9th Urban Mobility India Conference & Expo 2016

Planning Mobility for City's Sustainability

MOBILITY CHALLENGES IN HILL CITIES

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Govt. of Mizoram

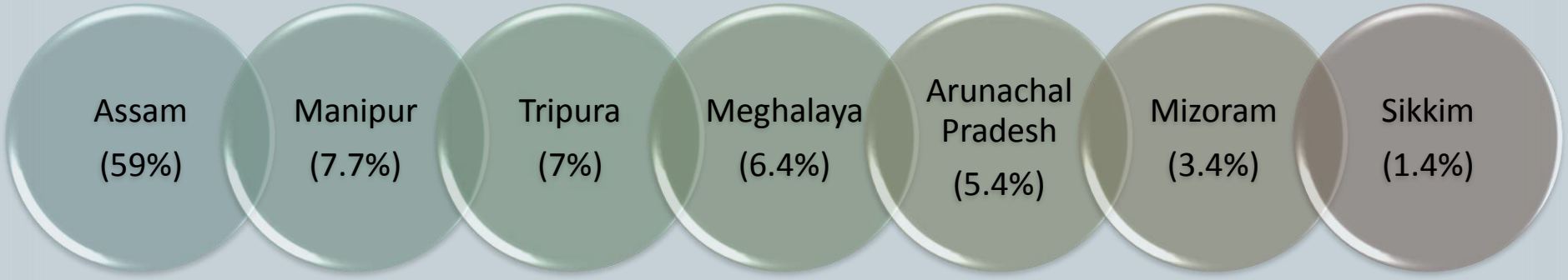
DEMOGRAPHIC OVERVIEW

	INDIA	MIZORAM	AIZAWL
Area (per sq.km)	3,287,240	21,081	152
Population	1,210,193,422	1,097,206	293,416
Sex Ratio (females per 1000 males)	940	976	1025
Density (per sq.km)	382	52	112
Literacy Rate	74.04 %	91.33 %	98.36 %
% from total Population of India	100 %	0.090 %	0.024 %

Explosive increase in vehicle numbers and growing congestion is crippling cities in hills.

The north-eastern states together have 2.7 million registered vehicles.

VEHICLE FLEET IN NORTH-EAST



SPECIAL CHALLENGES OF HILL CITIES

Characterized by narrow roads with high to steep gradients and a number of acute bends and curve

Alternative modes of transport have not evolved adequately in these cities

Hill towns have land constraints

Greater dependence on personal vehicles

Pollution and congestion can discourage tourism

Enormous congestion and parking pressure

Promote ecologically responsible tourism and sustainable transportation mode for all

With growing motorization public spaces are coming under enormous parking pressure

AIZAWL CITY
ALL VEHICLES RECORDED UP TO JANUARY, 2015

Year	2011	2012	2013	2014	2015	Total
	93868	14423	15301	15953	10984	150529

As with most small to medium sized cities, issues related to urban transport in Aizawl City can be divided into two main categories:

First, issues which necessitate actions to catch up with the accumulated shortfall in provision of transport supply to bring the city to a minimum acceptable level of service quality and overall mobility.

Secondly, to arrest any further accumulation of such backlog, it is imperative to put in place a plan and process to ensure future development of transport infrastructure in line with overall growth.

MOBILITY SCENARIO

Physical Network

Acute bends & curves

Poor geometrics in terms of angles & gradient

Almost all roads coming from any direction converge to the city centre.

Clear lack of road hierarchy

These physical characteristics are responsible for low capacity & speeds on the networks and disruptions due to parking and pedestrian related conflicts with the traffic.

Road Network

The study of speed and delay characteristics of Aizawl reveals fairly low journey speeds along the main spine of the city, on an average at about 18.6 km per hour, which could fall to below 4km per hour during peak hours in certain stretches.

Apart from the central areas low journey speeds were observed on stretches in peripheral areas too, owing to poor road conditions and geometrics.

Origin Destination

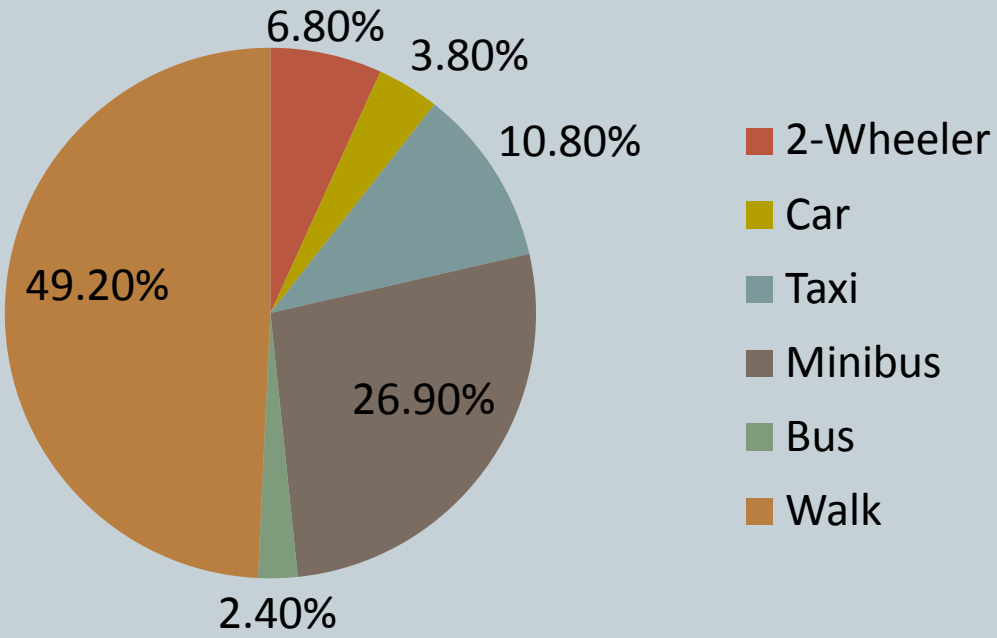
The origin destination pattern of the city reveals a compact work-home relationship.

Almost 29% of the total trips from the household survey are performed within the zone of residence.

Further, major attraction zones are also significant producers of home based trips.

This clearly indicates a mixed use scenario where major work centers and residential areas are closely situated.

MODAL SHARE OF AIZAWL CITY



Walk is the most popular mode in Aizawl accounting for almost half of the total travel demand with an average trips length of just under one kilometer. However, excluding walk, minibuses account for almost 50% of the trips performed while taxis over 20%. Private modes namely two wheelers and cars account for only about 21% of the total travel demand.

Majority of the trips are by walking and due to lack of pedestrian facilities and public transport congestion on roads is caused, therefore there is a need to provide pedestrian services as well as public transport to reduce congestion, to ensure the safety of the pedestrians and to improve the transport scenario in Aizawl.

ISSUES & KEY CHALLENGES

Typical terrain and network conditions are the constraints for expanding the road widths and further the road conditions restricting the capacity of lanes. The 429 km roads are very narrow and only 40% of the roads have of ROW of more than 10 meters

It is found that on street vehicular parking in many places, especially congested areas, block at least 1.8 m of the road width.

Urban road network in the core area is congested and offers limited scope for capacity augmentation.

Stoppage of public transit vehicles often takes place on the carriageway itself – creating congestion as the carriageway width is less

Due to lack of appropriate pedestrian facilities, most of them prefer to walk along the carriageway. This creates huge interference to the vehicular traffic flow along the carriageway – leading to low travel speed and high travel delay.

ON-STREET PARKING BY 2 WHEELERS

ISSUES & KEY CHALLENGES

Most of the links do not have adequate footpaths on both sides to accommodate the high pedestrian volume – forcing them to move along the carriageway.

Taxi parking along the carriageway as well as low occupancy of these taxis is one of the major contributors to the congestion, particularly within the core area.

There are no organized facilities available for inter-city travel in terms of bus or taxi terminals, thereby causing inconvenience to tourists and other inter-city travelers. Most intercity taxi operations are scattered in the City Centre. This mixing of inter and intra-city traffic further causes problems of conflict and congestion.

There are no organized facilities available for Commercial goods traffic.

TAXIS PARKING AT ROADSIDES

REDRESSAL MACHANISMS FOR AIZAWL CITY

NON-MOTORISED CITY SPECIFIC PLAN FOR AIZAWL CITY PREPARED BY MoUD

BY IBI GROUP in association with iTrans, New Delhi

Under Sustainable Urban Transport Project (India),

Project : Supporting Sustainable Urban Transport in Aizawl City

- Public Stairs
- Safety & Security
- Pedestrianizing Commercial Streets
- Bike sharing

REDRESSAL MACHANISMS FOR AIZAWL CITY

ASIAN DEVELOPMENT BANK

TA 8765 IND:

Supporting Sustainable Urban Transport in Aizawl City
Project Cost : Rs. 668 crore ($ 100m)

Consultant : CDM SMITH

Key Issues –

- **Improve Bus Services on the north-south corridor of about 10 kms.**
- **Improved high quality bus services with improved bus shelters. 440 nos. of buses to be procured**
- **Improved road junctions, footways, access and introduction of unified bus management organisation.**
- **East-West Ropeway of about 5.5 kms.**

Thank You