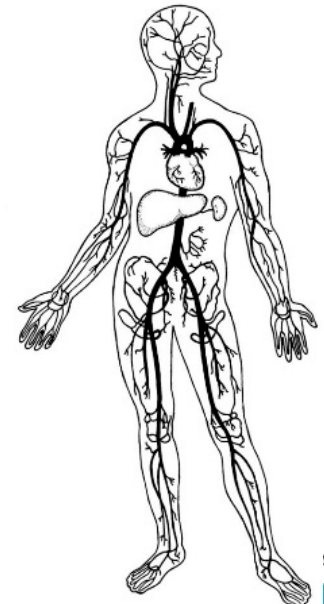
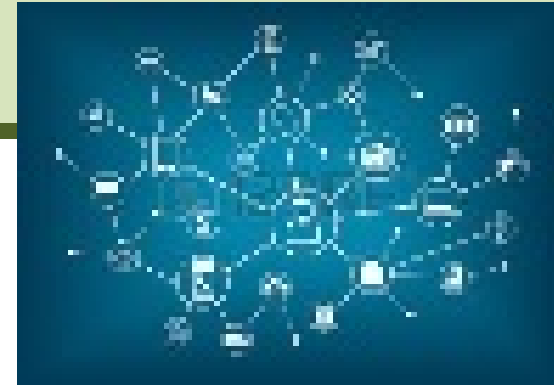


Inclusive and Sustainable Mobility

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

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graph TD; A[Safe, Clean, Affordable Transport for All] --> B[Inclusive]; A --> C[Sustainable]; B --> D[Equally available to all]; C --> E[Use minimum resources and cause minimum damage to the environment / planet]
```

Inclusive

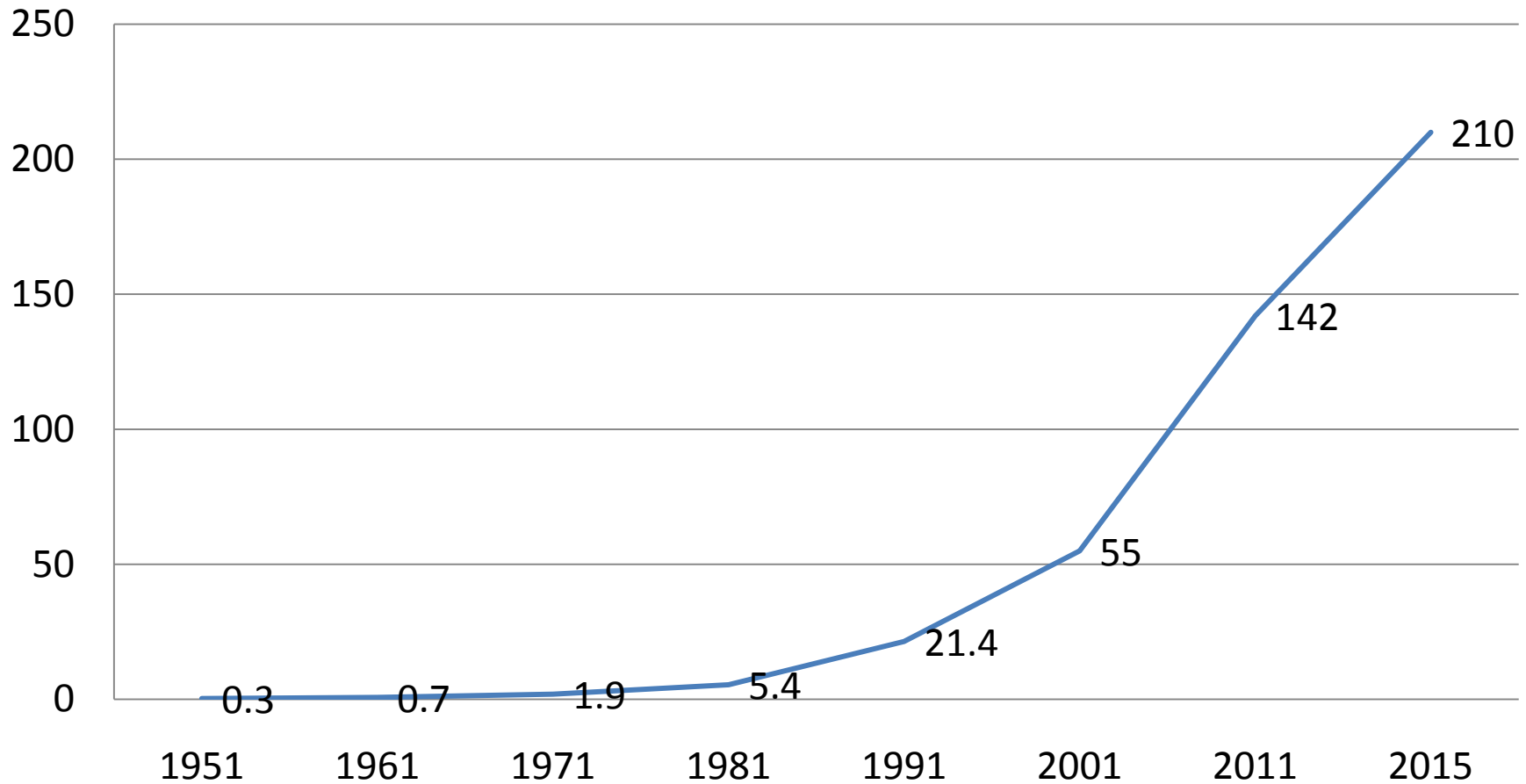
Equally available to all

Sustainable

Use minimum resources and
cause minimum damage to
the environment / planet

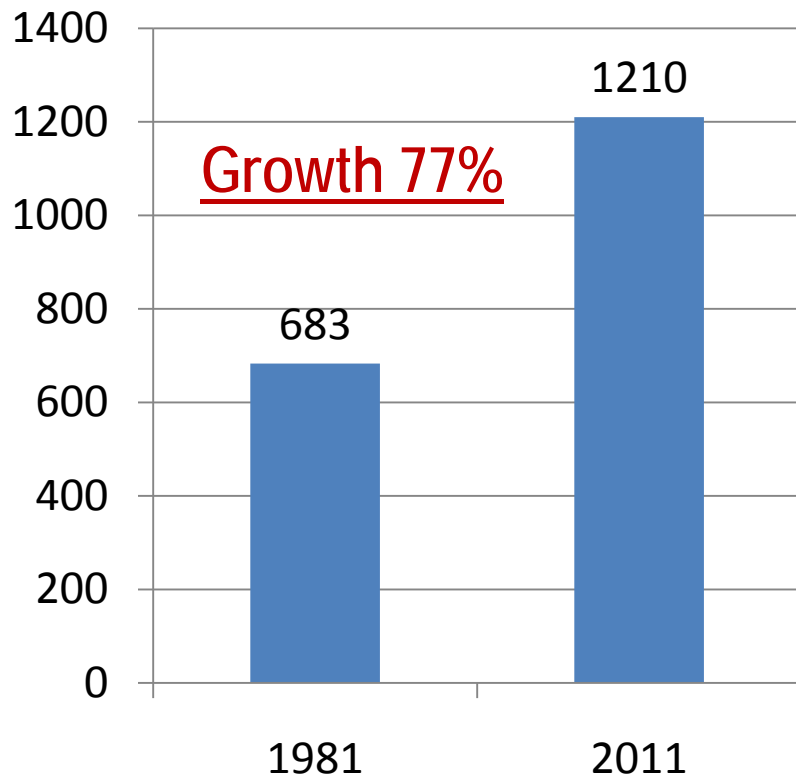
Main problem being faced

Growth of Registered Motor Vehicles (million)

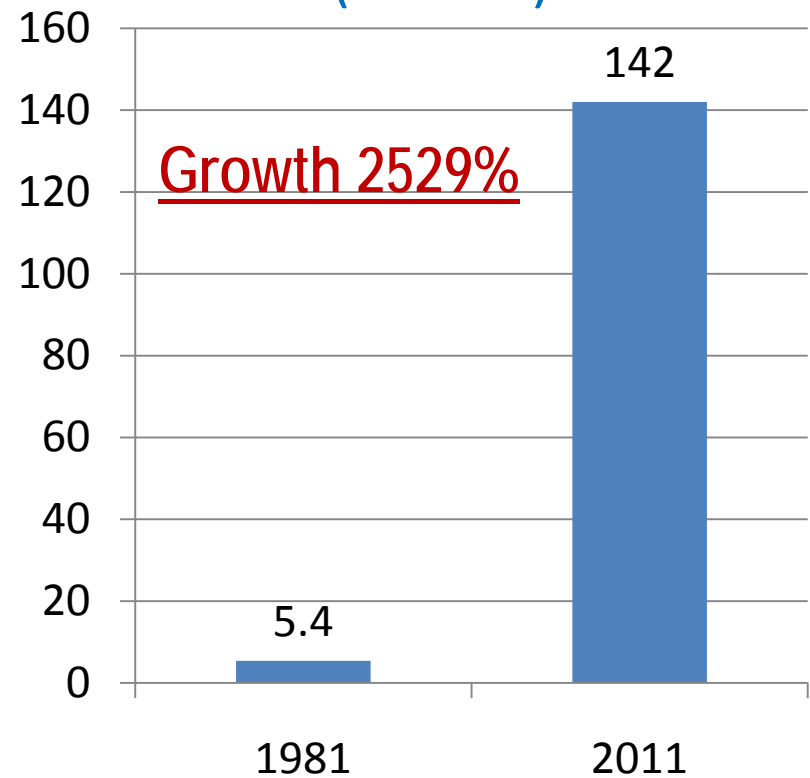


Rapid Motorization

- Population (million)



- Number of motor vehicles (Million)



Manifestation of the problem



Manifestation of the problem



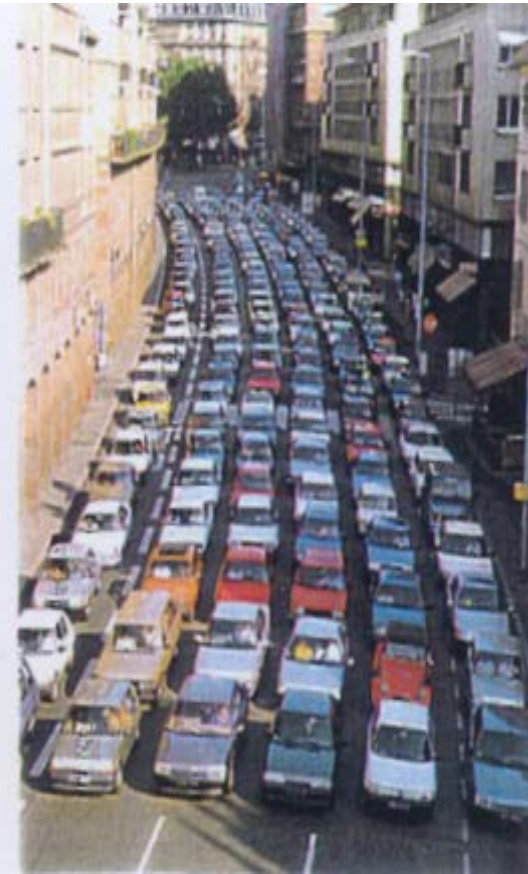
Reasons for rapid motorization

- 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



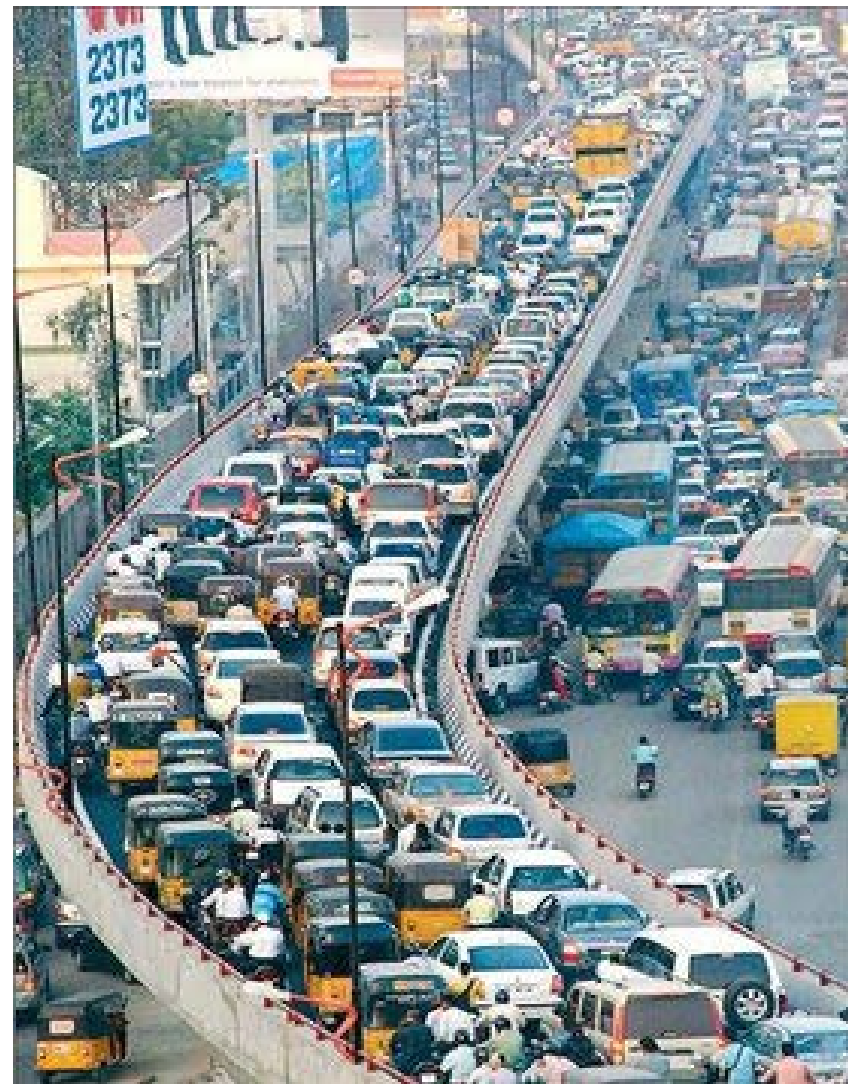
SOME MYTHS

Myth 1

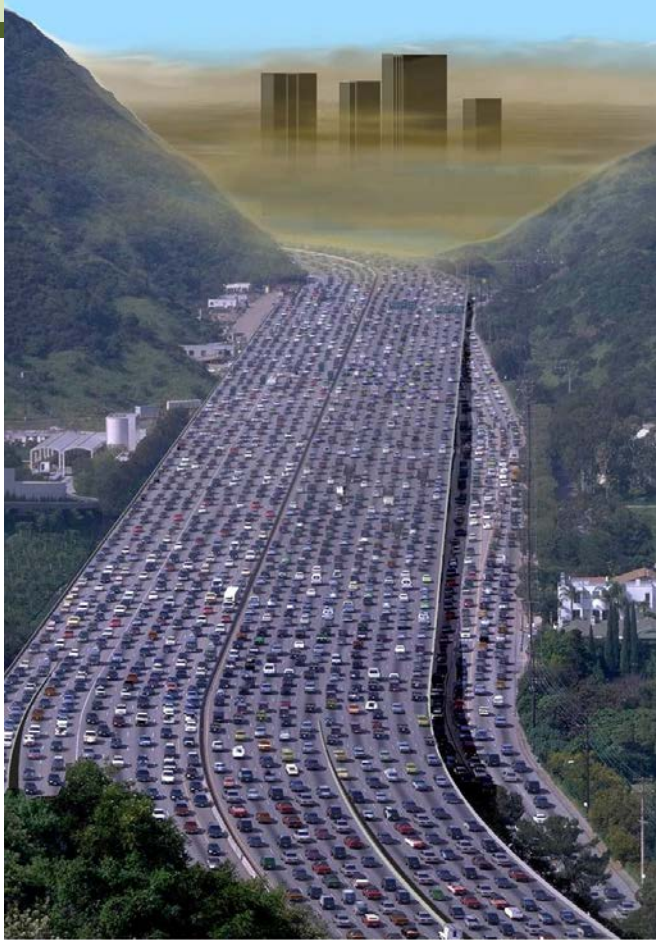
- We are building a metro and so congestion will go away
- MERELY BUILDING A METRO IS NOT ENOUGH
- Motor vehicles in Delhi have doubled in the 10 years after the metro became operational
- Metro needs to integrate with other systems
- Metro needs to be conceived as an urban transformation initiative – 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



Courtesy Transfuture.net



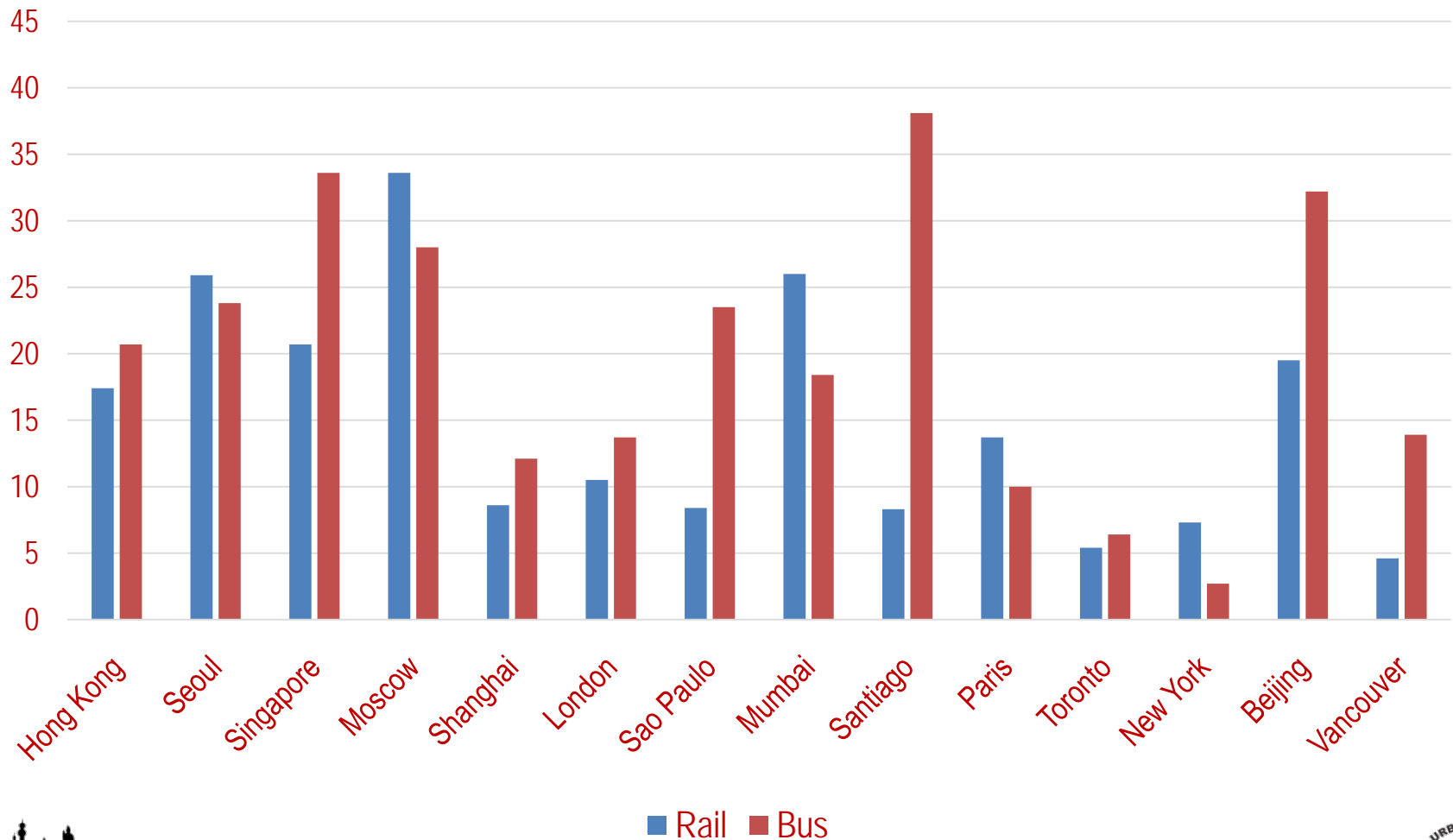
We can not “build” our way out of congestion



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, lets 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

- Very few people walk or cycle so why provide for them
- WRONG
- 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



Broadway, New York City

Orchard Road, Singapore



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