Inclusive and Sustainable Mobility

O.P. Agarwal
Chief Executive Officer
World Resources Institute India
Why is transport important

- Connects people to jobs, education, healthcare, recreation
- Connects goods to markets
- If cities are the “Engines of Economic Growth” its mobility systems are the “wheels of that engine”
- It is like the circulatory system in the human body
  - If blood stops flowing a person is dead – if the transport system stops moving the city is dead
- Provides a framework for the spatial growth of the city
Government’s obligation

Safe, Clean, Affordable Transport for All

Inclusive
Equally available to all

Sustainable
Use minimum resources and cause minimum damage to the environment / planet
Main problem being faced

Growth of Registered Motor Vehicles (million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.3</td>
<td>0.7</td>
<td>1.9</td>
<td>5.4</td>
<td>21.4</td>
<td>55</td>
<td>142</td>
<td>210</td>
</tr>
</tbody>
</table>
Rapid Motorization

- Population (million)

<table>
<thead>
<tr>
<th>Year</th>
<th>1981</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>683</td>
<td>1210</td>
</tr>
</tbody>
</table>

Growth 77%

- Number of motor vehicles (Million)

<table>
<thead>
<tr>
<th>Year</th>
<th>1981</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.4</td>
<td>142</td>
</tr>
</tbody>
</table>

Growth 2529%
Manifestation of the problem
Manifestation of the problem
Reasons for rapid motorization

• Cities are sprawling – longer travel distances means need for motor vehicles
• Urge to demonstrate higher income status
• Poor public transport
  – Quantity
  – Quality
  – Coverage
• Walking and cycling are no longer safe
Resource efficient transport systems
SOME MYTHS
Myth 1

- We are building a metro and so congestion will go away
- **MERELY BUILDING A METRO IS NOT ENOUGH**
  - Motor vehicles in Delhi have doubled in the 10 years after the metro became operational
  - Metro needs to integrate with other systems
  - Metro needs to be conceived as an urban transformation initiative – not just a rail transport project
- Recent Metro Policy is the right approach
Myth 2

- We are building flyovers and overpasses, and so congestion will go away
- **IT DOES NOT HAPPEN**
- Flyovers, overpasses and road widening lead to more vehicles coming on to the road – same level of congestion returns but at a higher volume of traffic
Impact of endless road expansion

We can not “build” our way out of congestion

Courtesy Transfuture.net

CODATU 2017
Myth 3

- No body likes to use buses
- Buses are only for poor people
- **WRONG**
- In most large cities more people use buses than the metro
- Buses also help to increase ridership on the metro
- Quality of buses and bus services needs to be improved to make them attractive for the rich also
Boarding to Population Ratio (%)
Quality of Buses
Myth 4

- Since the big cities are facing severe problems, let's attend to them first

- **Wrong**

- If we attend to the smaller cities **now** we can save them from the problems that the big cities are facing

- Studies show that:
  - 30% of the growth in motorized travel will be from cities < 1 million population
  - Another 30% from 1-5 million population cities
Myth 5

- **Wrong**
- Very few people walk or cycle so why provide for them
- Over 50% of the trips in most cities in India are by walking or cycling
- Most people cannot drive
- Share of walking and cycling coming down due to unsafe infrastructure
- This is easy to improve and cheap
- And it is good for health
Global Best practices

Orchard Road, Singapore

Broadway, New York City
Best examples

**Singapore**
- Excellent public transport system
- Excellent integration with land use planning
- High density at mass transit stations and convenient access
- Strong restraints to the ownership and use of personal motor vehicles
- Very good walking environment

**Seoul**
- Excellent public transport system
- Excellent integration of bus, rail and other systems
- Highly dense and compact clusters
- Reduction of road space
- Difficult driving experience
- Excellent walking environment
So what is needed?

- An integrated approach to mobility planning – not individual projects
- Integrated governance
- Plan for moving people – not vehicles - high quality public transport and safe walking and cycling facilities
- Reduce travel distances - compact cities with mixed use planning
- Restrain use of personal motor vehicles
- Focus on capacity building
- **Planners must “plan” & Engineers must “build” as per the plan**

THANK YOU