

Ease of Moving Index



Pune - Pimpri Chinchwad City Profile



February 2025



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OMI Foundation Trust is a policy research and social innovation think tank operating at the intersection of mobility innovation, governance, and public good. Mobility is a cornerstone of inclusive growth providing the necessary medium and opportunities for every citizen to unlock their true potential. OMI Foundation endeavours to play a small but impactful role in ushering meaningful change as cities move towards sustainable, resilient, and equitable mobility systems that meet the needs of not just today or tomorrow, but the day after. OMI Foundation houses three interconnected centres which conduct cutting-edge evidence-based policy research on all things mobility.

Centre for Future Mobility

OMI Foundation's Centre for Future Mobility envisions a future which meets the aspirations of all in a diverse world, anchored in the paradigms of active, shared, connected, clean, and AI-powered mobility.

Centre for Clean Mobility

OMI Foundation's Centre for Clean Mobility explores the diversity of near- and long-term pathways to clean mobility. It focuses on the use of electric, future fuels, and renewable energy alike within the mobility ecosystem.

Centre for Inclusive Mobility

OMI Foundation's Centre for Inclusive Mobility ensures the existing and emerging mobility paradigms are Safe, Accessible, Reliable, and Affordable for every user of mobility infra and services, including persons with disabilities, women, trans/non-binary, LGBTQIA+, children, and the elderly. It further paves the road for the future of work and platform economy to fulfil the modern promise of labour.

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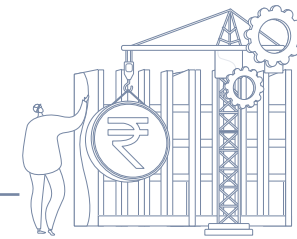
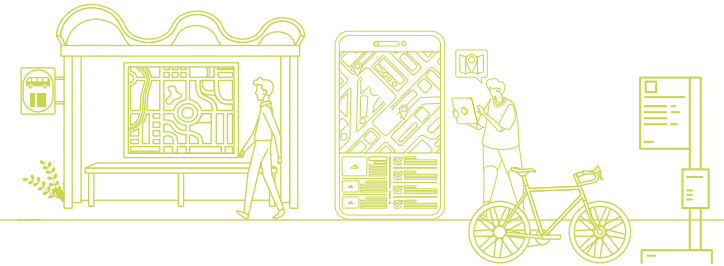
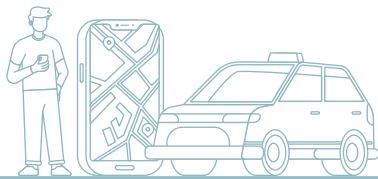
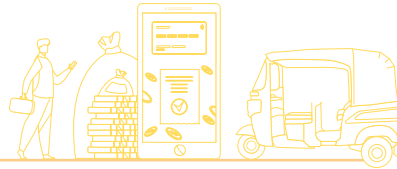
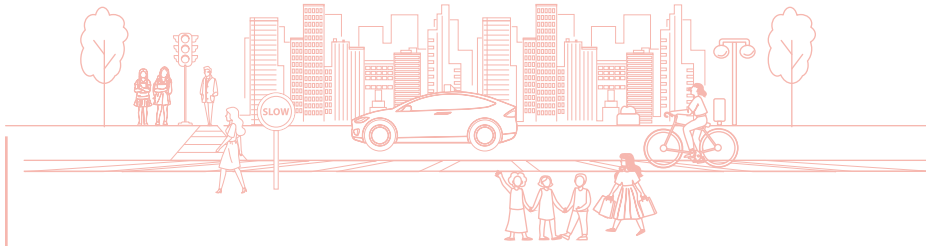
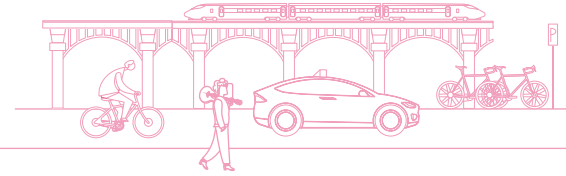
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INTRODUCTION

The twin cities of Pune-Pimpri Chinchwad, are known as the Oxford of the East, and remain the cultural capital of the western state of Maharashtra. It has undergone a comprehensive evaluation of its mobility paradigm through the 'Ease of Moving'¹ Index - India Report 2022 (EoMI 2022)² – a study conducted by the OMI Foundation. EoMI 2022 is a framework enabling cities to evaluate their mobility paradigm across nine parameters. It enables cities to benchmark against their peers and assess opportunities for improving specific mobility aspects in the city. This city profile presents the key findings of EoMI 2022, focusing on Pune-Pimpri Chinchwad's mobility system. It provides a detailed analysis of the city's performance across the nine parameters (listed later in the document) of the Index, shedding light on the strengths and areas requiring attention in Pune-Pimpri Chinchwad Mobility network. For a holistic understanding, readers are encouraged to explore this city profile in conjunction with the 'Ease of Moving Index - India Report 2022',² available on the OMI Foundation's website. The comprehensive report provides a broader context and deeper insights into the overall mobility scenario in India

¹The 'Ease of Moving' by OMI Foundation is based on globally recognised concepts of 'sustainable development' and the 'Ease of Living' as propounded by the United Nations and the Ministry of Housing and Urban Affairs, Government of India respectively.

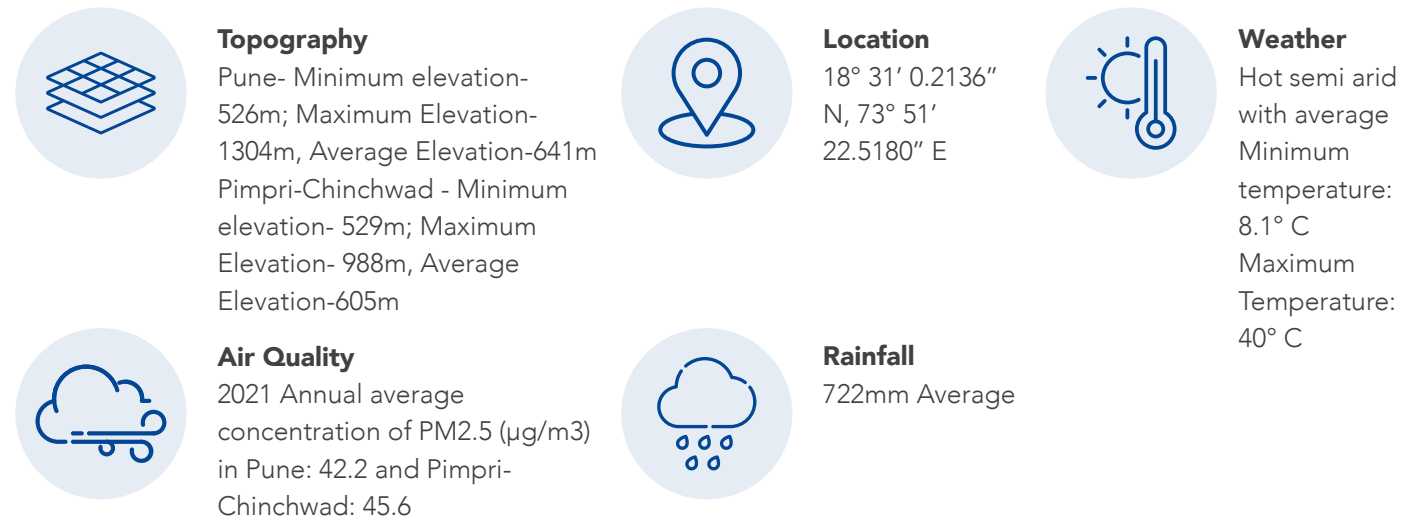
²The report can be accessed here: <https://olaweabcdn.com/ola-institute/easeofmoving-2022.pdf>

CITY OVERVIEW

Contextual Characteristics

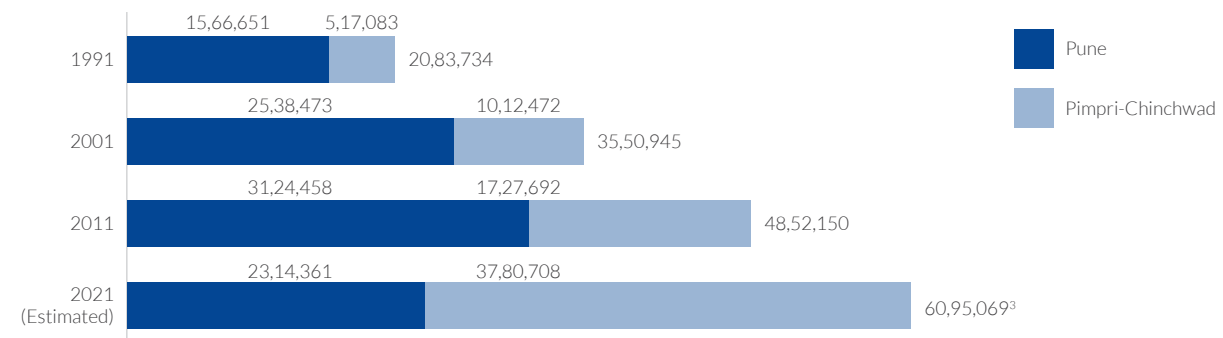
The industrial city of Pune-Pimpri Chinchwad, lies on the western margin of the Deccan plateau on the leeward side of the Sahyadri mountain ranges and the western ghats. Table 1 presents the key physical attributes of the city, while table 2 presents the population growth.

Table 1: Physical attributes of Pune-Pimpri Chinchwad



Source: (topographic-map, 2022) (Climate Data Service Portal, n.d.) (Pune municipal Corporation, n.d.) (latlong.net, n.d.) (IQ Air, 2022)

Table 2: Growth of population in Pune-Pimpri Chinchwad



Source: (Office of the Registrar General & Census Commissioner, India; Ministry of Home Affairs, Government of India, 2023)

³The projections are based on growth rates indicated by the Ministry of Statistics and Program Implementation (MOSPI) for 2016 and 2021. The projected population for 2021 of Pune -Pimpri Chinchwad has been derived from the projected growth rate as suggested by MOSPI. Based on the growth rate the population of the city is estimated at 44.8% in the last three decades.

Pune



CITY ADMINISTRATION



Legend

- Pune Station Depot
- Pimpri bus depot
- Maharashtra State Road Transport Bus Depot
- Pune Manapa Bus Station
- Railway Station
- Airport
- Parks and Garden
- Road Network
- National State Highway
- Proposed Metro
- Railway
- Rivers
- Pune and Pimpri Chinchwad Municipal Corporation
- Survey Locations

0 2.5 5 7.5 km

Public Transport Authority



Pune Mahanagar Parivahan Mahamandal Limited (PMPML) runs the public bus transport system in the twin cities of Pune and Pimpri-Chinchwad

2089 registered buses, but only 1619 buses ply on the road, on average. (Pune Mahanagar Parivahan Mahamandal Ltd, n.d.)



Maharashtra Metro Rail Corporation Limited (Maha Metro)- Line 1&2 Line 3 is being implemented by PMRDA in a public private partnership with Siemens and Tata Realty.

Line 1: 17.4 km, 14 stations
 Line 2: 15.7 km, 16 stations (Maharashtra Metro Rail Corporation Limited, n.d.)
 Line 3: 23.203 km, 23 stations. (Vang, 2022)

Scope of Administration



Pune Municipal Corporation (PMC) and Pimpri Chinchwad Municipal Corporation (PCMC)

PMC - 340.45 Sq.Km
 PCMC - 181 Sq.Km
 However, Pune Municipal Corporation has increased to 518 Sq.Km (Khairnar, 2021) from 340.45 Sq.Km after inclusion of 23 villages in 2020. (Urban Development Department, State government of Maharashtra, 2021)



Pune Suburban Railways operated by Central Railways

Pune -Talegaon-Lonavala suburban trains comprising 17 stations are operated by Central Railways. (Central Railways, n.d.)



Regional Transport Office

Pune and Pimpri Chinchwad



Traffic Police

Pune has 1 DCP and 5 ACPs under the Traffic division. (Pune Police, 2022)
 Pimpri Chinchwad police has 15 traffic divisions. (Pimpri Chinchwad Police, 2019)



PUNEMETROPOLIS

Pune Metropolitan Region Development Authority (PMRDA)

7256.46 Sq.Km (Pune Metropolitan Region Development Authority, n.d.)

EASE OF MOVING INDEX 2022 DATA COLLECTION AND RESPONDENT PROFILE

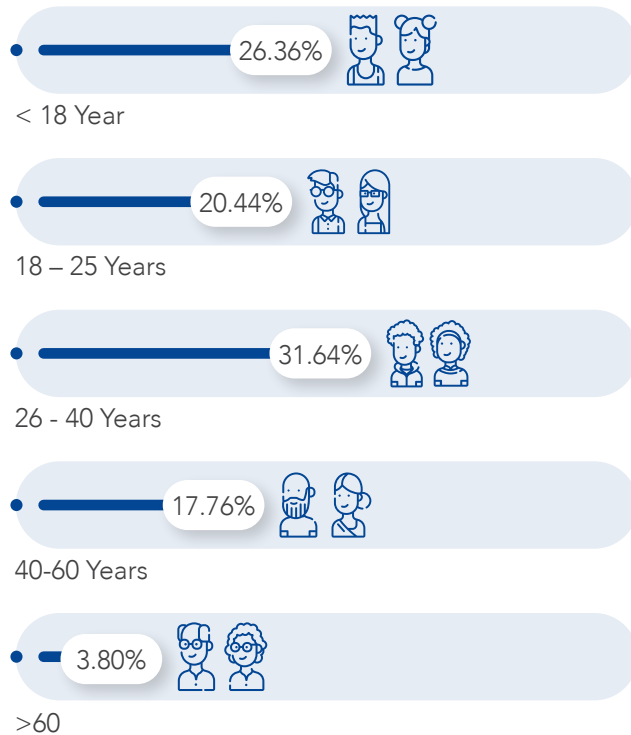
The Ease of Moving Index - India Report 2022 was developed based on findings from primary surveys, FGDs, and secondary data analysis. To ensure comparability, the 40 cities were divided into four clusters based on their estimated 2021 population. The twin cities of Pune-Pimpri Chinchwad are part of the 'Megacities cluster,' consisting of nine cities⁴, each with a population exceeding 4 million.

Sample size for No. of respondents/participants

Survey: **2,500 respondents**

FGD: **9 participants**

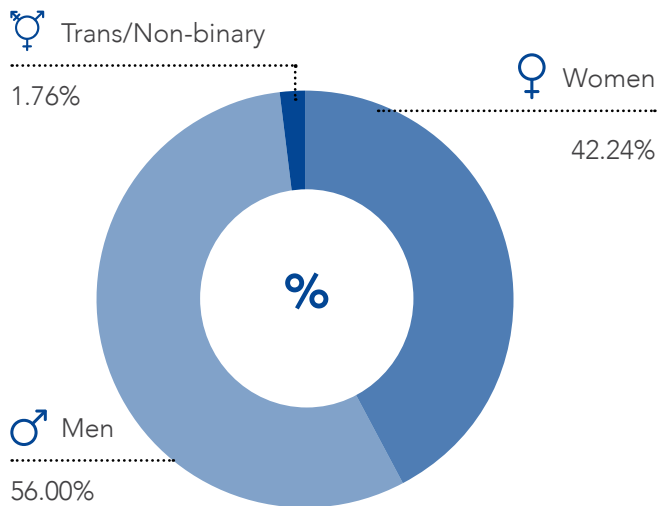
Age Distribution



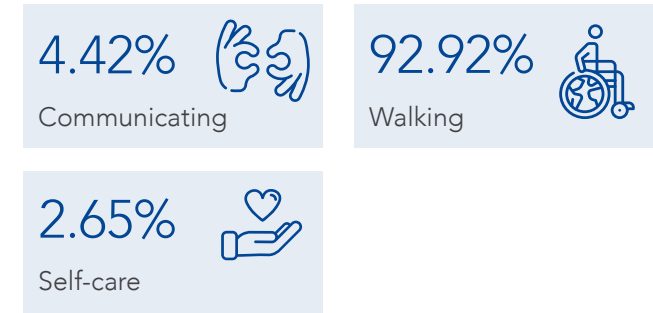
Survey sample and FGD participants

The primary survey was based on a randomly selected and statistically significant sample, stratified by gender, disability, and household income. The sample size was determined with a 95 percent confidence level and a 5 percent margin of error, based on the estimated population for 2021. Additionally, a focus group discussion (FGD) was conducted with a group of 9 regular commuters (6 men and 3 women), on efficiency and reliability of public transport within the city.

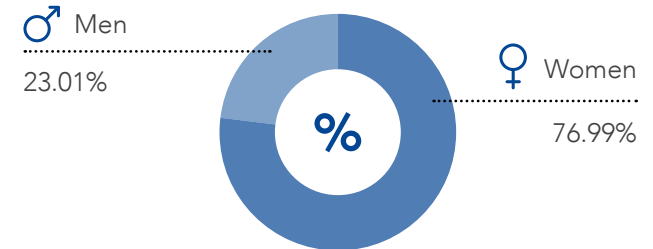
Gender Distribution



Distribution of disabilities/functional difficulties⁵



Gender distribution of persons with disabilities



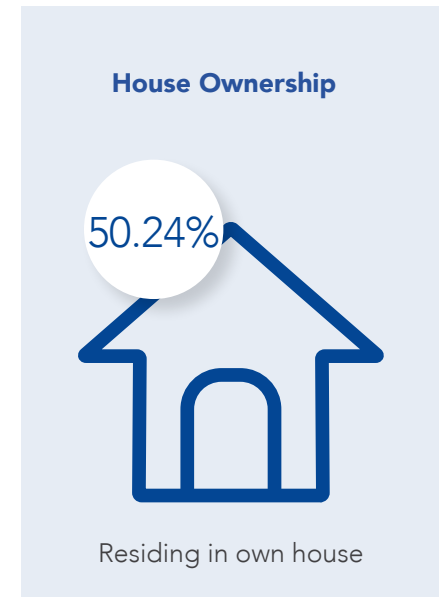
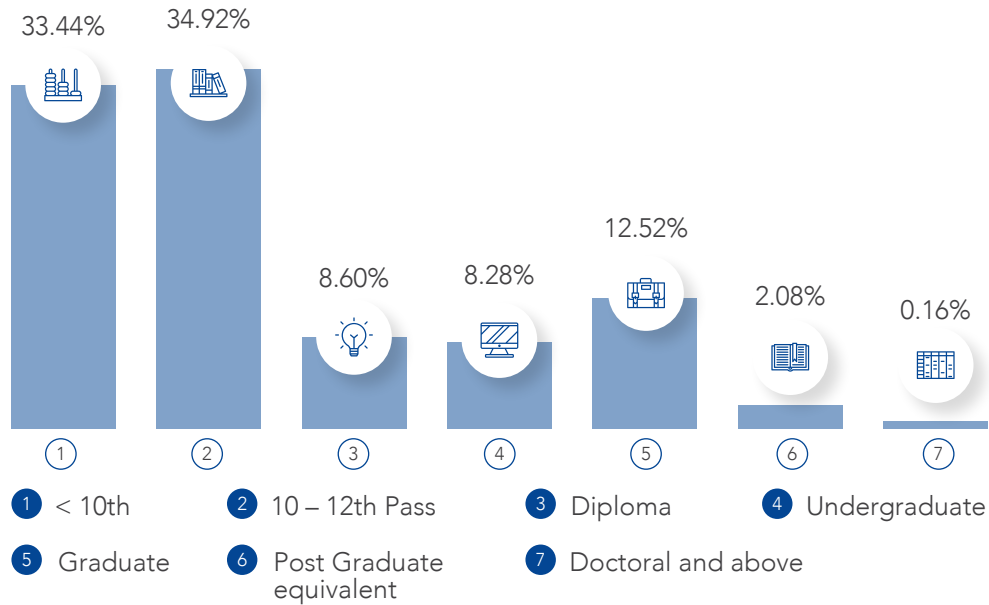
Persons with Disabilities



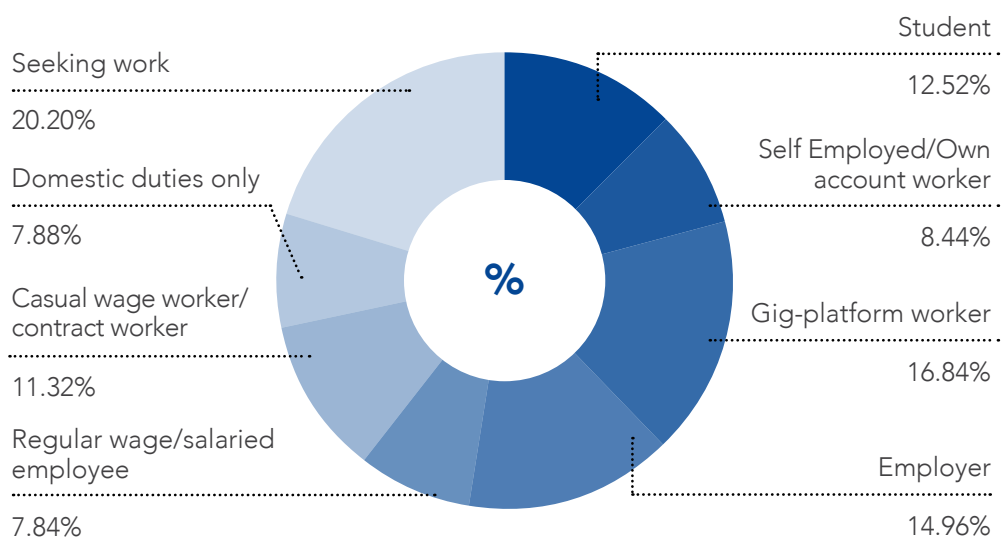
⁴The Mega Cities cluster includes the cities of Ahmedabad, Bengaluru, Chennai, Hyderabad, Kolkata, Mumbai, New Delhi, Pune-Pimpri Chinchwad and Surat.

⁵Total will exceed 100% as a survey respondent may have multiple disabilities/functional difficulties

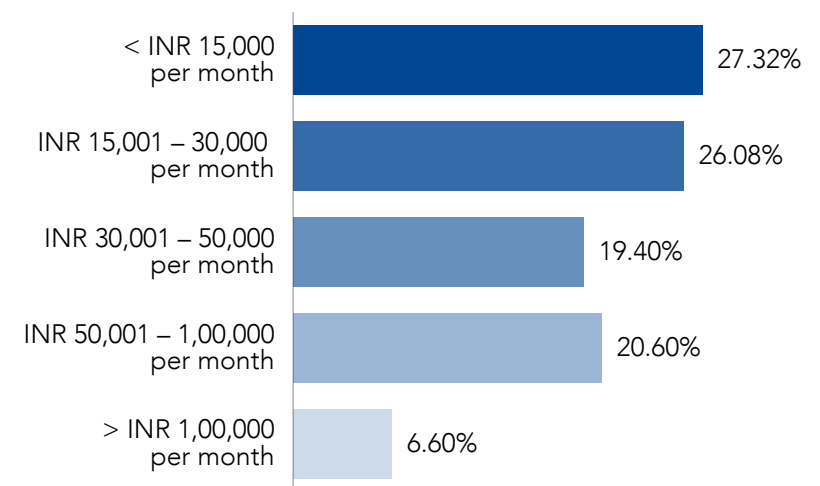
Highest Educational Qualification



Occupation



Household Income



INSIGHTS FROM THE EASE OF MOVING INDEX 2022

IMPETUS FOR ACTIVE AND SHARED MOBILITY

A robust urban infrastructure supporting active and shared mobility plays a pivotal role in creating a cleaner and more sustainable environment. By promoting physical activity and reducing traffic congestion, it enhances public health while offering affordable and inclusive transportation choices. This, in turn, improves accessibility and fosters social equity within the community, making it crucial to give impetus to active and shared mobility in cities. Here's how Pune-Pimpri-Chinchwad fairs on this parameter.



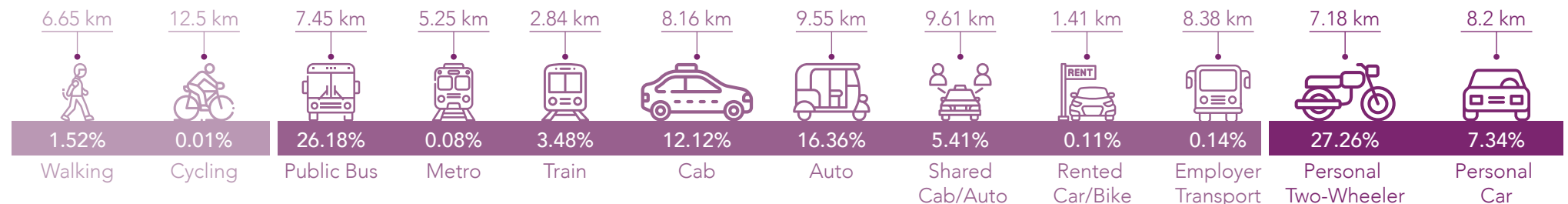
Mode share and public transport adoption

- In Pune-Pimpri Chinchwad, public transport accounts for **29.74%** of the mode share, while the combined mode share of active and shared mobility is **65.40%**. The combined share of active and shared mobility is much lower than the cluster average of **70.23%**. Pune Pimpri-Chinchwad also has the third lowest mode share of public transport after Ahmedabad (**28.59%**) and Surat (**27.48%**).
- In Pune-Pimpri Chinchwad **63.15%** of respondents regularly use the public transport system which is below the mega city cluster average of **76.85%**. Though the city has a fleet of 2089 buses, it only ran 1619 buses every day on an average in 2022-23. (Pune Mahanagar Parivahan Mahamandal Ltd, n.d.) While the city has 34.27 buses per lakh it only runs 26.56 buses per lakh population which is substantially lower than the cluster average of 38.34 buses per lakh.
- Pune-Pimpri Chinchwad is one of the first cities in India to commence a Bus Rapid Transit System (BRTS). There are 3 lines of metro rail measuring 59 km in length under construction and another 68.8km long BRTS across 7 corridors. (Pune Mahanagar Parivahan Mahamandal Limited, n.d.). The twin city also has a

suburban train connecting Lonawala and Talegaon starting from Pune station. In terms of mass transit infrastructure, the city has 2.16 km per lakh population (including both built and under construction projects).

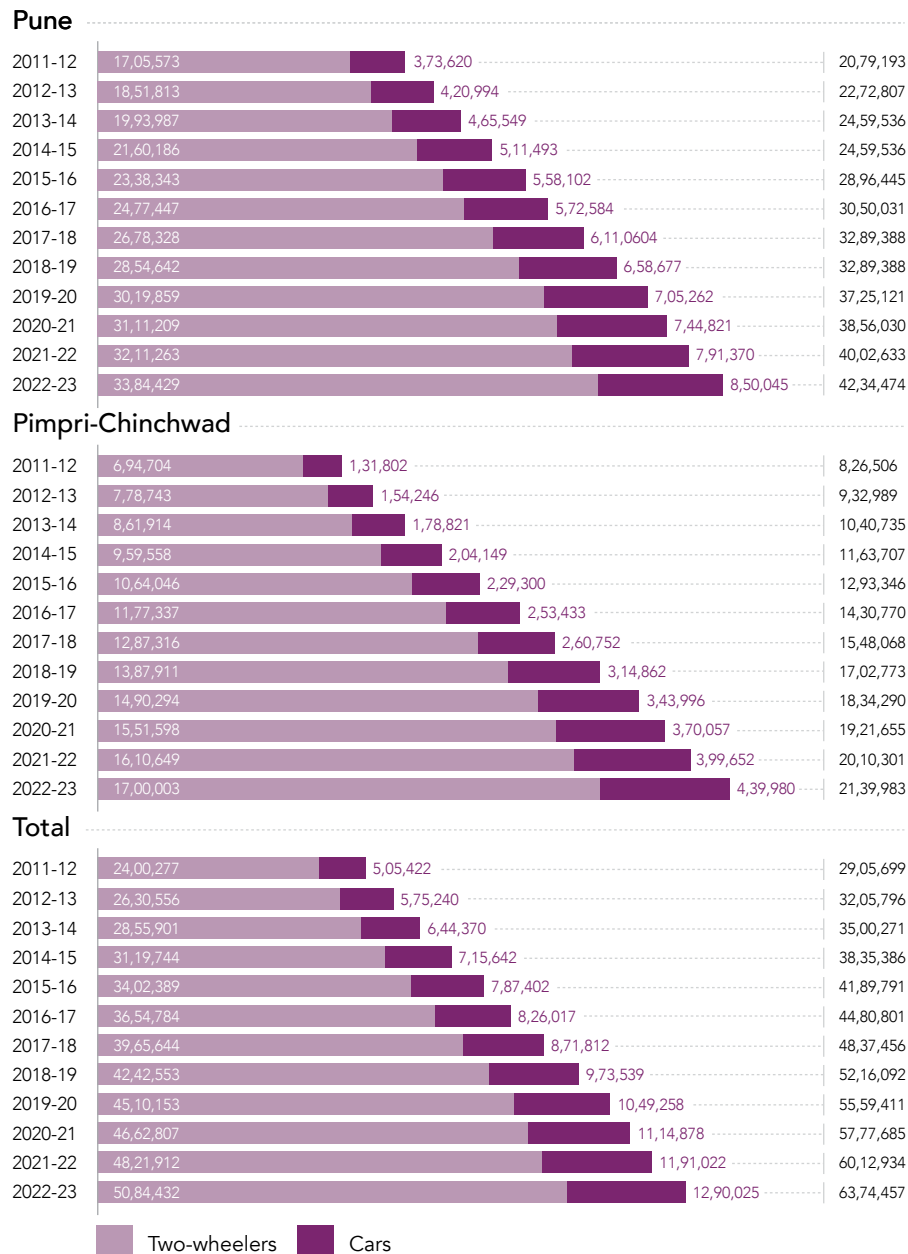
- Among regular public transport users, **72.42%** also own some form of motor vehicle (two-wheeler/car/three-wheeler), indicating the presence of choice users. Interestingly, **16.13%** of these vehicle owners choose not to use their vehicles. **41.01%** of regular transport users who have a vehicle but choose not to use it due to the reliability of public transport and the availability of alternatives such as autos and cabs. Another **35.48%** cited the high cost of vehicle ownership as their reason for relying on public transport.
- On average, **13.26%** of survey respondents reported adequate availability of public transportation throughout the twin city, however, **16.43%** of regular users expressed their reluctance to use public transport at night. This indicates unreliable and inadequate public transport services in their areas, reflecting the need to optimise public transport networks.

Mode share and average trip length, as reported by EoMI survey respondents



The average commute distance is **7.8 km** across all modes.

Vehicle growth and ownership patterns



Source: (Ministry of Road Transport and Highways, n.d.)

Vehicle growth and ownership patterns

- Since 2011-12, the twin cities of Pune-Pimpri Chinchwad have witnessed a significant growth in registered non-transport vehicles at **7.40%** CAGR. The number of registered two-wheelers increased at a CAGR of **7.06%**, while the number of registered cars grew at **8.89%** CAGR over the same period.
- From 2011-12 to 2022-23 vehicle registration in Pune city has grown at 6.68% CAGR, while in Pimpri Chinchwad it grew at **9.03%** CAGR. The car registration in Pune has witnessed a growth of **7.76%** CAGR while in Pimpri Chinchwad it is a staggering **11.58%**. The two wheeler registration during this period in Pune has grown at **6.43%** CAGR while in Pimpri Chinchwad it grew at **8.48%** CAGR.
- Among the mega cities, Pune-Pimpri Chinchwad is notably burdened with an alarming count of 765 registered two-wheelers per thousand. This figure stands significantly above the cluster average of 500 two-wheelers, and far exceeds that of Kolkata, which records 94 two-wheelers per thousand population.
- In terms of car ownership, Pune-Pimpri Chinchwad has 183 cars per thousand population as per the projected population in 2021. It is significantly higher than the cluster average of 152 cars per thousand population and far surpasses the count in Mumbai, which has 75 cars per thousand population.
- The EoMI survey finds that in Pune-Pimpri Chinchwad, **84.60%** of respondents own at least one two-wheeler, **33.96%** own at least one car and **36.80%** own a bicycle. Notably, **6.44%** of respondents did not own any vehicle.

Availability of public transport

Respondent perception regarding ease of availability of Public transport between any two points in the city (n=2,130)

	Disagree	Neutral	Agree
Bus	40.66%	19.58%	39.77%
Metro	50.33%	49.67%	0%
Train	75.63%	24.37%	0%
Average	55.54%	31.21%	13.26%

- In Pune Pimpri-Chinchwad, **39.77%** of public transport users reported finding public bus transport easily accessible between any two points in the city, above the cluster average of **35.91%**. Surat leads the cluster in this aspect with an impressive **49.15%** respondents reporting satisfaction on public bus transport accessibility.

SEAMLESS MOBILITY

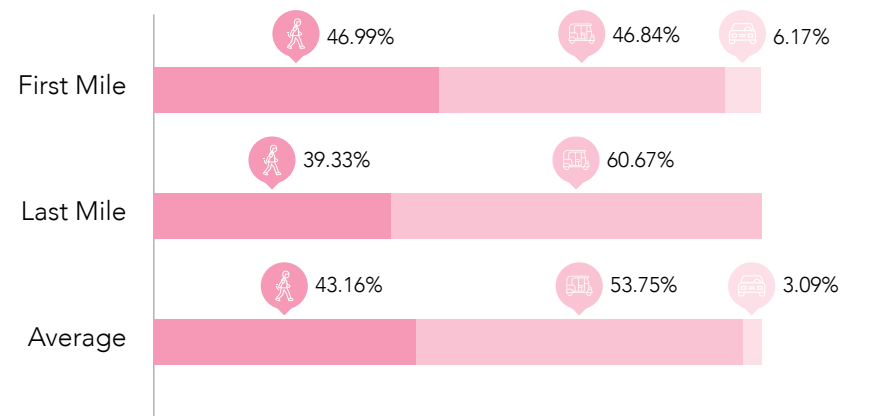
The integration of various transportation modes through seamless multimodal connectivity plays a vital role in promoting active and shared mobility and significantly affects individual mode choices. The metro network is only partially operational in Pune-Pimpri Chinchwad and is in process of developing better mass transit connectivity across the city. The suburban train connects Pune to Lonavala via Pimpri and Chinchwad besides a well-established network of buses.



First- and last-mile connectivity to public transport

- In Pune-Pimpri Chinchwad, **43.16%** of the respondents walk to public transit stops, which is the highest in the mega city cluster.
- Approximately **53.75%** of respondents rely on IPT modes for first-mile and last-mile connectivity to public transport, which is lower than the cluster average of **62.02%**.

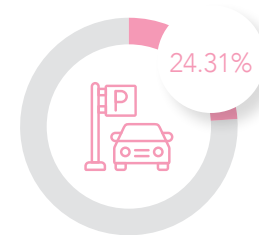
Modes used for first - and last mile connectivity by regular public transport users (n=2,130)



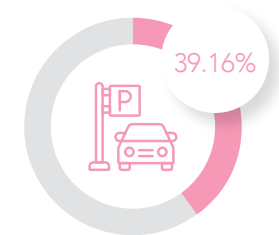
Source: OMI Foundation. (2022). Ease of Moving Index Survey [Data set]. Available from OMI Foundation upon request.

Parking facilities

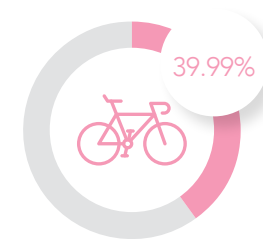
- The survey revealed that **24.31%** of regular public transport users in Pune-Pimpri Chinchwad find the dedicated parking facilities at major transit hubs to be satisfactory. This is lower than the cluster average of **25.46%** and much lower than Surat, which leads the cluster with **39.16%** of respondents expressing satisfaction with the parking availability at transit hubs. The survey also suggests that **39.99%** respondents using bicycles found there is adequate parking for bicycles at transit hubs.



Parking at Transit hubs
Pune-Pimpri Chinchwad



Parking at Transit hubs
Surat



Bicycle parking at Transit hub Mumbai

Access and wait time for public transport

- Regular public transport users in Pune-Pimpri Chinchwad reported an average time of 8 minutes and 18 seconds to reach the nearest transit stop.
- The average wait time for public transport in Pune-Pimpri Chinchwad is 9 minutes and 26 seconds, which is higher than the cluster average by 4 seconds. This is reinforced by the dissatisfaction expressed by **45.49%** (average of buses, metro and train) of respondents in Pune-Pimpri Chinchwad regarding the waiting period to board public transport.

Unified Metropolitan Transport Authority (UMTA)

- The Pune Unified Metropolitan Transport Authority (PUMTA) is a 20 member committee formed under the divisional commissioner of Pune to coordinate and monitor traffic and transportation measures in Pune Metropolitan Region. The authority was created in 2019 to coordinate with different agencies to improve mobility in Pune. (Standing committee on Housing and Urban Affairs, 2021)



Time to access nearest transit hub

Mumbai

8 minutes and
18 seconds



Average wait time for public transport

Mumbai

9 minutes and
26 seconds

TOWARDS VISION ZERO

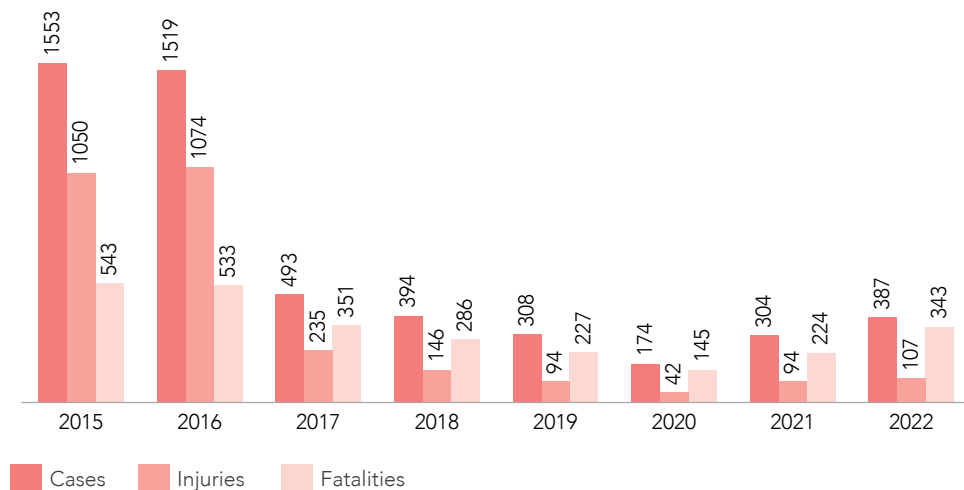
Reducing road accidents is crucial for improving public safety and promoting sustainable mobility, making it a top priority for urban planners and policymakers alike. Here's a look at Pune-Pimpri Chinchwad's accident records.



Road Safety and Fatalities

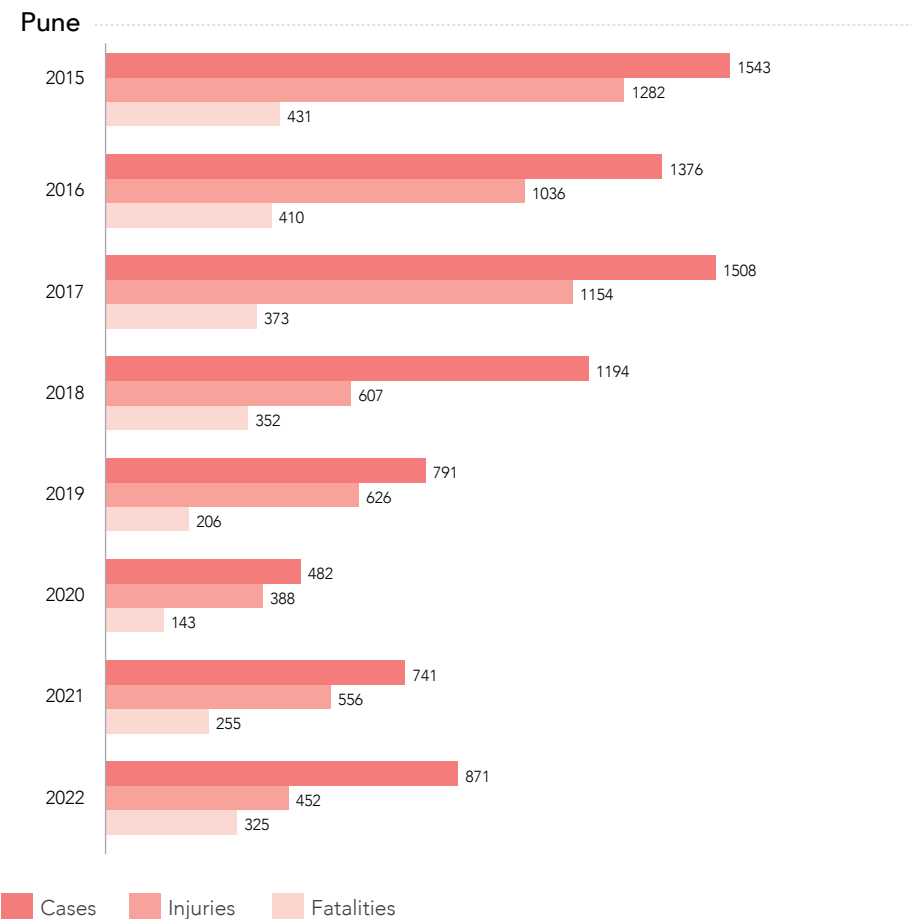
- The number of accidents and fatalities in the twin cities of Pune-Pimpri Chinchwad has increased considerably from the lows of 1007 and 396 in 2020 to 1925 and 696 in 2022. The combined tally of road fatalities of the twin city in 2022 is third highest across mega cities after Delhi and Bengaluru and fifth highest overall after Jaipur and Agra.
- The twin cities have the second highest fatalities per lakh, at 8.97 fatalities per lakh population (2021), after Chennai (11.7).
- Vulnerable road users, including pedestrians and cyclists accounted for nearly **34.63%** of the total fatalities in Pune-Pimpri Chinchwad in 2022. (Highway Police, Maharashtra, n.d.)

Road Accident details from 2015 to 2021 in Pune as per National Crimes Record Bureau

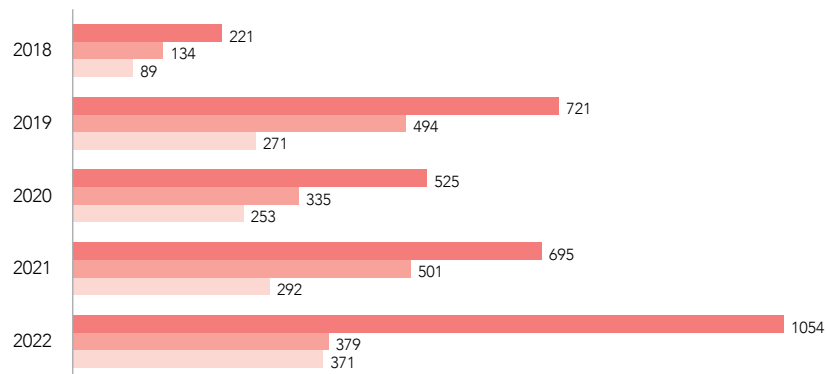


National Crimes Record Bureau (2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022)

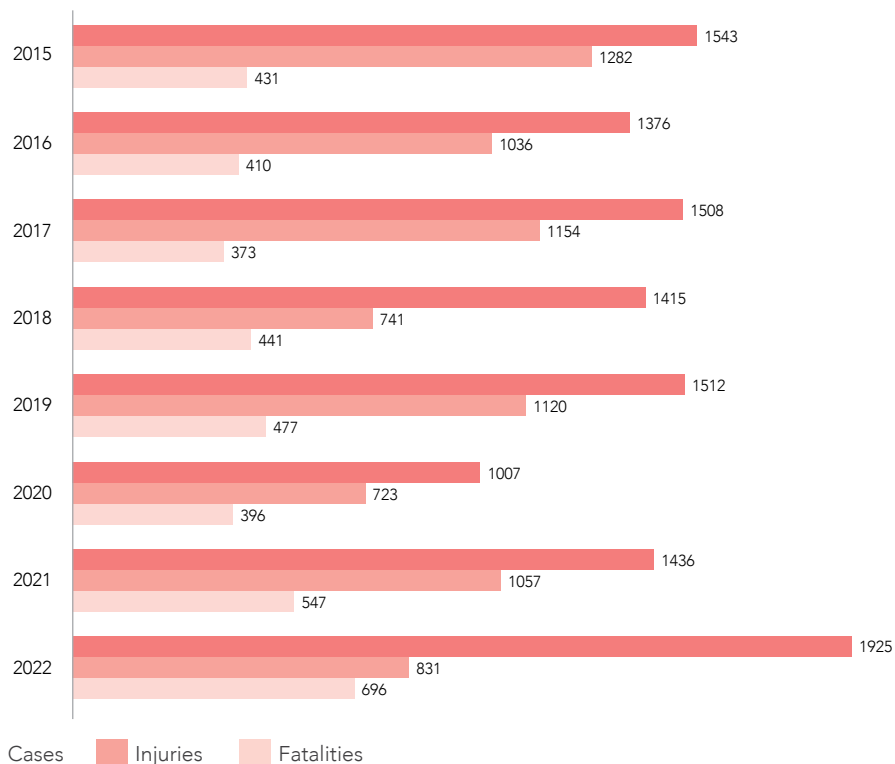
- Since the numbers for Pimpri-Chinchwad were not available in NCRB, hence the distribution between Pune and Pimpri-Chinchwad for 2017 and before may not be documented as seen in below table.



Pimpri-Chinchwad



Total



Source: (Transport Department, Government of Maharashtra, n.d.) (Accident Research Cell, Additional Director General of Police (Traffic), Mumbai, Maharashtra, n.d.) (Highway Police, Maharashtra & Accident Research Cell, Additional Director General of Police (Traffic), 2022) (Highway Police, Maharashtra, n.d.)

Pedestrian and cycling infrastructure

- In Pune-Pimpri Chinchwad **39.56%** of respondents consider the footpaths in the twin cities to be wide and in good condition. This is notably higher than the cluster average of **31.05%**, but slightly lower than Hyderabad and Mumbai, where approximately **40.64%** and **40.56%** of respondents, respectively, expressed satisfaction with the condition of footpaths.
- In Pune-Pimpri Chinchwad, **43.6%** of respondents believe that major junctions in the city have sufficient grade separators like Foot Over Bridges (FOBs) and Subways highest among mega cities clusters. The CMP 2018 has identified 23 locations to install pedestrian grade separators 18 within PMC jurisdiction and 5 in PCMC. It has also proposed improvement of 36 junctions and signalise 76 junctions and proposed building a 2.5m wide footpath of 16 km length in PMC and 31.7 Km in PCMC for Non-Motorised Transport Improvement. (Larsen and Toubro Infrastructure Engineering & Pune Metropolitan Region Development Authority, 2018).
- The Pune Bicycle Plan (Pune Municipal Corporation, 2017) has proposed 300 km of cycle track (Pune Municipal Corporation, 2016) and another 174.27 Km track is proposed in PCMC by PMRDA. (Larsen and Toubro Infrastructure Engineering & Pune Metropolitan Region Development Authority, 2018) Absence of safe cycling infrastructure is apparent as **39.22%** of respondents in Pune-Pimpri Chinchwad, believe there are insufficient cycle tracks and lanes available throughout the city.
- Presently, Pune-Pimpri Chinchwad does not have a public bicycle sharing system, but almost **40.96%** respondents agree that availability of such a system would encourage them to cycle for short distances.

Illumination on roads and footpaths

- The EoMI survey reveals that **27.48%** of respondents in Pune-Pimpri Chinchwad believe that the roads in the city are adequately illuminated, and around **40.36%** stated that the footpaths are also well lit. While the percentage of respondents satisfied with the illumination on the road is slightly lower than the cluster average of **28.42%**, the percentage of respondents satisfied with the footpath illumination is above the cluster average of **31.39%**.

MOBILITY FOR ALL

Inclusive urban mobility ensures that everyone, regardless of their age, gender, ability, income level, or background, has equal access to transportation options. It reduces transportation-related inequalities and enables individuals to participate in the economic, social, and cultural activities within the city.



Persons with Disabilities and public transport accessibility

- According to the survey results, **64.84%** of respondents with disabilities or difficulties in walking, communication and self-care use public transport regularly in Pune- Pimpri Chinchwad.
- At **39.56%** and **74.73%**, respondents with disabilities in Pune-Pimpri Chinchwad rated the bus and metro systems as more accessible than the cluster average of **29.18%** and **32.03%**, respectively. However, in Mumbai, **43.32%** of respondents with disabilities agreed that the public bus transport is accessible. Pune-Pimpri Chinchwad has the highest percentage, at **49.82%**, of persons with disabilities who agree on the accessibility of public transport among mega cities.

Respondent perception regarding accessibility of public transport for persons with disabilities (n=91)

	Disagree	Neutral	Agree
Bus	47.25%	13.19%	39.56%
Metro	0%	25.27%	74.73%
Train	32.97%	31.87%	35.16%
Average	26.74%	23.44%	49.82%

Safety from gender-based crimes

Safety from gender related crime events such as eve teasing and molestation in public transport as perceived by women and trans/non-binary individuals using public transport (n=941)



- Among the mega cities cluster, Pune-Pimpri Chinchwad has the highest percentage, at **69.08%**, of women and trans/non binary respondents who agreed that the metro is safe from gender-related crimes. Bengaluru led the cluster, with more than **41.47%** of women and trans/non-binary reported feeling reassured about their safety.
- Pune-Pimpri Chinchwad also leads the overall average among mega cities, with **47.54%** of respondents across public transport systems considering it safe from gender-related crimes.
- In Pune-Pimpri Chinchwad, over **62.81%** women and trans/non-binary respondents use public transport regularly, which is much lower than the mega cities cluster average of **74.44%**.

Safety from petty crimes

Safety from pickpockets and other petty crimes in public transport (n=2,130)



- Among respondents using public transport regularly, about **37.32%** agreed that the public transport system in Pune-Pimpri Chinchwad is safe from pickpocketing and other petty crimes. This is better than the cluster average of **31.29%**. However, it lags behind Ahmedabad in public bus safety, as **42.33%** considered it safe from petty crimes. About **49.06%** respondents in Pune-Pimpri Chinchwad said the metro is safe from petty crimes, the highest among the mega cities cluster.

AFFORDABLE MOBILITY




Affordable mobility allows individuals to access essential services like education, healthcare and job opportunities, regardless of their financial situation. Affordable transport systems allow low-income households to allocate their budget on other important services like education, housing, and healthcare, thereby contributing to a more equitable distribution of resources.



Public transport affordability

- In Pune-Pimpri Chinchwad, an average of **57.67%** respondents across all income groups and an average of **57.68%** respondents with monthly household income less than INR 30,000 find public transport is affordable between any two points in the city. This is the highest percentage across all cities.
- Pune-Pimpri Chinchwad had the highest percentage, with **68.31%** respondents agreeing that metro is affordable between any two points in the city. While it ranks third, only to Bengaluru and Mumbai, the percentage of respondents agreeing that buses are affordable between any two points in the city.
- Among the respondents with monthly household income below INR 30,000, the highest percentage of respondents was found in Surat, where **41.88%** considered the public bus transport to be affordable between any two points in the city. However, Pune-Pimpri Chinchwad leads in metro affordability, with **69.02%** respondents stating it is affordable between any two points in the city.

Affordability of public transport in Pune Pimpri-Chinchwad

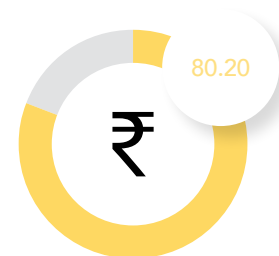
Public Transport Mode	Perception of affordability (income agnostic) (n=2,130)	Perception of affordability (monthly household income less than 30,000) (n=1,120)
 Bus	39.67%	39.55%
 Metro	68.31%	69.02%
 Train	65.02%	64.46%
Average	57.67%	57.68%

Unaffordable mobility as a roadblock

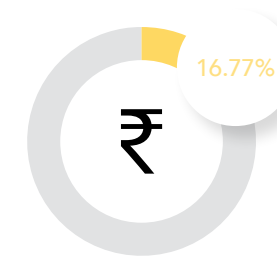
- Even though the percentage of people considering public transport affordable in Pune Pimpri Chinchwad is the highest in the cluster, **11.60%** of respondents declined opportunities primarily due to irregular service and the cost of commuting. This is higher compared to the cluster average of **5.18%**.

Monthly expenditure on travel

- The monthly travel expenditure in Pune-Pimpri Chinchwad is low, with over **80.20%** of respondents reporting spending less than INR 3,000 per month on mobility.
- Approximately **53.4%** (1,335 respondents) have a monthly household income below INR 30,000, and **79.77%** of them spend less than INR 3,000 on transportation.
- The respondents with household income less than INR 30,000 reported spending **16.77%** of their income on transport, the highest in the cluster, where the average is **11.98%** and the lowest is **9.65%** in Hyderabad.



Transport Expenditure less than INR 3000 (Income agnostic)



Transport Expenditure less than INR 3000 (Respondents earning less than INR 30000)

EFFICIENT AND RELIABLE MOBILITY

Efficient and reliable mobility is a key aspect of any well-functioning transportation system. In this regard, access to timely and accurate information on fare and timetables, and efficient public transport is crucial for making informed travel decisions. Availability, accessibility and time taken for trips is yet another pertinent yardstick for measuring efficiency of public transport. This section presents how the city of Pune-Pimpri Chinchwad fairs on this parameter.



Availability of information

Respondent perception regarding easy availability of information on timetable, fare etc. of public transport modes (n=2130)

	Disagree	Neutral	Agree
Bus	40.89%	19.62%	39.48%
Metro	0%	32.49%	67.51%
Train	0%	35.02%	64.98%
Average	13.63%	29.05%	57.32%

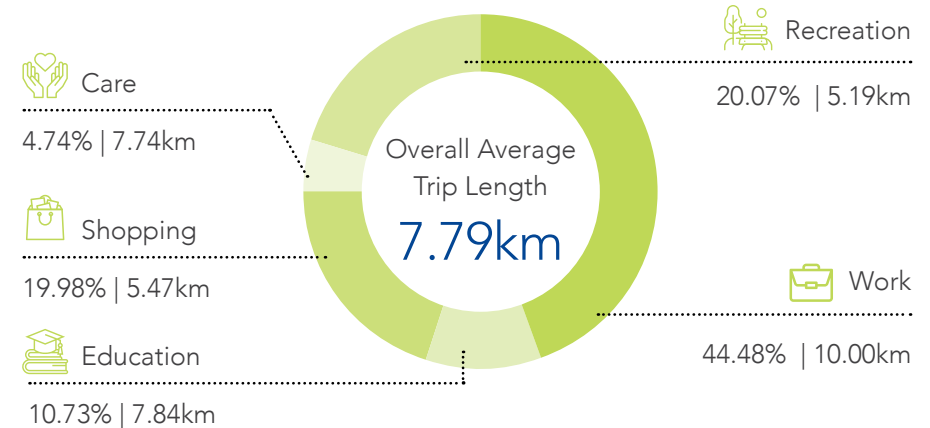
- On average, **57.32%** of Pune Pimpri-Chinchwad respondents indicated easy access to information regarding public transport fares and timetables, compared to the cluster average of **46.54%**.
- While **39.48%** respondents in Pune Pimpri-Chinchwad expressed satisfaction in accessing information about buses, which is higher than the cluster average of **38.81%**, in Surat, **65.22%** of respondents have easy access to such information.
- In Pune Pimpri-Chinchwad, **67.51%** respondents have easy access to information regarding fares and timetables regarding the metro, although only a small stretch of the metro is operational.
- In Pune Pimpri-Chinchwad, **79.67%** of the respondents have access to some information about public transit. Meanwhile, **49.97%** of respondents accessed this information through digital means, while others obtained it at transit stops or through word of mouth.

Public Transport vs Private Vehicle

- In Pune Pimpri-Chinchwad, **39.25%** respondents disagreed that they reach their frequented destination significantly faster by using their own vehicles as compared to travelling by public transport. In other words, these respondents believe that using public transport doesn't significantly increase their travel time.

Average commute duration

Trip distribution and average trip length based on trip types.



- Nearly **44.48%** of the trips, as stated by respondents, were for work, and **10.73%** of the trips were made for education.
- On average, the respondents in Pune Pimpri-Chinchwad reported commuting for a duration of 31 minutes and 27 seconds which is around the cluster average, and marginally higher than Ahmedabad, which has the lowest commute duration at 29 minutes 53 seconds.

Distribution of work and education trips across different time intervals

Trip purpose: Work



Trip purpose: Education



- In Pune-Pimpri Chinchwad, **56.32%** of work trips and **60.37%** of education trips were completed within 30 minutes. Across the cluster, an average of **58.37%** work trips and **62.94%** education trips were completed within 30 minutes. Ahmedabad had the highest percentage of both work (**62.7%**) and education (**74.10%**) trips among the mega cities completed within 30 minutes.

Time spent on First Mile/Last Mile connectivity

- Among the mega cities, the average is **25.89%**. However, in Pune-Pimpri Chinchwad, **34.68%** respondents can access transit stops within 10 minutes by walk or cycle.
- On average, **38.66%** respondents in Pune-Pimpri Chinchwad take less than 10 minutes to reach the nearest transit stop by shared mobility modes. This is lower than the cluster average of **46.98%**. Notably, Ahmedabad had the highest percentage (**52.43%**) of respondents achieving this quick connectivity.

Congestion and crowding

Respondent perception regarding state of overcrowding in Public Transport (n=2130)

	Disagree	Neutral	Agree
Bus	39.53%	19.72%	40.75%
Metro	0%	35.40%	64.60%
Train	0%	32.39%	67.61%
Average	13.18%	29.17%	57.65%

- In Pune-Pimpri Chinchwad an average of **57.65%** of public transport users (highest among mega cities) felt it is overcrowded and it is difficult to find a space to sit or even stand. Among the mega cities, an average of **35.75%** respondents felt public transport is overcrowded. The metro was perceived as slightly more crowded than the buses and trains in Pune. While the public transport in Pune-Pimpri Chinchwad was perceived to be the most crowded, it was perceived as the least crowded in Ahmedabad.
- In comparison, Delhi boasts the lowest percentages of complaints regarding overcrowding in both public buses (**24.31%**) and the metro (**25.2%**). These findings highlight the need for targeted strategies to alleviate overcrowding and improve the public transport experience.
- Pune is considered the second most congested city in India and 7th most congested in the world as per the TomTom's Traffic Index-2023. (TomTom traffic index (2023), n.d.) However, about **45.72%** of the respondents believed that the roads are not congested.

CLEAN MOBILITY

Clean and sustainable mobility is a key focus area in modern urban planning, aiming to reduce carbon emissions, improve air quality, and create a healthier environment. Moreover, emphasising hygienic mobility practices, including cleanliness measures in public transport, enhances the safety and well-being of commuters. Here's how Pune-Pimpri Chinchwad fares in terms of clean mobility:



Deaths due to PM2.5 pollution

- In 2019, Pune-Pimpri Chinchwad recorded 92.04 deaths per lakh population⁶ attributed to PM2.5 pollution, the lowest in the mega cities cluster (Health in Cities, n.d.). However, the rising vehicular traffic and emission along with reduction in green cover due to construction has impacted the weather severely (The Indian Express, 2022).

Electric Vehicle (EV) adoption

- Approximately **2.26%** of the total two-wheelers owned by the respondents were electric vehicles. In the case of bicycles, **3.04%** were either pedal-assisted or electric cycles.

Top three reasons for unwillingness to buy electric vehicles (n=1790)

Reasons for unwillingness to buy Electric Vehicle	Pune-Pimpri Chinchwad
Electric vehicle are more expensive than ICE vehicles	5.98%
Limited finance options	20.56%
High cost of finance	2.46%
Safety concerns	85.08%
Not enough EV options in the market to choose from	41.96%
Inadequate charging infrastructure	76.70%
No clarity on resale/resale value of EVs	3.80%
Concerned about technology and reliability of existing EVs	49.78%
Lack of service centres/skilled mechanics	7.32%
I'm not aware of the EV technology	3.02%
I own a car/recently purchased personal vehicle so not planning to buy one in the next few years	3.35%

- About **28.40%** of respondents in Pune-Pimpri Chinchwad expressed their willingness to purchase electric vehicles in the near future, which is lower than the cluster average of **34.5%**. Safety concerns, inadequate public charging infrastructure, and doubts about the reliability of existing technology are major deterrents.

Cleanliness and hygiene perception in public transport

Respondent Perception on cleanliness, hygiene and maintenance/upkeep of Public transport (n=2130)

	Disagree	Neutral	Agree
Bus	39.20%	21.22%	39.58%
Metro	0.00%	31.08%	68.92%
Train	49.77%	25.92%	24.32%
Average	29.66%	26.07%	44.27%

- Among the respondents who regularly use public transport in Pune-Pimpri Chinchwad, **39.58%** find buses to be clean and hygienic, almost the same as the cluster average of **39.63%**. Among the mega cities, Mumbai has the highest **40.24%** respondents reporting that buses are clean and hygienic.
- Among the mega cities, Pune-Pimpri Chinchwad stands out with **68.92%** respondents reporting that the metro is clean and hygienic.

Shift to Electric bus

- Pune Mahanagar Parivahan Mahamandal Limited has augmented 650 electric buses since 2019. Under Faster Adoption and Manufacturing of Hybrid and Electric Vehicles in India (FAME -2) scheme the public bus transport company procured 150 electric buses. In addition, it procured another 500 electric buses through Gross Cost Contract (GCC) with subsidy support from Pune Smart City Development Corporation Limited. Hence, a total of 650 electric buses have been augmented, accounting for **31%** of the 2089 bus fleet. The city plans to electrify the entire fleet in near future (Didmishe, 2023).

⁶The figure has been calculated by dividing the number of deaths due to PM 2.5 pollution in 2019, by the projected population in Pune and Pimpri Chinchwad in 2021

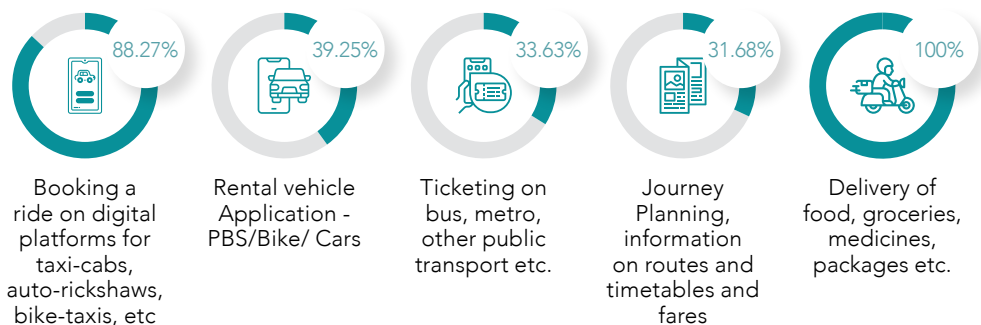
FUTURE MOBILITY

The ubiquity of smartphone applications has brought about a transformative shift in how people make mobility decisions and facilitate payments. This has led to greater flexibility and convenience in choosing the most appropriate transportation mode, whether it's for commuting or package delivery. Additionally, integrated payment systems within these apps have significantly enhanced the efficiency and security of transactions, eliminating the need for traditional cash-based payments. This section explores the extent to which citizens embrace technology-enabled mobility and payment solutions in Pune-Pimpri Chinchwad.



Mobility and package delivery

Percentage of respondents having at least one applications for different services; (n=2456)

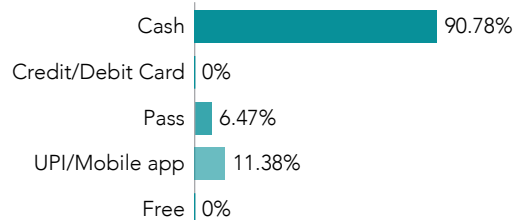


- Over **98.24%** of respondents use a smartphone. Of these, **88.27%** have at least one app to book a ride on digital platforms, and all smartphone users have at least one app for food and package delivery. However, the percentage of respondents having at least one app for rental vehicle applications, ticketing for public transport and journey planning, etc. are significantly lower. This pattern is observed across the cities in the cluster.

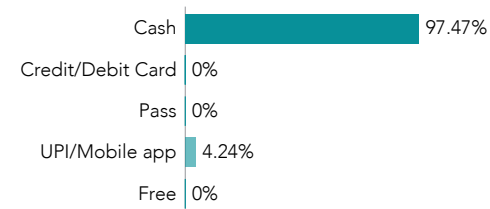
Payment for mobility, and parking

Distribution of payments made for different mobility services - parking (n=1,958), public transport, and IPT (n=1,345)

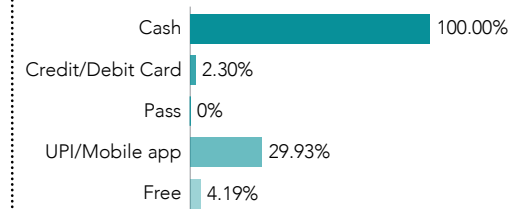
Public Transport



Intermediate Public Transport



Parking



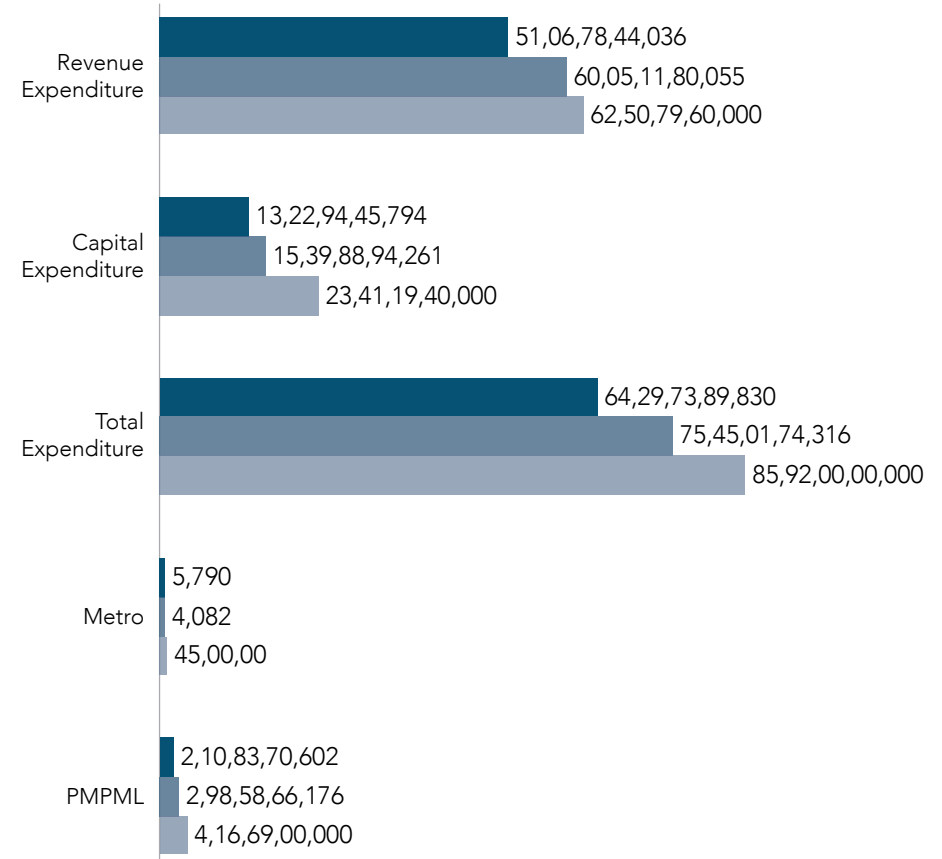
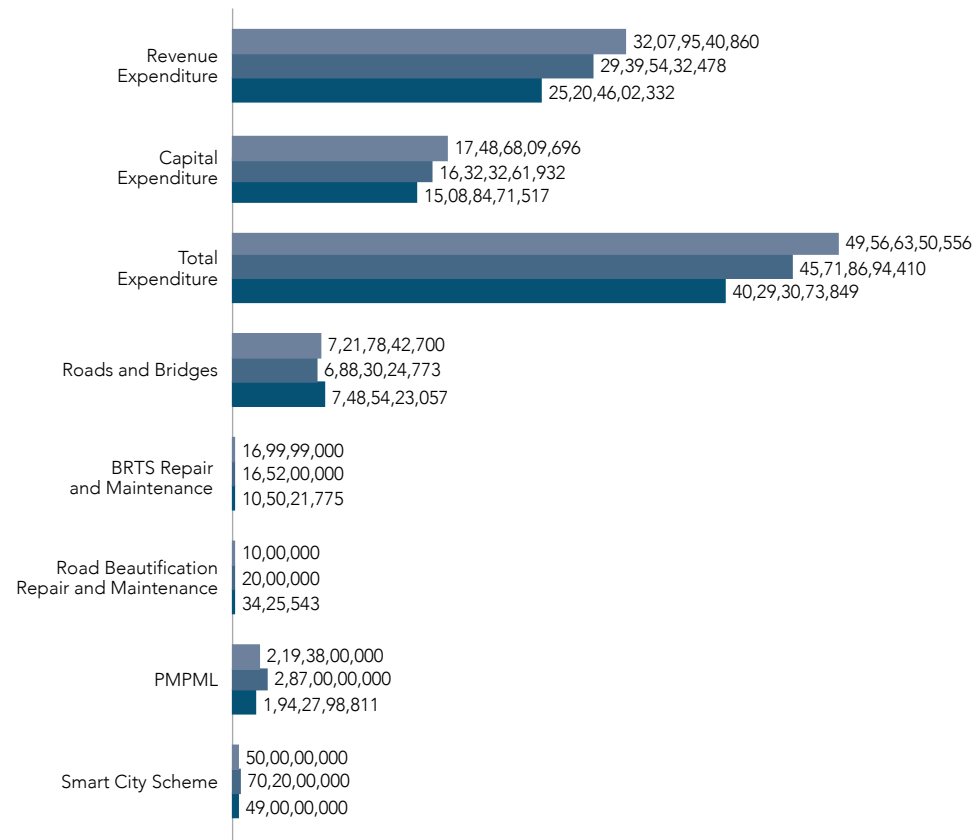
- UPI/ Mobile applications are the most popular and acceptable mode for cashless payment. While **29.93%** of respondents using parking facilities pay by UPI/ Mobile applications, its usage for payment in public transport is only **11.38%**.
- Cash remains the dominant mode of payment for all the three purposes in Pune-Pimpri Chinchwad, a pattern also observed in other cities in the cluster.
- Passes are a convenient cashless payment mode for public transport, but only **6.47%** regular public transport users in Pune-Pimpri Chinchwad use it, which is slightly higher than the cluster average of **6.1%**.
- Only **4.24%** of respondents in Pune-Pimpri Chinchwad use UPI and mobile apps for paying for IPT modes, lower than the cluster average of **8.66%**, and significantly lower than Hyderabad (**34.13%**), which leads the cluster.

INVESTMENT IN CITY

Financial resources play a vital role in development and maintenance of a sustainable, seamless, efficient and inclusive mobility system. Below are the updated budgets for Pune and Pimpri Chinchwad, focusing on expenditures.



Pune Municipal Corporation and Pimpri Chinchwad Municipal Corporation Budget 2022-23 details

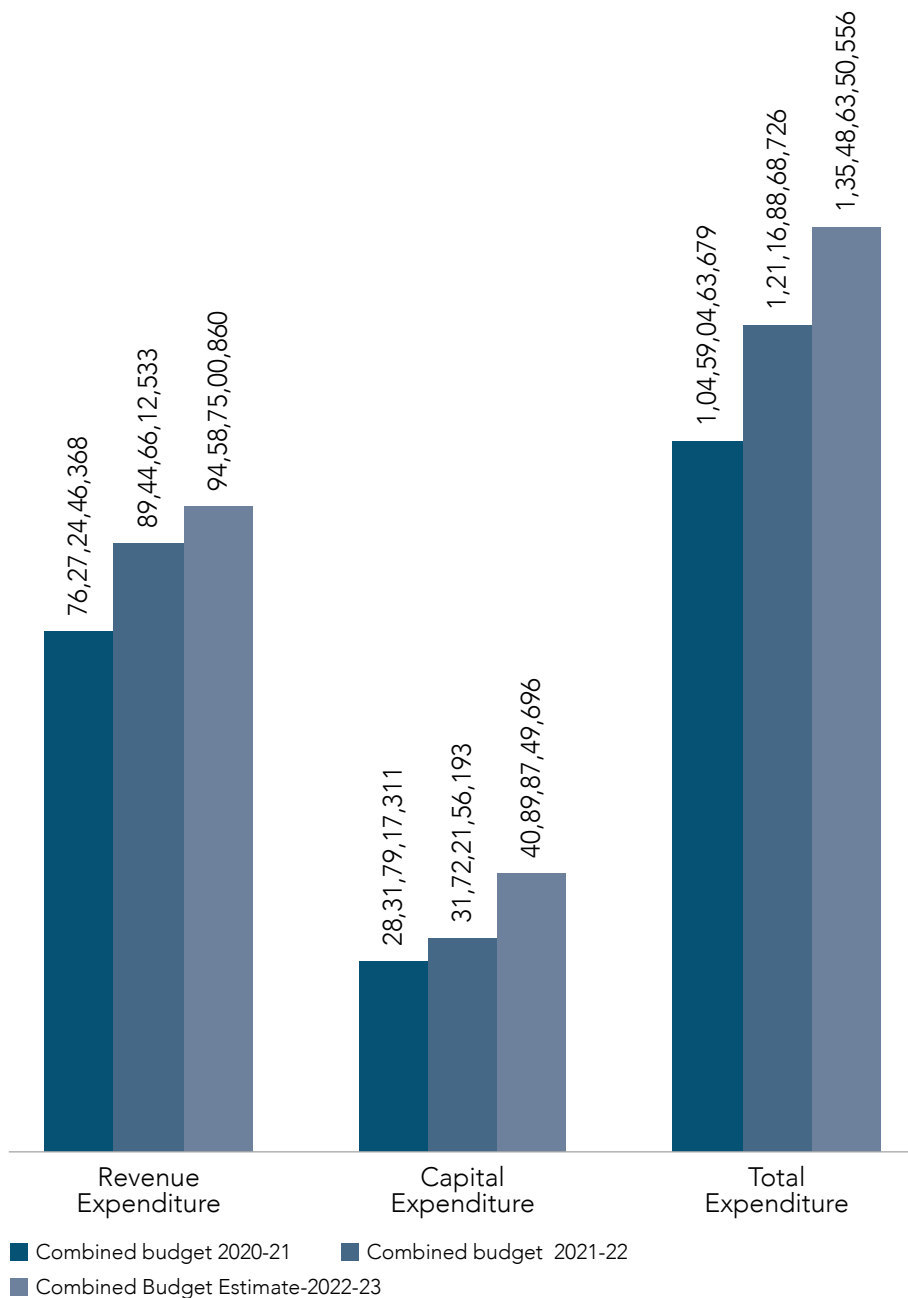


■ Accounts 2020-21 ■ Actual 2021-22 ■ Budget Estimate-2022-23

■ Accounts 2020-21 ■ Revised Budget Estimate - 2021-22 ■ Budget Estimate-2022-23

Source: (Pimpri Chinchwad Municipal Corporation, n.d.)

Source: (Pimpri Chinchwad Municipal Corporation, n.d.)



The estimated budget for Pune Municipal corporation and Pimpri Chinchwad Municipal Corporation in 2022-23 has increased by over **11.81%**, or INR 1,431.74 Crores from the 2021-22 expenditure. The capital account's budget has significantly increased by **28.92%**, or (INR 917.65 Crore).

- The Estimated budget of Pune Municipal Corporation for 2022-23 is **73.34%** higher than that of Pimpri Chinchwad Municipal Corporation.
- Both the Corporations plan to spend INR 636.07 Crores, about **4.7%** of its budget, towards Pune Mahanagar Parivahan Mahamandal Limited (PMPML) as per Budget estimate of 2022-23.
- While the budget of PCMC from FY 2021-22 to FY 2022-23 grew by **8.41%**, the budget for Pune Municipal Corporation has grown by **13.87%** during the same period.
- The Capital Expenditure in PCMC has been consistent at a little over 35% in PCMC in both 2021-22 and 2022-23 budgets while in case of PMC it has increased from **20.41%** to **27.25%** of the total expenditure of the respective Municipal Corporations.
- Besides both the municipal corporations and PMPML, the Pune Metro developed by Maharashtra Metro Rail Corporation Limited as well as Pune Metropolitan Region Development Authority (under public private partnership) are big investments towards improving mobility in both the cities.

THE ROAD AHEAD

There are multiple factors affecting mobility, as it should be for something as encompassing. If infrastructure sets the pace, technological advancements and behavioural changes ensure that the journey to sustainable and efficient mobility systems is seamless. The inferences encapsulated in the study aim to highlight the opportunities ahead, and assist policy makers towards a data-driven decision-making process. The key responsibility areas and their respective improvement areas have been furnished below.

We urge all stakeholders to join us on this journey of improved and enhanced mobility across the country through various engagement channels.

Key responsibility areas and improvement areas, along with the agencies responsible for intervention.



Encourage Shared Mobility


Improvement Areas

- The increasing use and personal vehicle ownership is inextricably linked with congestion. The twin cities of Pune-Pimpri Chinchwad are no different (Refer Vehicle growth and ownership patterns and Congestion and crowding). To address this trend and foster sustainable transport solutions, policy interventions are crucial. Encouraging alternatives in shared mobility, particularly electric, could be instrumental to mitigate growth and use of personal vehicles and the associated negative externalities.

Responsible Agency

State Transport Authority/RTO

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Improving first - and last mile connectivity and seamless multi-modal integration

Improvement Areas

- As evidenced in section Seamless Mobility, there's an opportunity to improve the twin city Pune and Pimpri Chinchwad's first and last mile connectivity.
- Access to mass transit can be improved by encouraging use of shared mobility (IPT) modes for first and last mile connectivity. Additionally, land is a scarce resource particularly in cities, reviving public bicycle sharing could improve active mobility, first-mile and last-mile connectivity, without being land-intensive (Refer section First- and last-mile connectivity to public transport, Pedestrian and cycling infrastructure & Time spent on First Mile/ Last Mile connectivity).

Responsible Agency

Pune and Pimpri Chinchwad Municipal Corporation and Pune Metropolitan Region Development Authority

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Active mobility infrastructure

Improvement Areas

- Investment in public bicycle sharing systems and safe cycling infrastructure, especially on major roads, will reduce the need to own a bicycle, enabling people to have a more sustainable mode of commute and emission (Refer section Road Safety and Fatalities, Pedestrian and cycling infrastructure). Additionally, walking, cycling and use of public transport should be prioritised, given the perilous conditions of vulnerable road users.
- Well-lit and well-designed roads and footpaths will encourage walking and keep both motorists and pedestrians safe (Refer section Illumination on roads and footpaths).

Responsible Agency

Pune and Pimpri Chinchwad Municipal Corporation

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Improving Aapli Metro connectivity

Improvement Areas

- Open data on schedule and historic ridership at different stations will enable opportunities for service providers to improve first and last mile efficiency. It will also enable commuters to plan their journey better.

Responsible Agency

Pune Metro and RTO



Improving Public Bus Transport services

Improvement Areas

- Public transport patronage needs to be improved as the regular PT users are fewer than the cluster average even though Pune has one of the highest air conditioned electric bus fleets in the country (Refer section Mode share and public transport adoption). Though the bus availability is better than cluster average, it can be improved further by improving operational efficiencies, improving coverage and introducing more electric buses (Refer Section Availability of public transport)
- Offering unlimited trips for a fixed payment, passes make buses a preferred mode of commute. As presented in section Payment for mobility, and parking, there's scope of improvement in uptake of bus passes (Refer section Payment for mobility, and parking)
- Providing real-time information on bus schedules can enhance reliability and consequently increase ridership, as commuters gain improved visibility that helps reduce wait times. The wait time for public transport is higher than the cluster average. (Refer section Access and wait time for public transport)

Responsible Agency

Pune Mahanagar Parivahan Mahamandal Limited (PMPML)



Road safety infrastructure

Improvement Areas

- Road crashes in both PMC and PCMC have increased considerably. This could be incidental as the city is upgrading its infrastructure and building metro and grade separators. Upgrading the safety infrastructure, such as roads, illumination, pedestrianisation and cycling infrastructure, is pivotal to reduce road crashes and fatalities. (Refer section Road Safety and Fatalities)

Responsible Agency

Pune and Pimpri Chinchwad Municipal Corporation and Traffic Police


The strategic interventions mentioned above need to be prioritised to improve the mobility scenario in the city. OMI Foundation will be keen to support the civic administration in creating pathways for implementation, demonstration of pilot and collaboration to improve Pune-Pimpri Chinchwad's mobility scenario.

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