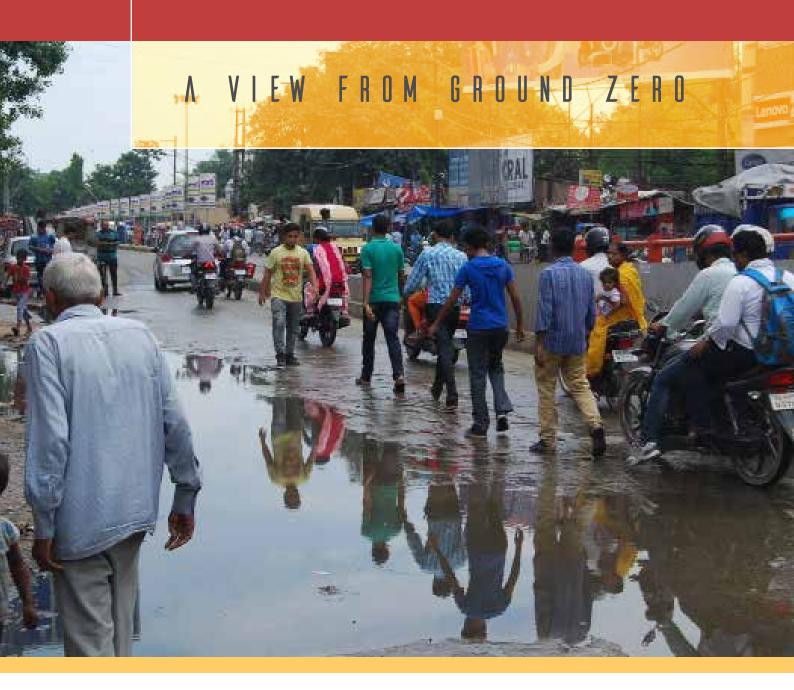
# SUSTAINABLE BEGINNINGS



### **SUM Net India**

Sustainable Urban Mobility Network

February 2017

#### **Sustainable Beginnings**

A view from ground zero

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Shakti Sustainable Energy Foundation works to strengthen the energy security of India by aiding the design and implementation of policies that support renewable energy, energy efficiency and the adoption of sustainable transport solutions.

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# S U S T A I N A B L E B E G I N N I N G S

A VIEW FROM GROUND ZERO



Sustainable Urban Mobility Network

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# INTRODUCTION

These small studies done in some odd six cities reflect the real situation of the urban transport scenario in our country better than any other plan, mission or policy. In most of the cities, these projects were the first ones to be carried out dealing with urban transport and involving people as important stakeholders of the process.

Based on the specific outcomes of these studies, some broad level policy inputs can be extracted as follows;

- 1. The existence of a National Urban Transport Policy, doesn't seem to have much impact on ground even after a decade of its creation. Be it walkability or the infrastructure for cycling and public transport, not much from the NUTP has trickled down to the cities. Even after a decade, awareness among stakeholders such as officials, media and institutions remains near about absent. The basic tenets of sustainable transport endorsed by the NUTP namely good public transport and facilities for non-motorised transport are compromised in varying levels in all our cities.
  - The only way move ahead of this situation is for states to come up with their own state urban transport policies which can then be used to formulate enforceable rules. While the presence of the document is a welcome event in the absence of nothing before, the time has come to elevate the expectations from the policy towards the next step.
- These studies involved a component of public engagement in the form of public discussions, surveys, release events which is lacking from the realm of decision making in urban transport in cities. This presents an opportunity to demand robust public engagement through various methods and of the varied kind of stakeholders while deciding on the city's urban transport.
  - The revision of the NUTP, which was abandoned mid process also lacked a robust public consultation process. SUM Net, at that time had conducted public consultations in about eight cities and compiled the inputs to the draft policy.
- 3. On the lines of public engagement, is the more broader issue of public awareness. While often it is the civil society organisations that are in the forefront when it comes to raising awareness about transportation issues, the government should be proactively thinking and executing awareness campaigns. Civil society can be effectively engaged to do the same, but the task needs to be supported and initiated by the authorities. The school campaign done in Indore is an example of the kind of exercise which can be taken up at a large scale by the government.



Around until four decades back, Indore like Pune and Nagpur was known as a cycling city. But much has changed over the years. Even as the number of cyclists remains high today, their journey has become unsafe and inconvenient. At present the city has more than 10 lakh cycles, with about 200 cycle shops selling new cycles every day. In that aspect, Indore is still at number one in the country, with around 2000 cycle rental and repairing shops in the city. All these statistics indicate the presence of a considerable number of cyclists in the city even today.

With a population of 30 lakhs, the city is being burdened by more than 20 lakh vehicles on its streets. This unchecked vehicular growth is the result of lack of good public transport and neglect of pedestrians and facilities for non-motorised transport.

This school awareness project is based on years of prior work in developing an understanding of roads as a democratic public space, as opposed to merely being a corridor for fast moving vehicles. The school sessions were focused on developing this understanding through the point of view of a cyclist, as many students still cycle to school or at least wish to do so.

# Overview of the project:

Four schools, including one for children with hearing and speaking disabilities were chosen for conducting awareness sessions on the importance of cycling in developing sustainable transportation for the city. Each school was engaged for two days, one day for creating an atmosphere for the main session by conducting a cycling related survey and the main session, some days later. A poster series related to cycling was created for displaying at each school on the day of the main session

#### Outcomes:

The main take away of this project is largely qualitative in nature. The interactions with students were rich and generated ideas well above the level one would expect from children their age. The survey done with the students and their parents revealed reasons why they cycle or don't and the issues they face.

#### The survey results brought out the following observations:

- 1. Children living within a distance of 2 kms from the school preferred cycling to school.
- 2. Parents allowed their children to cycle to school depending on whether the route was considered safe in terms of speed of other vehicles and general traffic volume.
- 3. Big junctions on the route to the school deterred parents from allowing their children to cycle. Any place where children had to navigate through large vehicular volumes were considered unsafe.
- 4. Students who did not cycle, expressed their wish to do so, but heavy traffic discouraged them.
- 5. Some children who did not cycle to school at present, said they would start cycling when they get a little older. This showed that cycling was seen as desirable among school children. This desirability quotient, if maintained as they grow older can perhaps reduce the shift from cycles to motorised two wheelers once they pass out from school.

#### Opinions of school children, teachers and quests regarding cycling:

The discussions in schools highlighted the various benefits of cycling, all coming from the students themselves. After sharing international good practices in cycling such as in Netherlands, and imparting information about campaigns such as 'Reclaim the Streets Campaign', students themselves started vocalizing the need for cyclists to be respected and provided for in our cities. Students also said that just as a railway track is meant exclusively for trains, cycle lanes/ tracks should be provided for safe and convenient cycling.

Students said they enjoyed cycling in the city and adapted to the streets. When the streets are congested they cycle in groups for safety, when there is less traffic they enjoy cycling and the fresh air. They go short distances with their friends to eateries and parks. Cycling is thus an indivisible part of their lives. Some of the issues they face are the design of speed breakers, potholes and uneven surface of roads, speeding / overtaking vehicles, speeding at junctions and pollution.

"Cycle tracks are encroached upon by parked vehicles, making it difficult to cycle on them. It is important that cyclists should not be looked down upon and should be respected as a significant mode of transportation in the city."

- Shweta Chaturvedi, 12th Standard, Chhatrapati Shivaji Public School

"Streets should have exclusive cycle lanes. To give the bicycle its due respect, it should be granted the status of the national vehicle. Free cycles should be provided to the economically weak. In the core city centre, only pedestrians and cyclists should be allowed, along with schemes to hire bicycles at a nominal cost in the city."

- Pravin Shukla, 9th Standard, Anna Convent School

"People should start cycling on the streets instead of going to the gym."

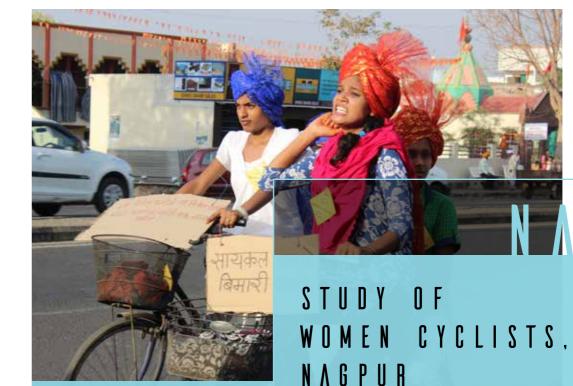
- Ayush Jarwal, 12th Standard, Anna Convent School

"The bicycle should be declared as the national vehicle, and cyclists should be respected for what they do. I want to develop a technology where cyclists can generate energy through their pedalling, which will be a clean and green source of energy."

Though the scale of the project was limited, it still had the media talking and was given a good coverage.

- Prafulla Joshi, 11th Std, Maharaja Yashwantrao School





Nagpur is the third largest city in Maharashtra. Unlike most other cities, however, the population growth rate in Nagpur has shown a decline over the past few decades. Even so, vehicular population has steadily increased over the years. The public transport system in the city has been marred with several controversies, leaving citizens in the lurch when it comes to affordable and convenient mobility. Facilities for pedestrians and cyclists are non-existent. The Comprehensive Mobility Plan of Nagpur targets 100% cycle track network and accessibility, where none exist today. The total share of non-motorised trips today is 25%, and the city expresses the intent to double it to 50% in the plan period. While all this is being committed to on paper, situation on the streets remains grim.

This study introduces one to the issues of cyclists in the city – a topic which needs to be thoroughly studied if any of the above targets are to be met.

# Overview of the project:

The project focused on documenting and understanding the issues and experiences of women cyclists in Nagpur, specifically women working as domestic help in the city. This builds on the prior work of the SUM Net partner, who has been working for the betterment of women domestic workers in the city for several years now. The project involved detailed documentation of the lives of nine women cyclists with the bicycle as a central theme to their everyday life, a survey of 30 women cyclists to understand their issues while cycling and a wider agenda of bringing about awareness of benefits of cycling and their rights as a cyclist in the city. Towards this last aim, the SUM Net member has established a cycling club of these women and had also organised their cycle rally to give exposure to the issue of cyclists' rights in the city.

#### Outcomes:

To get an idea of the detailed documentation of women cyclists, one of the case studies has been translated from the set on nine. These stories are important as they help put a human face to the many statistics regarding cycling that are found, in this case the face of a woman, to whom a bicycle is much more than a mere mode of transport. Such compilations, if used appropriately can become tools for advocacy, as they are citizen's voices which are otherwise not heard.

#### Chanda Pramod Ambhore, 37 years old (A Case Study)

The bicycle is an inseparable part of Chanda's life. Chanda's parents came to Nagpur to find work from a small village called Mokhad in Amravati district. She grew up with four sisters and a father who was angry at his fate for having all girls. After completing her matriculation, she was married to Pramod Ambhore at 19 years of age. Hard work has been part of her life. Right after marriage she worked tirelessly to extract water from hand pumps for local indigenous liquor stores. She had a daughter after three years of marriage and has been working ever since she was 8 months old as a domestic help – cleaning and cooking in the nearby households. Thanks to her bicycle she manages to work at 8 different households, spread over 10 kms from her own home. Without the



Students said they enjoyed

to the streets

cycling in the city and adapted

cycle, she would hardly be able to cover 2 jobs, as alternative transportation options such as the bus and rickshaw are unaffordable.

Cycling for so many years, she has also encountered some unpleasant experiences. Her bicycle was once stolen, and she now uses a second hand bicycle. She was also hit by a speeding car once, only to be yelled at by the car driver. She got up took her bicycle aside, and shouted back at the car which didn't even stop to see if she was injured. She says traffic increases after 10 am, and it becomes increasingly difficult to cycle on wide roads with speeding vehicles.

Today, she earns around eight thousand rupees per month, out of which she saves more than half by investing in a small saving group organised by the women in the locality. All she spends on her bicycle is twenty rupees each month to fill air in the tyres and a yearly expense of five hundred rupees to change the tire tubes. Just this much and her cycle is as good as brand new she says with a smile. She thinks her bicycle is evergreen – how ever many years go by, just with a little bit of effort it looks and moves like a young lady – swift and energetic. Her bicycle is her mode for all sorts of chores – getting groceries, picking up her daughter to and from school when she was younger, moving around in the city. Her daughter is now fourteen years old and she too has her own cycle. Chanda gushes that even as a family, wherever they go, their cycles are with them – each of them on their own cycles and no destination is too far.

The main reason why these women cycled to work was because it saved time and allowed them to either take up more work, or to manage both - the household and work front conveniently



A women's cycle rally was conducted by SUM Net member Vilas Bhongade in Nagpur, as the first public event by the recently formed women's cycling club



#### Survey results:

The survey, though limited in its sample size, covers a range of questions such as incomes, age, family ownership of vehicles, problems faced while cycling and so on.

#### Some important observations from the survey results:

- 1. 80% of the surveyed women earned not more than Rs 6000 a month and made multiple short trips in a day.
- 2. The main reason why these women cycled to work was because it saved time and allowed them to either take up more work, or to manage both the household and work front conveniently. The second most important reason was the affordability compared to any other mode of transport.
- 3. More than 50% of the women agreed that cycling is one of the major reasons why they are healthy. While saying so, women also indicated that healthwise, cycling also makes them more vulnerable to pollution and pain in the legs.
- 4. Increasing traffic was seen to be their main concern. Presence of traffic police at junctions does not help them cross safely. Also, motorists' attitude towards cyclists was inconsiderate and critical.
- 5. In terms of improvements, 80% of the women felt the city should have dedicated cycle tracks for safe cycling. They also felt that women from lower socio-economic groups should be given free cycles and encouraged to ride them.
- 6. None of these women had any knowledge of the National Urban Transport Policy and what it says about cycling as a mode of transport

### Women's cycling club and cycle rally:

The women's cycling club has been initiated with the aim of making Nagpur a safe cycling city for women through periodic meetings and discussions on the various issues that women face today. The larger aim of the cycling club is two fold – to create awareness about the role of cycling in the city's transport among the women themselves and to impact policy making through advocacy for cycle tracks and drafting cycling policy.

A women's cycle rally was conducted by SUM Net member Vilas Bhongade in Nagpur, as the first public event by the recently formed women's cycling club. The cycle rally made three demands namely – exclusive cycle tracks in the city, a helpline for cyclists in times of distress and free bicycles for women from lower socio-economic group. Around 70 women set out in the heat of Nagpur at 5 pm on 26 th April 2016. The cycle rally culminated at Dr Babasaheb Ambedkar Sanskrutik Bhavan, Uruvela Colony. A short programme was held at this venue, where Rajendra Ravi from SUM Net spoke about the role of cycling in our cities along with organisers Vilas and Sujata Bhongade encouraging women to share their experiences while cycling. The women were felicitated with certificates for their enthusiastic participation.



Shimla, famous as the summer capital during British occupation of India developed a very unique mobility system much before independence. Large areas of Shimla were car free then, with limited access to cars by higher government officials only. Most people walked or used hand pulled rickshaws then. This unique pedestrianisation experience has been instrumental in preserving the charm of Shimla as a hill station even today. However, over the years the car free zone in Shimla has reduced substantially and too many exceptions are being made.

During British regime Shimla was inhabited by around 30,000 citizens. Post independence, people from other places, especially from plains and villages started moving towards the urban areas in quest of employment and trade. Now after about seven decades of independence, population of Shimla has touched the mark of two lakh, besides the daily floating population of twenty to thirty thousand. The number of vehicles on roads has increased dramatically choking the streets in the city, which were never made for cars in the first place.

## Overview of the project:

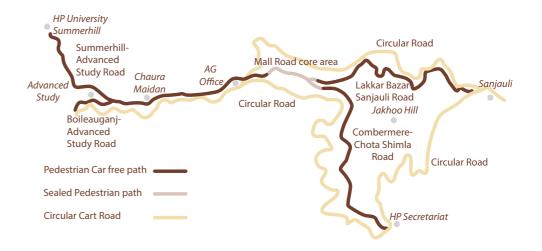
While we have to often cite examples of foreign cities going the sustainable way, we forget that many of these practices may in fact be home grown and will definitely be better examples for other Indian cities than their foreign counterparts. In this sense, there could be no better city to study for the implementation of 'car free streets' than Shimla, which can boast of a car free zone since pre-independence times.

This project focuses on the documentation of Shimla's car free area, public opinion about it and possibilities to make it a best practice in terms of car free areas. It involves a historical documentation of the car free area and its shrinkage over the years to the current stretch. Surveys were designed to understand people's opinion on the status of car free areas in the city.

#### Outcomes:

The detailed document produced as part of this study explores how pedestrian culture existed and evolved in the city of Shimla, in North Western Himalayas of India since British regime. Shimla, a popular hill destination, has had a long tradition of walking since colonial times and has a unique pedestrian only-shopping-street, known as the Mall Road, which is also a prime attraction that provides a quintessential experience to visitors. Tourists are generally curious of their pedestrian experience on the Mall. However, some features of this pedestrian street can still be further enhanced.

Shimla Municipal Corporation, which was constituted in 1851, came out with Bye-Laws for the Regulation and Prohibition of Traffic in the town. It stated that no person shall use any wheeled vehicle in any public road or street within the Municipal limits. Wheeled vehicles were defined as wheeled conveyances of every description driven, drawn or carried by animals or men or propelled by mechanical power. The following map shows the extent of the car free area in British times.



It is clear that the car free area has shrunk drastically, but hope still remains with the most popular Mall Road being maintained and enjoyed by both residents and pedestrians as a car free area.

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#### Survey results:

The survey conducted revealed that those who favour car free zone want public transport system strengthened so that commuters are motivated to opt for public transport rather than their own vehicles while travelling across the town. People also felt that the walkways should be properly and beautifully maintained with a view to motivate people to walk for their health. People favour protection of pedestrian rights. While supporting revival of old system of transportation people felt the need for some modifications in the present day situations and supported eco-friendly transport to the senior citizens, the needy and the physically impaired people. They felt movement of vehicles on the heritage walkways should be stopped completely barring emergency services. They also felt that registration of more than one vehicle by any individual should be discouraged. Pedestrian supporters wanted the local municipality to collect garbage in early hours to make people undertake walk in an healthy environment.

As a mode of transport people favour cycles running on separate roads and lanes around the town. Government offices located in the town need to be moved out and ample parking facilities made available in the outer circles of the town. Adequate number of public parks need to be developed in and around town. People favour reintroduction of heritage rickshaws which would not only facilitate locals but also add to tourist attraction on heritage roads. One day in a week needs to be car free when every one, poorest to richest, lowest to highest government servant and politicians should walk to work. Even on circular road small vehicles and two-wheelers should be encouraged in order to avoid traffic jams. People also want to fix a limit on visiting tourists at one time and respect local culture to be respected. Traffic movement on circular roads needs to be regulated in such a manner which does not interfere with pedestrians' freedom. All polluting activities should be stopped forthwith and a healthy environment maintained for the betterment of the

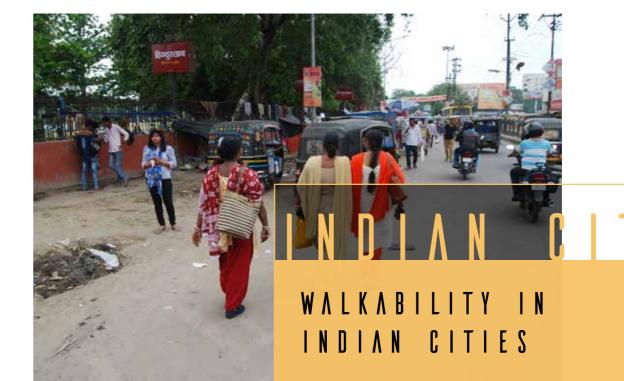
There is dire necessity of formulating a plan which aims at making Shimla a heritage town in real sense, where no vehicle zones are created, better infrastructural facilities offered on identified walkways around the town. Motivational slogans written to make people undertake journeys on foot could add to achieve the objective. Reverting back to the old tradition of plying of rickshaws on selected heritage routes could be one of the modes of reliable transportation to carry men and material, even into the streets which are too narrow to accommodate the ambulances etc. If not the entire stretch between Summer Hill and Boileauganj to Chhota Shimla and Sanjauli, core area of the main town should be protected where only men pulled rickshaws are driven and that too only in emergencies. Such an endeavour would go a long way in the preservation of the rich cultural heritage of the town and make Shimla a health resort in real sense.

Since the world is moving to create more and more no car zones, Shimla, which had its centuries old tradition of car free zone needs to revert to sustainable practices. If we look at the practicality of the plan at least eco-friendly mode of transport should be introduced in the town in place of motorized vehicles plying currently. Travelling on cycle is not only eco-friendly but will also be more healthy.

A report release and discussion event was held in Shimla to bring greater exposure to the report. This was covered by the local media and has created a base for future work such as documentation of Shimla as a best practice in car free areas and strengthening of the same through the suggestions made by people during the process of this project.







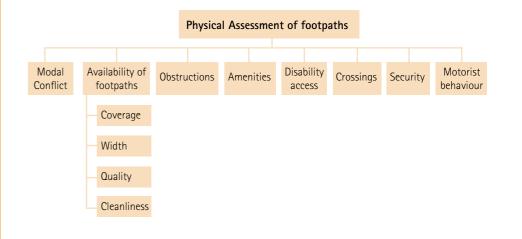
Three SUM Net members chose to work with the concept of walkability in their cities this year.

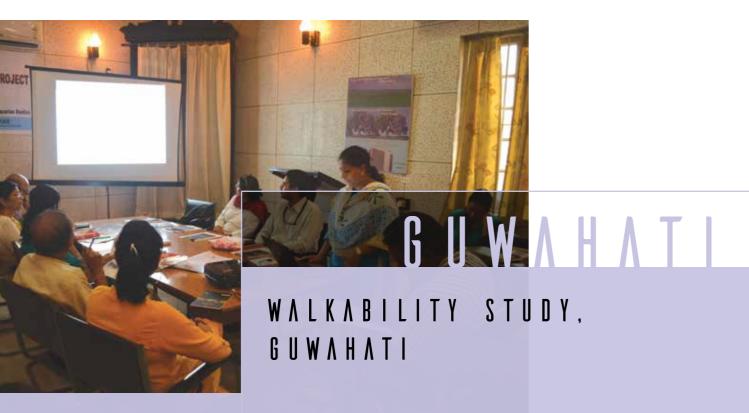
The nature of studies conducted in each of these three cities is slightly different, depending on the nature of the city itself. This reflects on SUM Net's agenda of understanding transportation as a people centric phenomenon, where one size does not fit all.



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The physical assessment tool used by the three cities included the following parameters;





Guwahati is the largest city of
Assam situated on the South bank
of the Brahmaputra river. It is a
major riverine port city and one of
the fastest growing cities of India.
Selected among the first 20 cities in
the first phase of the Smart Cities
Mission, the city has developed
a plan for implementation. The
roadmap for the Smart Cities
Mission in Guwahati would have
to encounter issues like flooding,
urban sprawls, encroachment and
road development.

The modal composition of the city includes buses, cycle rickshaws, cycles, water transport and pedestrians.



Due to presence of dustbins,

blocked nallahs, the pedestrians

have to suffer the inconvenience

of walking through bad odour.

- Direction signboards are not present in many critical places.
- Disability infrastructure does not exist in any of the areas. There is need to construct foot paths with facilities for disabled people and children.
- Smooth surface of the foot path is one of the major demands that came out from the pedestrians responses. Uneven surfaces often force the pedestrian up and down the footpath, the result being that many pedestrians then prefer to walk on the road itself, making the footpath dysfunctional.

#### Important observation from the survey:

- 1. Pedestrians felt disturbed by too much **honking** and 60% of pedestrians felt **vehicles speed was 'too fast'.**
- 2. **Security from Crime:** Eve teasing and thefts were reported by pedestrians. 75% of pedestrians felt traffic police were inactive at night and 90% felt the streets were not well lit.

# Overview of the project:

The walkability study in Guwahati was a pilot study done on two streets of the city, adding up to a 4 km stretch. A walkability assessment tool was developed based on various sources and customised to the local criteria. The tool consisted of a physical audit, along with 50 user interviews to supplement factual assessment.

#### **Outcomes:**

The findings of the study are as follows:

- There is a need to strongly monitor the encroachment of walking paths/foot paths by vehicles (parked or mobile). The practice needs to be discouraged by levying penalty on the transgressors. Both temporary and permanent obstructions take up a lot of walking space in both the roads.
- The biggest problem for walkability was the non-availability of foot path. Steps need to be taken by the concerned departments to construct footpaths/ walking paths on all roads.
- All the footpaths measured during the audit showed that they fall below the standard prescribed in the IRC guidelines. Plans to increase footpath width can be made.
- In many places, footpath tiles were seen to be broken or missing. This poses a safety threat to pedestrians. The repair and maintenance of the paths should be taken up on priority.
- There is a need for amenities like benches. But at the same time, increase in amenities
  may decrease the walking path. This conflict is unnecessary and and can be solved by
  looking at the street as a shared space and assigning it to all users through drafting of
  street design guidelines. In many places, due to presence of dustbins, blocked nallahs,
  etc. the pedestrians have to suffer the inconvenience of walking through bad odour.
  Proper maintenance can help solve this issue.

The biggest problem for walkability was the unavailability of footpath.





#### Stakeholder discussion:

A discussion was held after the study to get inputs from stakeholders such as academicians, corporation officials and other civil society organizations. There was a general consensus that there is a need to conduct such a study on a city wide scale. With the rise of motorized vehicles in the city over the last several years, Guwahati was spoken of as fast losing its chance for sustainable development. Being one of the cities chosen under the Smart Cities Mission, need was felt to be more aware of what was being planned under the urban mobility component of the same. As per the document of Smart Cities Mission, the core elements of a smart city includes efficient urban mobility and public transport. One of the important criteria for selection in the list of smart cities was the existence of pedestrian friendly pathways, but in reality this was sorely missing.

Media coverage clippings

# Study on walkability conducted

STAFF REPORTER

GUWAHATI, Aug 9: Absence of a footpath in most parts of the Rajgarh Road is a significant observation of a pilot study of walkability that was conducted by the CEE North East. The study covered two roads of Guwahati – about 2-km stretch each of the Rajgarh Road and MRD Road.

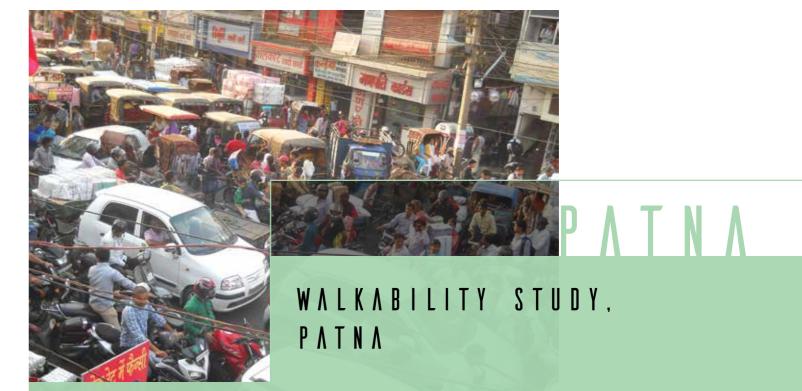
According to CEE, walkability is a measure of how friendly an area is to walking. This study was conducted in association with Sustainability Urban Mobility to be carried out in entire Network (SUM Net) India

Energy Foundation (SSEF). Technical support for the study was given by Dr andan Saikia, Associate Professor of the Tata Institute of Social Sciences, Guwahati Campus.

The study has come out with a set of recommendations which will be forwarded to relevant departments for their information. CEE NE's regional coordinator Dr Simanta Kalita said that this is probably the first study on walkability that has been conducted in Guwahati. He said that similar studies need Guwahati for making the city pedestrian-friendly.

# THE TIMES OF INDIA Arterial roads fail 'walkability' test GUWAHATE The city is among 20 across the country that have been chosen for the first leg of the Centre's Smart City scheme but Gowahati's owly published report on the 'warkability' of Manuram Dewan (MRD) oad and Rajgarh Road has revealed that the two arternal roads do not veet the standards laid down by the Indian Road Congress which is the ex body of highway engineers in the country. oads fare poorly as far as feasibility of walking, infrastructure and report — 'A Winliability Study of Two Major Roads of Gowellati' — was prepared by the Centre for Environment Education, a tional institution with a mandate to promoting environment awareness, Sostainable Urban Mobility Network India and Half of the respondents who took part in the survey said the roads were unclean and hard to walk on. All the participants of the avey use the road daily. Another 75% said policing was very poor on Raigarti Road at night while 40% complained about non-

MRD Road, on the other hand, has street lights every 40 to 50 meters but most (around 40%) are kept switched off or are not



Patna is an ancient town situated on the banks of the Ganga and is the capital of Bihar. It has developed into a city like many others, where the city develops organically and schemes and plans are made ad hoc in an attempt to contain the urbanization. The situation of urban transport is not very different main mode of public transport is shared auto rickshaws, followed by private buses and some public transport buses. Private vehicles include cars and two wheelers and a considerable number of people cycle. A large population walks, but the pedestrian continues to remain invisible with little planning or thought for his convenience or

# Overview of the project:

A pilot study was done on a 2.3 kilometre stretch in Patna to understand the state of pedestrians in the capital city. The study consisted of a physical assessment along with 70 user interviews and 24 detailed stakeholder interviews.

#### Outcomes:

The study largely reveals the pathetic condition of pedestrians negotiating their way through many hurdles such as pollution, motorists' unapologetic behavior, lack of footpaths, unhygienic road edges left for pedestrians to navigate and so on. Though guidelines for footpaths and crossings have existed since as long back as 1989, there is no concept of a dedicated space for pedestrians in Patna. In the absence of footpaths, pedestrians struggle to more through random parking, increasing vehicles and dirty road edges. Around 40% of users surveyed identified the lack of safe dedicated footpaths as the main issue making walking difficult. More than 60% felt that streets were unfit and unsafe for women, disabled and senior citizens, with 92% feeling vulnerable to accidents when on streets.

The physical assessment of the study area revealed issues such as discontinuous footpaths, uneven height of footpaths, encroachments and conflicts between pedestrians and hawkers and vendors. Other issues include lack of cleanliness, absence of streetlights, street furniture and inconsiderate behavior of motorists towards pedestrians.



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In the absence of footpaths, pedestrians struggle against random parking, increasing vehicles and dirty road edges.



Predictably, the citizen survey showed that 50% of the pedestrians wanted broad, clean, continuous footpaths for a better walking experience. It was also found that a major percentage of citizens (47%) said that the hawker's behavior towards pedestrians wasn't an issue. This came from an understanding of the fact that hawkers provided important service to the people and were necessary. The study area involved assessment of one junction which had no specific mechanism for crossing, apart from traffic signals which do not function. Apart from the junction, there is no other provision for crossing for the adjoining 2 km stretch. Consequently, pedestrians risk their safety attempting to cross the road wherever possible. In a situation where footpaths don't exist, the question of street furniture such as benches to sit, trees for shade and public toilets weren't even on the agenda.

The common themes in the stakeholder interviews was that the city didn't proactively plan for pedestrians at all, with a total ignorance of existing guidelines and policies. Inspite of being a capital city, it performs poorly when it comes to providing for walking facilities, even though majority of the trips are made on foot. The media has also been found to be lacking in giving a pedestrian's perspective of the city's infrastructure and planning.





Ranchi is the capital city of
Jharkand with a largely rural
character, fast transitioning into
an urban area. Urbanisation and
growing population is resulting
in all the basic conflicts related to
urban transport in a city with poor
public transport systems. The rate
of vehicular growth is high, while
nothing is being done consciously
to safeguard the mobility of
pedestrians, cyclists and public
transport users.

## Overview of the project:

A pilot study was conducted to understand the problems women face in the city. 8 kms section of the road connecting the railway station to the city was selected, for the study. In addition 100 women were surveyed, 4 group discussions held with the women and 12 stakeholders were interviewed in depth for a better understanding of the issues.

#### Vehicular growth (2000-2006) in the city:

Mode	2000	2006	Increase
Bus/ Minibus	7449	10238	2789
Car	62,868	1,13,500	50,632
Auto rickshaw	26,316	46,834	20,518
Two wheeler	6,41,470	11,64,854	5,23,384
Taxi	17,348	24,693	7,346
Jeep	16,839	30,962	14,123
Total	7,72,290	13,91,081	6,18,791

The situation is worse still for women as they struggle to find access to affordable, safe and comfortable transit options. This project is aimed at understanding urban transport issues in Ranchi from the perspective of women.

#### Outcomes:

#### **Group discussions**

The four group discussions revealed some common themes. Women, some of whom were roadside hawkers and vendors in the area mentioned the problems they faced every day. Firstly, hygiene was a huge factor for these women who had to sit on the road and try and sell their products. Roads were often clogged with water at the edges at all times making a very inhospitable, unhygienic work environment for these women. Secondly, without any demarcated pedestrian area, both pedestrians and hawkers faced constant conflict with vehicles. Women also complained that there were no toilets or facility for drinking water anywhere in the city. Those women who came from nearby villages to sell their wares were especially inconvenienced by lack of public toilets in the city.





#### Survey outcomes

The survey results indicated the following important observations:

- 1. A major percentage of women walked for at least 15 minutes a day, with some walking for more than an hour too. These women walked for various purposes such as to work, to school with children for household chores like grocery shopping etc.
- 2. 92% of the women surveyed found the lack of proper exclusive footpaths inconvenient and unsafe. They also mentioned that often the covered drains served as footpaths and hence there was really no facility for pedestrians as such.
- 3. More than half of the women surveyed found that at the edges of the road where pedestrians walk in the absence of footpaths, parked and speeding vehicles cause conflict. Hawkers too sit at the edge of road, adding another element in the unequal road sharing. While vehicles dominate the space, hawkers and pedestrians have to adjust in the available area for survival. 85% of the surveyed women felt that hawkers should have a dedicated space on the streets as they provide an important service to citizens.
- 4. Lighting on roads was found to be sufficient by most women.
- 5. Women observed that no proper crossing facilities exist and most signals don't function in the city.
- 6. Cycle rickshaws were also found to be an important link in some women's trip chains. 65% of the women surveyed felt that there should be dedicated lanes for cycles and cycle rickshaws.
- 7. In terms of safety while walking, most women were concerned about eve teasing and harassment and had also encountered accidents while walking.

#### Stakeholder discussions:

Some common themes from 12 stakeholder meetings are as follows;

- 1. There is an absence of planning for pedestrians and planning for women or gender in the city. This is seen at all levels and reflects badly on how and what the city plans to build. There is no concept of designing pedestrian spaces or streets.
- 2. Basic facilities like drinking water, public toilets, in fact even footpaths are missing.
- 3. Crossing facilities are non-existent, too often putting the pedestrians in danger. Grade separated crossing facilities are not viewed to be safe by women.
- 4. While the study attempts to focus on women and their issues as pedestrians, the problems that have been observed are common to all citizens.

Media coverage clippings



महिलाओं, पैदल पथ की स्थिति एवं सुविधा विषयक सेमिनार में उभरे विवार

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