Mobility crisis and challenge of motorization Cont...... Kathmandu
Mobility crisis and challenge of motorization Cont.......
Mobility crisis and challenge of motorization Cont
Mobility crisis and challenge of motorization
Cont........
Mobility crisis and challenge of motorization Cont........

KATHMANDU VALLEY

- Kathmandu Metropolitan
- Lalitpur Sub-Metropolitan
- Bhaktapur Municipality
- Thimi Municipality
- kirtipur Municipality
Mobility crisis and challenge of motorization Cont........

Population of Kathmandu Valley

<table>
<thead>
<tr>
<th>District (Urban Only)</th>
<th>Population in 2001</th>
<th>Population in 2011</th>
<th>Growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kathmandu</td>
<td>1075000</td>
<td>1725000</td>
<td>62.31%</td>
</tr>
<tr>
<td>Lalitpur</td>
<td>380000</td>
<td>470000</td>
<td>80.85%</td>
</tr>
<tr>
<td>Bhaktapur</td>
<td>240000</td>
<td>310000</td>
<td>77.42%</td>
</tr>
<tr>
<td>Kathmandu Valley (Total)</td>
<td>1695000</td>
<td>2505000</td>
<td>67.66%</td>
</tr>
</tbody>
</table>
Population Growth Rate

Kathmandu, Lalitpur, Bhaktapur, Kath Valley

2002 vs 2001
## Road Network in Kathmandu

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Classification</th>
<th>Kathmandu</th>
<th>Lalitpur</th>
<th>Bhaktapur</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dept. of Roads</td>
<td>Highway</td>
<td>39.9</td>
<td>18</td>
<td>14.1</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Feeder Road</td>
<td>181.1</td>
<td>112.6</td>
<td>97.5</td>
<td>391.1</td>
</tr>
<tr>
<td></td>
<td>SURN</td>
<td>59.6</td>
<td>27.2</td>
<td>4.9</td>
<td>91.7</td>
</tr>
<tr>
<td>Municipality</td>
<td>Urban road</td>
<td>269.6</td>
<td>127.3</td>
<td>116</td>
<td>512.9</td>
</tr>
</tbody>
</table>
## Vehicle Registration Statistics

<table>
<thead>
<tr>
<th>F/Y</th>
<th>Bus/Minibus</th>
<th>Light Vehicles</th>
<th>Motorcycles</th>
<th>Others</th>
<th>Total</th>
<th>Accumulated Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002/3</td>
<td>730</td>
<td>3736</td>
<td>29404</td>
<td>3740</td>
<td>37610</td>
<td>400435</td>
</tr>
<tr>
<td>2007/8</td>
<td>2598</td>
<td>6378</td>
<td>69666</td>
<td>7097</td>
<td>85739</td>
<td>710914</td>
</tr>
<tr>
<td>2012/13</td>
<td>4591</td>
<td>15232</td>
<td>175381</td>
<td>13279</td>
<td>208483</td>
<td>208483</td>
</tr>
<tr>
<td>Grand Total</td>
<td>42946</td>
<td>168465</td>
<td>1204150</td>
<td>141917</td>
<td>1557478</td>
<td></td>
</tr>
<tr>
<td>till date</td>
<td>2.75%</td>
<td>10.81%</td>
<td>77.3%</td>
<td>9.11%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Mobility crisis and challenge of motorization Cont...........
Mobility crisis and challenge of motorization

Cont........
Mobility crisis and challenge of motorization

Cont........

Public Transport in Kathmandu Valley

- Buses
- Minibus
- Microbus
- Three Wheeler Tempo
- Taxis
Mobility crisis and challenge of motorization

Cont.........

The chart shows the change in transportation modes from 1991 to 2012:

- **Walk**: 30% in 2012, 10% in 1991
- **Motorcycle**: 20% in 2012, 10% in 1991
- **Bus**: 15% in 2012, 10% in 1991
- **Taxi**: 5% in 2012, 1% in 1991
- **Tempo**: 5% in 2012, 1% in 1991
- **Minibus**: 5% in 2012, 1% in 1991
- **Bicycle**: 5% in 2012, 1% in 1991
- **Car**: 5% in 2012, 1% in 1991
- **Others**: 5% in 2012, 1% in 1991

The chart indicates a significant increase in the use of motorcycles, buses, and tempo taxis from 1991 to 2012, while other modes of transportation have remained relatively constant.
Mobility crisis and challenge of motorization

Cont.........

Public Transport; Who are the stakeholders ?

- Ministry of Infrastructure & Transport, Department of Roads, Department of Transport Management!
- Kathmandu Valley Development Authority (KVDA)
- Municipalities!
- Traffic police!
- Transport Entrepreneurs!
- Automobile Dealers!
- Sajha Yatayat (Semi Govt. Company)!
- Transport labors (Drivers and helpers)
Mobility crisis and challenge of motorization
Cont........

Key players of Public Transport?

- Department of Transport Management!
- Traffic police!
- Transport Entrepreneurs!
- Sajha Yatayat (Semi Govt. Company)!
Mobility crisis and challenge of motorization

How we should improve Congestion

- Consider whole Kathmandu Valley for Transportation Planning
- Plan Primary, Secondary, and Tertiary routes considering existing road length
- Plan bus terminals in defined nodal points
- Plan Minibus and Microbus routes and terminals for origin and destination
- For smaller roads with less than 5m width, consider three wheeler (tempo)
Routing on Primary Network (Ref: KSUTP)
Mobility crisis and challenge of motorization

Cont...........

Other steps for solving congestion problem

- If possible plan Tram (Electric) buses in Highways and Ring Road
- If economically feasible plan for Metro Railway (underground) - Long term
- For secondary routes with more than 3 lane, give priority for buses (BRT)
Mobility crisis and challenge of motorization

Cont...........

Other steps for solving congestion problem

- KVDA and all municipalities work together for mass transportation planning
- National Planning commission coordinate with MoPIT and MoUPH to prepare Transport Plan for Kathmandu
Inter-relation of agencies

- KVDA
- Municipalities
- DOTM
- Transport Entrepreneurs
Mobility crisis and challenge of motorization

Cont.......

Auxiliary facilities for easy mobility for vehicles and pedestrians

- Adequate parking facilities for all type of vehicles to be provided by government and private sector
- Heavy penalty for roadside and unauthorized parking
Mobility crisis and challenge of motorization

Cont...........

Auxiliary facilities for easy mobility for vehicles and pedestrians

- Sidewalk with enough width for pedestrians
- Synchronized and centrally controlled intersection signals
- Bus and Minibus lay byes for pickup and drop facilities for passengers
Mobility crisis and challenge of motorization

Cont.......● ● ●

Auxiliary facilities for easy mobility for vehicles and pedestrians (Cont....)

- Overhead Pedestrian crossing Bridges
- Subway crossing
- Pelican lights for pedestrian crossing
The way forward

• Total Transport master plan for Kathmandu Valley
• Long Term, Medium Term and Immediate Action Plan
• Central coordinating agency for effective budgeting and management
• Involvement of Private sector
• Transportation facilities with all standard roads and auxiliary facilities
• Phased implementation of primary routes, with restructuring of existing routes to provide supporting secondary and tertiary routes.
• Priority for Mass Transportation and Parking facilities for all type of vehicles