SUSTAINABLE TRANSPORT POLICIES IN SRI LANKA

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WORKSHOP ON AIR QUALITY AND ENVIRONMENTALLY SUSTAINABLE TRANSPORT

28TH APRIL 2011
COLOMBO
## Sector

- **Value of Turnover**: 15% of GDP – Rs 900 bn
- **Proportion of Jobs**: 1.5 million (85% informal)
- **People Moved**: 10 m trips daily (99% on land) – 80 bn pkm/yr
- **Vehicles**: Bicycles - 3 million
  - Motorized Vehicles 3.2 million operational
- **Accident Deaths**: 2,000 to 2,300 per annum (1 in 50 deaths)
- **Pollution**: estimated 5,000 pre mature deaths
- **Cost of Accidents**: Rs 30 billion/py
- **Cost of Congestion**: Rs 35 billion/py
- **Cost of Lost Time in Public Transport**: Rs 20 billion/py
- **Cost of Losses in Supply Chain**: Rs 100 billion (??)
PASSENGER DEMAND AND PER CAPITA INCOME (1958-2007)

Figure A3.1: Passenger km and Per Capita Income (1958-2007)
HOW THEY TRAVEL (1958-2007)
## MODAL SHARES

<table>
<thead>
<tr>
<th></th>
<th>Vehicle km (mn.)</th>
<th>%</th>
<th>Passenger km (mn.)</th>
<th>%</th>
<th>Ton km (mn.)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buses</td>
<td>1,326</td>
<td>6.9</td>
<td>46,396</td>
<td>61.0</td>
<td>134.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Railways</td>
<td>8</td>
<td>0.0</td>
<td>4,767</td>
<td>6.3</td>
<td>134.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Private Vehicles</td>
<td>11,972</td>
<td>62.6</td>
<td>18,536</td>
<td>24.4</td>
<td>134.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Para-Transit</td>
<td>2,123</td>
<td>11.1</td>
<td>4,492</td>
<td>5.9</td>
<td>134.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Trucks/Land Vehicles</td>
<td>3,678</td>
<td>19.2</td>
<td>1,839</td>
<td>2.4</td>
<td>134.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Inland Water Transport</td>
<td>3</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19,109</strong></td>
<td><strong>100.0</strong></td>
<td><strong>76,031</strong></td>
<td><strong>100.0</strong></td>
<td><strong>6,603</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Transport Modal Shares (2007)*  
*Source: Kumarage, A.S., National Atlas, Department of Surveys, Sri Lanka, 2008*

**Passenger Modal Share**
- Buses: 61%
- Private Vehicles: 24%
- Para-Transit: 6%
- Trucks: 3%
- Railways: 6%

**Freight Modal Share**
- Trucks: 97%
- Railways: 2%
- Inland Water Transport: 1%
CONDITION OF ROAD SPEEDS

- Colombo and suburbs: 10 to 20 km/hr
- National Highways (Western Province): 15 to 30 km/hr
- National Highways (Wet Zone & Upcountry): 20 to 40 km/hr
- National Highways (Dry Zone): 30 to 50 km/hr
- Provincial Roads: 15 to 45 km/hr
- Urban Roads: 10 to 30 km/hr

Wet Zone refers to the more populous areas that include the Western, Southern, Sabaragamuwa Provinces as well as parts of North Western Province, while upcountry refers to Central Province and parts of Uva province.
TRANSPORT ADMINISTRATIVE STRUCTURES

The President

Cabinet of Ministers

Ministry of Transport
  - Sri Lanka Transport Board
  - Sri Lanka Railways
  - Department of Motor Traffic
  - Transport Medical Institute

Ministry of Private Transport Services
  - National Transport Commission

Ministry of Port Dev & Highways
  - Road Development Authority
  - Sri Lanka Port Authority
  - Maga Neguma

Ministry of Ports & Aviation
  - Civil Aviation Authority
  - Airport & Aviation Services
  - Director Merchant Shipping
  - Srilankan Airlines
  - Mihin Air

Ministry of Provincial Council & Local Government
  - Provincial Commissioner
    - Municipal Councils
    - Urban Councils
    - Pradeshiya Sabhas

Governor & Chief Minister of Provincial Councils

Provincial Councils

Respective Provincial Ministries
  - Provincial Road Passenger Transport Authority
  - Provincial Road Development Department/Authority
  - Provincial Commissioner of Motor Traffic
## Transport Sector Investments: PIP 2011-2016

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</thead>
<tbody>
<tr>
<td><strong>Roads</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% GDP</td>
<td>1.8%</td>
<td>1.7%</td>
<td>1.6%</td>
<td>1.5%</td>
<td>1.4%</td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Ports</strong></td>
<td>32,400</td>
<td>38,200</td>
<td>53,000</td>
<td>64,500</td>
<td>70,500</td>
<td>77,000</td>
<td></td>
</tr>
<tr>
<td>% GDP</td>
<td>0.5%</td>
<td>0.6%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>0.7%</td>
<td></td>
</tr>
<tr>
<td><strong>Aviation</strong></td>
<td>8,670</td>
<td>12,500</td>
<td>17,500</td>
<td>24,500</td>
<td>33,500</td>
<td>43,500</td>
<td></td>
</tr>
<tr>
<td>% GDP</td>
<td>0.1%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.4%</td>
<td></td>
</tr>
<tr>
<td><strong>Land Transport</strong></td>
<td>60,215</td>
<td>75,000</td>
<td>98,500</td>
<td>143,000</td>
<td>142,500</td>
<td>137,000</td>
<td></td>
</tr>
<tr>
<td>% GDP</td>
<td>1.0%</td>
<td>1.1%</td>
<td>1.3%</td>
<td>1.7%</td>
<td>1.5%</td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>108,200</td>
<td>118,800</td>
<td>122,100</td>
<td>129,100</td>
<td>133,300</td>
<td>137,000</td>
<td>736,300</td>
</tr>
<tr>
<td><strong>Government</strong></td>
<td>117,321</td>
<td>143,300</td>
<td>164,600</td>
<td>201,000</td>
<td>202,000</td>
<td>203,000</td>
<td>948,721</td>
</tr>
<tr>
<td><strong>Private</strong></td>
<td>92,164</td>
<td>101,200</td>
<td>126,500</td>
<td>160,100</td>
<td>177,800</td>
<td>191,500</td>
<td>482,294</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>209,485</td>
<td>244,500</td>
<td>291,100</td>
<td>361,100</td>
<td>379,800</td>
<td>394,500</td>
<td>1,431,015</td>
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<tr>
<td><strong>Domestic</strong></td>
<td>6,081,559</td>
<td>6,853,651</td>
<td>7,710,357</td>
<td>8,660,272</td>
<td>9,712,828</td>
<td>10,878,368</td>
<td>49,897,035</td>
</tr>
<tr>
<td>% GDP</td>
<td>3.4%</td>
<td>3.6%</td>
<td>3.8%</td>
<td>4.2%</td>
<td>3.9%</td>
<td>3.6%</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

### Diagrams

- **Land Transport**<br>35%<br>Government 82%<br>Private 8%
- **Roads**<br>40%<br>Government 82%<br>Private 8%
- **Ports**<br>18%<br>Government 57%<br>Private 43%
- **Aviation**<br>7%<br>Government 82%<br>Private 8%
3.5.13 **Environmental Principles**

- The Government will pay particular attention to the alarming deterioration of the quality of our environment caused by transport activity. It will take steps to minimize the damage to the environment especially with respect to air quality, noise and impacts to the flora and fauna. It will therefore systematically upgrade to transport technologies that are less polluting and also work towards reducing excessive travel particularly through environmentally sensitive areas.

- The Government will also take all steps to encourage the patronage of modes which are environmentally less polluting. It will also take steps to gradually reduce the impact of such pollutants on passengers of public and para-transport, other road users and those in the vicinity of transport corridors.
3.5.14 Energy

- It is the priority of the Government to take steps to reduce the dependency on petroleum fuels for its mobility requirements. This would be in the form of actively promoting the use of less energy consuming modes of transport- with an emphasis on increasing the share of users on public transport, reduction of unnecessary travel, improved vehicle technology and better management of transport systems including that of the road network and public transport network.

- The government will encourage through fiscal and non-fiscal measures, the conversion and adoption of vehicles from fossil fuels to alternative fuels that are less polluting.

- The Government will re-structure the present tariffs regime in order to discourage the importation and use of energy inefficient vehicles.

- The Government will also take measures to encourage the use of non-motorized modes of transport where appropriate.
3.5.15 Use of Technology & Research for modernization

- The Government will encourage innovation and modernization of the transport sector, using modern technology to ensure greater passenger convenience, improved management and sustainable transport systems. This would include improvements to standards of vehicles, passenger terminals, safety and security systems, control systems that improve reliability etc.

- Special and urgent attention would be given to the development of ICT based solutions. Towards this end there would be an effort to support the research, development and adaptation of such technologies to the needs of the transport sector in Sri Lanka.
4.7 Transport and the Environment

- Transport has a number of well known negative impacts on the environment. This mostly takes the form of air pollution, noise pollution, visual pollution, impacts on eco system, impacts on human settlements and agriculture etc.

- Testing of emissions annually.

- Implement the Vehicle Emission Testing Program or Green Test requiring compulsory testing of all vehicles.

- Revise vehicle tax structures to encourage vehicle imports that are less polluting.

- Move away from 2 stroke technology for motor vehicles.

- All vehicles should comply with noise standards stipulated under the CEA Act and enforced under the provisions of the Motor Traffic Act.

- Adaptation of EURO II standard for both vehicles and fuels from 2010
POLICY INTERVENTIONS FOR SUSTAINABILITY

- Correct Multi Modal Mix
  - Rail > Road
  - Public > Private
  - Non-motorised > Motorized

- Integrating Land Use and Transport
  - Minimize need to travel
  - Traffic Restraints in Urban Areas

- Address SME Sector Management Issues
  - Buses
  - Trucks
  - Vans
  - Three wheelers
POLICY INTERVENTIONS

- Infrastructure
  - Safe Roads
  - Clean Roads
  - Cost effective roads

- Vehicles
  - Type
  - Legislation
  - Standards

- Fuel
  - Standards
Thank You