

Behaviour Nudges for Metro Rides Summary Report



Program Partners



CEE

Centre for Environment Education

Government Stakeholders



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Shравan Hardikar
Managing Director,
Maharashtra Metro
Rail Corporation Ltd.

Message from Managing Director

It gives me great pleasure to present this report on the pilot initiative undertaken by Maharashtra Metro Rail Corporation Ltd. in partnership with Pune Knowledge Cluster Foundation to enhance ridership along the Vanaz to Garware College corridor.

This collaboration represents a forward-looking approach to urban mobility, bringing together an infrastructure agency and a knowledge institution to address the critical challenge of increasing public transport adoption. While metro systems provide high-quality infrastructure, their full potential can only be realized through effective last-mile connectivity and informed commuter choices.

The initiative has focused on a combination of behavioural interventions, citizen engagement, and improvements in access to metro stations through walking, feeder services, and shared mobility. These efforts aim to make public transport more convenient, accessible, and preferable as a principal mode of travel.

The positive ridership trends observed during the project period underscore the value of integrating such “soft” measures with physical infrastructure. The project demonstrates that targeted, scalable interventions can meaningfully enhance metro usage and support a broader shift toward sustainable mobility.

I would also like to acknowledge the valuable support and cooperation extended by key government stakeholders, including Pune Municipal Corporation, Pune Mahanagar Parivahan Mahamandal Limited, Regional Transport Office Pune, and Pune Traffic Police, whose collaboration has been instrumental in enabling this initiative.

I commend the efforts of all partner organizations involved in this initiative and am confident that the approach and learnings from this project will serve as a valuable model for replication across other metro corridors and cities.

At Maha Metro, we remain committed to advancing sustainable, inclusive, and people-centric mobility solutions through continued collaboration and innovation

Pune,
15th April 2026

Shравan Hardikar



Capt. (Dr.) Rajendra Saner-Patil
General Manager
Multi-Modal Integration,
Maharashtra Metro
Rail Corporation Ltd.

Message from the General Manager – Multi-Modal Integration

It is a privilege to have led this initiative on behalf of Maharashtra Metro Rail Corporation Ltd., focusing on enhancing first- and last-mile connectivity along the Vanaz to Garware College corridor.

This project reinforces a key principle of urban mobility—that metro systems can achieve their full value only when supported by seamless multi-modal integration. Through a combination of commuter research, access studies, and citizen engagement, the initiative has identified practical measures to improve accessibility and encourage greater adoption of the metro.

The findings highlight the importance of walkable infrastructure, efficient feeder services, cycling facilities, and clear wayfinding in shaping commuter behaviour. Equally important has been the role of citizen participation in building awareness, trust, and demand for sustainable mobility solutions.

The positive ridership trends observed during the project period demonstrate the effectiveness of combining technical interventions with behavioural approaches. The framework developed through this initiative offers a scalable model for strengthening multi-modal integration across the metro network.

I would like to acknowledge the dedicated efforts of the Multi-Modal Integration (MMI) team and the Public Relations team at Maha Metro, whose sustained engagement and on-ground coordination were critical to the successful execution of this project. I also acknowledge the valuable contribution of the Pune Knowledge Cluster Foundation and partner organizations in delivering this initiative.

Continued collaboration among institutions and citizens will be essential to translating these insights into long-term improvements on the ground.

Pune,
15th April 2026

Capt. (Dr.) Rajendra Saner-Patil



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1. Introduction

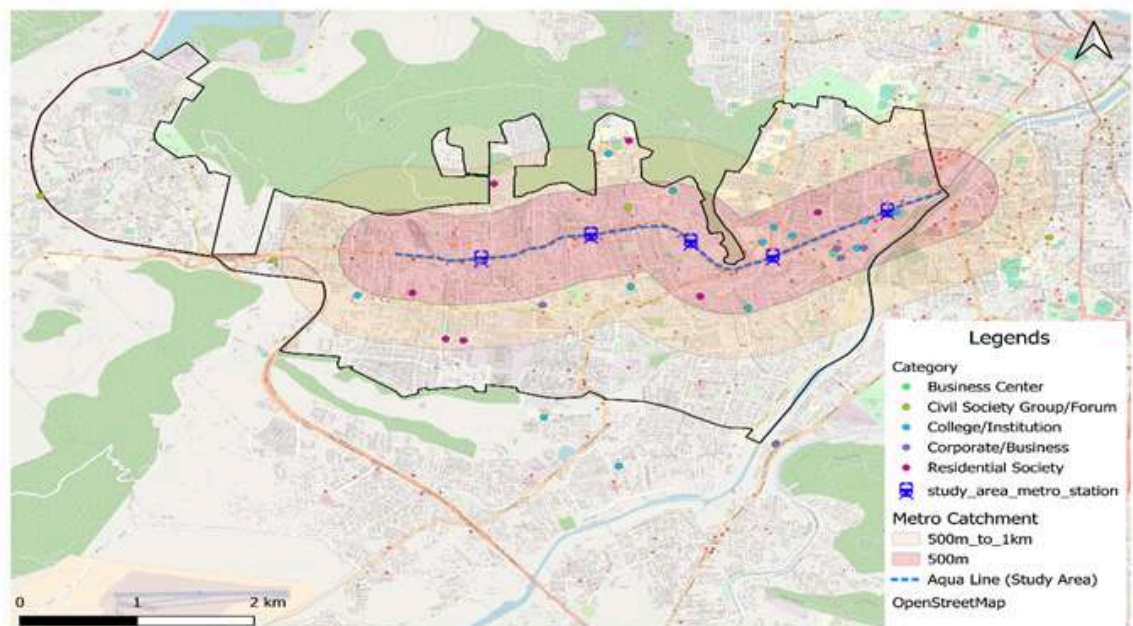
Maharashtra Metro Rail Corporation Ltd.'s (Maha Metro) Purple Line and the Aqua Line became fully operational with the opening of the Swargate Metro Station in September 2024. While the ridership on these metro segments is on an increasing trend, there is a significant gap vis-à-vis the target ridership.

On the 30th of June 2025, Maha Metro launched a pilot study, in partnership with the Pune Knowledge Cluster Foundation (PKC), for enhancing ridership along the Vanaz to Garware College segment of the Aqua Line. This report provides the details of this pilot study carried out for Maha Metro to improve the first- and last-mile access at these stations through a combination of on-ground infrastructure assessments, citizen engagement and commuter research resulting in actionable recommendations. The study has been carried out over a period of eight months.

The study leverages soft measures / “Nudges” to influence behaviour change, among potential commuters, towards sustainable transportation modes. Nudges rely on information provision or persuasion to change attitudes. Nudges help people carry out desirable behaviours by making those behaviours easier and more attractive. Save Pune Traffic Movement (SPTM) and Centre for Environment Education (CEE) are program partners for this program. PKC, SPTM and CEE will be referred to as the Nudge Group in the foregoing.

1.1. Project Context

The picture below shows a section of Google Maps with the study area demarcated with a black line. The Vanaz to Garware College stations of the Aqua Line are shown in blue colour. Areas that are 0.5 km, 1 km and 2 km away from the metro line have been marked on the map. The catchment area is largely residential. It houses a number of large educational campuses and has a few small IT Parks.

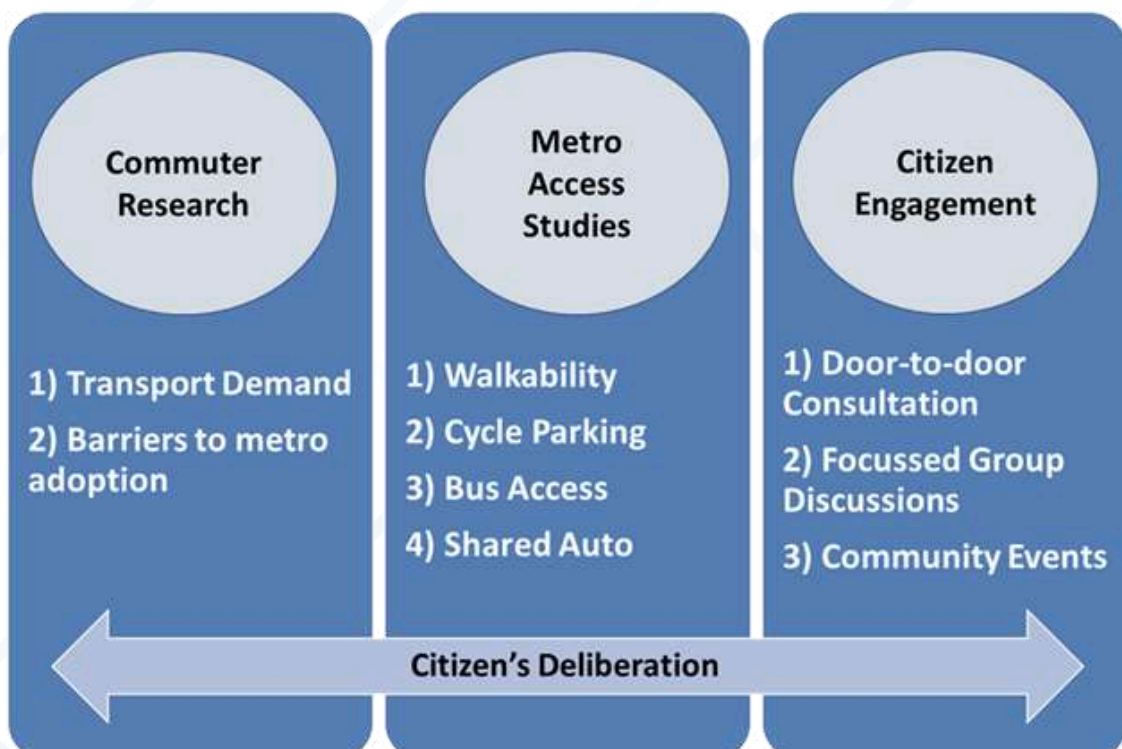


The program has implemented a two-pronged strategy to pilot mobility improvements in the Vanaz to Garware College segment.

a. Strengthen public understanding of sustainable mobility principles: This enables personal shifts in mobility behaviour. It was achieved through citizen engagement activities that include (a) dissemination of visual information through door-to-door campaign as well as public events and (b) Community involvement in footpath assessments.

b. Strengthen public trust: This was achieved through activities that demonstrated willingness to listen and act, such as (i) Focussed Group Discussions (ii) Community involvement in raising PMC Care tickets and raising demand for improved walkability with civic authorities and (iii) Citizen’s deliberation workshop with participation from relevant government organizations.

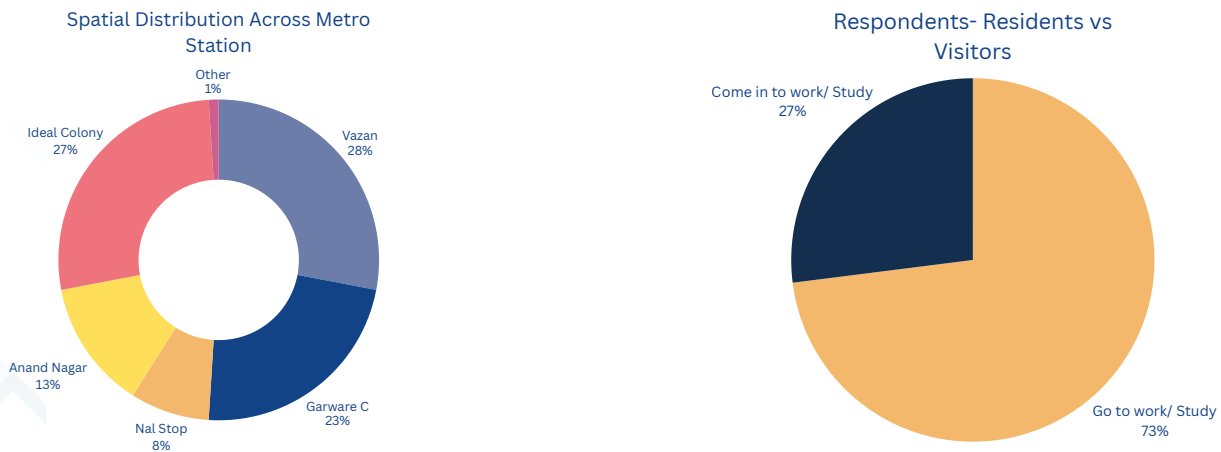
The activities to achieve these strategies are organized into a three-pillar structure. The three pillars of the program - Commuter Research, Metro Access Studies and Citizen Engagement - are shown in the figure below. The key aspects of each pillar have been listed under each pillar. For example, the key elements of commuter research are understanding the transport demand and challenges preventing users from adopting the metro. The activities under each cut across the pillars. For example (i) Community involvement in walkability touches the two pillars of Citizen Engagement & Metro Access Studies, (ii) Door-to-Door Consultation involved dissemination of information to strengthen public understanding as well as Commuter Research, (iii) The Citizens’ Deliberation (or Jan Samvad) was a consultative workshop with an inclusive, representative citizen group to deliberate on how to shift travel behaviour towards sustainable modes, in the catchment area (Deccan to Bavdhan) of the project stations, and share final recommendations for implementation by the concerned authorities.



2. Commuter Research

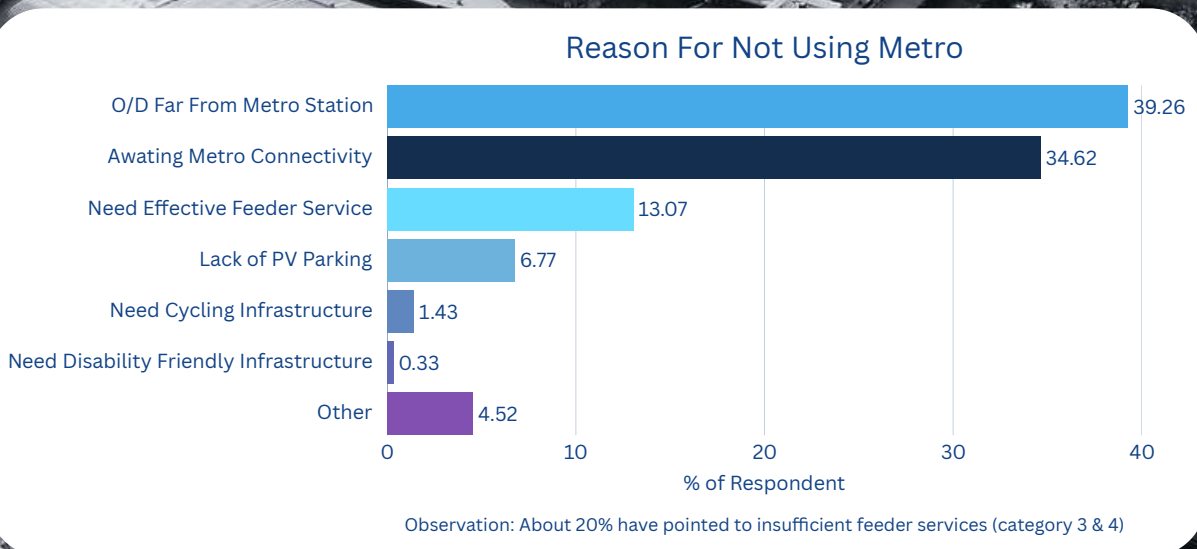
The objective of commuter research was to understand the main mode of transport, the first/last-mile preferences of current commuters, barriers to metro adoption by potential commuters and thereby identify improvements needed to encourage a shift from private vehicles to the metro.

A digitized survey was designed to capture the required information from citizens residing in the catchment or visiting the catchment area for work / educational purposes. A variety of techniques was used to record the survey responses from citizens. ~6000 survey responses were obtained. The chart below shows the split of responses by metro station. The breakup of responses is fairly balanced by metro station. The second chart shows the breakup among residents and visitors. Given that the area is largely residential, this is a healthy mix too.

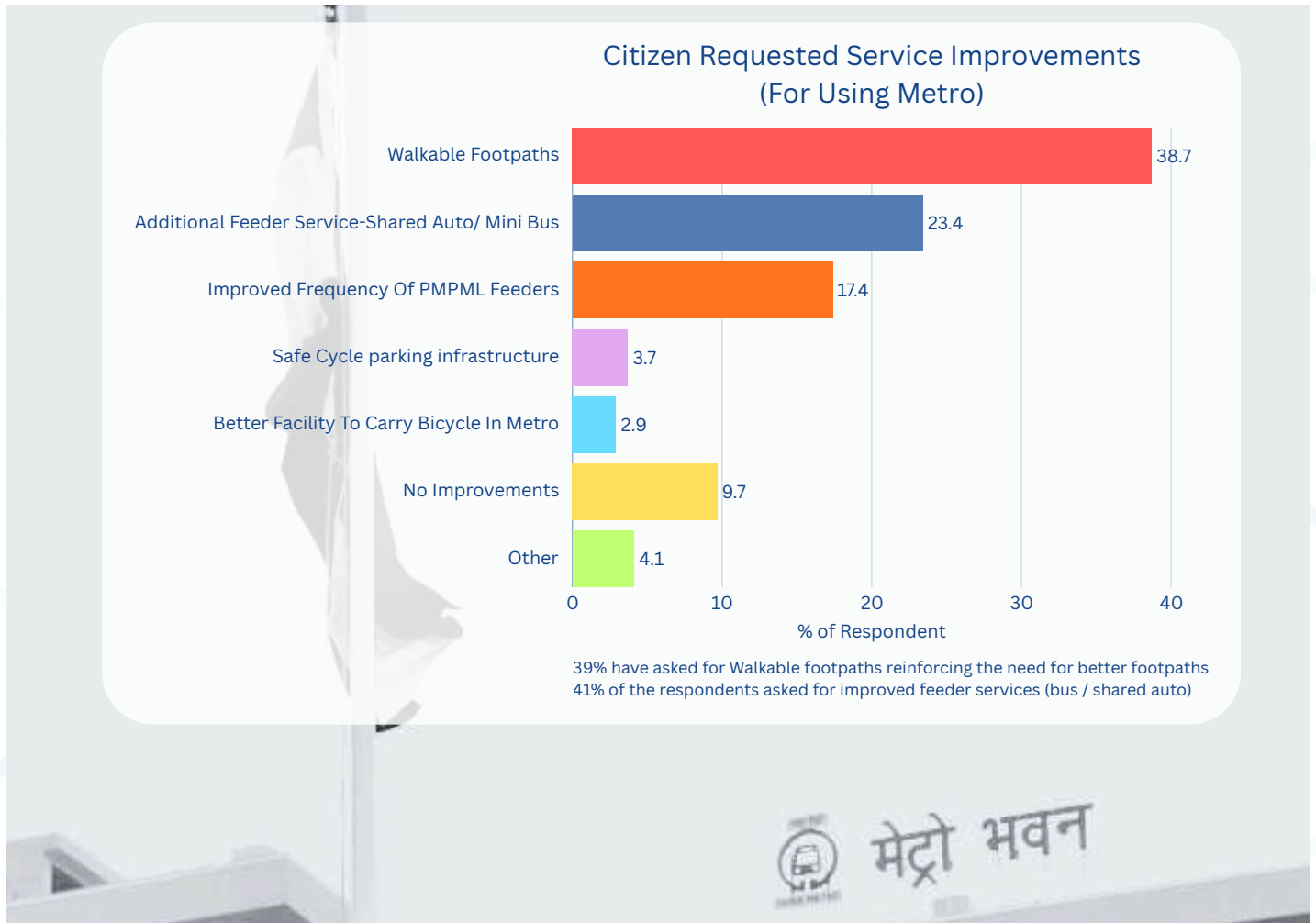


2.1. Understanding Barriers to Adoption

About 60% of the respondents use a sustainable transport mode (walk, cycle, bus, metro) for their main mode of commute. That is, 40% or ~2400 respondents from the sample are “non-users”. The chart below shows the reasons why this group of non-users does not use the metro.



Non-users were asked about service improvements needed to enable/encourage them to use the metro.



A summary of the key findings from the research are given below. Details are available in the relevant section

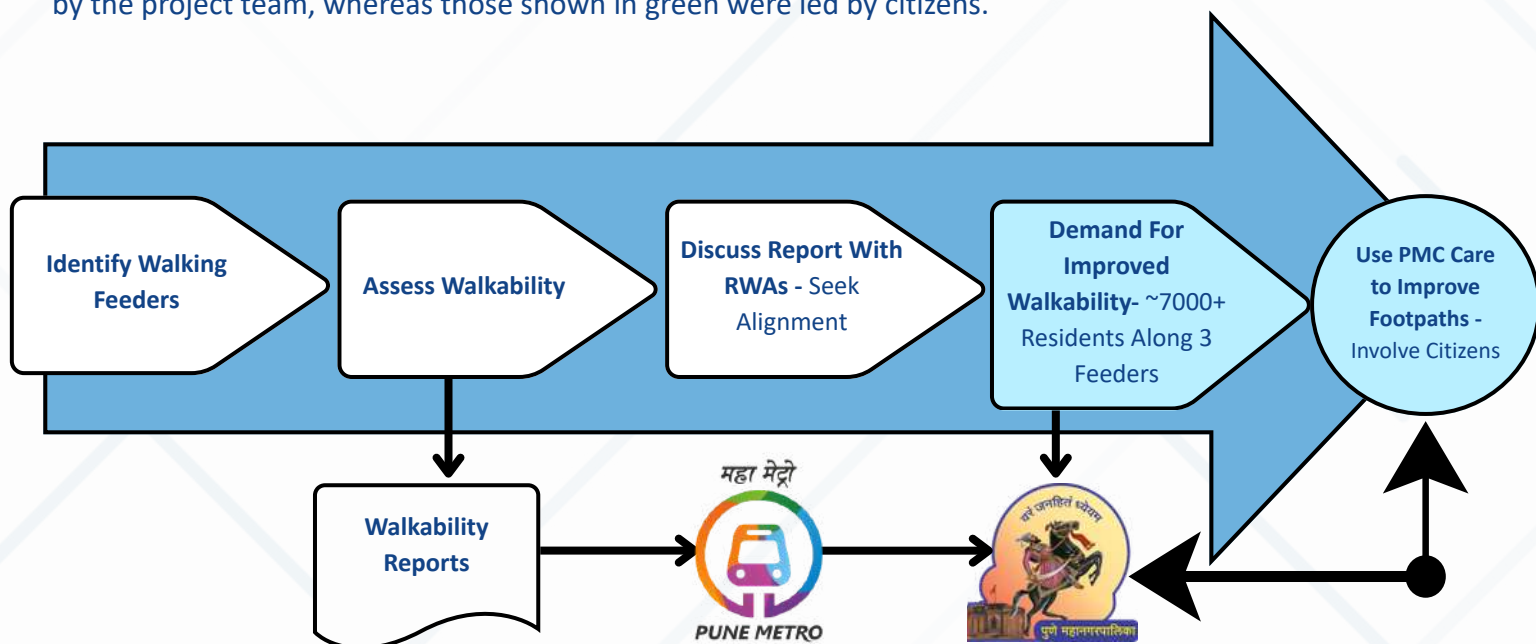
Commuter Research - Areas of Nudge

- Walkable footpaths are needed along metro feeder roads.
- Additional feeder services and improved frequency of feeder buses will improve Metro ridership.
- Cycle Parking facilities are needed at metro stations.
- There is a latent demand of ~8 lakh trips / month at the 5 Project Stations if efficient feeder services are implemented. This amounts to a ~50% increase in the current metro trips.

3. Improving Access to Metro Stations

3.1. Walkability Infrastructure Evaluation

A large proportion of current and potential metro commuters access stations on foot. Improving pedestrian infrastructure within a 1 km radius (~10-minute walk) of metro stations is therefore critical to increase metro ridership. Across the five project stations, 25 key walking feeder roads were identified and assessed for walkability. 10% of the feeders were assessed with community participation. The purpose behind participatory assessment was to build ownership and “demand” from citizens for better footpaths in their area. The approach is illustrated in the figure below: The activities shown in blue were primarily completed by the project team, whereas those shown in green were led by citizens.



The assessment followed a structured and evidence-based approach which included the following steps:

- GIS mapping of feeder roads within 1 km radius.
- On-ground surveys using standardized footpath assessment forms.
- Documentation of elevation & kerb separation, surface condition,
- encroachments, discontinuities at property entrances and accessibility (ramps & tactile tiles).

The findings were captured and a detailed report with recommendations was submitted through Maha Metro to the Pune Municipal Corporation (PMC). Virtually all roads surveyed exhibited a mix of one or more of the following 4 issues:

1. Non-existent or insufficiently wide footpaths.
2. Seemingly sufficiently wide, yet unusable footpaths.
3. Space allotted for P1-P2 or some form of on-street parking, but no footpath.
4. Lack of continuity of footpaths.

Improving Access to Metro Stations

Based on the request from PMC, three priority roads were identified, and they are given in the table below:

Station Name	Roads to Focus	Start Point	Approx. Distance from Metro Station	Sub Roads	Start Point (Sub Roads)	End Point	Road Length approx. (m)
Vanaj	V4	Ramchandra Mane Rd	20 m	NA	Kinara Hotel	Balwantpuram	950
				V4_x	Balwanpuram Chowk	Sutardara	950 + 350 = 1300
				V4_y		Rahul Motors	950 + 300 = 1250
Ideal Colony	I1	Bharti Vidyapeeth Road	280 m	I1_1	Bharti Vidyapeeth	Sigma 1	160 + 1200 = 1360
Nal Stop / SNTD	N2	Narayandas Nagindas Gandhi Rd	20 m	NA	Metro Station	Zudio Chowk, Pandurang Colony	610

Given that PMC will take some time to allocate budget and other resources to act on the recommendations, a sustained effort would be needed from Maha Metro to ensure that the recommendations see the light of the day.

Further, we also hope that PMC takes a strategic decision to fix similar issues with footpaths acting as feeders to all Metro stations.

3.1.1. Advocacy for Improved Walkability

Beyond assessment, the initiative actively pursued a structured advocacy approach aimed at institutional and political mobilisation.

Engagement with Resident Welfare Associations (RWAs): Road-specific findings were shared with RWAs. RWAs were encouraged to formally articulate demand. Additionally, residents were sensitized to pedestrian design standards and to log tickets for walkability issues.

Administrative Engagement: Walkability Assessment and Recommendations Reports (covering 25 roads) were formally forwarded by Maha Metro to the Roads Department of the Pune Municipal Corporation. Subsequently, officials from the Roads Department were briefed on priority stretches and a joint survey was undertaken.

Political Will Mobilisation: Meetings were held with elected representatives (local MLA and MPs residing in Kothrud) to elevate the issue beyond ward-level action.

Outcomes:

- (i) 42 RWAs representing 7000+ citizens submitted formal letters to respective PMC ward offices seeking implementation of walkability improvements.
- (ii) Created institutional alignment between Metro and the Roads Department of the Pune Municipal Corporation.
- (iii) Media coverage further amplified the issue, strengthening public legitimacy and accountability.

3.1.2. Strategic Impact

This approach demonstrated that technical assessment along with citizen sensitisation, administrative alignment, and political engagement builds public trust and creates momentum for implementation. The program establishes a replicable model:

Walkability Recommendations

- The footpaths for the feeder roads to metro stations must be designed according to the USDG: sufficiently wide and continuous.
- They should also be free from encroachments. Sustained follow up by Maha Metro is needed so that PMC fixes these issues, and Metro commuters have a stress-free walking experience to/from the Metro stations.
- Digging work by utilities (cable, pipelines) needs to be managed by the PMC more effectively. A Standard Operating Procedure (SOP) needs to be developed and strictly implemented.
- Publicity to be given by PMC and other agencies about the facility of PMC Care for citizens to submit complaints for footpath repairs.

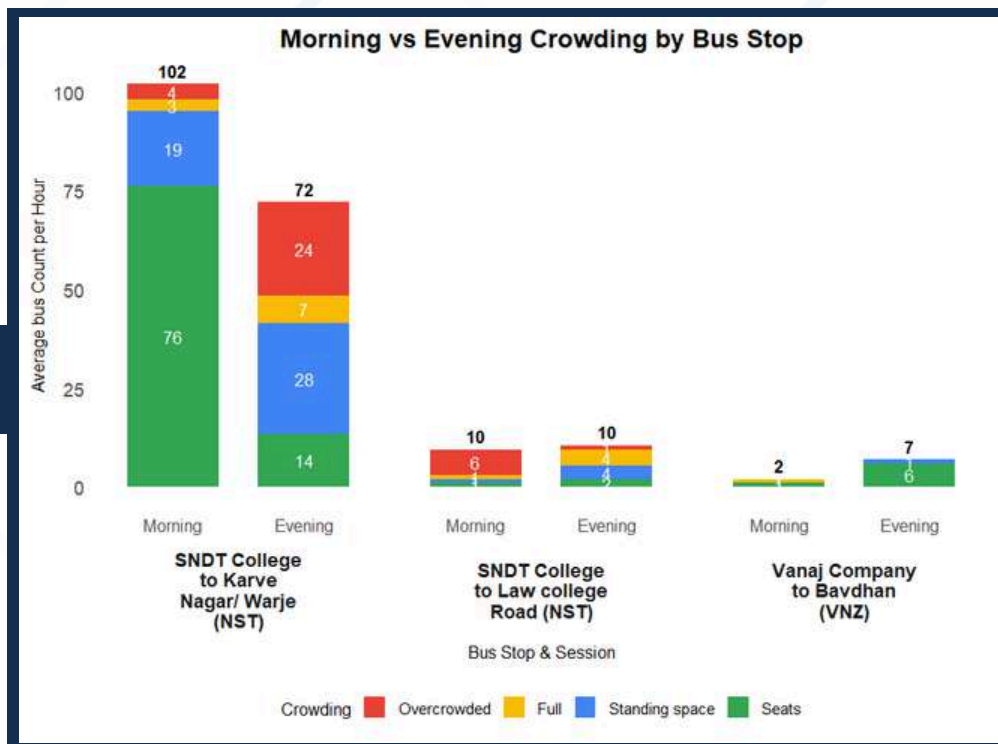
Assess → Engage → Advocate → Institutionalize

This integrated approach can be scaled across additional metro corridors to systematically strengthen first/last-mile connectivity.

3.2. Improving Access - Bus

Bus connectivity is a scalable and equitable mode for first- and last-mile integration with metro systems. Strengthening bus–metro integration, expands metro catchment beyond walkable 1 km radius with an affordable and inclusive option and therefore enables modal shift from private vehicles.

A study focused on bus access to the Nal Stop and Vanaz Metro stations was conducted. It covered the infrastructure aspects such as bus stops as well as service quality. Observations were spread during the morning & evening peaks for three days.

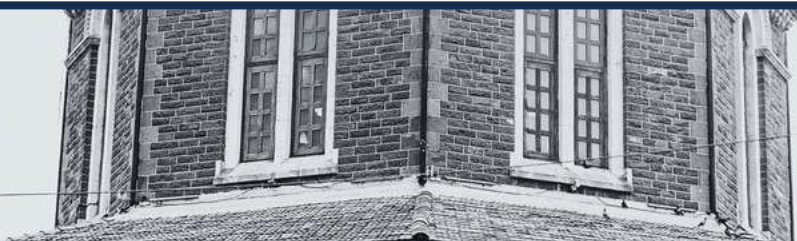


The chart showing the occupancy level of buses, at the three stops, during the observation period, has been included as an example. One key observation is that a large number of the buses (43%) at SNDT College (NST) bus stop towards Karve Nagar/ Warje were observed to be full/overcrowded in the evening peak hours. This implies that people will find it difficult to catch a bus to go towards Karve Nagar / Warje after getting down from the Metro at this station. This has led to our recommendations of starting short routes that start/end at Metro stations as well as of improving frequency of routes with overcrowded buses.

A summary of our priority recommendations is included for ready reference.

Feeder-Bus Recommendations

- Frequency improvement for routes that serve as metro feeders (short routes). This is based on the observed passenger demand and to reduce crowding.
- Restructuring of routes to reduce overlaps with metro corridors, improve coverage of catchment areas and thereby capture demand.
- New feeder routes that start from a catchment area/locality (e.g. inside Bavdhan, near Popular Nagar, Warje) and terminate at a Metro station (e.g. Vanaz, Nal Stop)
- Create additional, smaller routes with higher frequency and smaller size buses.
- Infrastructure & access which includes improvements in bus stops, route signages and integrated wayfinding between bus stops and metro concourse.



3.3. Improving Access - Cycle Parking Facility

Given the city's overall objective to reduce the modal share of personal motor vehicles, it is imperative that Maha Metro makes it possible to access the Metro stations by means other than cars and motorized two-wheelers. While improving the access by walking and bus does not fall under the purview of Maha Metro, it can certainly take some steps to make it easier to reach Metro stations by bicycle.

When people park their bicycles at Metro stations and return to the location after completing their Metro trip, it is sometimes found that the bicycle has fallen or has been moved to some awkward corner by someone. In order to avoid such occurrences, it is highly recommended that Maha Metro provides attractive and stable cycle stands, where people can securely lock their bicycles.

Such stands also give a very clear visual signal that Maha Metro encourages people to cycle to stations.

Maha Metro MD, has agreed to installation of cycle stands with a capacity for 10 bicycles on each side of the five project stations. Location under staircases / escalators / lifts of the Metro stations have been identified for the installation of these cycle stands through a joint review.

This design has been discussed and approved by Maha Metro team.



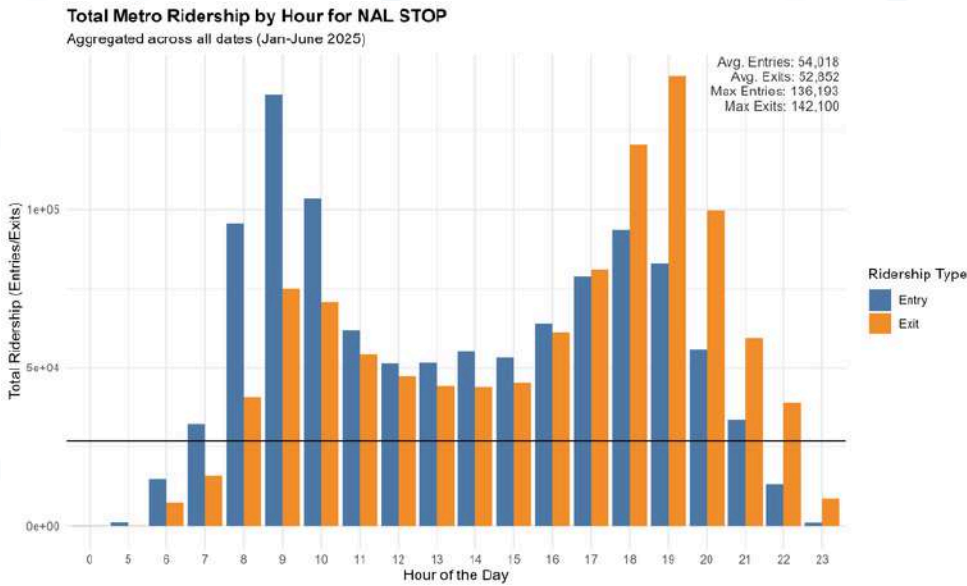
Cycle Parking Recommendations

- Cycle stands should be installed on priority, near lifts or escalators at each station, and cycle parking should be free.
- People should be made aware of this provision, through the Metro App as well as other means of outreach, including social media, press notes etc.
- As and when cycle stands are found occupied, more cycle stands should be provided.
- Maha Metro should appoint security personnel to ensure that the bicycles as well as cycle stands are protected against vandalism.

3.4. Improving Access - Shared Auto

Shared autos provide flexible connectivity between the residential and commercial areas, addressing gaps in public transit. They reduce dependence on personal vehicles, ease traffic congestion near stations, and are beneficial for commuters, typically within a ~3 km radius. Metro and RTO had identified several shared auto routes a couple of years ago, however, these are not running as per expectations. Maha Metro was keen to understand the demand for these services.

To determine the sustainability of shared auto services, it is important to understand the hourly footfalls at the stations. These provide an indication on the need & sustainability for these services. Assuming 10 metro schedules in an hour, we estimated that 150 boardings and 150 alightings in an hour today would make a shared auto service sustainable. The chart below gives the hourly ridership at Nal Stop / SNDT metro station. The horizontal line shows the minimum ridership level for sustainability.



Observations:

- NST has a prominent entry peak during the day, and an exit peak in the evening. This indicates that this station serves a largely residential area.
- The station has good boarding + alighting volumes every hour and should be able to sustain last-mile services between 8:00 am and 9:00 pm.

Such hourly charts were studied for all the five project stations.

Conclusion:

- Shared auto service is sustainable throughout the day for the Vanaz and Nal Stop / SNDT metro stations.
- Anand Nagar and Garware College metro stations could sustain a shared auto service during the morning peak (8 - 11am) and evening peak hours (5-8pm).
- Ideal Colony has very low hourly ridership, even during peak hours. A shared auto service is therefore not sustainable.

No	Metro Station	End Point / Start Point	Round-trip Distance (km)
1	Vanaz	DSK Ranwara, Bavdhan	10
2	Vanaz	Sutardara via Balwantpuram Samrajya	3
3	Vanaz	Sahajanand Society Bus Stop	3.2
4	Anand Nagar	MIT WPU	3.2
5	Anand Nagar	Sigma One	4.3
6	Vanaz	Dahanukar Colony	5.2
7	Anand Nagar	Shilpa Society	2.6

The details are provided in the relevant section below. These details include (i) A textual description of the suggested route (ii) A route map (iii) An estimate of the minimum number of autos that need to ply on the route to maintain a desired frequency (iv) A fare structure

3.5. Improving Access - Signages

Clear, consistent, and well-placed signage is essential for the smooth functioning of a metro transit system, particularly for first-time or occasional commuters. Effective signage enables passengers to navigate stations confidently, locate platforms and exits quickly, and understand connectivity options such as feeder transport and nearby landmarks. Good signage reduces confusion, improves passenger flow, enhances safety during emergencies, and contributes to a positive commuting experience. In growing metro systems, especially those aiming to attract new users, intuitive signage plays a critical role in improving accessibility and encouraging public transport adoption.

The signage assessment was conducted as part of a broader effort to improve commuter experience and enhance ridership along the Vanaz–Garware College metro segment. The key activities undertaken were

- **Field assessment at selected metro stations** to document the existing signage system within stations and surrounding areas.
- **Classification of signage types** into key functional categories such as:
 - Directional signage (platform directions, exits, station access)
 - Informational signage (maps, fare information, service information)
 - Accessibility signage (elevators, ramps, universal access facilities)
 - Emergency signage (emergency exits, safety instructions)
 - Connectivity signage (feeder services, nearby destinations, first-/last-mile options).
- **Evaluation of signage using defined assessment parameters**, including visibility and placement, clarity and readability, and overall user-friendliness and consistency.
- **Documentation of on-ground observations**, including photographic evidence of gaps or inconsistencies in signage.
- **User feedback collection through commuter surveys**, capturing commuter experiences, difficulties faced in navigating stations, and suggestions for improving wayfinding.



Signage Recommendations

- Strengthen directional guidance Clear directional signage should be installed at key decision points such as entrances, stairways, ticketing areas, and platform access points to help commuters easily navigate within the station.
- Introduce “You Are Here” maps and orientation aids Station maps showing the commuter’s current location and surrounding landmarks can significantly improve orientation, particularly for first-time users.
- Improve exit and connectivity information Exit signage should clearly indicate nearby destinations, streets, and key landmarks, along with information on feeder services such as auto-rickshaws, buses, and pedestrian routes.
- Enhance visibility and readability of signboards Signage should follow standardized design guidelines, including consistent colours, fonts, and placement heights, ensuring readability in varying lighting conditions.
- Reduce information clutter and improve organization Important information such as service charts, route maps, and fare details should be organized and displayed at prominent locations rather than being concentrated only near ticket counters.

4. Citizen Engagement & Outreach

The outreach undertaken by the Nudge Group aimed to build a grounded understanding of citizens’ everyday mobility patterns and identify practical pathways to increase the use of Pune Metro. An important and innovative aspect of this outreach was that it went beyond conventional information and promotional campaigns. Rather than treating citizens only as passengers to be informed, the process actively engaged them as participants in shaping the mobility system. Through surveys, focus groups, community discussions and participatory assessments of neighbourhood infrastructure, the outreach created opportunities for citizens to articulate their concerns, propose improvements and interact directly with the institutions responsible for mobility planning. This approach helped activate citizenship, fostered dialogue around sustainable mobility choices, and generated informed public demand for improvements in walking, bus, cycling and metro connectivity.

4.1. Campaign Identity

A key feature of the outreach was the communication campaign built around the “Walk, Bus, Cycle & Metro (WBC&M)” concept and logo. The campaign emphasised that the metro functioned best as part of a sustainable mobility ecosystem, where walking, cycling and bus services enabled convenient access to stations.



4.2. Door-to-Door Survey

The engagement began with a door-to-door survey across the metro catchment areas between Vanaz and Garware College, where households and local businesses were approached to understand daily travel behaviour, preferred modes of transport, and the extent to which commuters relied on private vehicles versus public transport. These interactions helped identify key constraints affecting metro usage, including first- and last-mile connectivity, pedestrian safety, interchange clarity, fare perceptions, and awareness gaps regarding metro services.

4.3. Focus Group Discussion

To deepen the insights gained from the surveys, the project conducted segmented focus group discussions and stakeholder consultations with diverse user groups such as senior citizens, teachers, auto-rickshaw drivers, street vendors, shopkeepers, blue-collar workers, park-and-ride users and domestic women workers. These engagements helped unpack the specific mobility needs of different socio-economic groups and travel purposes. The discussions highlighted several improvements that could support greater metro adoption, including reliable feeder services, better integration with bus services, safer walking infrastructure around stations, and clearer information about metro access and usage.

The engagement also examined parking behaviour around metro stations, recognising that increased metro use had already begun to influence travel behaviour. Surveys of park-and-ride commuters showed that many users drove or rode two-wheelers to the station and parked nearby for the entire workday, often occupying roadside space and creating congestion for pedestrians and local businesses. The project therefore explored strategies to gradually discourage excessive parking and instead strengthen sustainable first- and last-mile connectivity, including feeder services, improved bus integration, and better pedestrian access to stations.

4.4. Community Events

Community events (Total 16) were organized in different localities & institutions. Sensitization on sustainable transportation and a travel behaviour survey were common elements in these events. Events drew an enthusiastic response. They resulted in establishing contact points in the different localities / institutions as well as identifying sustainable transport champions.

A Samvad session with MD, Maha Metro and Commissioner PMC was also organized on the auspices of the World Sustainable Transport Day.

4.5. Community Assessment

The outreach encouraged citizens to reflect on their everyday travel choices and identify neighbourhood-level improvements—such as better footpaths, safer crossings and improved access routes—that would allow these modes to work together more effectively and support higher metro ridership. These were done through specific events around community assessment.

4.6. Social Media Activation

During community events, citizens voiced their demand for improved walkability (Shivtirthnagar, Rambag Colony) and improved frequency of PMPML feeder buses (Bavdhan Citizen's Forum). Active citizen participation in voicing their demand was triggered by recording their video bytes and facilitating their posts on social media. This resulted in citizens becoming active participants instead of remaining passive followers.



4.7. Citizen's Deliberation Workshop

The engagement process culminated in a citizens' deliberation workshop (Jan Samvad) on 14 December 2025, where draft recommendations, prepared based on the inputs from the surveys, focus groups and community interactions, were presented for discussion with citizens and relevant government stakeholders. These deliberations enabled participants to collectively review the recommendations and suggest additional aspects that could enhance metro accessibility and ridership. The recommendations were discussed with the respective government stakeholder representatives at the workshop.

The project combined household-level insights, stakeholder perspectives and participatory dialogue to translate citizen feedback into actionable recommendations for strengthening sustainable first-last-mile options to enhance metro ridership.



5. Ridership Impact

5.1. Comparing Ridership - Project Stations vs Control Stations

In order to understand the impact of the project interventions on ridership, it is important to study and compare the ridership trend at stations other than the 5 **Project Stations**. After studying the characteristics and ridership patterns of stations, the 9 stations given in the table below, were finalized as '**Control Stations**'. Specific comments on the inclusion / exclusion criteria is as follows:

- Pune Railway Station and Swargate have significantly different characteristics from any of the 5 project stations and therefore were not considered as Control Stations.
- Ridership at Bopodi showed a typical decline post June after the opening of the Khadki station. Therefore, Bopodi too does not qualify to be included as a Control Station.
- PCMC is a metro terminus station and so is Vanaz. Since Vanaz is a Project Station, PCMC has been included in the list of Control Stations.
- Though Ramwadi is also a terminus station, the IT companies located beyond Ramwadi have been trying to implement various last mile options such as contract buses, lobbying for improving frequency of PMPML buses etc. Any degree of success in these alternatives must have impacted the ridership pattern at Ramwadi. Hence Ramwadi was not considered as a Control Station.

The final list of Control Stations is as follows:

Purple Line	PCMC, Nashik Phata, Dapodi, Shivajinagar
Aqua Line	Deccan Gymkhana, Bund Garden, PMC, Ruby Hall Clinic, Yerwada

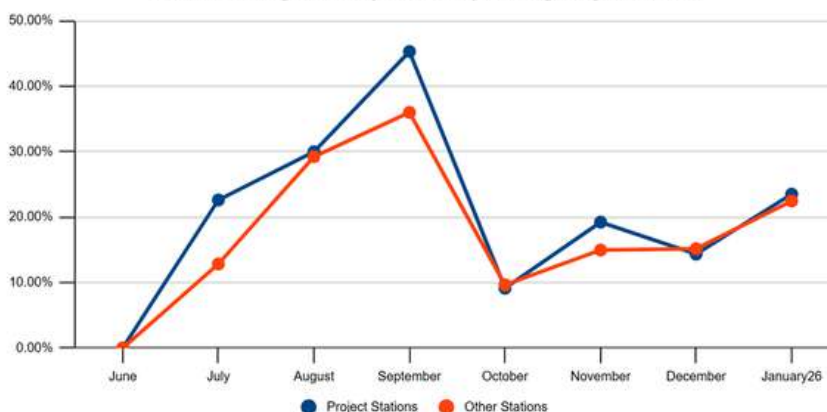
Such a well-curated list of Control Stations was necessary because the ridership of Pune Metro has been increasing for various reasons. The premise was, if the Nudges project is successful, the ridership at the Project Stations would increase at least a shade over and above a similar increase in ridership that would be observed at the Control Stations.

Month	Monthly Avg. Total Ridership (5 stations)	Growth compared to June (5 stations)	Monthly Avg. Total Ridership (other stations)	Growth compared to June (other stations)	Ridership Growth - Difference
Jun -25	1,238,383	0.00%	2,756,296	0.00%	0.00%
Jul -25	1,518,514	22.62%	3,110,259	12.84%	9.78%
Aug -25	1,609,748	29.99%	3,561,949	29.23%	0.76%
Sep -25	1,799,401	45.30%	3,748,615	36.00%	9.30%
Oct -25	1,351,536	9.14%	3,022,073	9.64%	-0.51%
Nov -25	1,476,585	19.23%	3,168,694	14.96%	4.27%
Dec -26	1,416,000	14.34%	3,174,348	15.17%	-0.82%
Jan -26	1,529,528	23.51%	3,375,530	22.47%	1.04%
			Average		3.40%

Observations:

- Project Stations outperformed the Control Stations during the intervention period by an average of 3.4%. This indicates a positive correlation between the Nudge Team's efforts and metro usage.
- Once the recommended access improvements are implemented, a higher ridership impact is expected.

Growth in Avg. Monthly Ridership during Project Period



6. Summary

6.1. Impact Summary

The project demonstrates a measurable and positive impact on metro ridership through the application of behavioural “nudge”-based interventions. A comparative analysis between the five project stations and a carefully selected set of control stations shows that project stations outperformed control stations by an average of 3.4% during the intervention period.

This uplift is particularly significant given the overall system-wide ridership growth, indicating that the observed increase is not incidental but linked to the targeted interventions implemented under the project. The combination of commuter research, citizen engagement and participatory assessments contributed to this outcome by addressing barriers to metro adoption.

Importantly, the study also identifies a substantial latent demand (~8 lakh trips per month, ~50% potential increase) that can be unlocked through systematic improvements in feeder services, walkability, and multimodal integration. Together, these findings establish strong evidence that low-cost, scalable behavioural and access-focused strategies can meaningfully enhance public transport usage.

6.2. Conclusion

This pilot project demonstrates that improving metro ridership is not solely a function of infrastructure expansion, but equally of enhancing accessibility and influencing commuter behaviour. By integrating commuter insights, participation, and targeted nudges, the project successfully created both demand-side shifts and institutional momentum for sustainable mobility improvements.

A key contribution of the project is the development of a **replicable, scalable model**—combining *Assess → Engage → Advocate → Institutionalize*—that can be applied across other metro corridors and urban contexts. The approach highlights the importance of aligning technical solutions with citizen participation and administrative coordination to achieve lasting impact.

While the initial ridership gains validate the effectiveness of the approach, the full potential of the interventions will be realized as recommended improvements in walkability, feeder services, and multimodal integration are implemented. With sustained institutional support, this model can significantly accelerate the shift toward **sustainable urban mobility systems**.



About Pune Knowledge Cluster Foundation

The Pune Knowledge Cluster Foundation (PKCF) is one of the seven Science and Technology Clusters established by the O/o PSA under The City Knowledge and Innovation Cluster Initiative (CKIC). PKC aims to bring together Academic Institutions, R&D organizations, Industries, Industry Associations, NGOs, Civic Bodies, and Local and State governments to collectively work for the betterment of Pune City by leveraging its partner organisations' science and technology capabilities.

More at: <https://www.pkc.org.in/>

About Save Pune Traffic Movement (SPTM)

'Save Pune Traffic Movement' (SPTM) is an NGO working to promote safe and sustainable transportation in Pune, with a focus on walking, public transportation and cycling as principal modes of daily commute. SPTM is a member of PMC's 'Non-Motorized Transport Committee' as well as 'Pune Road Safety Committee'.

More at: <https://savepunetraffic.org/>

About Centre for Environment Education (CEE)

Centre for Environment Education (CEE) was established in 1984 as a Centre of Excellence of the Ministry of Environment and Forests, Government of India. As a national institution, CEE's mandate is to promote environmental awareness nationwide and develops innovative programmes as well as educational material and builds capacity in the field of Education for Sustainable Development (ESD). In the urban sphere, CEE works to promote socially and environmentally sustainable mobility and road safety, with a focus on walking, cycling, shared and public transport.

More at: <https://www.ceeindia.org>

Credits & Acknowledgements

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From the Project Head

This initiative was grounded in a simple but important premise—that the success of public transport systems depends not only on infrastructure, but on how well they respond to the everyday realities, choices, and perceptions of people.

Working in partnership with Maharashtra Metro Rail Corporation Ltd., this project sought to bridge the gap between infrastructure provision and user adoption. By combining commuter research, first- and last-mile access assessments, and sustained citizen engagement, the effort has demonstrated how data, dialogue, and design can come together to shape more effective mobility solutions.

A key learning from this initiative has been the value of engaging citizens not merely as users, but as active participants in the mobility system. Their inputs helped ground the analysis in lived experience, while also building trust and generating demand for improvements in walkability, feeder services, and multimodal integration. This participatory approach has been central to both the process and the outcomes of the project.

The encouraging ridership trends observed during the intervention period provide early evidence of the impact of such integrated efforts. At the same time, the work highlights the significant opportunity that remains—particularly as recommended improvements are implemented and scaled across the network.

This work also reflects a collective effort. The project leadership set direction and standards for delivery, the execution team brought innovation and commitment to the work on the ground, and the extended network of citizen leaders, forums, federations, and RWAs played a vital role in shaping and strengthening the initiative. The support of key stakeholders, including Pune Municipal Corporation, Pune Mahanagar Parivahan Mahamandal Limited, Regional Transport Office Pune, and Pune Traffic Police, has been critical in enabling this collaborative approach.

As cities continue to invest in mass transit systems, there is a clear need to complement infrastructure with approaches that make these systems accessible, intuitive, and responsive to users. It is our hope that the learnings from this initiative contribute to advancing such people-centric, sustainable mobility solutions at scale.

Pune,
15th April 2026

