

Active (Non-motorized) Transport in India

Opportunities and Challenges

URBAN MOBILITY FOR ALL

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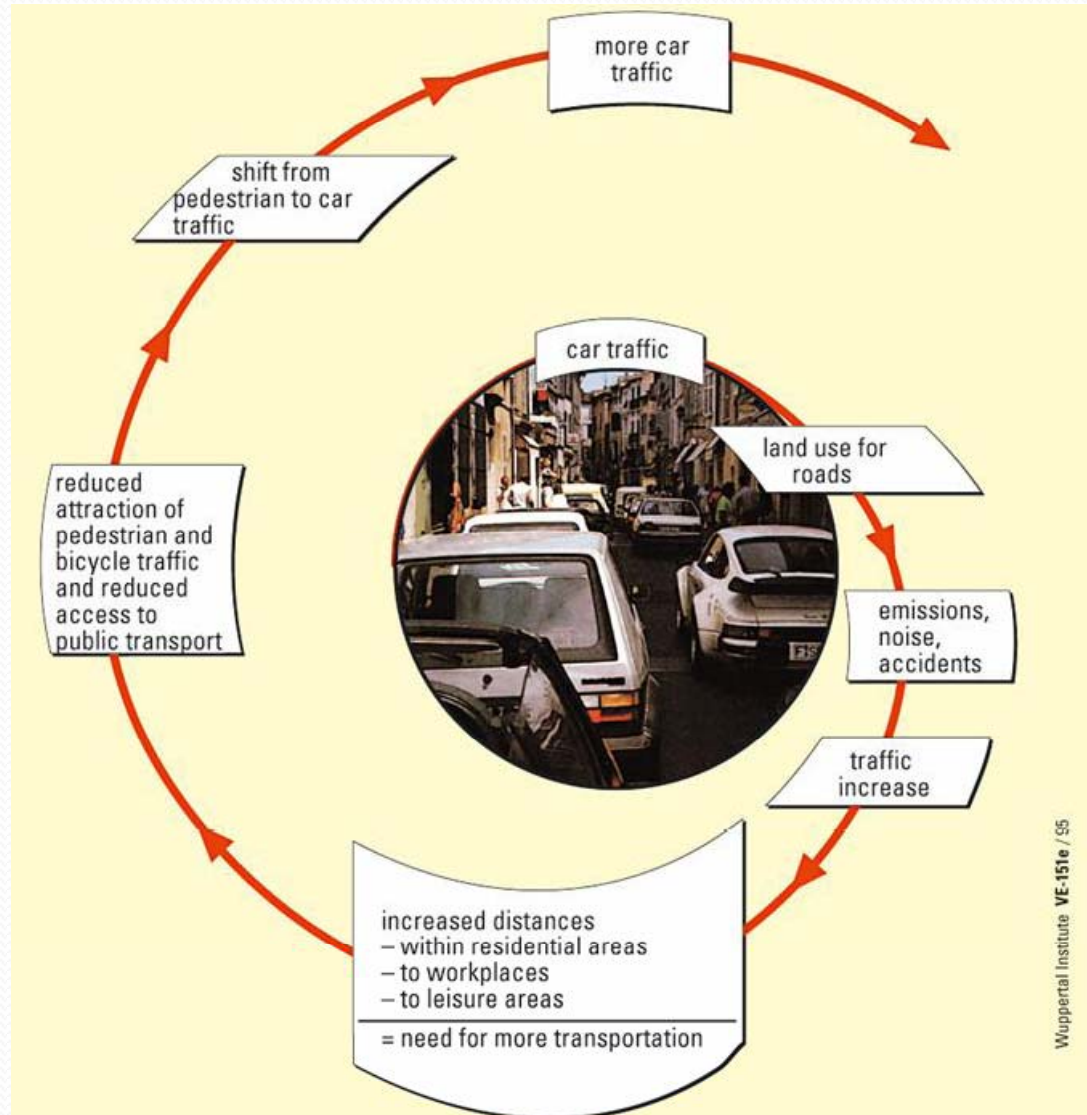
The active transport inclusive city

A just city, a social city, a city of equality, a safe city, a clean city, a democratic city, a city with good mobility

The problem

- Urbanization has far exceeded the carrying capacity of the cities.
- Ongoing and clear modal shift from the non-polluting modes of walking, cycling and cycle rickshaws to polluting motorised two and three wheelers and cars.
- Increasing motorization leading to congestion and pollution.
- Since the perceived problem of congestion was lack of space for cars, the transport engineering solution has been to provide more space to cars.
- Thus cities create a self-reinforcing process of ever more cars requiring ever more road space.

The vicious cycle



Bicycle Use Trends 1980-2000

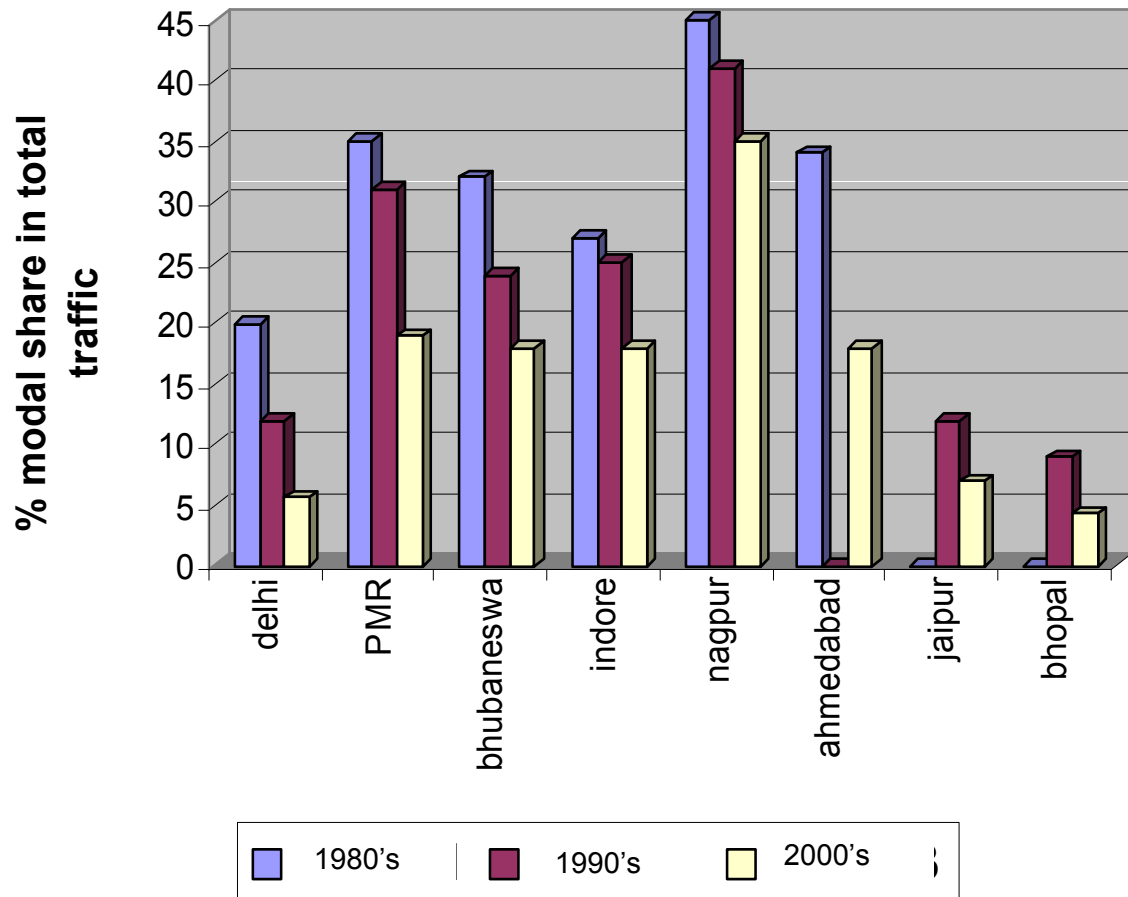
- Sharp decline during 80's-90's due to

- Fast growth of motorized vehicles,

- Road infrastructure improvements

- High cycle fatalities

Trends in cycle modal share



Captive Riders

- 17 - 30% households - Rs. 5000/month in medium and large cities.
 - Max can spend 15% (750 Rs. / month/ h-h) on transport
- 19% to 30% population - in slums/ JJ colonies
 - 21% h/h owns cycle (4% other NMV and rarely any motorized vehicle)
- Captive rider group with as high as 80% ridership
 - all age groups
 - Cycle ridership decreases with increasing level of literacy and income.
 - 100% people involved in informal distribution activities (painters, carpenters etc.)
 - above 80% of factory / shop workers are using cycles
- All lengths of distances for work place (up to 50 km) ridership > 70%;

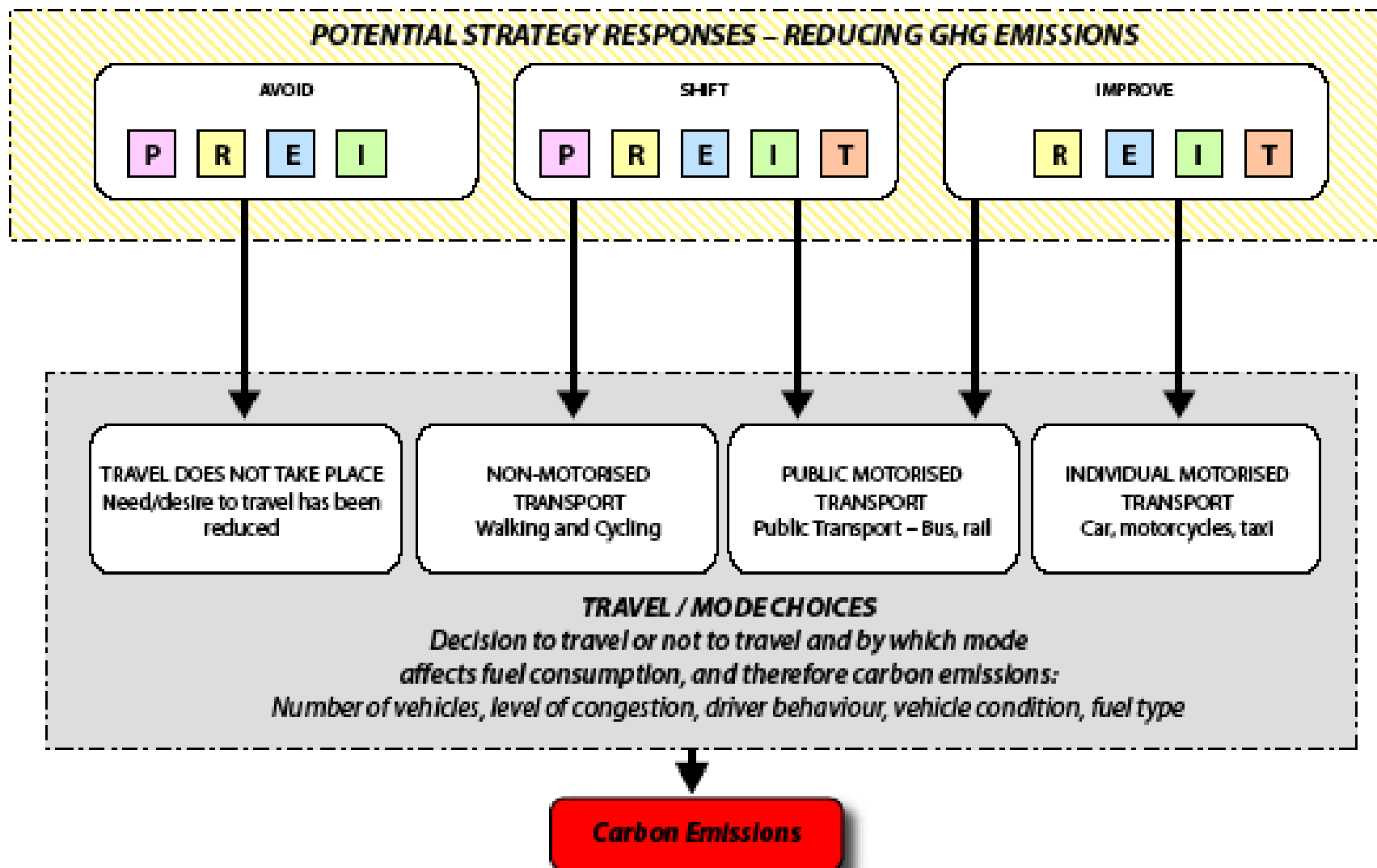
But where are they on the roads?



The Climate Change concern

- In 2006 transport accounted for 13% of global greenhouse gas emissions (GHG) while 23% of global carbon dioxide (CO₂) emissions from fuel combustion were transport related.
- Transport related CO₂ emissions are expected to increase 57% worldwide in the period 2005 – 2030, and transport in developing countries is going to contribute about 80 percent of this increase, both from passenger and freight transport. Most of the current GHG emissions in the transport sector and virtually all the expected growth in emissions come from private cars and trucks.

Strategy to reduce GHG emissions



Challenges

- Lack of political momentum in national and city level for Active Transport
- Change the citizen's notion of "Quality of Life" both personally and collectively
- Persuade many cyclists who converted to non-cyclists back to being a cyclists
- Two-wheelers and car culture significant barrier to cycle promotion
- Cycling is often dismissed as a mode of transport due to concerns based on safety
- Inconvenience of weather. **HOT!**

The creation of a "pro-walking and cycling culture" is paramount to promoting and encouraging cycle use

Chicken and Egg



Supply

- Cycle lanes*
- Cycle Parking*
- Utilities*
- Landscape*
- Traffic Lights*
- Signage*
- *Neighborhood network plan*

Demand

- Car Free days-*
- Cycle Rallies-*
- Cycle to School-*
- Cycle to work-*
- Critical Mass Ride-*

Stakeholders

Government

Politicians
Municipality
Traffic Police
Transport Dpt
Tourism Dpt

Civil Societies

Housing Society
Cycling Clubs
Transport
Environment
Health
Micro finance

**PARTICIPATION
FOR EVERYONE**

Private Sectors

Bike Manuf
Bike Rental
Sponsors
Advertisement
Company
Media

**Schools &
Universities**

Opportunities

- National Initiatives: NUTP, JNNURM
- 11 BRT cities and existing cycling cities
- Financial assistance from multilateral agencies: GEF
- Active citizenship
- Private sector participation
- Economic recession
- Increase in fuel price
- Climate change
- Poor health

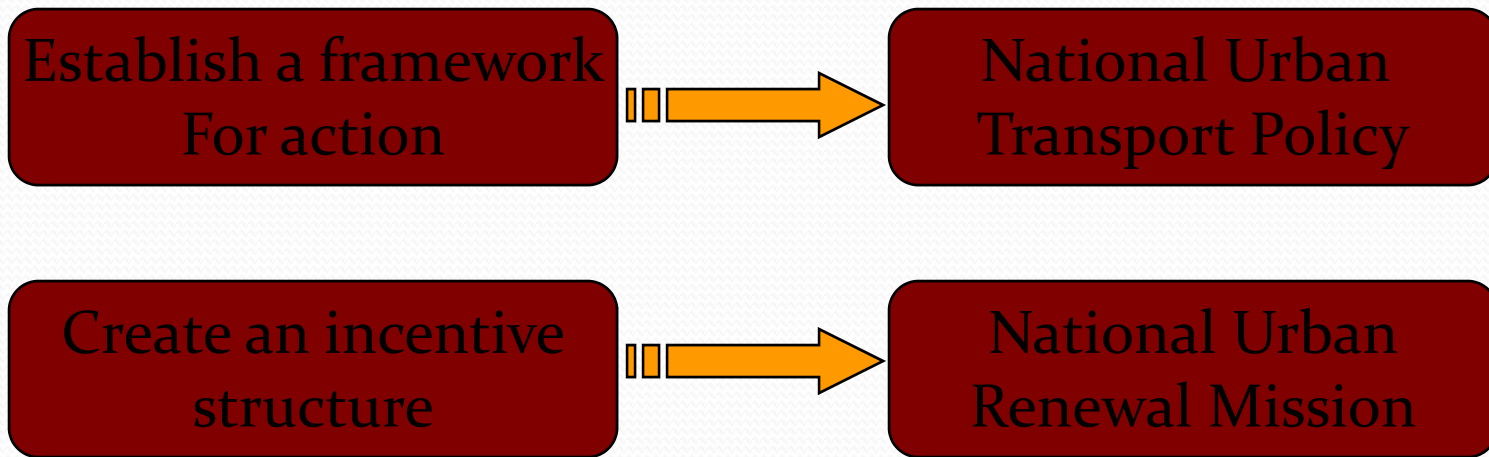


“THE STARS HAVE ALIGNED”

National Initiatives

National Urban Transport Policy focuses on
“Moving people, not vehicles.”

Two major initiatives



City Initiatives: Delhi



Credit: SG Architects

City Initiatives: Delhi



Credit: SG Architects

City Initiatives: Bangalore



National Initiatives: Pune



Credit: PMC, I-CE, PTF

National Initiatives: Pune



Credit: PMC, I-CE, PTF

National Initiatives: Ahmedabad



Credit: AMC, CEPT, ITDP

National Initiatives: Ahmedabad



Credit: AMC, CEPT, ITDP

National Initiatives: Ahmedabad Car Free Day



National Initiatives: Nanded



Credit: NMC, I-CE

National Initiatives: Nanded



Credit: NMC, I-CE

National Initiatives: Nanded



Credit: NMC, I-CE

Institutional Initiatives

- NMT Cell, Pune (2008)
- NMT Cell, DIMTS (2009)

Urban Mobility 2009 Expo



Integrating Public Transport and Non-motorized transport

- Prioritizing pedestrian access to all transit stations
- Integrating non-motorized vehicular systems with transit stations by providing for:
 - Private bicycles as the trip end connectors
 - Rented/ Public bicycles as optional feeders
 - Tricycles as organized feeder systems

Private Bicycles as feeder for Public Transit

- There should be made provisions for using a personal bicycle as a feeder mode for public transport. This will make the personal bicycle a door to door transport solution.

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Bus terminal station in Bogota, Colombia – a large number of people use bicycles to come to this station because of free parking



Free, guarded bicycle parking inside the bus terminal above

Public Bicycles as feeder for Public Transit

- Public bicycle schemes, when implemented considering the needs of commuters, have proved to be hugely popular around the world. Point in the case being Velib of Paris, Bicing of Barcelona, O V Fiets from The Netherlands amongst others.



Public Bicycles in The Netherlands



Public Bicycles near bus stop in Barcelona



Public Bicycles near BRT corridor in Paris

Tricycle taxis as feeders



Cycle rickshaw in Germany



Cycle rickshaw in New Delhi



Cycle rickshaws in New Delhi



Cycle rickshaw in The Netherlands

Better, contemporary design

What is needed

- Building a National Level Political Momentum for active transport by engaging all stakeholders
- Building capacities of cities and consultants for inclusive designs
- Mobilizing funding under JnNURM for NMT Plans for all cities
- Funding under JnNURM for bike sharing and other schemes
- Mobilizing funding for public awareness events, e.g. car free days