



Insights: Pune and Pimpri-Chinchwad Perception Study

Public Opinion on Air Pollution
and Low Emission Zone Strategies



September - October 2025

Pune and Pimpri-Chinchwad face a serious concern of air pollution.

? Air pollution puts citizens at risk, and transport is a major contributor to Particulate Matter (PM) 2.5 emissions, and other pollutants in the Pune Metropolitan Region.

City air quality plunges from fair to poor in just two weeks

Alim Shaikh / Updated: Nov 18, 2025, 13:24 IST

Pune: The city and Pimpri Chinchwad have seen a sharp and alarming spike in air pollution in just two weeks, with the Air Quality Index (AQI) sliding from 'Satisfactory' to 'Poor' and raising serious public health concerns. Central Pollution Control Board (CPCB) data confirms the steep deterioration across both municipal limits, driven primarily by PM10 in PMC areas and PM2.5 in PCMC zones.

Pimpri-Chinchwad records very poor air quality

By Vicky Pathare

Updated on: Dec 02, 2024 05:48 am IST

The Indian Meteorological Department (IMD) has stated that conditions could deteriorate further on Monday. The AQI in Bhosari and adjoining areas is predicted to rise to 427, placing it in the severe category.

Pune's Air Quality Index Soars to 162, Pimpri Chinchwad Reaches 221 Amid Pollution Surge

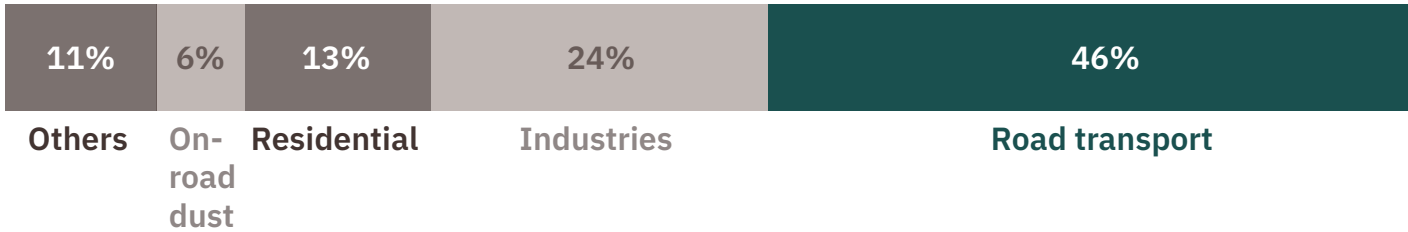
By Anshika Khatke

November 18, 2025

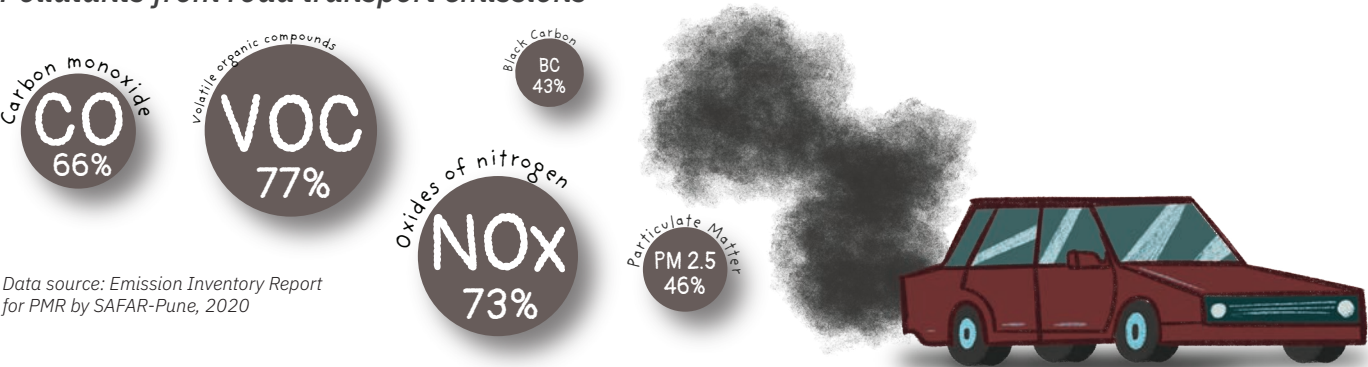
At Pune and Pimpri-Chinchwad, declining air quality is a major public health concern, with citizens reporting increased breathing difficulties and other health issues.

As per the emission inventory report for Pune Metropolitan Region by SAFAR-Pune, 2020, about 46% PM 2.5 emission load came from transport. Between 2012 and 2019, a 91% increase in the PM 2.5 emissions was reported from transport.

Graph showing sector-wise proportion of PM 2.5 emissions in Pune Metropolitan region (2019-2020)

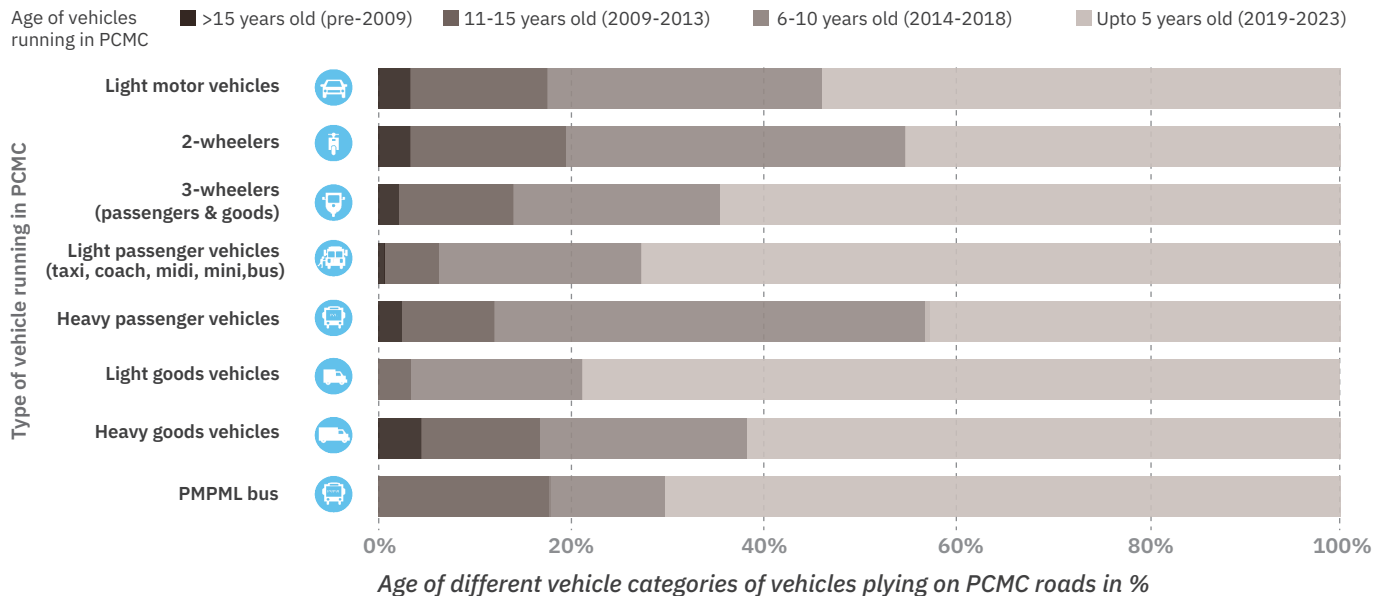


Pollutants from road transport emissions

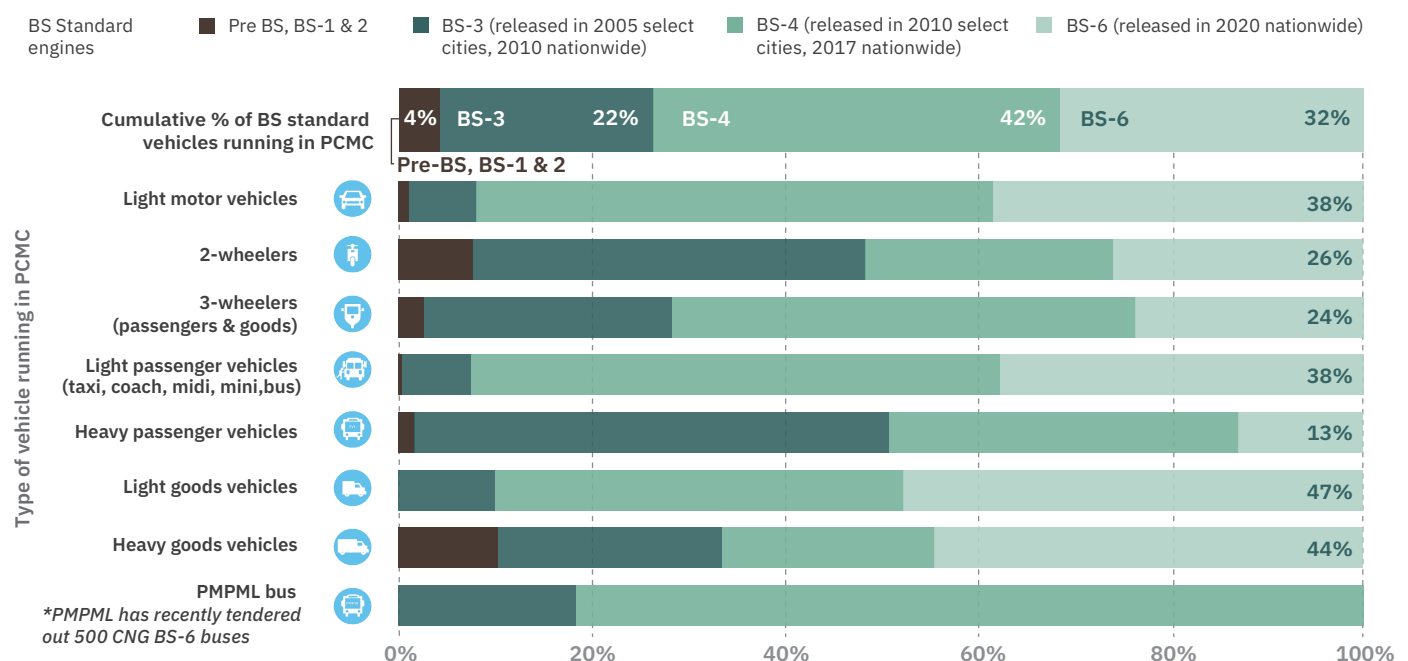


Our study says that polluting vehicles are behind this problem in Pimpri-Chinchwad:

! Close to 5% of Light Motor Vehicles (LMV), two-wheelers, Heavy Goods Vehicles (HGV), and Heavy Passenger Vehicles (HPV) running in Pimpri-Chinchwad Municipal Corporation (PCMC) are older than 15 years.



! Nearly 70% of Internal Combustion Engine (ICE) vehicles running in PCMC are BS-4 and below.

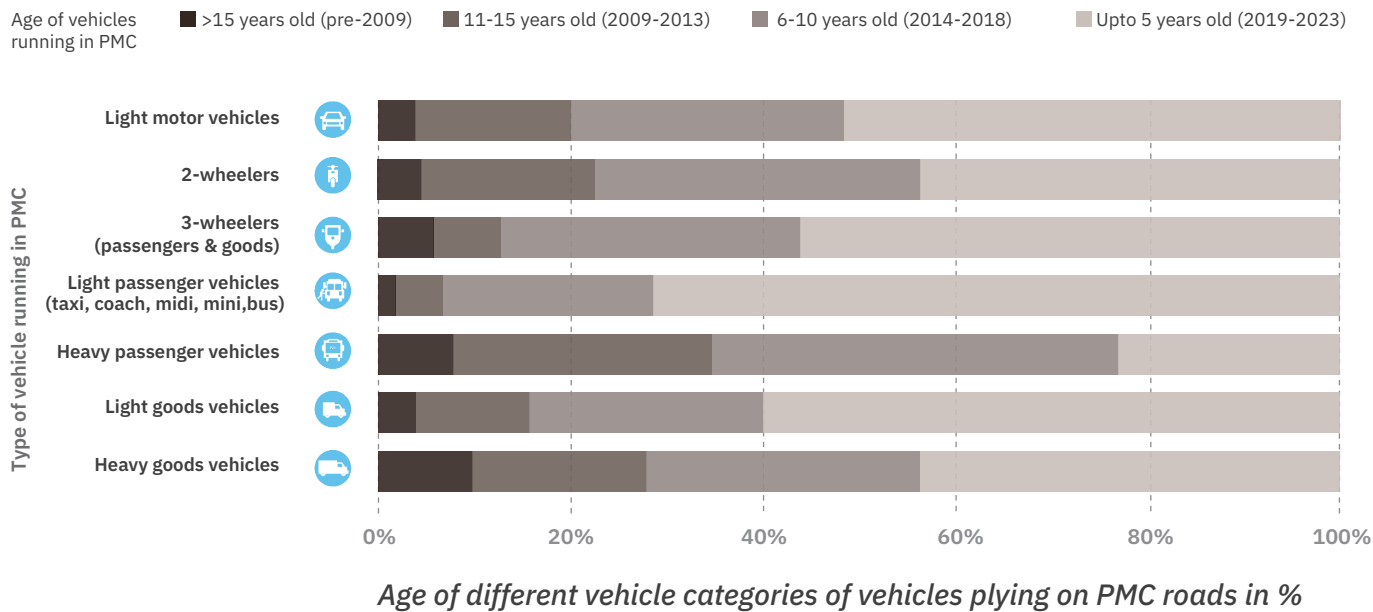


Data source: Primary surveys done by ITDP India and ICCT in PCMC limits, 2023. On-ground survey conducted of around 4000 vehicles of different segments.

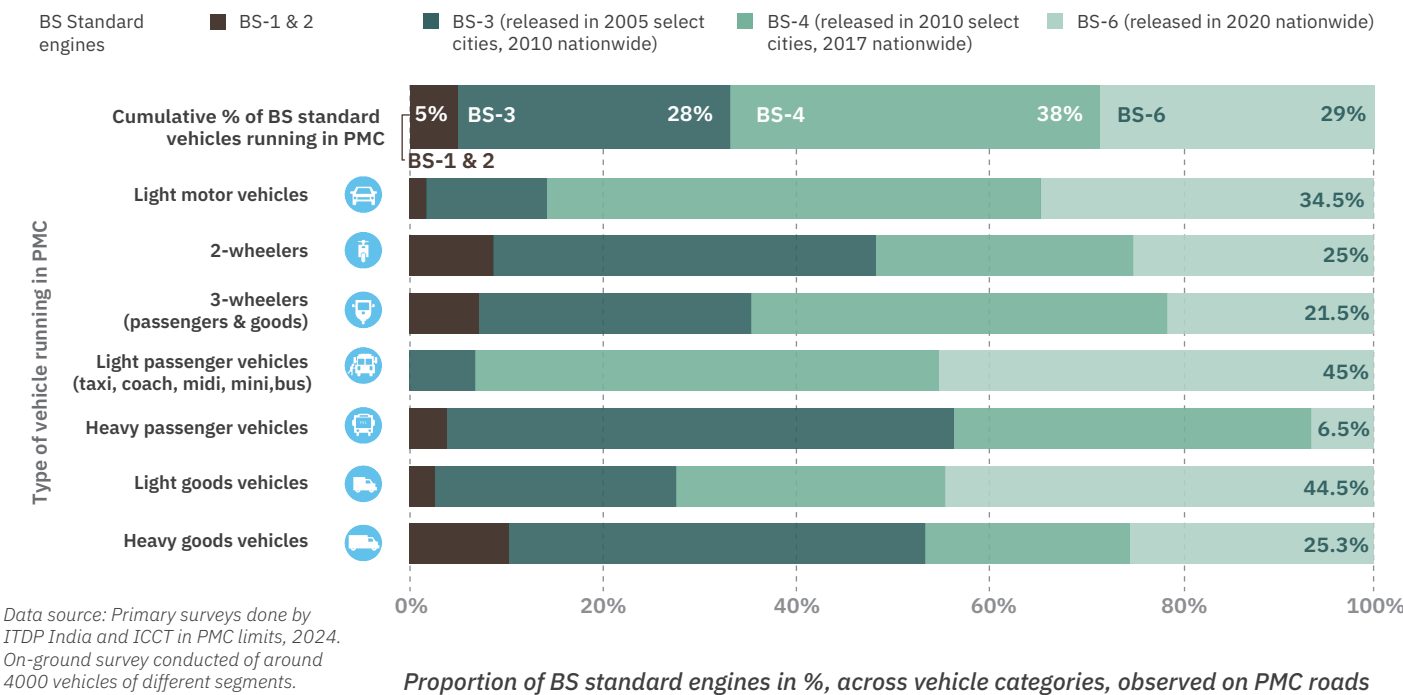
Proportion of BS standard engines in %, across vehicle categories, observed on PCMC roads

The Pune Municipal Corporation (PMC) faces a similar scenario:

! More than 5% of LMVs, two-wheelers, and three-wheelers, and close to 10% HGVs and HPVs running in PMC are older than 15 years.



! About 71% of Internal Combustion Engine (ICE) vehicles running in PMC are BS-4 and below.

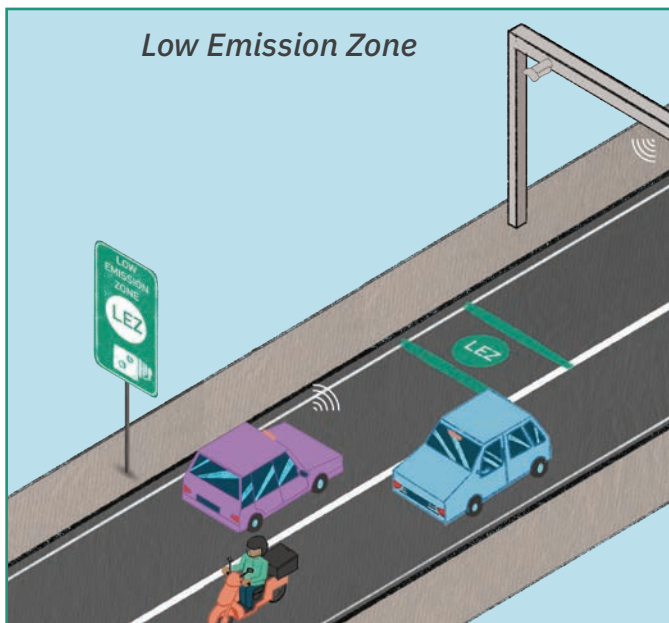


How do we address this?

By bringing in Low Emission Zones!



Low Emission Zones (LEZs) are a strategy to reduce vehicular tailpipe emissions. They are designated areas in part/whole of city where polluting vehicles are restricted and only low-polluting petrol, diesel, CNG vehicles, and zero emission modes such as electric vehicles, walking, and cycling are allowed.



Non-priced LEZs

ban the most polluting vehicles. If polluters enter, they pay a heavy fine. This strategy is used in Brussels and Seoul.



Priced LEZs

charge polluting vehicles a daily charge for their use, such as in London and Antwerp.

To ensure the success of LEZs, the following complementary measures need to be implemented:

1



Public transport connectivity as alternate inclusive mode

2



Parking pricing, congestion pricing to manage traffic demand

3



Walking and cycling infrastructure as alternate inclusive mode

4



Scrappage facilities and fiscal incentives to encourage shift to cleaner vehicles

5



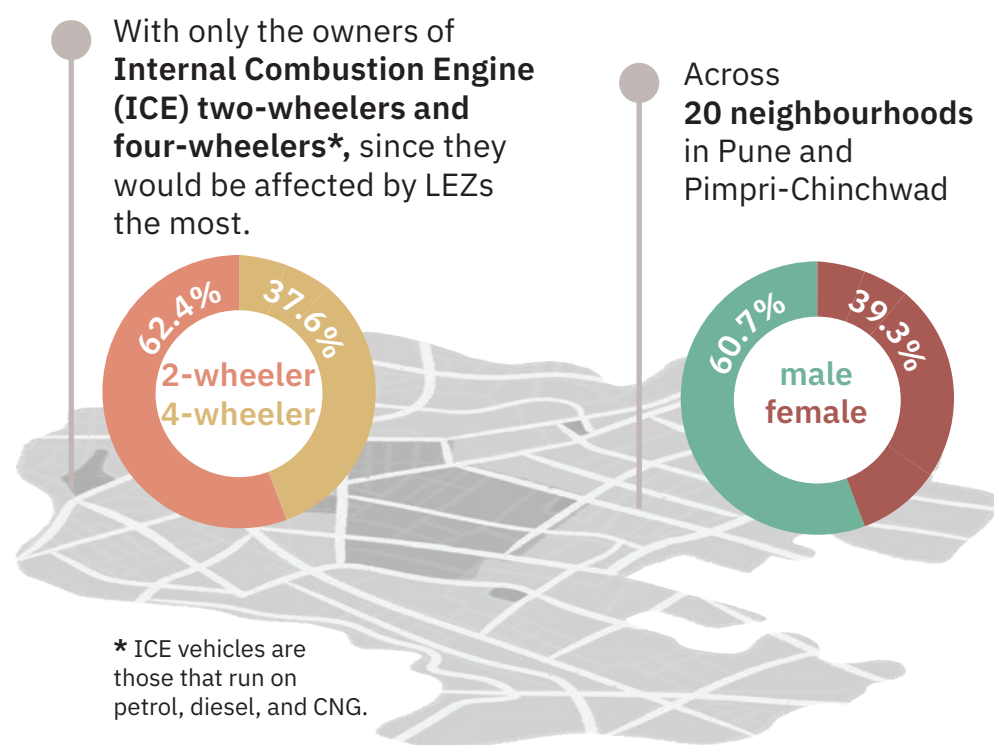
Charging points to encourage electrification

How would the people of Pune and Pimpri-Chinchwad adapt to LEZs?



Between September and October 2025, ITDP India conducted a one-of-a-kind perception survey with 2000 citizens in Pune and Pimpri-Chinchwad, to understand air pollution concerns, and study change in travel behaviour if LEZ is enforced city-wide.

Who were surveyed and where?



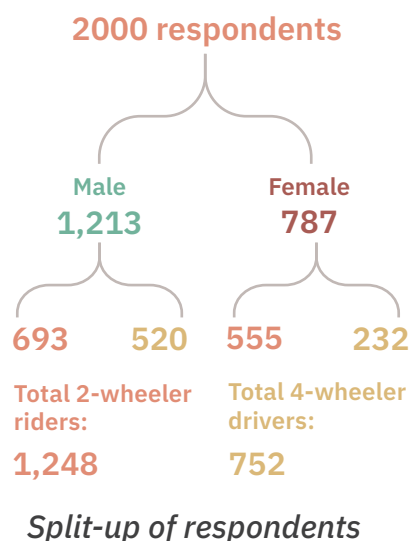
The survey captured the following viewpoints of citizens:

Change in travel behaviour if vehicles are banned under LEZ

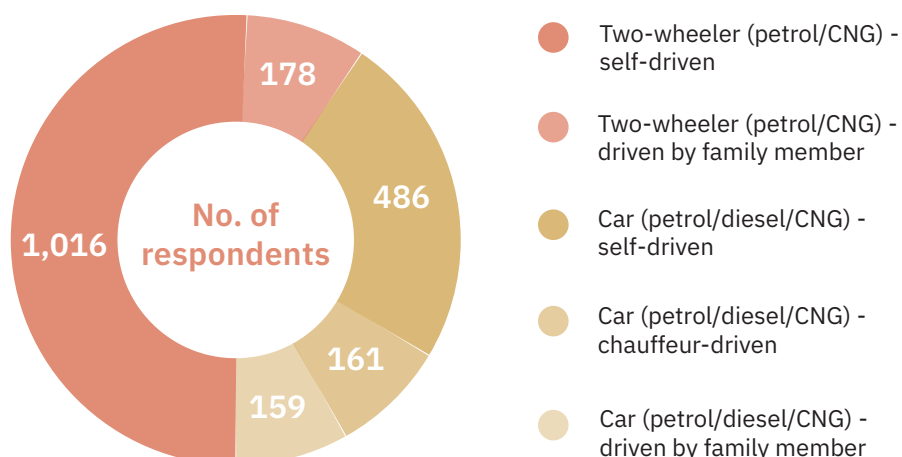
Willingness to pay if priced-LEZ is enforced

Views on pollution and sources of pollution in these two cities

Views on the impact of pollution on health



What is their frequent mode of transport for day-to-day travel?



PMC and PCMC Perception Survey 2025: Opinions on vehicle restrictions.



Citizens were asked how they would move if their high polluting vehicle was banned within the city.

Respondents were asked to choose their top two options from the following list:

- 1

Buy an EV car
- 2

Buy a less polluting ICE car
- 3

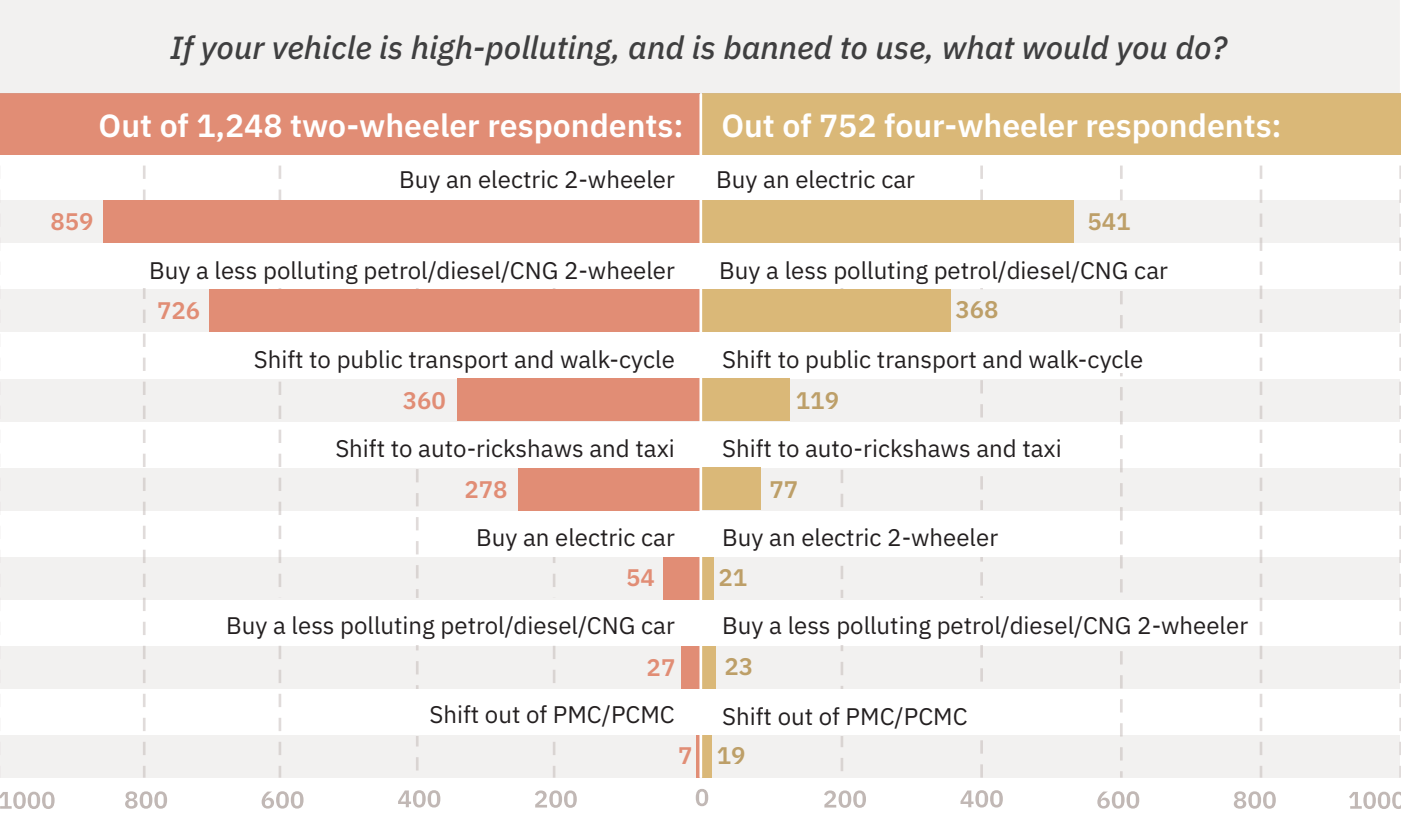
Buy an EV two-wheeler
- 4

Buy a less polluting ICE two-wheeler
- 5

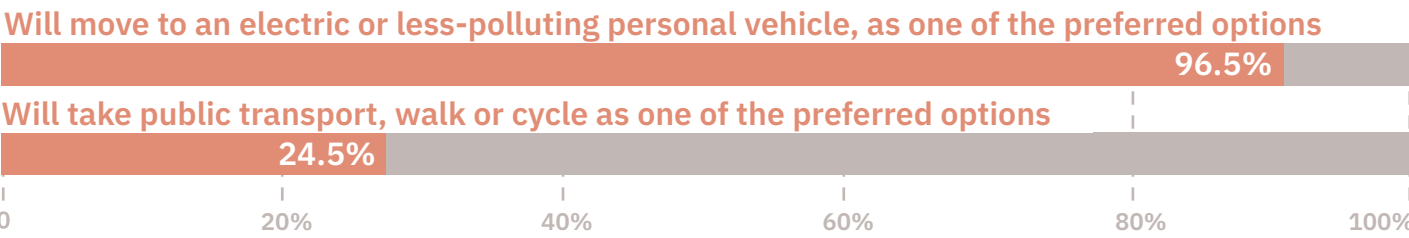
Shift to public transport and walk-cycle
- 6

Shift to autorickshaws/ taxis
- 7

Shift out of PMC/PCMC



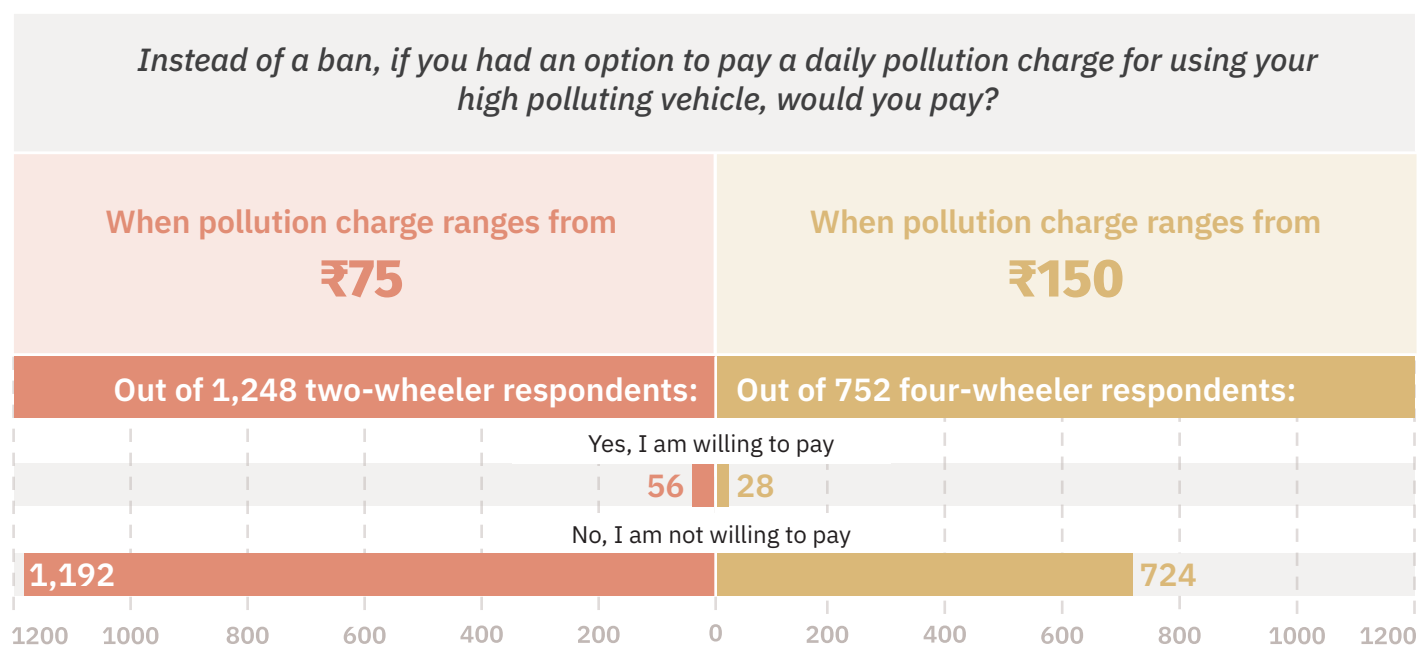
Key takeaways



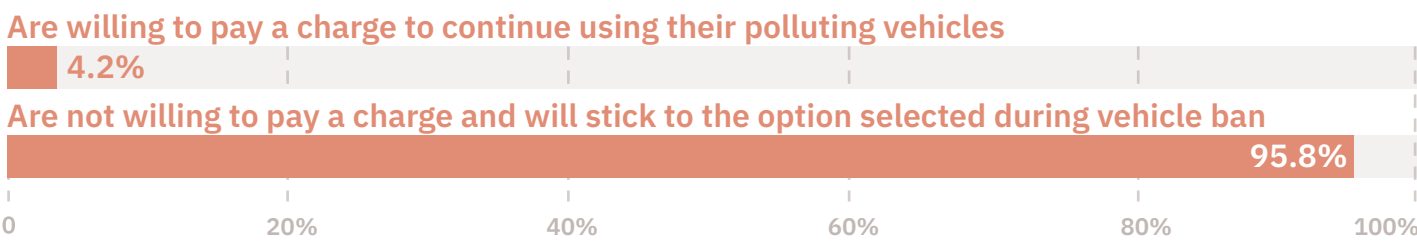
PMC and PCMC Perception Survey 2025: Opinions on priced LEZ.

? Citizens were asked for their opinions in a scenario where their polluting vehicles are permitted for use, but with the payment of a daily “pollution charge”.

Responses were recorded on changes in travel behaviour if the pollution charge ranged from ₹75-150 for two-wheelers and ₹150-300 for cars. Only 4.2% of respondents agree to pay a “pollution charge” of any kind in case of a priced LEZ. This shows that the daily pollution charge would discourage the use of 95.8% of high polluting vehicles, and thereby has the potential to reduce vehicular pollution.



Key takeaways



Summary of the PMC and PCMC citizen perception survey:

82%

respondents believe air pollution is an issue, with vehicles and industries recognised as the major causes.



60%

of respondents reported experiencing health issues that they believe are linked to air pollution.



96%

respondents indicated their unwillingness to pay a pollution charge. This shows that pricing could be a deterrent for people using polluting vehicles.

The resulting charge can be used to upgrade public transport, and improve walking and cycling infrastructure.



4%

of respondents agree to pay a “pollution charge” of any kind in case of a priced LEZ, showcasing pricing as a major deterrent for non-compliant vehicles.



97%

respondents will buy a new, less-polluting private vehicle as one of the preferred options.



21%

respondents will opt for a combination of a new vehicle and public transport with the implementation of a ban on high-polluting vehicles.



The Way Forward: A Low Emission Zone future for PCMC.

? Discouraging the use of vehicles with BS-4 engines and older could reduce vehicular Particulate Matter emissions by 78-85%.

● **Business as Usual Scenario.** Relies on natural fleet modernisation, where older vehicles are gradually replaced over time.

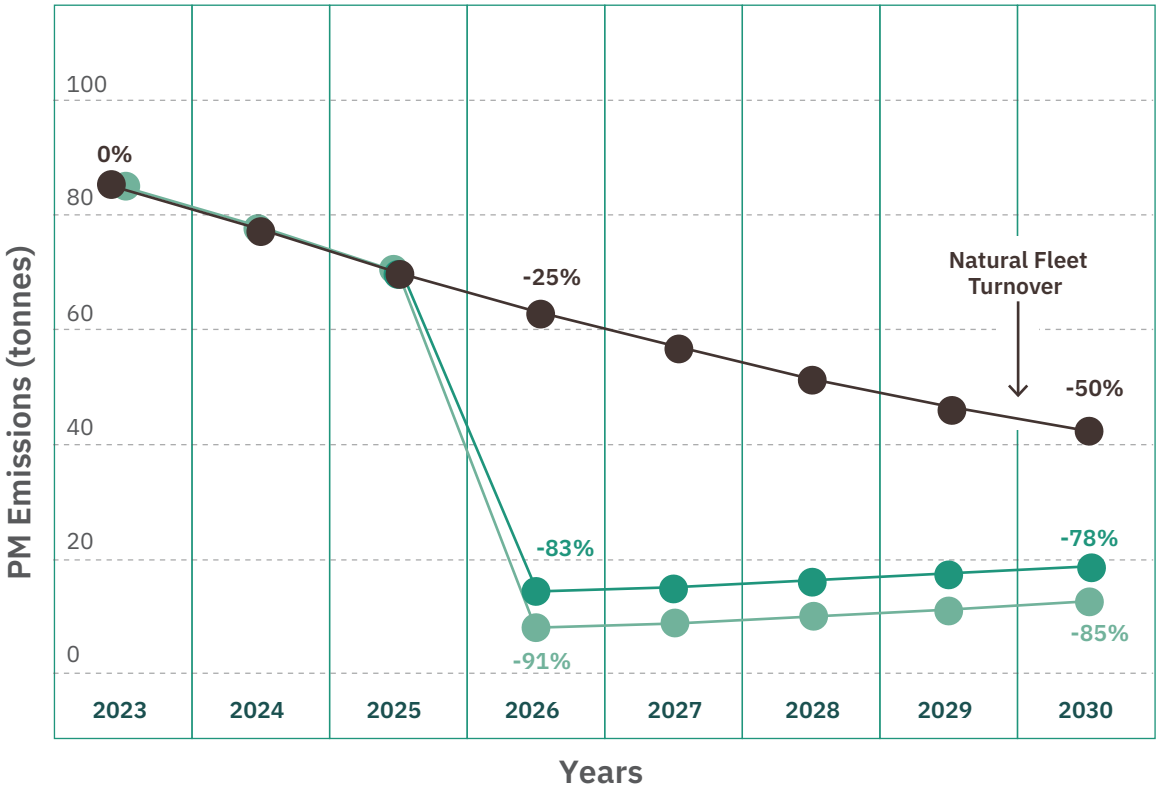
Result: PM emission from vehicle tailpipe reduce only gradually.

● **LEZ Scenario 1: Vehicles transition to BS-6.** BS-4 and older vehicles are discouraged; users switch to BS-6 vehicles.

Result: PM emission from vehicle tailpipe reduce by approximately 78-83% after implementation.

● **LEZ Scenario 2: Vehicles transition to zero tailpipe emissions.** BS-4 and older vehicles are discouraged; users are encouraged to switch to EVs.

Result: PM emissions are reduced by 85-91% after implementation, demonstrating that LEZ is a powerful tool for fast-tracking emission reductions.



Possible reduction in PM 2.5 emission by polluting vehicles if LEZ is implemented in PCMC by 2026.

The Way Forward: A Low Emission Zone future for PMC.

? Discouraging the use of vehicles with BS-4 engines and older could reduce vehicular Particulate Matter emissions by 81-88%.

● Business as Usual Scenario:
There are no restrictions; there is a natural fleet turnover; proportion of BS-6 vehicles increases year after year.

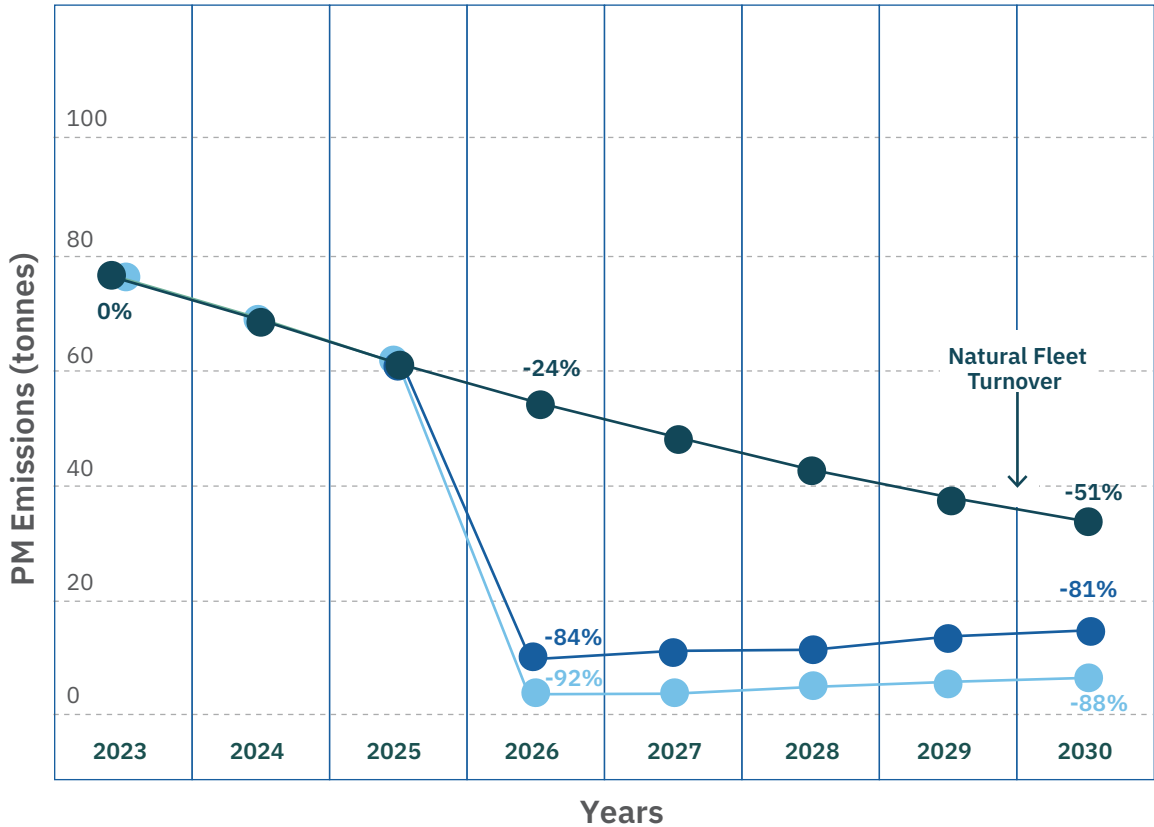
Result: PM Emissions from vehicle tailpipe reduce only gradually.

● LEZ Scenario 1:
Pre BS-6 vehicles are restricted and those affected shift to BS-6 vehicles.

Result: PM Emission from vehicle tailpipe reduces by approximately 81-84% after implementation.

● LEZ Scenario 2:
Pre BS-6 vehicles are restricted and those affected shift to electric vehicles.

Result: PM Emission from vehicle tailpipe reduces by approximately 88-92% after implementation.



Possible reduction in PM 2.5 emission by polluting vehicles if LEZ is implemented in PMC by 2026.



Pune and Pimpri-Chinchwad have the tools, the vision, and now, the opportunity to lead by example. It is time to act—boldly and decisively—to implement LEZ for healthier, cleaner, and more sustainable cities.

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