
7. Vision for Pune City

7.1 Background

7.1.1 National Urban Transport Policy Framework

Cities in India have been facing urban transport problems over many years, affecting the urban transport mobility of people and ultimately the economic development of the cities. To support and maintain the required level of economic activities in urban areas, and address the urban transport issues the National Urban Transport Policy (NUTP) was formulated in May 2005 and approved by the Cabinet in April 2006. The NUTP is formulated to transform the current urban transport system into a safe, convenient and efficient transportation system across all urban areas in India. In order to ensure that the various urban transport projects that are being developed by the cities are NUTP compliant, the ministry has in a March 2007 circular indicated that a “Comprehensive Mobility Plan (CMP) be prepared that focus on mobility of people rather than vehicles and accordingly give priority to pedestrians, Non-Motorized Transport (NMT), all modes of public transport and IPT.”

The objective of the National Urban Transport Policy is to ensure safe, affordable, quick, comfortable, reliable and sustainable access for the growing number of city residents to jobs, education, recreation and such other needs within our cities. This is sought to be achieved by:

- Incorporating urban transportation as an important parameter at the urban planning stage rather than being a consequential requirement
- Encouraging integrated land use and transport planning in all cities so that travel distances are minimized and access to livelihoods, education, and other social needs, especially for the marginal segments of the urban population is improved
- Improving access of business to markets and the various factors of production
- Bringing about a more equitable allocation of road space with people, rather than vehicles, as its main focus
- Encourage greater use of public transport and non-motorized modes by offering Central financial assistance for this purpose
- Enabling the establishment of quality focused multi-modal public transport systems that are well integrated, providing seamless travel across modes
- Establishing effective regulatory and enforcement mechanisms that allow a level playing field for all operators of transport services and enhanced safety for the transport system users
- Establishing institutional mechanisms for enhanced coordination in the planning and management of transport systems

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- Introducing Intelligent Transport Systems for traffic management
 - Addressing concerns of road safety and trauma response
 - Reducing pollution levels through changes in travelling practices, better enforcement, stricter norms, technological improvements, etc.
 - Building capacity (institutional and manpower) to plan for sustainable urban transport and establishing knowledge management system that would service the needs of all urban transport professionals, such as planners, researchers, teachers, students, etc
 - Promoting the use of cleaner technologies
 - Raising finances, through innovative mechanisms that tap land as a resource, for investments in urban transport infrastructure
 - Associating the private sector in activities where their strengths can be beneficially tapped
 - Taking up pilot projects that demonstrate the potential of possible best practices in sustainable urban transport

The objectives of NUTP can be approached through a multi-prolonged approach that would revolve around the following issues:

1. Pedestrian Facilities and pathways
2. Non Motorized Vehicles
3. Priority to the use of public transport
4. Integrating landuse and transport planning
5. Integrated public transit system
6. Parking
7. Freight Traffic
8. Capacity building
9. Pollution Reduction

Keeping in view the suggestions of the NUTP, cities of India are required to prepare City Development Plan, and a Comprehensive Mobility Plan (CMP). Such plans (projects) are to be funded under Jawaharlal Nehru National Urban Renewal Mission (JNNURM), viability Gap Funding or budgetary support from the Government of India. An integrated land use and transport plan is a pre requisite to receive funds from Govt. of India for any major transport projects. According to a policy circular (No. K-1412/1019380/2006-NURM-I, dated 5th March.2007) issued by the MoUD for CMP, the cities of the country are required to submit a CMP with focus on mobility of people and give priority to pedestrian, non-motorised transport, public transport and integrated public transport. It should also integrate land use and transport planning. This chapter attempts to present the evolution of the CMP for Pune City within the NUTP Framework.

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7.1.2 Challenges and Opportunities in Pune City Urban Transport

Pune City's economy and transportation continued to evolve. Some of the key challenges are as follows:

Growth: Pune has been experiencing tremendous growth. Pune and Pimpri Chinchwad are fast transforming into one urban complex. In 2001, PMC jurisdiction was extended by merging 23 neighbouring villages (in parts) and DP was exclusively prepared for this fringe area for next 20 years (valid till 2021). Some of the upcoming employment and industrial centers are proposed beyond the PMR boundary from cost and other considerations. While the existing roads that emanate close from core area may be developed as radial arterials, clear ring roads are not available in the transport network of Pune. Another challenge for Pune is to organize its land use pattern. Pune must foster policies that influence organized growth in peripheral areas and foster a transit friendly land use growth.

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Socio Economics– The influx of IT sector has resulted in change in the life style preferences. Incomes are increasing and homes and workplaces are becoming more spread out from the core area. Each month 10,000 – 13,000 new vehicles are registered (a rate of over 400 per day). There are 250 two wheelers for every 10,000 persons. Technology has also made fuels and private vehicles more efficient compared to the public transport vehicles. As a result of the unmitigated increase in the personal vehicles the city is facing growing vehicular traffic on the city roads.

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Non Motorized Transport: Historically Pune is known for its use of bicycles. Over the recent years the use of bicycles has come down significantly due to the rise in motorized vehicles. Due to the significant slum population and student population there is a significant continued usage of bicycles in Pune. Walking and cycling constitute approximately 33-35% of the total trips in Pune. It is important that initiatives are taken to not only preserve but to enhance the share and safety of the NMT.

Funding – Recent advances in technology, such as Intelligent Transportation Systems, electronic toll collection, smart-card technologies etc., have introduced new ways of improving the system efficiencies as well as news ways of funding strategies. It is evident that a persistent funding gap exists for city transportation needs, and therefore it is imperative that Pune City needs to embrace new funding and financing strategies that support the Mobility Plan. Over the last decade, many innovative funding and finance techniques have been tested in the India so Pune city has the opportunity to benefit from those as well. Further the JNNURM provides an opportunity to seek assistance for city funding needs in the next couple of years. A central transport fund is being mooted to continue in the JNNURM.

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PMC, PCMC and other state agencies have conducted several studies over the past years and have been implementing several solutions to cope with the growing pressure of population and vehicles. **Chapter 5** lists some of the various studies done for the study area over the past years. The CMP considers and builds on the strengths of previous proposals of PMC and other local governing entities conducted for the study area. The Mobility Plan articulates a transportation vision and establishes various specific actions/proposals for achieving that vision.

Working to achieve such a vision would make transportation more multimodal, efficient, and economic and will better link investment decisions with goals for Pune city's economy and quality of life.

7.1.3 Stakeholder Involvement

The mobility plan is a Pune City plan and not strictly a PMC plan. PMC led and encouraged the development of the CMP in partnership with many entities that influence the transportation in Pune city along with interested members of the general public. The development team interacted with the following stakeholders before evolving the CMP:

- ✓ PMC
- ✓ PCMC
- ✓ PMPML
- ✓ Pune Cantonment Board
- ✓ Khadki Cantonment Board
- ✓ PTF
- ✓ Nagrik Chetna Manch
- ✓ MSRDC
- ✓ PWD
- ✓ Private Bus Operators
- ✓ Auto Rickshaw Association

The general public representatives had several formal and informal opportunities to participate throughout the CMP development process and the team encouraged individuals to contribute ideas and weigh in on the city's priorities. As the plan's direction began to take shape in the form of a vision and supporting goals, and actions, prominent citizen groups and stakeholders participated in various meetings. The Mobility Plan set a new precedent for public and stakeholder involvement in the planning process.

7.2 Vision

Considering the challenges that Pune city is facing, the direction of the urban transport is likely to take without appropriate interventions, the inputs from stakeholders, public groups and past studies, the following broad vision is established for Pune city upon which the detailed mobility plan is structured:

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“Moving people safely and economically by emphasizing public transport and non-motorized transport.”

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The CMP seeks to “move people, not vehicles”. By emphasizing the pre-eminence of public transport and non-motorized modes of travel it seeks to achieve the objectives of the National Urban Transport Policy in Pune.

7.3 Goals/Performance Indicators for the CMP

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Development of city level performance indicators does not eliminate the human judgment from the project selection process. However, it informs and assists decision-makers by guiding the consideration of projects according to a set of criteria aligned with the goals and objectives. One of the simplest methods that are available to measure transportation performance that is convenient and comprehensive is through indicators/ indices. Benefits of developing Indices include:

- Indices provide a systematic means to evaluate how well the city/study area reflects the long term goals and objectives, so that projects are aligned in strategic direction.
- Use of the indices also creating greater transparency in the project prioritization and selection process.

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Some of the indices that may be used for the CMP are :

- Safety
- Public Transport
- Bus Transport
- Non Motorized Transport
- Walkability
- Cyclability
- IPT
- On-street Parking
- Accessibility
- Congestion
- Average Speed

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It is essential that prevailing and accurate data is used in the determination of the indices. Some indicators such as Bus Transport Index are formulated with only secondary data, some indices use traffic survey data and a few other may require demand forecast model data. For the sake of ease of computation and usability, most of the indicators are developed for the city level urban transport scenario. Separate indicators have been developed for categories of vehicles and user groups. Goals have been developed for each index.

Definition, formulation, evaluation and targets for the indices are shown in Table 7.1.

7.4 EVOLUTION OF THE TRANSPORT STRATEGY

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The centre piece of the mobility plan is the public transport mobility plan. One of the important aspects of a mobility plan is the network plan as both land use, public transport, and travel characteristics are affected by the network. As discussed before, the city grew circumferentially with respect to the core area and consequently several roads that form the radials became prominent. Additionally many of them are state and national highways such as NH-4, Satara Road, Katraj Road, Nagar Road etc. While the city had roads that looked like radials, it does not have definite circumferential roads even though a few roads might be considered circumferential sections.

The framework for the urban transport network strategy has evolved in the following manner (see also Figure 7.1):

- Existing network as-is with emphasis on Radials
- Circumferential roads supplementing the radials. By providing the circumferential roads people do not have to pass through core areas.
- Recognising that Pune and Pimpri Chinchwad are fast turning into one complex, a regional Corridor(s) connecting both urban areas. The spatial geography indicates that more than one connecting between the two urban areas is available.
- Consolidating the circumferential roads for the individual regions into one for the entire region.

The final network strategy that is adopted is to reorient the existing network into a radial-circumferential combination for the Pune-Pimpri urban complex. Public Transport strategy would then be integrated with the recommended network strategy.

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Definition, formulation, evaluation and targets for the indices are shown in Table 7.1.¶

Table 7.1: Definition, formulation, evaluation and targets for the indices

INDEX	DESCRIPTION	Formulation	Data Source	EXISTING	TARGET
Average Speed of Network	Average category running speed	Average Running Speed for all vehicles	Traffic surveys	18	30
Modal Share of PT Motorized	Average category modal share	Public Transport Trips/Total Study Area Trips	Simulation Model	18%	80%
Modal Share of NMT	Average category modal share	NMT Trips/Total Trips	Simulation Model	33.2%	50%
VC Ratio	Average category VC Ratio	(Road Traffic Volume / Road Capacity)	Simulation Model	1.4	0.8
Accessibility	% of work trips with TT<15min	(Work trips with Travel Time less than 15 min/ Total Trips)	Traffic surveys	33%	60%
Bus Supply	Buses per Lakh Pop	(Bus Fleet in Nos.)/Population in Nos.)X100000	Secondary data	28	55
IPT	IPT vehicles per Lakh Pop	(Registered IPT vehicles in Nos. /Population in Nos.)X100000	Secondary data	1890	1000
Walkability	Availability & Usability of FP	(Footpath Length in Km /Road length in Km)x100	Traffic surveys	53%	100%
Cyclability	Availability & Usability of FP	(Cycle track Length in Km/Road length in Km)x100	Traffic surveys	0%	100%
Fatality	Fatalities per lakh population	(No. of Fatalities/Population)x100000	Secondary data	11	0
Parking on Mobility Corridors	% of Road Length Used	(Length available for Parking in Km/Road length in Km)x100	Traffic surveys	13%	0%

7.5 CMP Strategy

In order to attain the above vision, the CMP seeks to make public transport facilities available to all residents within a reasonable distance from their homes, work places and other destination points. It also seeks to encourage greater use of non-motorized modes by making their use safer. Recognizing that Pune is a rapidly growing city and travel demand will continue to grow, there is no escape from having to decongest some of the highly choked areas and intersections in the city. This is being suggested because long idling of motor vehicles at crowded junctions and corridors adds to pollution and unnecessary use of an imported fuel as also global warming. Measures have also been suggested to discourage the use of motor vehicles and attract a large part of the growing travel demand towards public transport and non-motorised modes.

The above strategy is sought to be implemented through the following broad approach:

- Identification of a number of trunk mobility corridors along which high capacity public transport systems such as BRT/Monorail/LRT/Metro, etc would be considered based on a scientific and detailed alternatives analysis.
- Enhancing the capacity and quality of the public transport so that people are willing to use it instead of moving towards personal motor vehicles
- Providing alternative routes for those having to enter the core city area even when their journey does not begin or end in this part of the city. For this purpose, ring corridors have been suggested to enable the core city area to be bypassed.
- Providing bypass routes for long distance commuter and truck traffic so that they do not have to travel through the city roads.
- Identifying feeder systems that connect different pockets and wards in the city to the most convenient point in one or more of the mobility corridors
- Providing a network of dedicated cycle tracks, footpaths and pedestrian crossings
- Pedestrianizing important portions of the core city area and linking them with strategic parking places to encourage people to walk in such areas
- Providing flyovers in a few heavily congested junctions/intersections to reduce idling traffic
- Special attention towards road safety
- Introduction of physical and fiscal measures that would discourage the use of personal motor vehicles
- Reform and strengthen the institutional arrangements for managing and regulating the transport system in the city