Deloitte. Insights

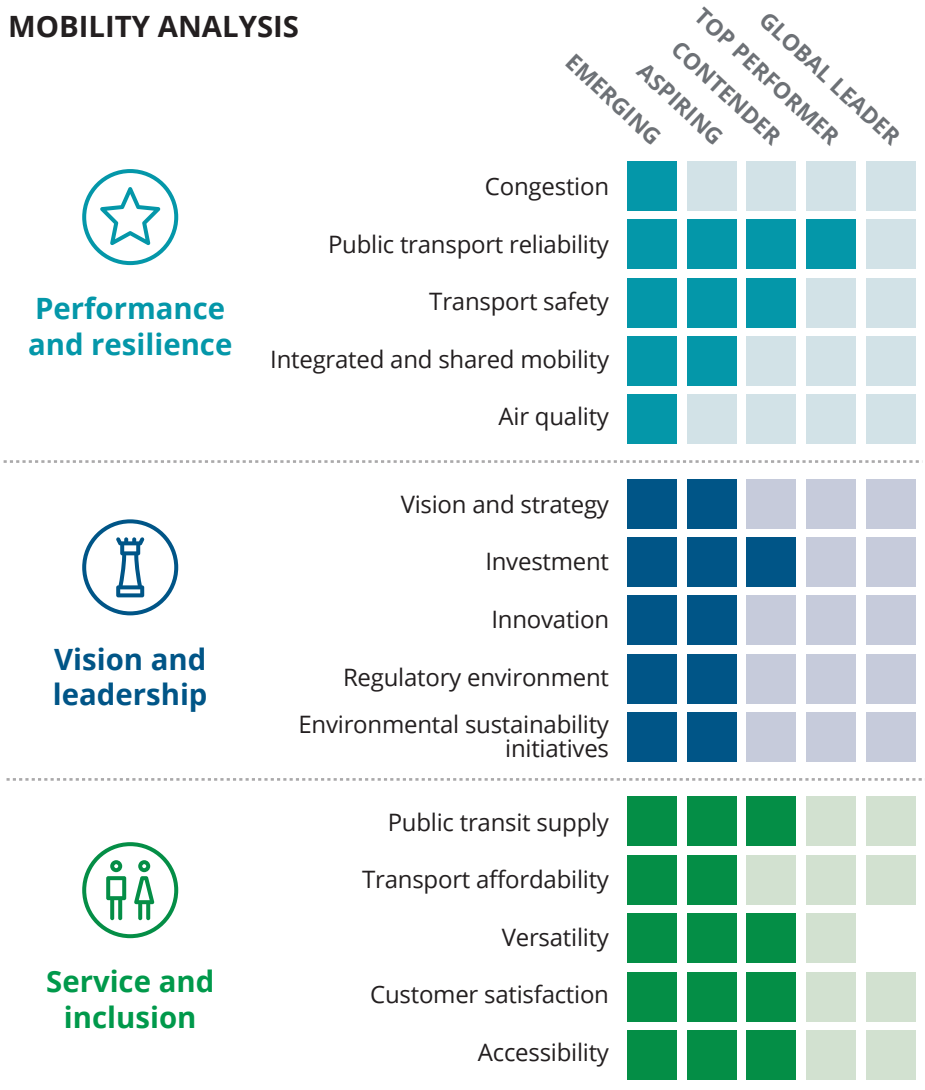
Deloitte City Mobility Index

Delhi

Analysis area: 3,338 km² | **Population:** 22,065,215 (2011) | **Population density:** 6,610/km²

Definition of analysis area: Includes the National Capital Territory, Faridabad, Gurugram, Ghaziabad, and Noida (the administrative district areas)

MOBILITY ANALYSIS



KEY MOBILITY STATISTICS

Public transport options*
Metro, bus, commuter rail

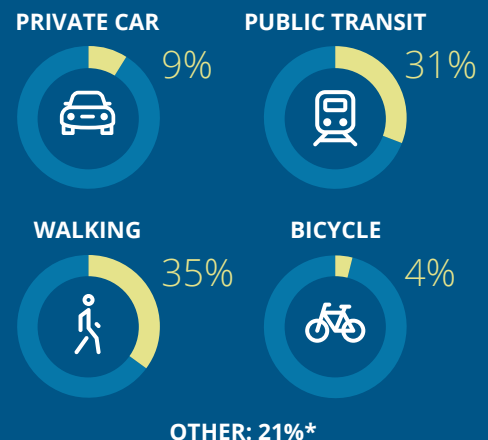
Monthly public transport pass
US$22

GDP
US$370 billion (2016)

Principal transport authority
Delhi Metro Rail Corporation, Delhi Transport Corporation, Delhi Integrated Multi-Modal Transit System

**Planned, regulated, licensed, and monitored by principal transport authorities.*

JOURNEY MODAL SPLIT



**Includes auto rickshaws, private two-wheelers, private taxis*

FUTURE OF MOBILITY CAPABILITY

STRENGTHS

- First Indian city to introduce private players in bus operations through cluster bus schemes
- Policies to make electric vehicles (EVs) the main vehicle type over the next 20 years
- Exploring new ways to curb congestion, including a zone-based tax system and a network of one-way streets

CHALLENGES

- Involvement of multiple stakeholders can delay implementation of time-sensitive projects, such as the new Regional Rapid Transit System and the Delhi Metro expansion.
- Many citywide economic development policies do not take into account the transport dimension.
- Increasing crime rate (up 12 percent in 2017) and inadequate infrastructure hinder adoption of active transport modes.

Key focus areas to improve city mobility and realize the Future of Mobility:

- **Explore partnerships with private sector operators.**
- **Consider new funding mechanisms to cover cost overruns due to project delays.**
- **Invest in advanced intelligent transportation systems to manage demand in heavy-traffic corridors.**

MOBILITY ANALYSIS FURTHER DETAILS:

Performance and resilience

The Delhi government is planning to deal with congestion and poor air quality by levying congestion charges and incentivizing the purchase of EVs.

- The high density of cars (93 cars/km of road) is causing significant congestion in Delhi. The government has identified the 21 most-congested roads and is planning to levy congestion taxes to ease traffic.
- The Delhi Common Mobility Card, launched in January 2018, can be used to pay for the Delhi Metro as well as the buses run by the Delhi Transport Corporation (DTC) and cluster bus operators. There are plans to expand this to other transportation modes, such as bikesharing, but not commuter rail.
- The Delhi government provides a subsidy of INR 5,500 (USD 84) for the purchase of new electric scooters costing more than INR 25,000 (USD 368). In a move toward "all-electric vehicles" in the next 20 years, the government plans to launch a 100 percent electric bus terminal.

Vision and leadership

Bureaucratic complexities and a lack of alternate funding mechanisms have led to delays in financing major projects, such as the Regional Rapid Transit System, and expanding road infrastructure.

- The Delhi government approved INR 55 billion (USD 809 million) to improve public transport and expand road infrastructure. INR 1 billion (USD 14 million) has also been set aside to develop bus terminals and depots.
- The Delhi-Meerut high-speed rail corridor has the potential to shift the modal share to rapid transport by 10 percent, and the Delhi Metro Phase IV expansion could get 1.4 million cars per day off the road. Both projects are delayed due to administrative complexities.
- The Master Plan 2021 also seeks to promote nonmotorized transport. It proposes a bikesharing scheme with 350 stations and 4,500 bicycles, covering an area of 50 sq.km.

Service and inclusion

Competition in private sector bus services is expected to improve quality. While accessibility for disabled people is good on the metro, it remains poor in other transport modes.

- Private bus operators are now being invited to operate across a number of routes, competing against the state-owned DTC buses. This increased competition has the potential to improve the quality of services provided.
- The Delhi Metro is disabled-friendly, but less than 10 percent of DTC buses are disabled-friendly.
- Delhi has an extensive metro rail network, and extension plans are underway to include more areas. The recent fare hikes can discourage people from using the metro and the lack of quality bus infrastructure leaves them with no choice but to rely on their own vehicles.

SUMMARY

Delhi is facing a number of challenges common to major cities: a growing population, congested roads, poor air quality, and an ever-increasing number of cars on the road. The government has taken steps to address this, including plans for a congestion tax, increasing the capacity of the network, and promoting shared mobility and EVs. However, the complex multi-stakeholder planning and implementation process has led to delays across several crucial projects and added to the cost. Delhi has the potential to be one of the cities with the most advanced mobility in the world. It needs to improve its existing infrastructure first and create awareness around the use of nonmotorized transport. It also needs to encourage startups working on new point-to-point transport to help first-mile/last-mile connectivity.

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About the Deloitte City Mobility Index
The Deloitte City Mobility Index reviews major cities on key aspects of mobility and the resulting relationship to economic performance. Drawing on publicly available data, client conversations, and bespoke Deloitte analyses, we assess each city's ability to transport its citizens both now and in the future and therefore its potential to bring prosperity to the city.

As we receive feedback, we will update and expand the analysis, which may mean the results shown in this document may change.

For the full interactive index, visit the Deloitte City Mobility Index at deloitte.com/insights/mobility-index.

For Deloitte's insights on the Future of Mobility, visit deloitte.com/insights/future-of-mobility.