Forum for Decarbonizing Transport

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Transport accounts for 15% of global emissions

Source: WRI Climate Watch, India 2nd Biennial Update Report
Only 7.5% of emissions in India

But expected to grow faster than other sectors’ emissions

Source: WRI Climate Watch, India 2nd Biennial Update Report
As national income grows, transport emissions become more important, but there are alternative models.

Source: "Making the Right Turn", World Bank report
90% of India’s transport emissions are from road vehicles

Source: GHG Platform India (2019)
Emissions from urban transport growing rapidly

4 – 6% growth per year in some large cities – World Bank study
The world’s biggest cities will be in India

Source – World Urbanization Prospects 2018 – UN DESA
Galloping motor vehicle growth

Population (millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>683</td>
<td>77%</td>
</tr>
<tr>
<td>2011</td>
<td>1210</td>
<td></td>
</tr>
</tbody>
</table>

Motor vehicles (millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>142</td>
<td>2529%</td>
</tr>
</tbody>
</table>
Vehicle ownership increasing in all cities

Vehicles per 1000 population

- **Agartala**: 208 in 2001, 333 in 2011
- **Agra**: 240 in 2001, 304 in 2011
- **Ahmedabad**: 320 in 2001, 241 in 2011
- **Amritsar**: 175 in 2001, 212 in 2011
- **Bhopal**: 574 in 2001, 575 in 2011
- **Chandigarh**: 289 in 2001, 441 in 2011
- **Chennai**: 738 in 2001, 609 in 2011
- **Delhi**: 262 in 2001, 319 in 2011
- **Hyderabad**: 125 in 2001, 303 in 2011
- **Indore**: 76 in 2001, 133 in 2011
- **Kolkata**: 157 in 2001, 429 in 2011
- **Lucknow**: 429 in 2001, 494 in 2011
- **Ludhiana**: 421 in 2001, 350 in 2011
- **Meerut**: 124 in 2001, 238 in 2011
- **Mumbai**: 150 in 2001, 150 in 2011
- **Pata**: 245 in 2001, 193 in 2011
- **Shillong**: 180 in 2001, 99 in 2011
Freight traffic in India is growing but modal share of rail has declined.
EV sales mandate can reduce cumulative CO2 emissions from the transport sector by 55% in the next 30 years.

**Transport CO2 emissions (Million tCO2e)**

- **BAU with no EVs**
- **EV sales - 50% (2030), 80% (2035)**

Source: Energy Policy Simulator India
We have to leverage these

Future of Motorized Mobility

Shared vehicles

Electric Vehicles

Connected systems

Source:
Mobility as a Service is a rapidly emerging concept

• Allows people to book a trip, using multiple modes, through a single App
• This can obviate the need for people own a personal motor vehicle
### 4 – pronged strategy

<table>
<thead>
<tr>
<th>Clean Fuels</th>
<th>Modal Shift</th>
<th>Integrate</th>
<th>Optimize</th>
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<tr>
<td>Electric vehicles</td>
<td>Increasing the share of cleaner modes – rail, waterways, shipping, walking, cycling</td>
<td>Interconnected modes – not standalone</td>
<td>An empty seat in a moving vehicle is a wasted resource - Reduce redundancy</td>
</tr>
</tbody>
</table>
Multi-Stakeholder Engagement

All this can happen only when multiple stakeholders come together towards a common goal.
The Forum for Decarbonizing Transport is a platform to bring diverse stakeholders together to advance this agenda.
Agenda

Forum for Decarbonising Transport

Conveying

Action

Research