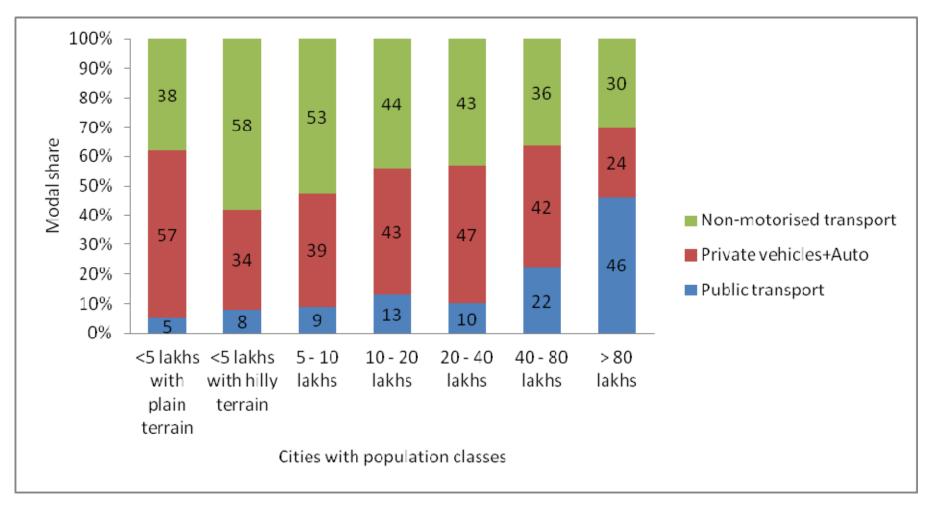




Walk and cycle

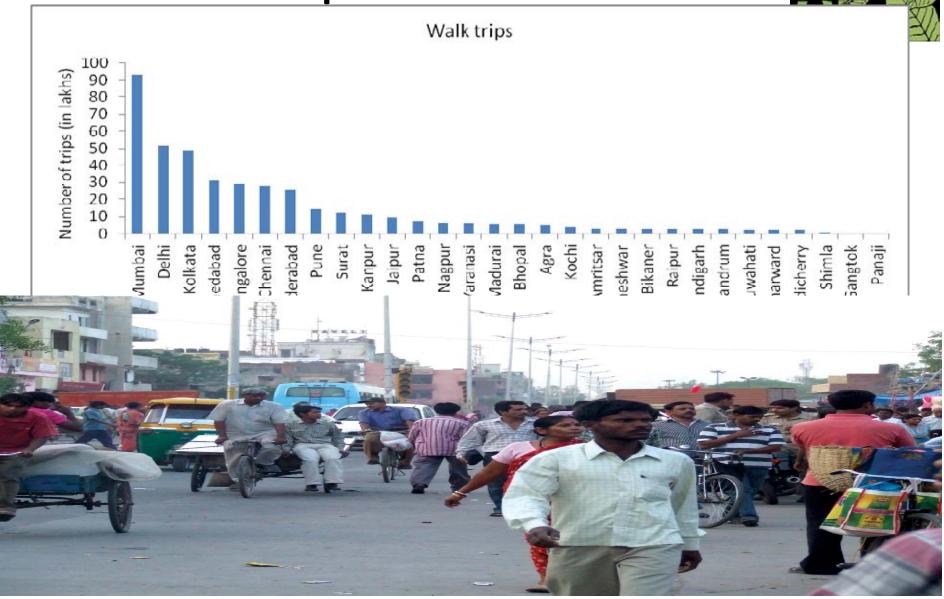
Inherent strength We walk and cycle because we are poor





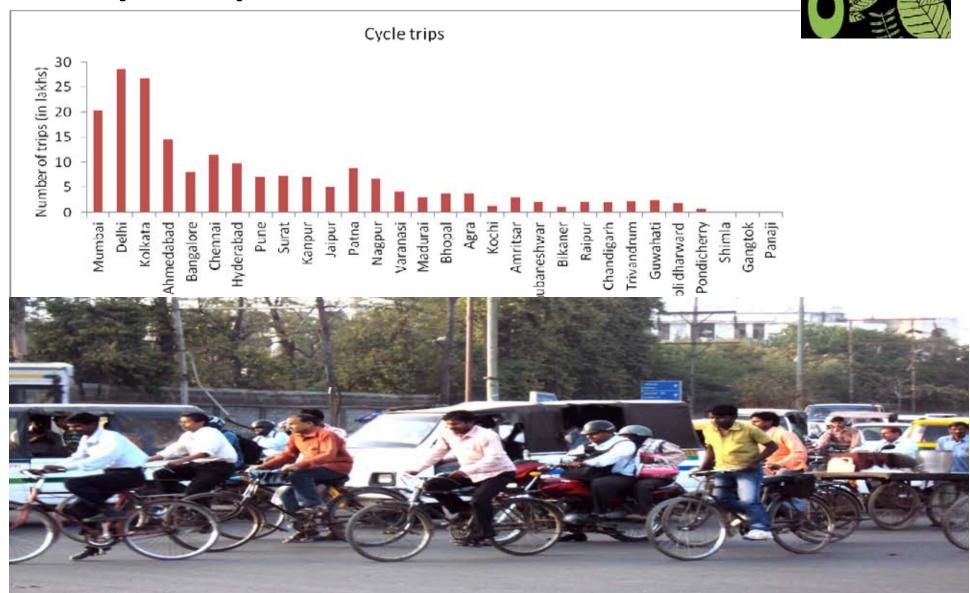
Source: Based on: MOUD 2008, Study on traffic and transportation policies and strategies in urban areas in India, Wilbur Smith Associates, Ministry of Urban Development, May

Mumbai, Delhi, Kolkata: Still very high count of walk trips



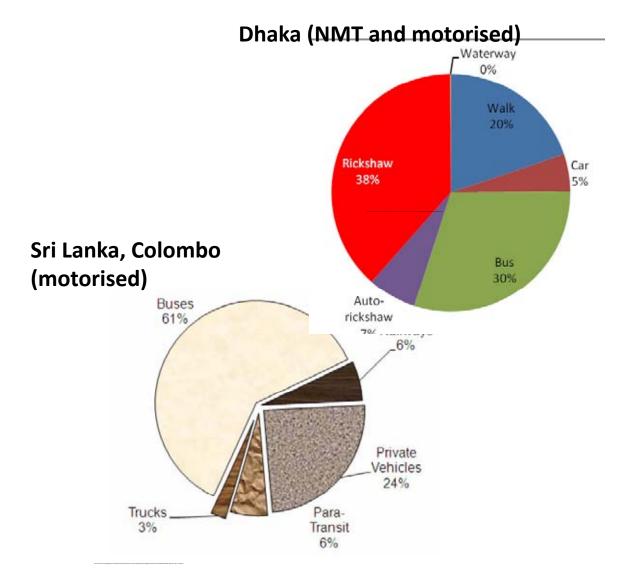
Delhi, Kolkata have the highest count of cycle trips

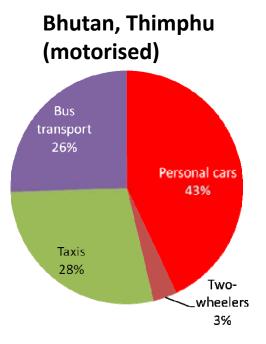




South Asia: Walking and cycling dominate











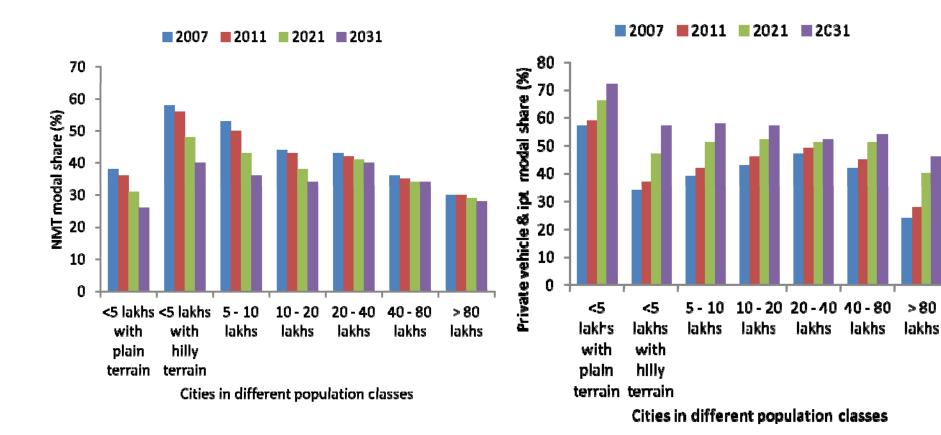
Dhaka

Bangladesh Road **Transport** Regulations and **Rules 2012** requires ---"pedestrians to carry indicators including reflector, lamp etc..." People are complying to protest

But we will take the car as we get rich



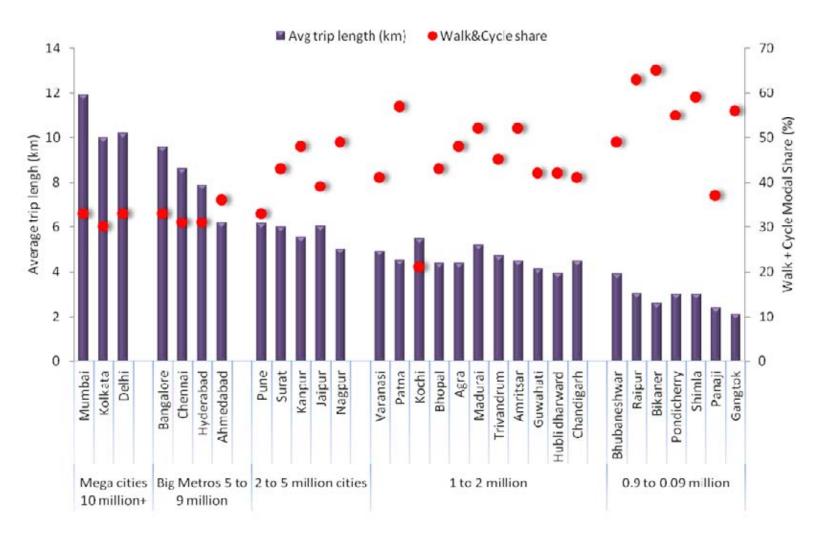
Personal motorised travel to gain about 20% additional modal share in most city categories until 2031



Source: CSE based on MOUD/WSA data 2008

Walk and cycle will go down because cities will become bigger. Cities with shorter trip length have higher share of walking and cycling

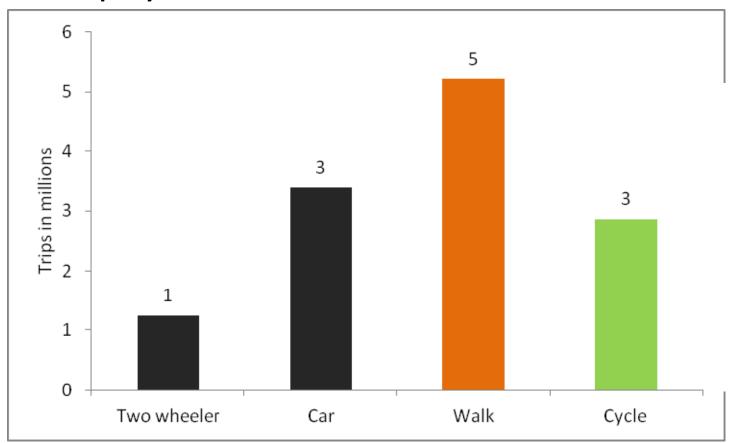




Walk and cycle will go down because we will push it out of the road. Need to plan roads based on who uses how much



Trips by modes count on Delhi roads...



Source: Based on MOUD 2008, Study on traffic and transportation policies and strategies in urban areas in India, Ministry of Urban Development, Delhi, Wilbur Smith Associates







Kolkata





Kolkata police has prohibited bicycles, cyclerickshaw and cycle-trolly on 174 roads, between 7 AM and 11 PM.



This amounts to a blanket ban in entire Kolkata. The logic is cycles slow down traffic



KOLKATA, ONLY METRO WHERE CYCLE TRIPS OUTNUMBER CARS' Mode of transport in % share

| | Walk | Cycle | Public transport | Car |
|---------|------|-------|---------------------|-----|
| Kolkata | 19 | 11 | 54 | 8 |
| Delhi | 21 | 12 | 43 | 14 |
| Mumbai | 27 | 6 | 45 | 8 |
| Chennal | 22 | 9 | 31 | 10 |

Source: Ministry of Urban Development, 2008

CYCLISTS ARE RARELY BLAMED FOR ACCIDENTS IN WEST BENGAL

| | No. | % share |
|--------------------------------------|--------|---------|
| Total accidents | 14,945 | 100 |
| Fault of driver | 10,621 | 71 |
| Other causes | 2,109 | 14.1 |
| Defect in condition of motor vehicle | 783 | 5.2 |
| Fault of pedestrian | 557 | 3.7 |
| Defect in road condition | 459 | 3.1 |
| Fault of cyclist | 222 | 1.5 |
| Weather condition | 194 | 1.3 |

Kolkata is the only Indian metropolis where trips by bicycle outnumber trips by cars.



Is cycling a crime?





On September 8, a crowd of gathered in the heart of Kolkata to protest the city administration's clampdown on cycles

The notification took recourse to the **West Bengal Traffic Regulation Act of 1965** There is no provision of fines or seizure in the notification, even then the traffic police confiscates cycles plying on no-cycle roads and charge Rs 100 to release them. The amount was Rs 70 two years ago





Mumbai







Pedestrian ignore skywalks

MMRDA had planned **50 skywalks** in Mumbai Metropolitan Region to connect railway stations or commercial areas.

The Bandra (E) station and Kalanagar (Bandra-Kurla Complex) skywalk constructed for a peak hour capacity of 5,500 commuters. But actual usage is a lot less – couple of hundred in peak hour.









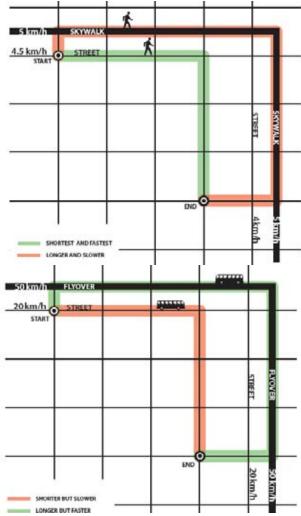
A survey of St Xavier's College Mumbai: "Their unnatural emptiness at off-peak hours make them unsafe especially for women with very few exit points....."

Valking needs flexibility: eople dont like walking on rigid lines

Skywalks don't give the option of the shortest route possible. Flyover approach works for vehicle. Same does not apply to average walker. Sky overs do not increase walking speed





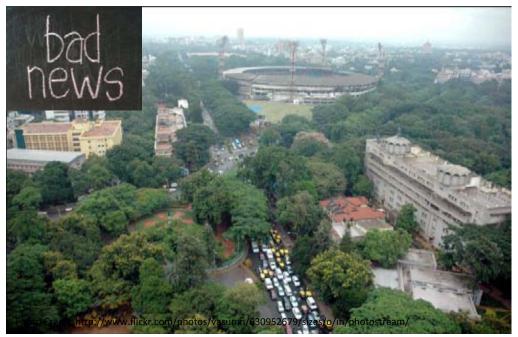












One-ways increase distance, driving, fuel use and pollution



Photo Credit: http://www.flickr.com/photos/matt_mlinac/4464841454/sizes/o/in/photostream/

Complex network of unidirectional roads. Most road less than 4 lanes wide are designated one-way.

Has it helped?

Bangalore Mobility Indicators 2011 shows increasing congestion. Congestion index growing from 0.33 in 2008 to 0.37 in 2011



Flyovers and signal free corridors make for unsafe territories





Bengaluru has best bus service but worst accessibility to bus according to MoUD

One-ways limit access to bus stops: pedestrian cant cross roads

Jaanagraha survey: Only 0.33% of 238 kms of footpaths surveyed across the city have good walkability

Delhi: flyover capital

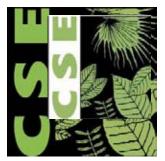




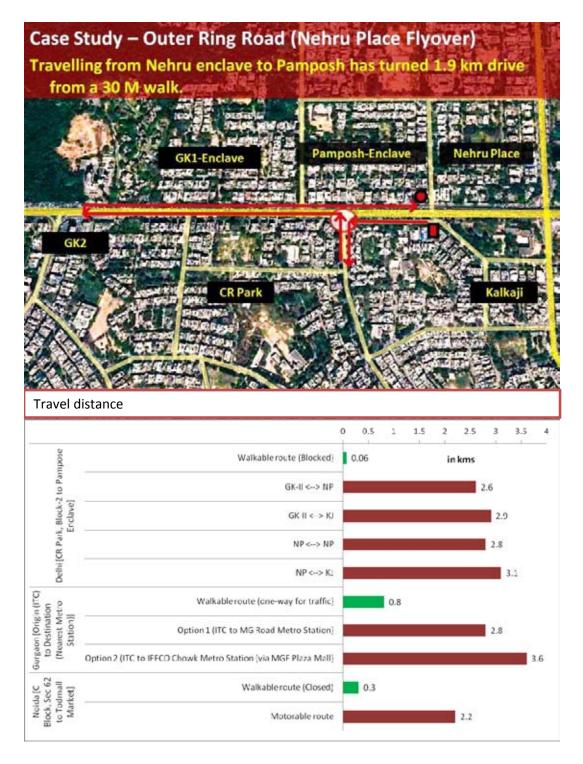
Source: CSE



Flyovers: no access to pedestrians



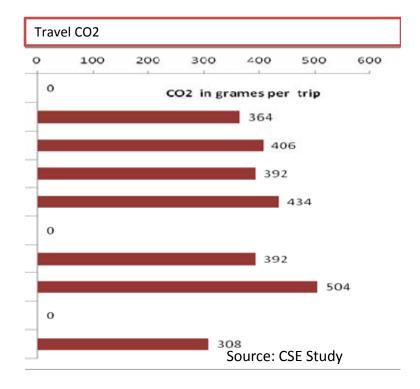




Flyovers make people drive longer



Increase emissions









Central Road Research
Institute found that the
congestion has doubled in
the last eight to 10 years
In 2008 speed was 16 kmph.
CRRI in 2012 dropped below
15 kmph and projected that
it will be as low as 5 kmph
by 2020

California has changed policy to adopt compact urban form



California has enacted Sustainable Communities and Climate Protection Act (SB 375) since 2008

SB 375 aims to reduce per capita emissions by

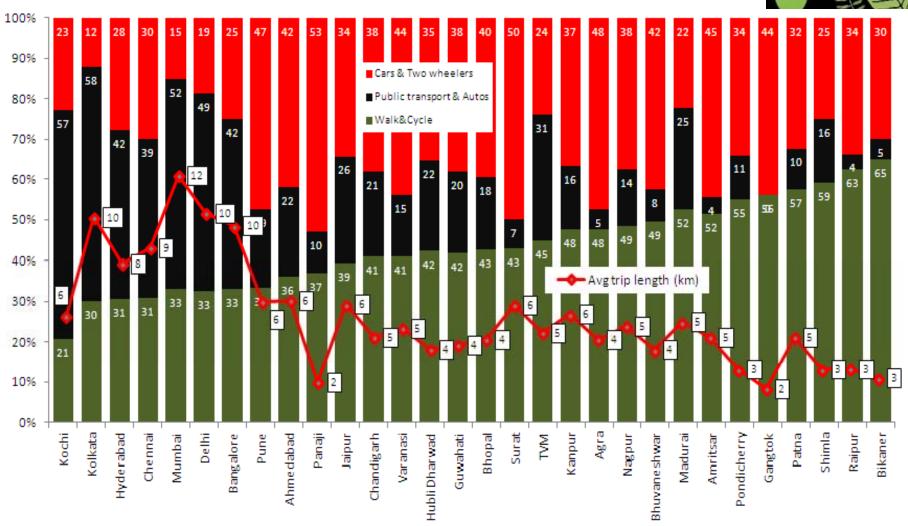
- about 7% by 2020
- about 15% by 2035

Each of California's 18 Metropolitan Planning Organizations to develop a regional strategy for reducing vehicle miles traveled to address climate change

Cities who comply with SB 375's regional plans receive a larger share of transportation funds as well as regulatory streamlining for projects

Compact cities have shorter trip length, more walking and cycle share and less CO2 emissions





Source: Based on analysis of data provided in reports: 1) ICLEI-South Asia 2009 2) WSA/MOUD 2008

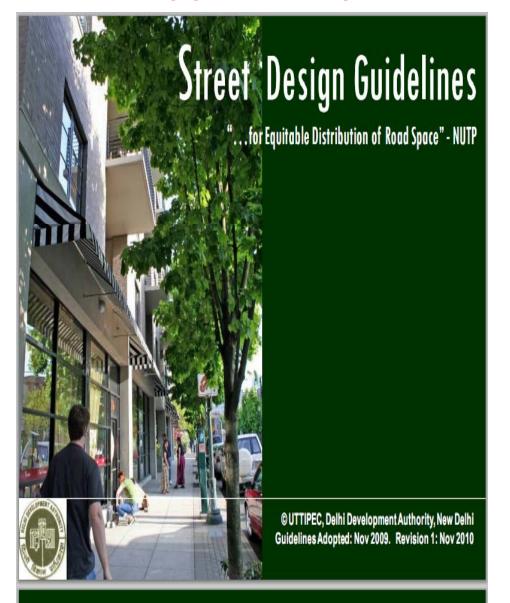




Good news*

* difficult to spot

Delhi: Opportunity to transform streets





Excerpts:

Initiate road design schemes for unwatched streets... to make safe urban areas

Get rid of walls and setbacks. Add street edge uses -- for road safety at night,

Add planned hawker zones.

Introduce planned mixed-use housing ...along road edges of major vulnerable roads.

Remove gates on public streets from gated colonies from vulnerable areas.

Bhubaneswar: starts thinking about pedestrians





- 14 km of continuous cycle and walk track -- from Nandan Kannan road to wards Rajpath road
- Cycle tracks along with footpath have uniform width of 2-3 meters.









Street vending zone included in street design There are on street 52 vending zones in the city.

Chennai: Starts reclaiming space for walking



Chennai corporation has selected 448 bus route roads to improve walk access

Begun work on footpaths of 71 bus routes, approximately 53 kms.

In most part of Chennai 52 per cent of the total footpath network has width less than 1.5 meters.

In the new project the minimum width is varied between 2 and 2.5 meter. Thus, reducing the width of the motor carriage way.









Source: Pradeep Sachdeva

Puducherry: walk not drive



Goubert Avenue or the Beach Road: vehicle free from 6-8 am in the morning at 6-9 pm in the evenings.

On weekends road is vehicle free for the whole day.



Chandigarh: The car manic city making space for cycle rickshaws



- Eco-cab was launched in Chandigarh on June 25, 2013 with support from Municipal Corporation and Chandigarh administration.
- Municipal Corporation has designated 169 rickshaw stands in Chandigarh and request for additional 50 is being processed.





Image Source: Chandigarh ecocabs





Fazilka Ecocab initiative by Graduates Welfare Association

– dial a rickshaw scheme – organises non motorised transport

Till date the service has been launched in 20 districts of Punjab



Eco cab service launched in Chandigarh



Dedicated rickshaw stand, Fazilka
Image Source: Fazilka ecocabs

Guwahati: Rickshaw Bank



- Innovative financing model called Rickshaw Bank -- Deep Bahan finds state support
- Advertisement space behind the rickshaw is sold to local businesses and corporate houses. This helps reduce risk of delayed payment.
- After the loan is repaid, 65 per cent of the revenue goes to the rickshaw puller and 35 per cent to the bank. More than 3,000 pullers in Guwahati own Deep Bahan rickshaws today.
- This initiative had started as a community action by the progressive individuals. The state government is now providing 25 per cent subsidy on rickshaws.



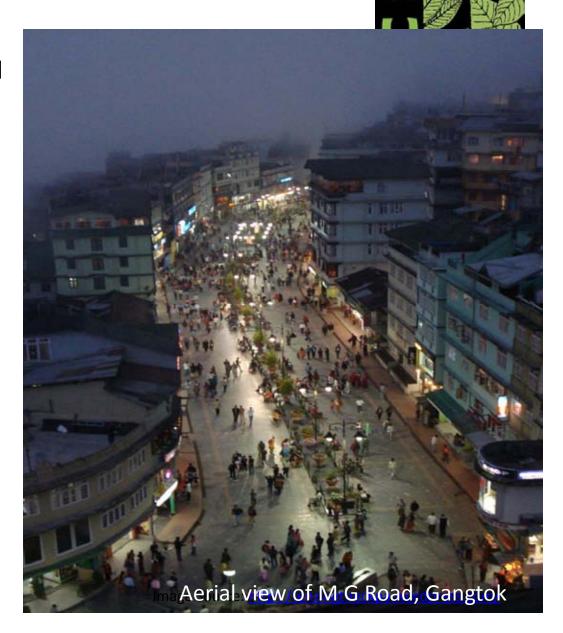
Gangtok: leads

Sikkim Government pedestrianized the MG road, the central artery and a commercial centre

A large number of tourists and locals walk through Nam Nang road towards Deorali for the picturesque view of the hills and valleys.

The Government is developing a walk-way with view points, restaurant and cafeteria, toilet facility, street furniture, solar lighting and other activities.

Leveraging eco tourism



Shimla: passes law

U N

The Mall and the historic Ridge, notified as the auto-free zones.

The Shimla Road Users and Pedestrians (Public Safety and Convenience) Act, 2007 (SRUPA):made provision for special permit/pass for vehicles only those whose work place or the residence is situated on the restricted road

In January 2012 the Himachal High court recognized Shimla as a pedestrian city, and even brought the army vehicles under the purview of SRUPA



View of Mall Road, Shimla

Image Source: http://delhitoshimla.net

Nainital: introduces cycle rickshaw scheme



About 1.5 km stretch has been restricted for vehicular movement. This has an organized pre-paid rickshaw service. Infrastructure including rickshaw stands, signs put up.



Rickshaw stand for pre paid rickshaw, Mall road, Nainital

Source: CSE

Dehradun: has always done it. Change now?



Paltan Bazar the commercial hub in Dehradun: Four-wheelers and three-wheelers banned from 10 am to 9 pm.

Even shop keepers are not be allowed to bring their vehicles inside the Bazaar. After public protest two wheelers allowed



Matheran: India's only no vehicle town







Maharashtra protects its non-motorised legacy

Town of 5000 does not allow any vehicle to come inside.

No resident is allowed to own any vehicle.

Train and horses are the only access

Colombo: does it naturally





Source: CSE

Colombo: Ahead of others in the region: will it change as it grows?





Dhaka: the begining



Kochi: waterways green options for future



Kochi: 10 operational ferry terminals

Ministry of Urban Development has issued a special order recognizing Kochi waterways as project under JNNURM. Efficient and cheaper: ferry ride from Fort Cochin to Ernakulam takes 15 minutes; bus ride takes around 1 hr.



Image Source: The HINDU

Kolkata: waterways option

Vibrant water ways connect – Howrah Station-Fairlie Place and Howrah Station-shipping carry between 20,000-25,000 people daily.

Six more popular routes have a combined ridership of 70,000-75,000 people every day.

Ferry linked with rail, Metro, and tram Ferry trips have increased from 0.8 lakh per day in 1980 to 2.5 lakh per day by 2009.



Srinagar: water taxi

J&K Government starts water taxis in Jhelum River from April 15, 2012

The first water taxi flagged off from Peerzoo to Chattabal Veer providing an alternate route to locals.

Twelve sites identified for terminals. But still expensive







Our right to walk is nonnegotiable