Ease of Moving Index

OMI FOUNDATION

New Delhi 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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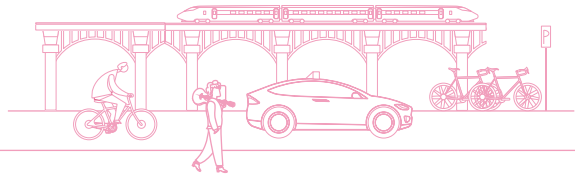
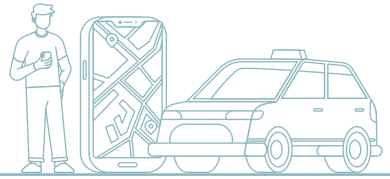
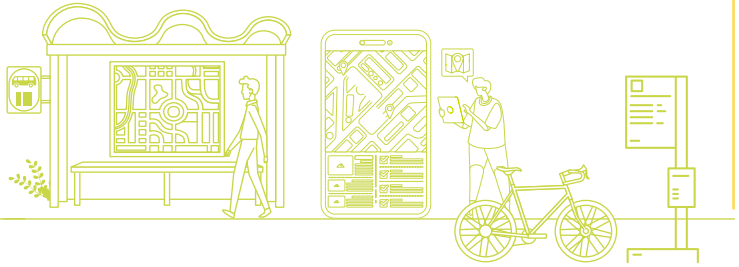


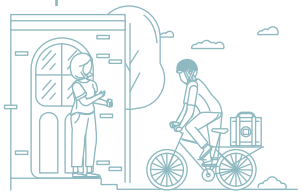
SLOW

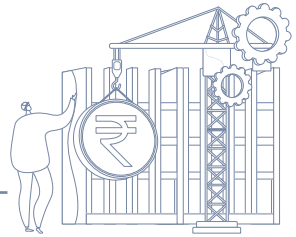
BUS STOP
BUS STOP

BUS STOP









INTRODUCTION

New Delhi, the capital city of India, is a vibrant and multifaceted metropolis that seamlessly blends rich history with modernity. Nestled in the northern part of the country, New Delhi is not just a political and administrative centre but also one of the most prominent cultural and economic centres of India. The city has undergone a comprehensive evaluation of its mobility paradigm through the 'Ease of Moving[1] Index - India Report 2022 (EoMI 2022)' 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 specifically on New Delhi'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 the city's mobility network. For an optimum 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.

CITY OVERVIEW

Contextual Characteristics

New Delhi, also known as the National Capital Territory (NCT) of Delhi is an urban conglomerate built around ancient hamlets, city forts and palaces. A relatively small city state, located on the banks of the Yamuna, New Delhi is surrounded by satellite cities of Ghaziabad, Gurugram, Faridabad and Noida. Table 1 presents the key physical attributes of the city, while table 2 presents the figures on population growth in the city.

Table 1: Physical attributes of New Delhi

Topography
Average elevation is about 230m above Sea Level. Max elevation is about 290m.

Location
28.61°N, 77.23°E

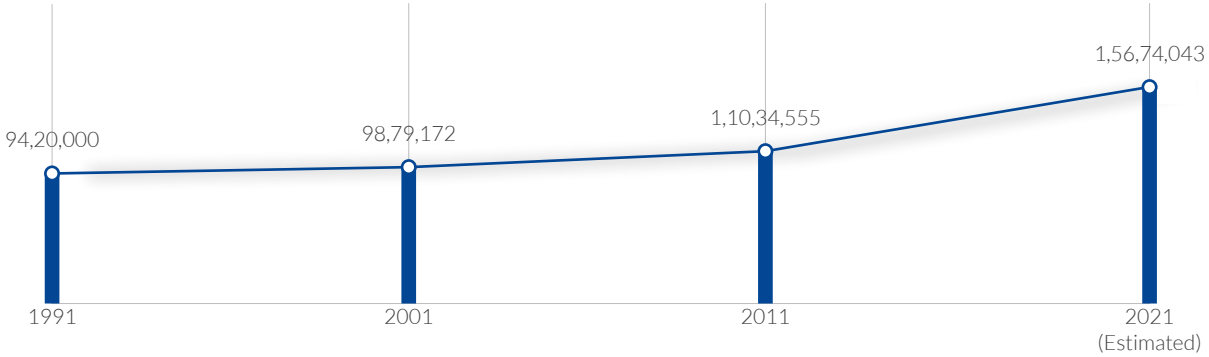
Weather
3°Celsius to 40°Celsius

Air Quality
Annual average concentration (2022) of PM2.5 (µg/m3) in New Delhi: 98

Rainfall
Average of 749mm in 2022

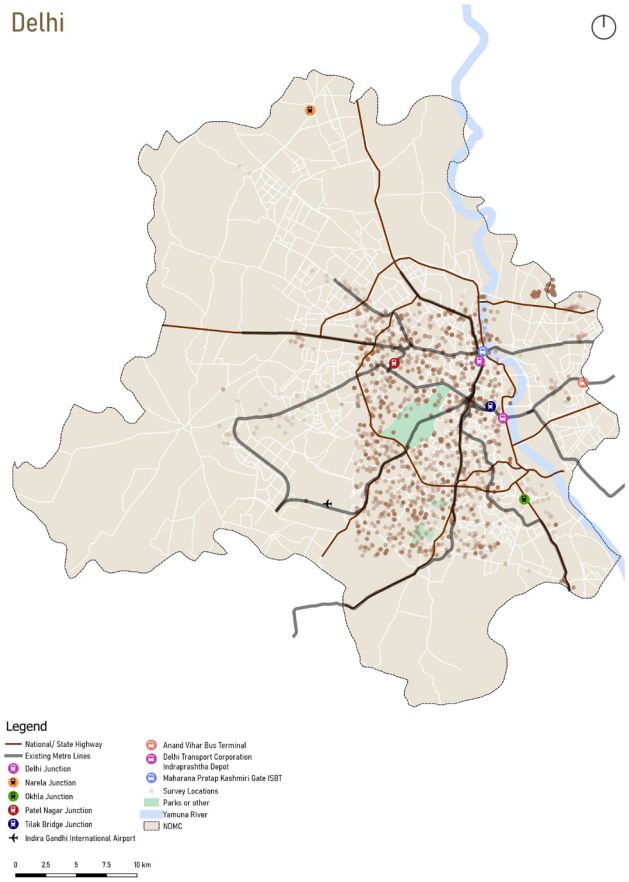
Source: Topographic-map, 2022; IQ Air, 2022; IMD

Table 2: Growth of population in New Delhi



Source: (Office of the Registrar General & Census Commissioner, India; Ministry of Home Affairs, Government of India, 2021)

[1]The '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.
[2]The report can be accessed here: https://olawebcdn.com/ola-institute/easeofmoving-2022.pdf



CITY ADMINISTRATION

Public Transport Authority

Delhi Transport Corporation

3,762 buses

Delhi Integrated Multi-Modal Transit System (DIMITS) - 3310

Regional Transport Office

13 RTO - Mall Road, Tilak Marg, Sheikh Sarai, Janakpuri, Loni Road, Sarai Kale Khan, Mayur Vihar, Wazir Pur, Janakpuri/Palam, Raja Garden, Rohini, Vasant Vihar, Surajmal Vihar/Shahdara

Traffic Police

New Delhi is divided into 6 ranges

Delhi Metro Rail Corporation Limited. (DMRC)

- Operational - 348.1 km
- Under Construction - 65 km
- Under Consideration - 65.02 km
- Number of Lines - 9 lines ; 1 Airport express line

Scope of Administration

New Delhi Municipal Corporation

42.7 sq.km

Municipal Corporation of Delhi

1,397.3 sq.km

Cantonment Board

43 sq.km

Source: ((Delhi Metro Rail Corporation, 2022), (Delhi Transport Corporation, 2022), (DIMTS, 2023))

EASE OF MOVING INDEX 2022 DATA COLLECTION AND RESPONDENT PROFILE

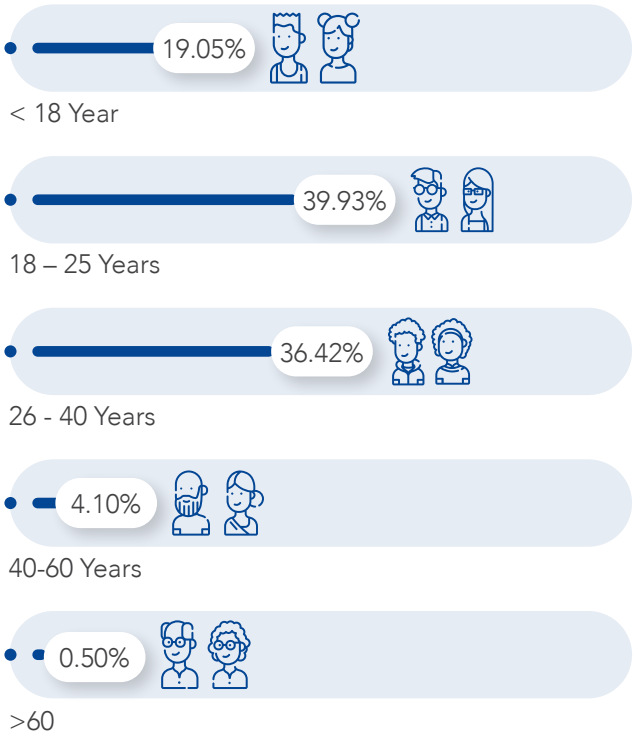
The Ease of Moving Index - India Report 2022 was developed based on findings from primary surveys, FGDs, and secondary data analysis. To ensure comparability, the 40 cities were divided into four clusters based on their estimated 2021 population. New Delhi falls within the 'Mega cities cluster,' consisting of nine cities[3], each with a population exceeding 4 million.

Sample size for No. of respondents/participants

Survey: 6000 respondents

FGD: 20 men participants

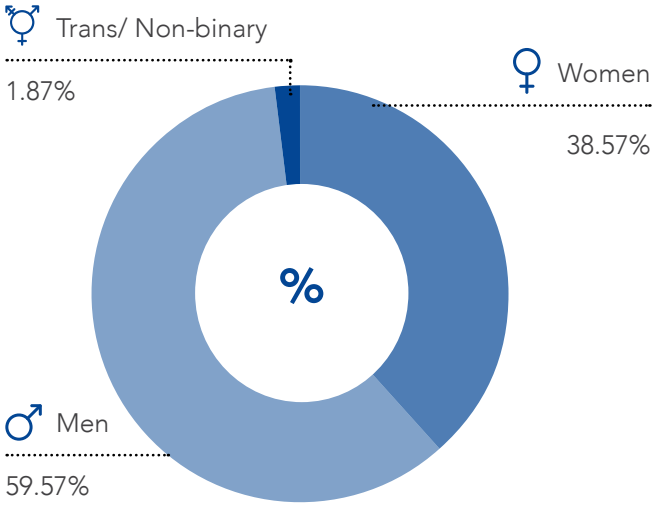
Age Distribution



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 20 active mobility users, centering on sustainable healthy cities.

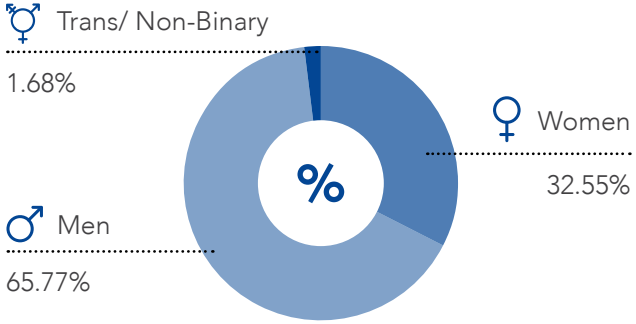
Gender Distribution



Distribution of disabilities/functional difficulties[4]

1.01% Hearing	99.66% Walking
12.75% Communicating	7.72% Self-care

Gender distribution of persons with disabilities



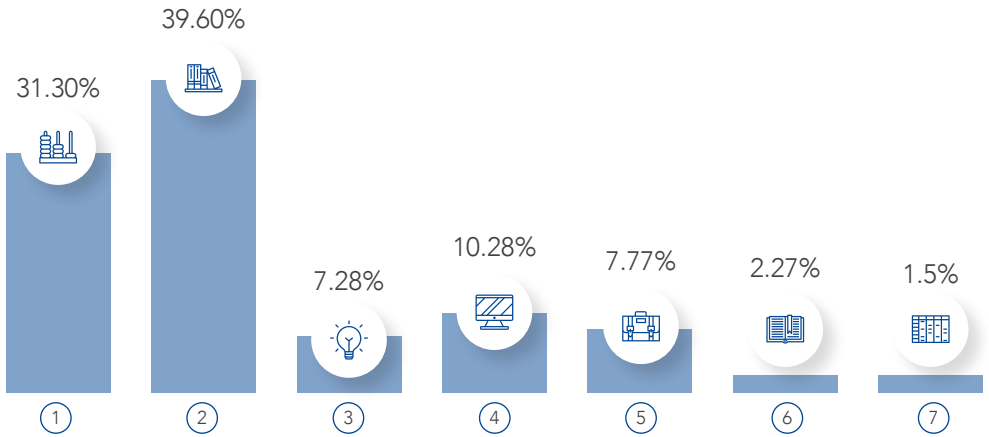
Persons with Disabilities

4.97%
total survey respondents

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

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

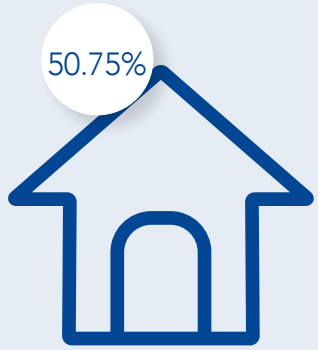
Highest Educational Qualification



1 < 10th
2 10 – 12th Pass
3 Diploma
4 Undergraduate
5 Graduate
6 Post Graduate equivalent
7 Doctoral and above

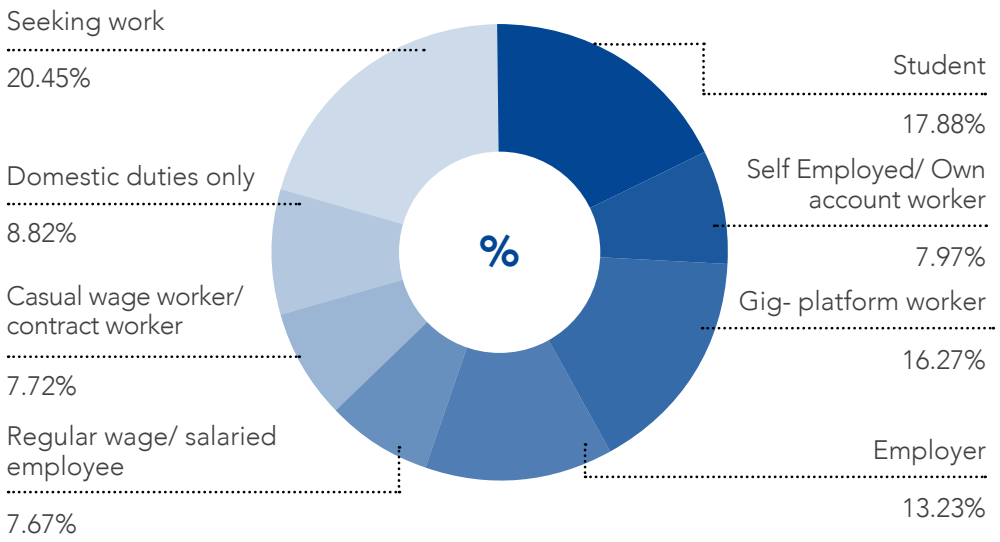
Average Household Size

House Ownership

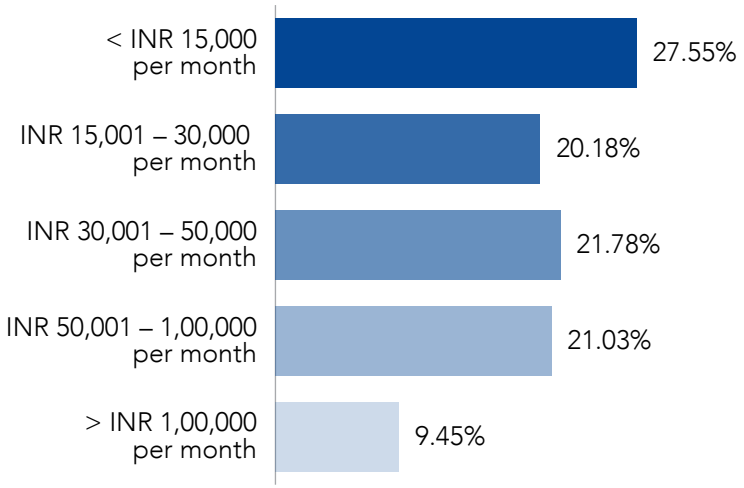


Residing in own house

Occupation



Household Income



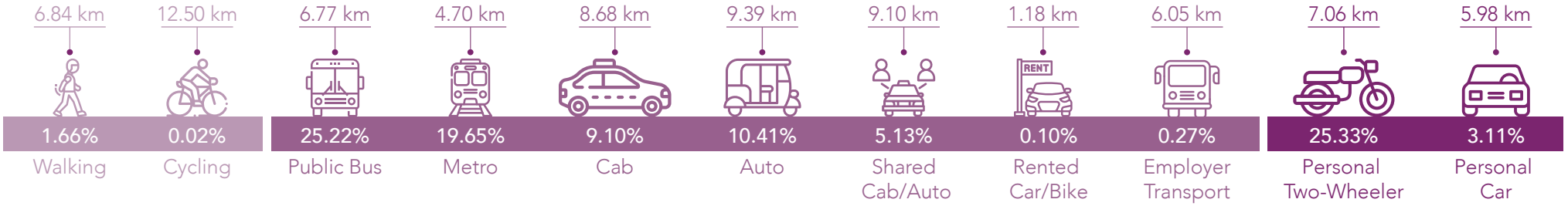
INSIGHTS FROM THE EASE OF MOVING INDEX 2022

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 New Delhi fares on this parameter.

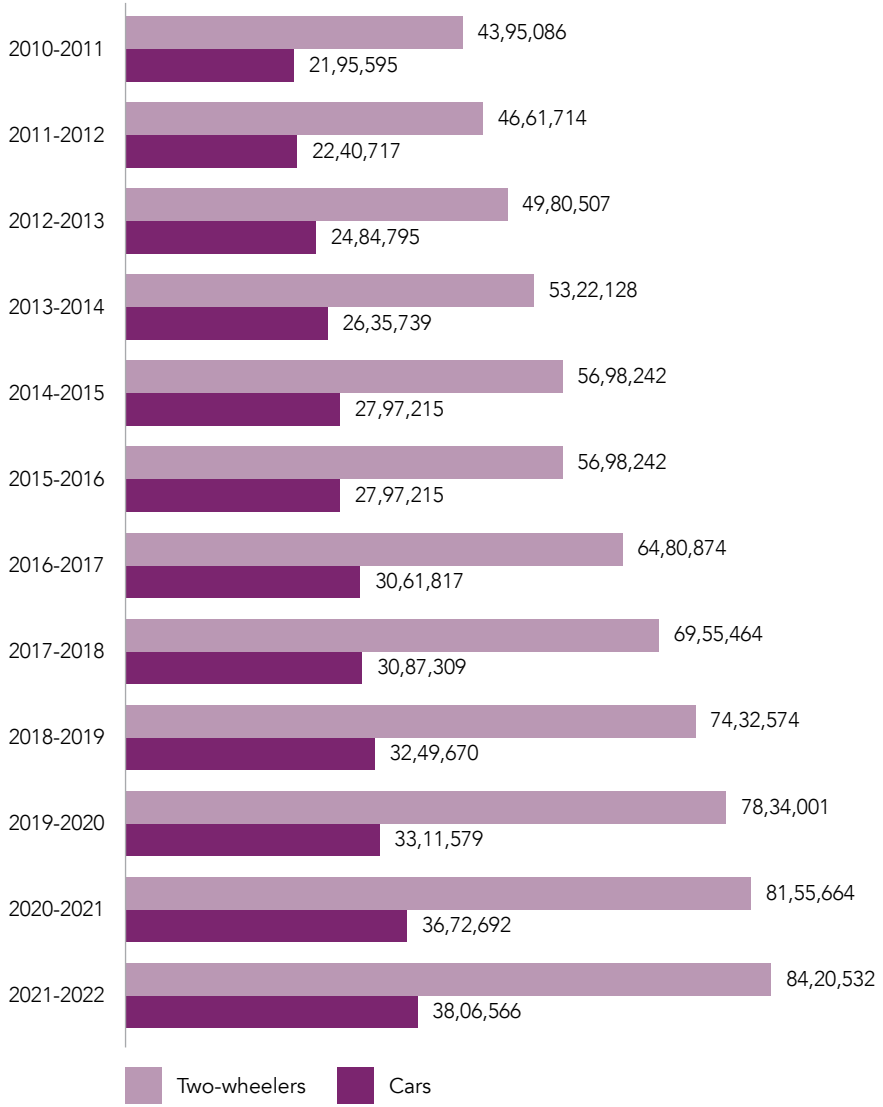
- In New Delhi, public transport comprises **44.87%** of the mode share, while the combined mode share of active and shared mobility reaches **71.56%**, the third highest in its cluster and fifth overall.
- New Delhi boasts the third-highest percentage of regular public transport users after Mumbai and Chennai within the Mega Cities cluster, with 83.98% of respondents indicating regular usage. This is supported with New Delhi having an availability of 44.86 buses per lakh population, surpassing the cluster average of 38.34 buses.
- New Delhi ranks third within its cluster for mass transit infrastructure, with 2.6 km per lakh population (including both built and under construction projects).
- Among regular public transport users, **88.23%** own some form of motor vehicle (two-wheeler/car/three-wheeler). It is encouraging to see **44.67%** of these vehicle owners choose not to use their vehicles due to the reliability of public transport and the availability of alternatives such as autos and cabs. This indicates a significant percentage of choice users in New Delhi. Additionally, **32.10%** cited the high cost of vehicle ownership as their reason for relying on public transport.
- **8.3%** of survey respondents reported good accessibility to public transportation throughout New Delhi. However, **39.14%** of regular public transit users expressed their lack of confidence in using public transport at night stemming from the unavailability and unreliability of transportation services in their areas during night hours.

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



The average commute distance is 6.97 km across all modes.

Cumulative number of vehicles registered in New Delhi between 2010-11 to 2021-22



Source: (Ministry of Road Transport and Highways, 2012), (Ministry of Road Transport and Highways, 2013), (Ministry of Road Transport and Highways, 2014), (Ministry of Road Transport and Highways, 2015), (Ministry of Road Transport and Highways, 2022)

Vehicle growth and ownership patterns

Over the past decade, New Delhi has witnessed a significant growth in registered vehicles. The number of registered two-wheelers increased at a CAGR of **6.09%** while the number of registered four-wheelers grew at a CAGR of **5.13%**. These figures are noteworthy when compared to the population's growth of **3.57%** during the same period.

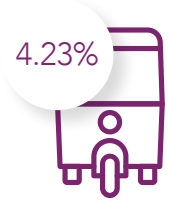
Vehicle growth and ownership patterns

Per thousand ownership	New Delhi	Cluster Average	Lowest
Two Wheelers	556.1	413.93	Kolkata - 142.6
Cars	252.1	413.9	Hyderabad - 57.08

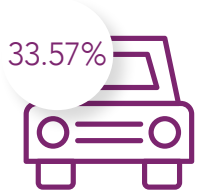
No Vehicle

Bicycle

Two Wheeler



Three Wheeler



Car

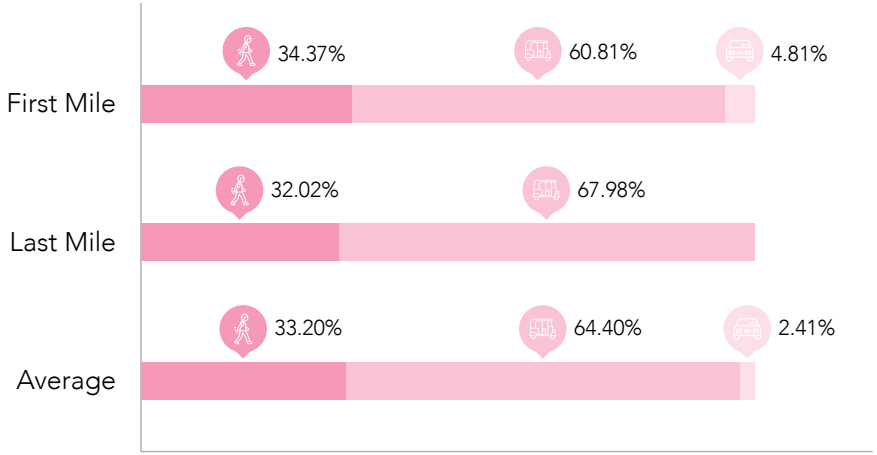
SEAMLESS MOBILITY

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. In New Delhi, the metro network has been consistently growing throughout the city. Alongside the well-established bus network, there are also high-quality feeder services. In the latest budget, the government seeks to introduce "mohalla (neighbourhood) buses" to boost last-mile connectivity, especially in areas that lack public bus service.

First- and last-mile connectivity to public transport

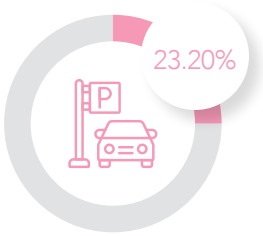
- In New Delhi, **33.20%** of regular public transport users walk to transit stops, which is below the cluster average of **34.8%** (highest is in Pune Pimpri Chinchwad at **43.16%**).
- New Delhi's reliance on IPT modes for first-mile and last-mile connectivity to public is higher than the cluster average of **62.02%**, however, still lagging behind Ahmedabad which leads at **68.41%**.
- Only **2.4%** of regular public transport users use personal vehicles to access public transit which is below the cluster average of **3.1%**.

Modes used for first and last mile connectivity by regular public transport users (n=4300)

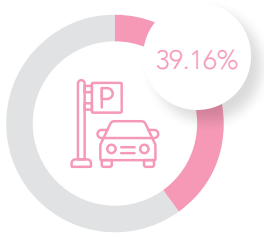


Parking facilities

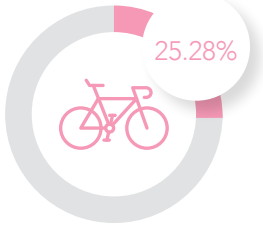
- The survey revealed that **23.20%** of regular public transport users in New Delhi find the dedicated parking facilities at major transit hubs to be satisfactory. Although this is close to the cluster average, it is considerably lower than Surat, which leads the cluster with **39.16%** of respondents expressing satisfaction with the parking availability at transit hubs. The survey also suggests that only **25.28%** respondents who use bicycles believe that there is sufficient bicycle parking available at transit hubs. This percentage falls significantly below the cluster average of **29.61%**.



Parking at Transit hubs
New Delhi



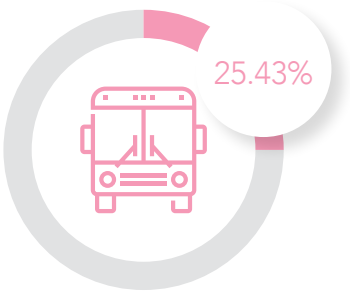
Parking at Transit hubs
Surat



Bicycle parking at Transit hubs
New Delhi

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

Access and wait time for public transport



- Only **25.43%** of commuters in New Delhi expressed dissatisfaction regarding the waiting period for boarding public transport which is best in its cluster.
- Regular public transport users in New Delhi reported an average time of 8 minutes and 17 seconds to reach a transit stop.
- The average wait time for public transport in New Delhi is 9 minutes and 20 seconds.

Time to access nearest transit hub

New Delhi

8 minutes and 17 seconds

Average wait time for public transport

New Delhi

9 minutes and 20 seconds

Unified Metropolitan Transport Authority (UMTA)

- New Delhi is yet to constitute a Unified Metropolitan Transport Authority (UMTA). The Metro Rail Policy, 2017 mandates that all states with metro rail projects, funded with central assistance, commit to establishing and operationalising UMTA in the city within one year of commencing metro operations. It also requires UMTA to oversee the commissioning of a Comprehensive Mobility Plan for the city, which helps organise investments in urban transport infrastructure.

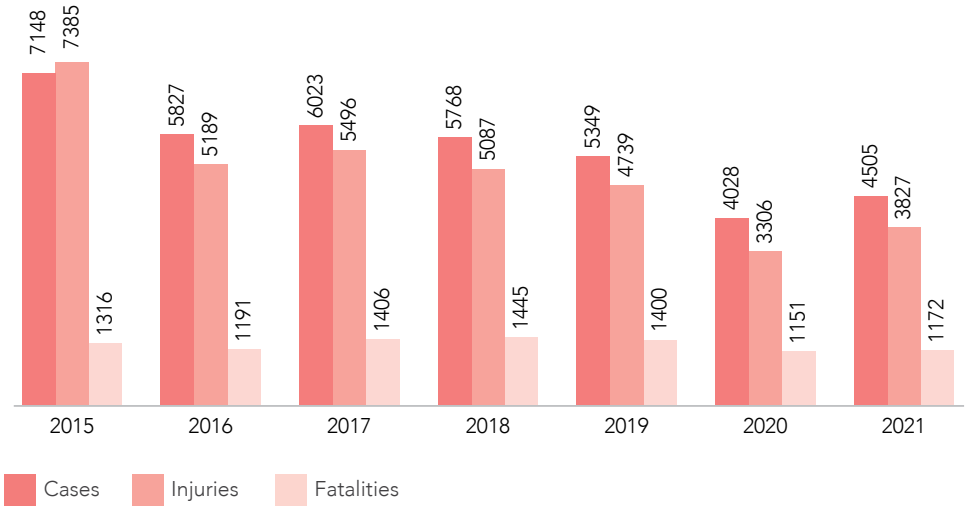
TOWARDS VISION ZERO

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 New Delhi's records on this front.

Road Safety and Fatalities

- New Delhi has achieved a **18.89%** reduction in road fatalities in 2021 from its peak of 1455 deaths in 2018.
- Despite a reduction in road fatalities and accidents since 2017, New Delhi still has the highest road fatalities in terms of absolute numbers in 2021.
- The city has 7.48 fatalities per lakh population which is higher than its cluster average of 5.80 and considerably higher than Mumbai with a fatality rate of 3.26 per lakh population.
- Vulnerable road users, including pedestrians, cyclists, and two-wheelers, accounted for nearly **47.18%** of the total fatalities in New Delhi in 2021.

Road Accident details from 2015 to 2021



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

Pedestrian and cycling infrastructure

- New Delhi scores the lowest in the cluster with only **20.67%** of respondents considering the footpaths in the city to be wide and in good condition. This is notably lower than the cluster average of **29.3%** and falls far behind Hyderabad and Mumbai, where approximately **40.6%** of respondents are satisfied with the quality of footpaths.
- A mere **19.88%** of participants surveyed in New Delhi express confidence in the adequacy of grade separators such as Foot Over Bridges (FOBs) and Subways at major intersections in the city. This positions New Delhi among the least favourable within the cluster, with Pune-Pimpri Chinchwad and Bengaluru reporting higher percentages of **43.6%** and **42.6%**, respectively.
- Only **13.37%** of respondents in New Delhi believe that there are sufficient cycle tracks and lanes available throughout the city.
- Although New Delhi has a network of public bicycle sharing at several metro stations, only **24.4%** respondents agree that availability of public bicycle sharing would encourage them to cycle for short distances, a percentage notably lower than Chennai's **42.13%**.

Illumination on roads and footpaths

- The EoMI survey reveals that **28.28%** of respondents in New Delhi believe that the roads in the city are adequately illuminated, and around **20.75%** stated that the footpaths have sufficient lighting. While these figures are close to the cluster averages, there is still room for improvement when benchmarked against cluster leaders. **30.22%** respondents in Ahmedabad were satisfied with the road illumination, and **41.57%** of respondents were satisfied with the lighting on footpaths.

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, **84.65%** of respondents in New Delhi who have disabilities or difficulties in walking, communication, self-care and hearing use public transport regularly.

Public transport accessibility as reported by persons with disabilities (n=216)

Modes of Commute	Disagree	Neutral	Agree
Bus	52.31%	24.07%	23.61%
Metro	0.00%	38.14%	61.86%
Average	26.22%	31.09%	42.69%

- In New Delhi, **42.69%** of respondents with disabilities agree that public transport is accessible. This city ranks third-best among all cities in terms of accessibility of public transport for persons with disabilities.
- The city fairs well, with **61.86%** participants finding the metro system accessible, which is more than 1.5 times the cluster average.

Safety from gender related crime events such as eve teasing and molestation in public transport (n=2073)

Bus	Metro	Average
24.41%	25.08%	24.75%

- In New Delhi, over **84.76%** women and trans/non-binary respondents use public transport regularly.
- Among the female and trans/non-binary respondents, only **24.75%** agreed that public transport in New Delhi is safe from gender related crime events such as eve teasing and molestation, compared to **33.26%** respondents across the Mega cities cluster.
- New Delhi fares poorly compared to its counterparts in the Mega Cities cluster. Pune-Pimpri Chinchwad stands at the forefront of safety from gender-related crimes, with **47.54%** women and trans/non binary respondents reporting public bus transport to be safe. Bengaluru leads in considering public bus transport safe from gender-related crimes at **41.47%**. Pune-Pimpri Chinchwad takes the lead in metro safety with **69.08%**. These findings highlight a substantial need for improvement in fostering safety from gender-based crimes in New Delhi.

Safety from pickpockets and other petty crimes in public transport (n=5120)

Bus	Metro	Average
24.32%	25.20%	24.76%

- Among respondents using public transport regularly, about **24.76%** agreed that the public transport system in the city is safe from pickpocketing and other petty crimes.
- New Delhi ranks lower in safety from pickpockets and petty crimes compared to most mega cities. Ahmedabad leads in public bus safety, with **42.33%**, while Pune-Pimpri Chinchwad takes the lead in metro safety with **49.06%**. Surat tops the charts for safety from pickpockets and other petty crimes in public transport in the mega cities cluster, achieving a rating of **42.16%**.

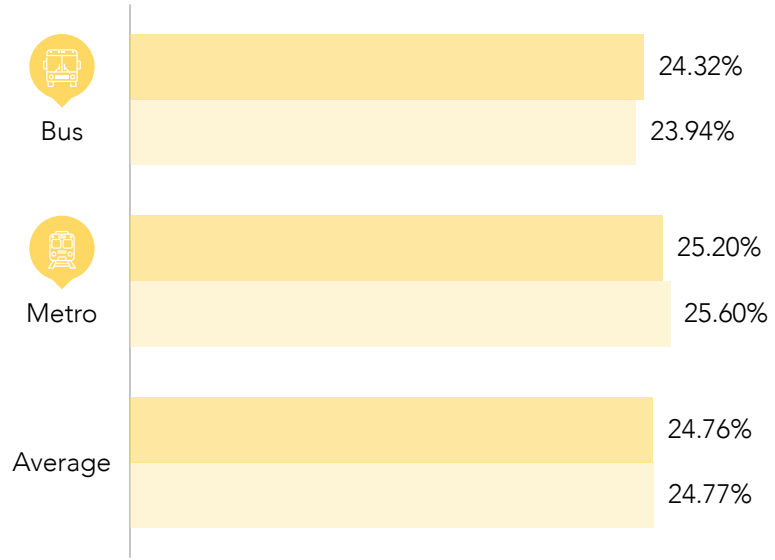
AFFORDABLE MOBILITY

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 New Delhi, **24.76%** of respondents find public transport affordable, which is notably below the cluster average of **37.89%**. Among respondents with a monthly household income below INR 30,000, **24.77%** consider public transport affordable, below the cluster average of **36.80%**.

Public transport affordability in New Delhi

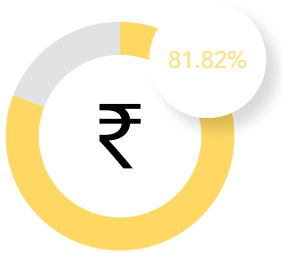


Perception of affordability (income agnostic) (n=5120)

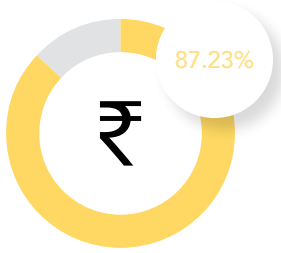
Perception of affordability (monthly household income less than 30,000) (n=2348)

Monthly expenditure on travel

- **81.82%** of respondents reported spending less than INR 3,000 per month on transportation in New Delhi.
- Approximately **47.73%** (2864 respondents) have a monthly household income below INR 30,000, and roughly **87.23%** of them spend less than INR 3,000 on transportation.
- The respondents with household income less than INR 30,000 reported spending **10.14%** of their income on transport, compared to the cluster average of **11.98%**, and cluster minimum of **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. Time taken for trips is a pertinent yardstick for measuring efficiency of public transport.

Availability of information

Respondent perception regarding easy availability of information on timetable, fare etc. of public transport modes(n=5120)

Modes of Commute	Disagree	Neutral	Agree
Bus	50.31%	25.37%	24.32%
Metro	24.08%	24.22%	51.70%
Average	37.20%	24.79%	38.01%

- A mere **38.01%** of New Delhi's respondents indicated easy access to information regarding public bus transport fares and timetables, falling short of the cluster average of **45.60%**. Specifically, **24.32%** find the information accessible for buses, compared to **51.70%** for the metro.
- This is dismal compared to its counterparts in the mega cities cluster. Surat achieved the highest satisfaction level in terms of information availability for public transport while for buses it was Ahmedabad (**65.37%**).
- Surprisingly, less than **5%** of respondents accessed this information through digital means, with the majority obtaining it at transit stops or print media.

Availability of public transport

- In New Delhi, **36.85%** of public transport users reported finding public bus transport easily accessible between any two points in the city, slightly above the cluster average of **35.91%**. Surat leads the cluster in this aspect with an impressive **49.15%** respondents reporting satisfaction on public transport accessibility.

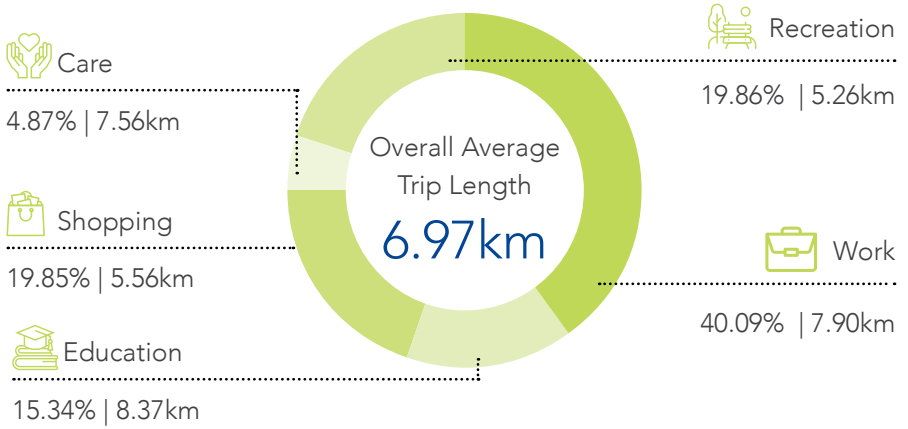
Easy availability of Public transport between any two points in the city(n=5120)

Modes of Commute	Disagree	Neutral	Agree
Bus	57.07%	18.61%	24.32%
Metro	25.90%	24.73%	49.38%
Average	41.48%	21.67%	36.85%

Public Transport vs Private Vehicle

- **39.73%** respondents from New Delhi agreed reaching their frequently visited destinations significantly faster by public transport than their own vehicle, which is significantly higher than the cluster average of **30.94%** and second only to Hyderabad (**40.67%**)

Trip distribution and average trip length based on trip purpose

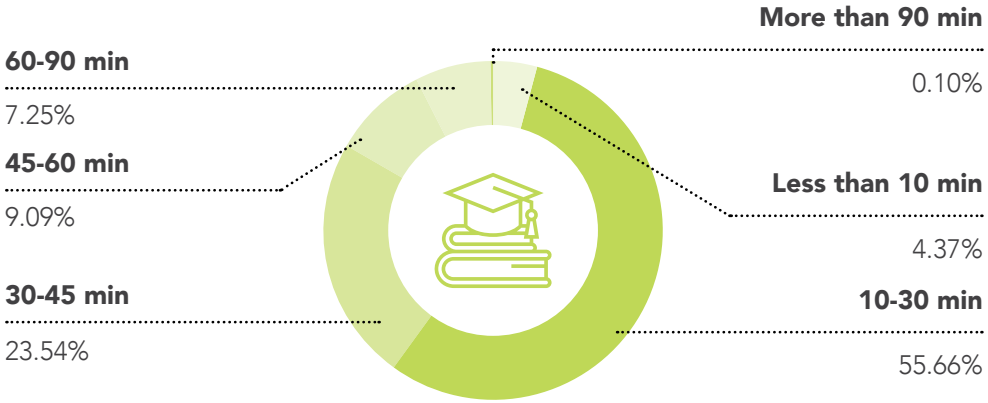


- **40.09%** of the trips, as stated by respondents, were for work. Almost **20%** of trips were for shopping and recreation.
- On average, the respondents in New Delhi reported commuting for a duration of 31 minutes 21 seconds which is marginally lower than the cluster average of 31 minutes 1 seconds and Ahmedabad which has the lowest commute duration of 29 minutes 53 seconds.

Distribution of Work and education trips across different time intervals

Trip purpose: Work

Trip purpose: Education



- In New Delhi, around **60.73%** of work trips and **60.03%** education trips were completed within 30 minutes. This is higher than the cluster average for work trips but lower than the cluster average of education trips. Ahmedabad leads the mega cities in majority of respondents reaching their work and education in under 30 minutes.

Time spent on First Mile/ Last Mile connectivity

- In New Delhi **24.59%** of respondents took less than 10 minutes to walk or cycle to the nearest transit stop for first and last mile connectivity. Comparatively, among the mega cities, the average is **24.98%**
- **49.52%** of respondents take less than 10 minutes using shared mobility to reach the nearest transit stop for first and last mile connectivity. The figure is slightly higher than the cluster average of **46.98%** and ranks third within its cluster. Notably, the highest percentage of respondents achieving this quick connectivity was observed in Ahmedabad, where it reached **52.43%**.

Congestion and crowding

- **45.80%** of the respondents from New Delhi agree that the roads are not congested, which is considerably better than the cluster average **45.44%**.

Respondent perception regarding state of overcrowding in Public Transport(n=5120)

Modes of Commute	Disagree	Neutral	Agree
Bus	50.31%	25.37%	24.32%
Metro	50.35%	24.45%	25.20%
Average	50.33%	24.91%	24.76%

CLEAN MOBILITY

Clean and sustainable mobility is a key focus in modern urban planning, with a goal 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 New Delhi fares in terms of clean mobility:

Deaths due to PM2.5 pollution

- In 2019, New Delhi experienced a concerning number of deaths attributed to PM2.5 pollution, with 190.96 deaths per lakh population. This figure is notably higher compared to Bengaluru, which recorded the lowest number of deaths in the cluster at 73.12 deaths per lakh population (Health in Cities, n.d.)

Electric Vehicle (EV) adoption

- Electric vehicles are gradually gaining traction among respondents. Approximately **5%** of the total two-wheelers owned by the respondents were electric vehicles. In the case of bicycles, **1.53%** were either pedal-assisted or electric cycles.

Top three reasons for unwillingness to buy electric vehicles (n=5120)

Reasons for unwillingness to buy Electric Vehicle	New Delhi
Electric vehicle are more expensive than ICE vehicles	5.85%
Limited finance options	20.07%
High cost of finance	2.35%
Safety concerns	85.43%
Not enough EV options in the market to choose from	41.86%
Inadequate charging infrastructure	77.32%
No clarity on resale/ resale value of EVs	3.61%
Concerned about technology and reliability of existing EVs	50.03%
Lack of service centres/ skilled mechanics	7.01%
I'm not aware of the EV technology	3.15%
I own a car /recently purchased personal vehicle so not planning to buy one in the next few years	3.31%

- **28.48%** of respondents (although lower than the cluster average of 34.50%) expressed their willingness to purchase electric vehicles in the near future. There are certain concerns that discourage people from adopting personal electric vehicles. The top three concerns identified were safety, inadequate public charging infrastructure, and doubts regarding the reliability of existing technology.

Cleanliness and hygiene perception in public transport

Respondent Perception on cleanliness, hygiene and maintenance/upkeep of Public transport (n=5120)

Bus	Metro	Average
39.67%	25.20%	32.43%

- Among the respondents who regularly use public transport, **39.67%** in New Delhi perceive buses to be clean and hygienic, which is better than the cluster average of **39.63%** but lower than Mumbai's score of **40.24%**.
- Only **25.20%** of respondents find the Metro to be clean, significantly lower than the cluster average of **39.79%** and Pune-Pimpri Chinchwad's score of **68.92%**, placing New Delhi among the bottom two cities in the cluster.

Shift to Electric bus

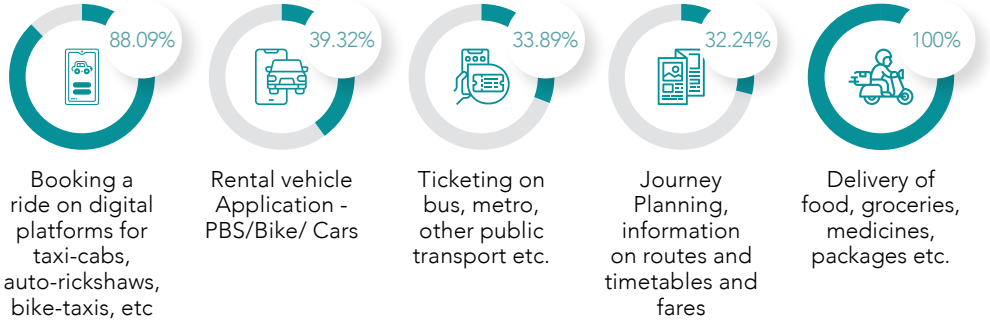
- The New Delhi Electric Vehicle policy 2023 indicates the state's plans to provide appropriate incentives and other support necessary to ensure that clean electric buses constitute at least **50%** of all new stage-carriage buses. This includes for all public transport vehicles with 15 seats or more procured for the city fleet including for last mile connectivity. New Delhi has deployed 883 electric buses. Amongst all cities in the index New Delhi scores fourth within its cluster behind Surat, Pune-Pimpri Chinchwad and Kolkata in its target of shifting to electric buses. By the end of 2023, the target is to have 1900 Electric Buses that would reduce CO2 emissions by 1.07 lakh tonnes every year (LiveMint, 2023). This will go a long way towards improving the overall air quality for the city.

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. In the context of New Delhi, let's explore the extent to which citizens embrace technology-enabled mobility and payment solutions:

Mobility and package delivery

Digital applications for different mobility services

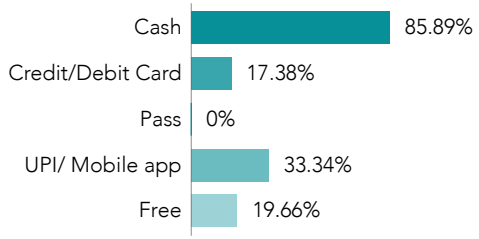


- **98.22%** of respondents use a smartphone. Of these, **88.09%** have at least one app to book a ride on digital platforms and a **100%** have at least one app for food and package delivery. However, the percentage of respondents having at least one app for rental vehicle applications, ticketing for public transport and journey planning, etc are significantly lower. This pattern is observed across the cities in the cluster.

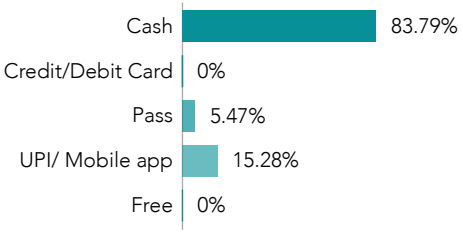
Payment for public and intermediate public transport

Distribution of payments made for different mobility services - parking (n=2,433), public transport, and IPT (n=2,566).

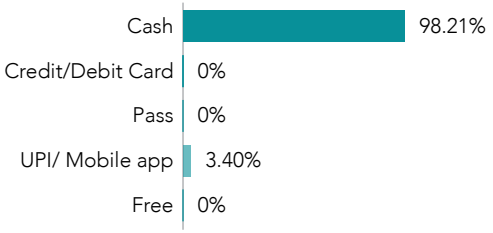
Parking



Public Transport



Intermediate Public Transport (IPT)

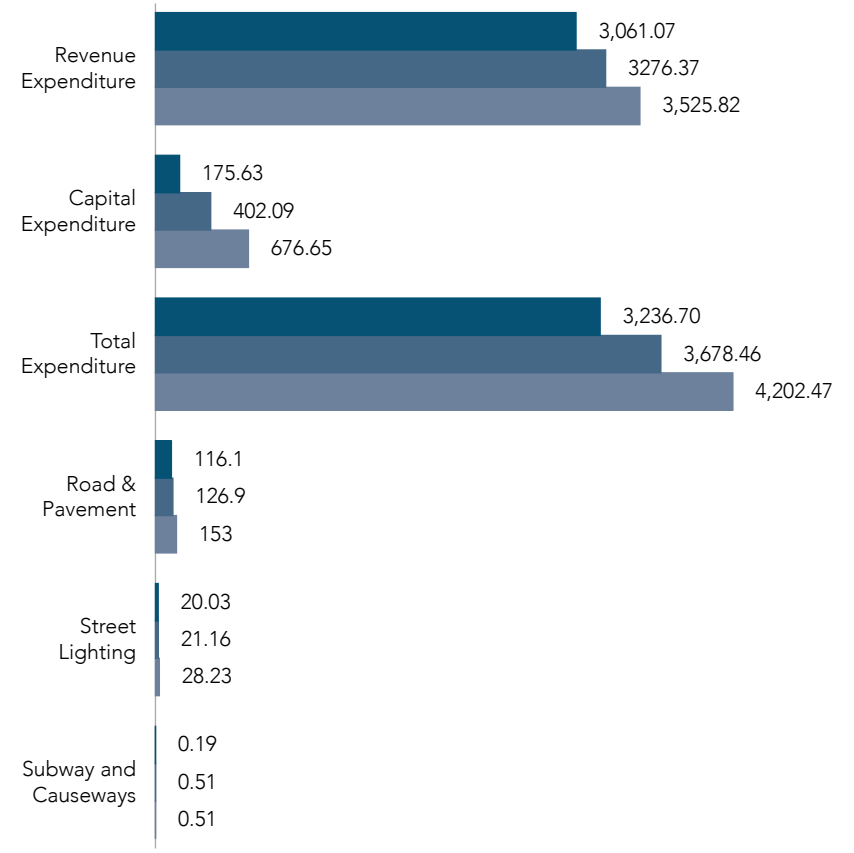


- Cash is the dominant mode of payment for all the three purposes in New Delhi, and this pattern is also observed in other cities in the cluster.
- Pass (**5.54%**) is a relatively less popular cashless payment mode for public transport in New Delhi. While this is lower than the cluster average of **6.10%**, it is substantially lower than Surat (**8.37%**).
- At the same time, the use of Unified Payments Interface (UPI) for public transport payments is higher than the cluster average (**15.28%** compared to **14.21%**), although it falls behind Hyderabad (**24.66%**).
- UPI/ Mobile applications are the most popular and widely used mode for cashless payment. While almost **33.34%** of respondents using parking facilities pay by UPI/ Mobile applications,
- In New Delhi, **98.21%** of respondents reported paying for Intermediate Public Transport (IPT) modes in cash, which is higher than the cluster average of **96.22%**. Mumbai has an even lower percentage, with only **90.22%** of respondents paying for IPT modes in cash. Only **3.40%** of respondents use Unified Payments Interface (UPI) for paying for IPT modes, which is below the cluster average of **8.66%**, lagging far behind Hyderabad, where **34.13%** of respondents use UPI for IPT payments.

INVESTMENT IN CITY

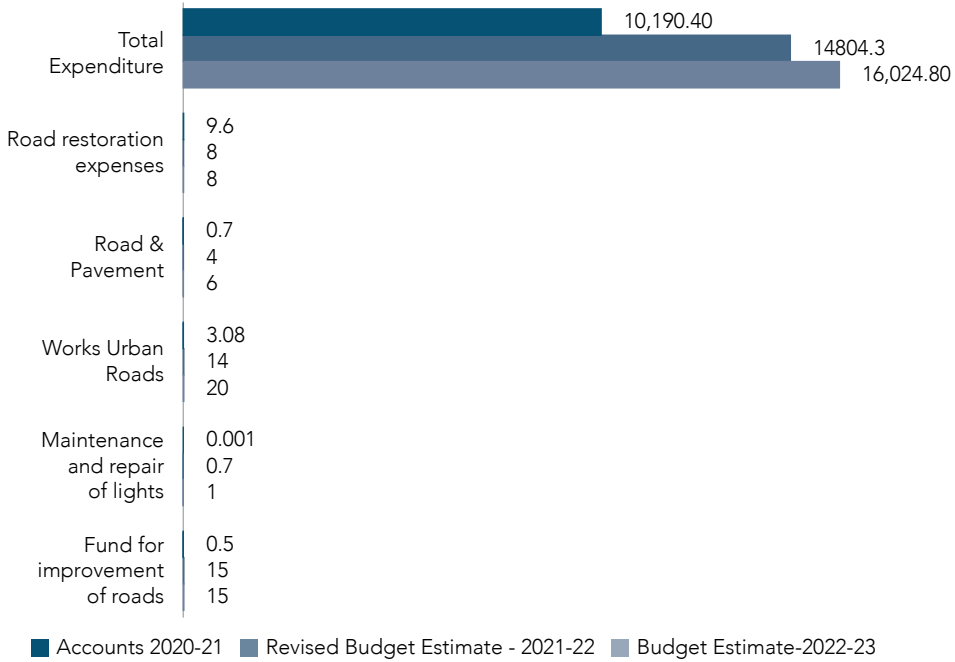
Financial resources play a vital role in development and maintenance of a sustainable, seamless, efficient and inclusive mobility system. Here is a look at the budgets for New Delhi city with particular reference to mobility spends:

New Delhi Municipal Budget 2022-23 details



Source: (New Delhi Municipal Council, 2022)

Municipal Corporation of Delhi Budget 2022-23 details



Source: Municipal Corporation of Delhi, 2022

- The estimated total budget of the New Delhi Municipal Council (NDMC) and Municipal Corporation of Delhi (MCD) for 2022-23 has increased by over **9.4%** or INR 1744.51 Crores compared to the revised budget of 2021-22. The estimated budget for capital expenditure has seen a significant increase of **68.28%** within the NDMC area. For road and pedestrian infrastructure there has been a **33.32%** increase in budget for NDMC. However in the case of MCD there has been a **161.5%** increase.

THE ROAD AHEAD

There are multiple factors affecting mobility, as it should be for something as pervasive. 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.

Sustainable modes of mobility

Improvement Areas

- Vehicle ownership in New Delhi is considerably high and continues to show an upward trend (refer section on Vehicle growth and ownership patterns). While there is a fair preference for active and shared mobility, efforts could be made to curtail the growth of personal vehicles and promote the available sustainable modes, such as metro, public transport, active modes.

Responsible Agency

RTO

First-mile/ last-mile connectivity

Improvement Areas

- Investing in non-motorised infrastructure will encourage higher mode share of active mobility and improve air quality (refer section on First- and last-mile connectivity to public transport).
- Improving cycle parking facilities (refer Section on Parking Facilities) at transit hubs would enable seamless mobility.
- With a well developed metro and bus network, providing options and facilities to carry cycles in metros and buses can be encouraged even during peak hours.

Responsible Agency

DMRC and DTC, DMITS

Road safety infrastructure

Improvement Areas

- Safe at-grade crossing and grade separator interventions for pedestrians and cycles, especially on major roads, can help improve road safety (refer Section on Pedestrian and cycling infrastructure).
- Well-lit and well-designed footpaths will encourage walking and keep pedestrians safe (refer Section on Illumination on roads and footpaths).
- New Delhi has the highest road fatalities (refer Section on Road Safety and Fatalities). Having well-lit roads will help curtail road accidents

Responsible Agency

NDMC, MCD

Network of bus system

Improvement Areas

- While New Delhi scores well amongst its cluster in availability of buses, however this can be improved during night hours across major routes (refer Section Availability of public transport).
- Bus stops need to be made accessible and based on universal design principles so that boarding and deboarding is seamless for PwDs.
- There's room for improvement in comprehensible, accessible, and real-time information about public transport (refer Section on Availability of information).
- Respondent perception also reveals a need for improving cleanliness and hygiene of public transport specially metro services (refer Section on Cleanliness and hygiene perception in public transport).

Responsible Agency

NDMC, MCD

Decarbonisation

Improvement Areas

- Improving the access to public transit would help New Delhi reduce dependence on personal mobility and also meet its air quality standards.

Responsible Agency

NDMC, MCD

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 New Delhi's mobility scenario.

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