

PLANNING FOR SUSTAINABLE PEDESTRIAN INFRASTRUCTURE

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India's Road Network

- **5 million kms:** Total road length
- **2.6 mn kms:** Surfaced road length
- 100,087 kms: National Highways (NH)
- 1300 kms: Expressways
- 148, 256kms: State Highways (SH)
- 467,763 kms: Major District Roads (DR)

- **80%:** **Passenger** traffic carried by Roads
- **65%:** **Freight** traffic by roads
- **4.5%:** Share of road transport sector in India's GDP

Out of 5 mn km length across India, less than **0.1%** are built keeping in mind pedestrian safety and convenience or to promote walking

Motor Vehicles

- Indian automobile industry produced a total of **23,960,409** vehicles including **18.82 mn two-wheelers (80%)** and **3.41 mn passenger vehicles (14%)** in Financial Year 2015-16 registering around 8% annual growth. **20 mn** vehicles were sold with in India while **3.6 mn** were exported.

How people **commute** to **work** in India

Walk:	22.6%
Bicycle:	13.1%
Two-Wheeler:	12.7%
Bus:	11.4%
Train:	3.5%
Auto Rickshaw/Taxi:	3%
Car:	2.7%
Other modes:	1%
No Travel:	30%

47.1% people *walk, cycle and take bus* to work and more than **90%** people travel to work use *NMT* and some form of *public transport* or *intermediate public transport* in India.

Source: Census 2011

Walking

- Best and most sustainable way of commuting within the city, specially for short distance
- Good for health and fitness
- Good for environment
- Time saving and economical
- Connects people, brings happiness, strengthens social fabric, and makes us feel we are humans and social
- Helps businesses, shops, tourism etc

Walking & Pedestrian **concerns** today

- **Unsafe** to walk and difficult to cross a road or intersection.
- Shrinking pedestrians infrastructure and deteriorating quality makes walking **inconvenient**.
- **Waiting time** at traffic signals is high.
- More **road space** being taken over for and by motor vehicles
- Pedestrians treated as **nuisance** and **undesirable** sometimes.
- Worrying **mindset** that shows pedestrians and walking poorly as compared to driving a vehicle.
- In spite of majority of pedestrians and non-motorised being majority in their modal share, they are getting **marginalised**.



Issues & Challenges before policy makers and planners

- Lack of pedestrian **infrastructure and facilities** in cities and along high speed roads.
- **Design, Quality & Conditions** of available footpaths/ sidewalks.
- **Safety** and **security** concerns specially for women , children and elderly.
- **Poor planning & no integration** of informal sector/ services along pedestrian walkways often resulting in people using available space in haphazard manner causing inconvenience to pedestrians.
- Majority of Government's road infrastructure **priorities & investments** and investments benefiting mostly motor vehicle users.



Issues & Challenges before policy makers and planners..

- Hostile and intimidating behaviour of motor vehicle drivers towards pedestrians.
- Lack of enforcement and action against motor vehicle users using or parking on footpaths and people encroaching the space.
- Pedestrian forced to walk on mixed traffic roads and risking their lives to cross the road or traffic junction.
- Poor information, signage and no assistance available from traffic police to help pedestrians cross on fast moving and heavy traffic **intersections**.

Biggest concern today is safety due to alarming level of road deaths and injuries

- India registers highest number of road injuries and deaths every year with over **10%** of the total **1.25 million Global road fatalities** annually according to **WHO**.
- Over **3400** people **die** on world's roads everyday and millions of people are injured or disabled every year.
- **50%** of all people dying on road are **pedestrians**, cyclists, and two wheeler riders.

Road traffic crashes, deaths & Injuries in India (2015)

- Road traffic crashes (Accidents): **501,423**
- Road fatalities in India: **146,133** (142,256 in 2014)
- Road injuries : **500,279**
- **Everyday** around **400** people **die** on Indian roads and **1370** are **injured**.
- National Highways witnessed **51,204** deaths and State Highways **40,863**.

Source: Annual accident reports of Ministry of Road Transport & Highways (MoRTH) and National Crime Records Bureau (NCRB)

Category wise Road Crash **deaths Victims**

Two Wheeler riders:	36,803 (25.2%)
Trucks /Tempo s :	37,458 (25.6%)
Cars & Jeeps:	28,610 (19.6%)
Buses:	12,133 (8.3%)
Auto-Rickshaws:	6,155 (4.2%)
Pedestrians, Cyclists & NMT:	8807 (6%)
Other Motor vehicles:	16,167 (11.1%)

Majority of road deaths victims are in the **15-34 years** age group at 79,076 (**54.1%**)

Road Crash deaths in India

VEHICLE WISE ROAD DEATHS (VICTIMS)	YEAR	%	YEAR	%	YEAR	%
	2011	2011%	2012	2012 %	2013	2013 %
Truck/ Lorry	26,601	19.4	26,678	19.2	24,081	17.5
Bus	12,501	9.1	13,076	9.4	12,055	8.8
Tempo/ Vans	8,540	6.2	7,885	5.7	8,138	5.9
Jeep	9,465	6.9	9,273	6.7	8,596	6.3
Car	13,380	9.8	14,110	10.1	14,803	10.8
Three-Wheeler	6,792	5	6,737	4.8	6,492	4.7
Two-Wheeler	30,624	22.4	32,318	23.2	34,187	24.9
Bicycle	3,134	2.3	3,069	2.2	2,587	1.9
Pedestrians	12,400	9.1	11,571	8.3	12,385	9
Others	13,397	9.8	14,374	10.3	14,099	10.3
TOTAL	136,834		139,091		137,423	

Source: National Crime Record Bureau (NCRB),
Union Ministry Majority of Home Affairs

Can cities improve their
pedestrian and walking
infrastructure and conditions?

Delhi



Mumbai



Ahmedabad



Transformation happening



Ghaziabad

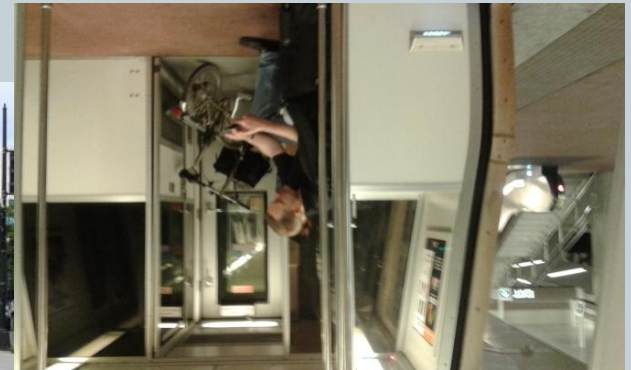


Bangalore





Geneva



Washington DC

Some Schemes opportunities to Pedestrian and NMT projects in Indian cities

SMART CITY MISSION

- Launched by PM in June 2015, proposed a total investment of over **Rs.48,000 cr** over the next four years to develop 100 Smart Cities.
- Central Government will provide an assistance of Rs.500 cr for each selected city while the respective States and urban local bodies will provide an equal amount.
- Rest of required resources to be mobilized through convergence of all schemes of central and state governments, PPP, Municipal Bonds and borrowings from financial institutions.

Some Schemes opportunities to Pedestrian and NMT projects in Indian cities..

AMRUT

- Launched in June 2015, under Atal Mission for Rejuvenation and Urban Transformation (AMRUT), committed total central assistance of **Rs.50,000 cr** for the **five year mission period**.
- Funds allocated to States/UTs based on urban population and number of statutory Urban Local Bodies.
- Total investment approved in basic infrastructure in urban areas in **500** mission cities stands at **Rs.44,401 cr** with total central assistance commitment of **Rs.20,634 cr**.

Some Schemes opportunities to Pedestrian and NMT projects in Indian cities...

GREEN TRANSPORT SCHEME

- To be launched soon, Green Urban Transport Scheme seeks to encourage growth of urban transport along low Carbon path.
- Aims at substantial and measurable reduction in pollution.
- Will provide a sustainable framework for funding urban mobility projects at National, State and City level.
- Will encouraging innovative financing of projects.
- Being considered for implementation in **cities** with population of **five lakhs** and above and all **capital** cities.
- Central assistance of about **Rs.25,000 cr** is estimated to be required over the next five years which is likely to trigger private investments to meet the resource needs.

Areas to be covered under Green Urban Transport Scheme:

- Non-motorised transport infrastructure
- Increasing access to public transport
- Use of clean technologies
- Adoption of intelligent transport systems (ITS)
- Private sector participation in urban transport projects will be increased

Constitution of India

Article 14: Equality before law

- The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth.

Article 21: Protection of life & personal liberty

- No person shall be deprived of his life or personal liberty except according to procedure established by law

National Urban Transport Policy (NUTP)

“... Central Government would encourage measures that allocate **road space** on a more **equitable** basis, with people as its focus. This can be achieved by **reserving lanes** and corridors exclusively for **public transport** and **non-motorized modes** of travel. ...the **safety** concerns of **cyclists** and **pedestrians** have to be addressed by encouraging the construction of **segregated rights of way** for bicycles and **pedestrians.**”

“The test of our progress is not whether we add more to the abundance of those who have much, It is whether we **provide enough** for those who **have too little.**”

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- Franklin Roosevelt, 32nd President of United State of America (1933-1945)

Thank you

Questions, comments, suggestions

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