement
Topic of Presentation

1. Traffic Characteristics
2. Current Situation of the Traffic Safety
3. Traffic Accident
4. Pedestrian and Non Motorized Vehicles
5. On Going Programs
6. Future Strategies
1. Traffic Characteristics

- Demand > Supply
- Mixed Traffic
- Congestion Problems
- Vehicle Movement Orientation
- Less attention on Pedestrian and non-Motorized Vehicles
## Road User Behavior of Pedestrian Crossings

<table>
<thead>
<tr>
<th>City</th>
<th>Percentage of drivers choosing to stop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangkok</td>
<td>16</td>
</tr>
<tr>
<td>Colombo</td>
<td>11</td>
</tr>
<tr>
<td>Cairo</td>
<td>Under 1</td>
</tr>
<tr>
<td>Kingston</td>
<td>10</td>
</tr>
<tr>
<td>Karachi</td>
<td>Under 1</td>
</tr>
<tr>
<td>Nicosia</td>
<td>17</td>
</tr>
<tr>
<td>Surabaya</td>
<td>Under 1</td>
</tr>
<tr>
<td>London</td>
<td>40</td>
</tr>
<tr>
<td>Khucing</td>
<td>72</td>
</tr>
<tr>
<td>Category</td>
<td>Percentage</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>No Helmed</td>
<td>2%</td>
</tr>
<tr>
<td>Wrong type of Helmed</td>
<td>3%</td>
</tr>
<tr>
<td>Wrong Use</td>
<td>57%</td>
</tr>
<tr>
<td>Good</td>
<td>38%</td>
</tr>
<tr>
<td>Country</td>
<td>Motor Vehicle</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td>Public</td>
</tr>
<tr>
<td>India (3)</td>
<td>29</td>
</tr>
<tr>
<td>Malaysia (1)</td>
<td>34</td>
</tr>
<tr>
<td>Nigeria (1)</td>
<td>45</td>
</tr>
<tr>
<td>Cameroon (1)</td>
<td>41</td>
</tr>
<tr>
<td>UK</td>
<td>23</td>
</tr>
<tr>
<td>USA</td>
<td>2</td>
</tr>
</tbody>
</table>
2. Current Situation

- Un-implementable Safety Related transport Policies
- Widely Spread Responsibilities of Transport Safety
- Limited Capabilities of Human Resources
- Low Expenditure on Road Safety
- Sub Standard Design
3. Traffic Accident

Recent Trends in Traffic Accident in Indonesia

![Graph showing trends of accidents, death, serious injury, and slight injury from 1990 to 1997.](image_url)
Accident Mortality Data in Indonesia

![Graph showing recorded deaths per 1000 vehicles and road km (000) from 1988 to 1998. The graph displays a trend of decreasing recorded deaths per 1000 vehicles over time.]
Major Collision Type

- Malaysia: Side or 90° Collisions (rural)
- PNG: Rollover collisions (high speed, rural road)
- Bandung: Collision with pedestrian
Major Collision Type on Toll Road

- Rear end: 10%
- Others: 10%
- Uncontrolled: 80%
Causes of Traffic Accident on Toll Road

- Driver: 65%
- Vehicles: 30%
- Road Environment: 5%
4. Pedestrians and Non Motorized Vehicles

- No relevant policies to NMV
- Poor facilities
- Comparatively less priority
- Minimal expenditure
- No exact regulation
Shares of NMV in Asian and Pacific Cities

Source: PADECO Co., Ltd., 1995
## Growth Rate of NMV in Selected Cities

<table>
<thead>
<tr>
<th>City</th>
<th>Type of NMV</th>
<th>Period</th>
<th>Average annual growth rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shanghai (PRC)</td>
<td>Bicycle</td>
<td>1980-1990</td>
<td>14.9</td>
</tr>
<tr>
<td></td>
<td>Other NMV</td>
<td>1980-1990</td>
<td>5.3</td>
</tr>
<tr>
<td>Kanpur (India)</td>
<td>Bicycle</td>
<td>1983-1992</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td>Cycle-rickshaw</td>
<td>1983-1992</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Pushcart</td>
<td>1983-1992</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Animal cart</td>
<td>1983-1992</td>
<td>-0.7</td>
</tr>
<tr>
<td>Surabaya (Indonesia)</td>
<td>Cycle-rickshaw</td>
<td>1985-1992</td>
<td>-0.7</td>
</tr>
<tr>
<td>Penang (Malaysia)</td>
<td>Cycle-rickshaw</td>
<td>1978-1992</td>
<td>-1.2</td>
</tr>
<tr>
<td>Chiang Mai (Thailand)</td>
<td>Cycle-rickshaw</td>
<td>1978-1992</td>
<td>8.8</td>
</tr>
</tbody>
</table>

Source: PADECO Co., Ltd., 1995
## Pedestrian Fatalities as Percentage of All Road Accident Fatalities

<table>
<thead>
<tr>
<th>Area</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe &amp; USA (14)</td>
<td>20</td>
</tr>
<tr>
<td>SE Asia (4)</td>
<td>29</td>
</tr>
<tr>
<td>America (1)</td>
<td>31</td>
</tr>
<tr>
<td>Asia (3)</td>
<td>42</td>
</tr>
<tr>
<td>Africa (4)</td>
<td>43</td>
</tr>
<tr>
<td>Caribbean (3)</td>
<td>44</td>
</tr>
<tr>
<td>Middle East (5)</td>
<td>51</td>
</tr>
</tbody>
</table>
5. On-Going Programs

• Sumatera Region Road Project (SRRP)
• SURIP-1A Component: Quality Life Improvement
Road traffic and vehicle weights and dimensions enforcement components

- Reduce road damage due to overloading of good vehicles.

2. Reduce number of road accidents/fatalities at initially identified 4 priority black spots an 25 km of black link in each province.

3. Prevent a further increase of accident/fatalities, by implementing a series of schemes targeted at: improve of pedestrian safety, improve traffic signal, speed limit enforcement and traffic calming, road studs, road marking, seatbelts campaign.
Quality of Life Improvement (QLI)

1. Improve amenity for:
   - Pedestrian path (side walk)
   - Pedestrian crossing/bridge
   - Landscape, greenery

2. Traffic management to match with road class;
   (through traffic, local traffic, parking, public transport, intersection, bus stop, road marking, traffic sign (slants, separator, median).

3. Improve Environment
   Greenery, waste disposal box, Drainage

4. Improve urban facilities on the road ROW
   (telephone booth, street, trader, rest area/stop for pedestrian, road lighting)

5. Improve urban road performance
   (view of shop, buildings, billboard, advertisement board)
Housing along the Cirebon Bypass

(Sta 0+800 - 0+850)
Housing in ROW in Cirebon Bypass

(Site 3+800 s/d 4+250)
Sta 0+300

Housing in ROW Areas
(Kaliwungu Bypass)
(Sta 0+340)

Direct Access to Welery Bypass
QLI in Kotamadya and Kabupaten Cirebon

Jl. Perjuangan (Kota Cirebon): shelter, shelter, information, garbage bin, and chairs

City Garden in Sumber (Kab. Cirebon)

Trottoir and Landscape in Sumber (Kab. Cirebon)

Drainage System in Sumber (Kab. Cirebon)
QLI in Semarang

Trottoir and Bacak Route in Jl. Indraprasta

Trottoir, Drainage System, Chairs and Landscape Jl. Imam Bonjol

Landscape in Jl. Imam Bonjol
7. Future strategies

- National Focused
- Specified Measures
National Focused:

- Public Transport Safety
- Freight Transport Safety
- Facilities for non Motorized Travelers
- Standardized Traffic Signs
- Transport Safety consideration to the Traffic Police
- Accident Reporting System
- Education
- Regulation
1. Single site action plan (junction, small area, a short segment of road)
2. Mass action plans (General; skid, speed, seatbelt)
3. Route action plans (more than 1 km length)
4. Area action plans (by administration boundary or more than 1 km squares)
1. Identification.
   - Data
   - Statistic
   - Verify location
   - On site observation

2. Diagnosis
   - Detail data analysis
   - Identification of dominant factors
   - Determine nature of accident

3. Selection
   - Determine range of measures
   - Test measures
   - Economic assessment
   - Select measures (greatest safety benefit)
   - Public consultation
   - Select site for treatment
the end