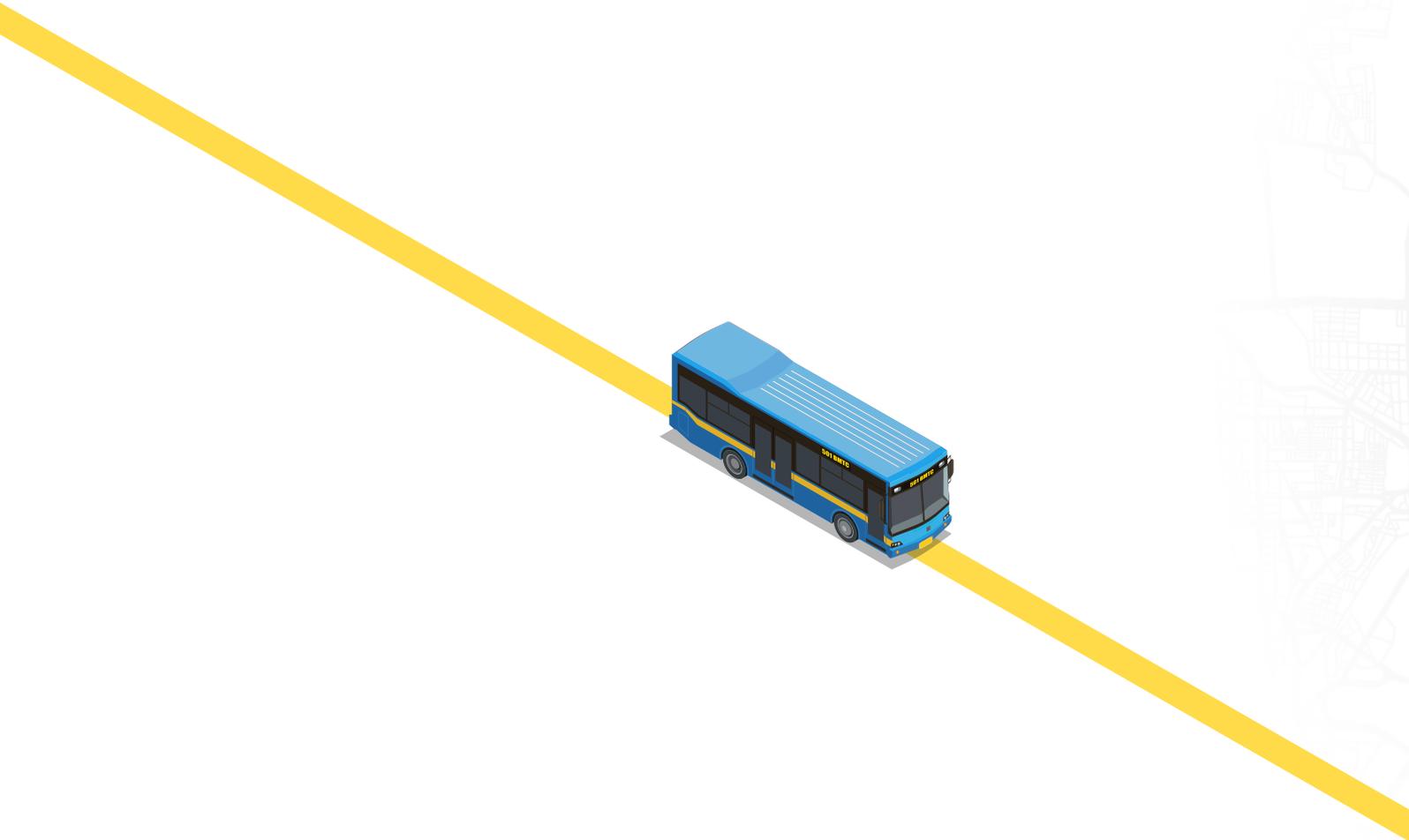


Bustling through Bengaluru



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**Bustling
through
Bengaluru**

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July 2022



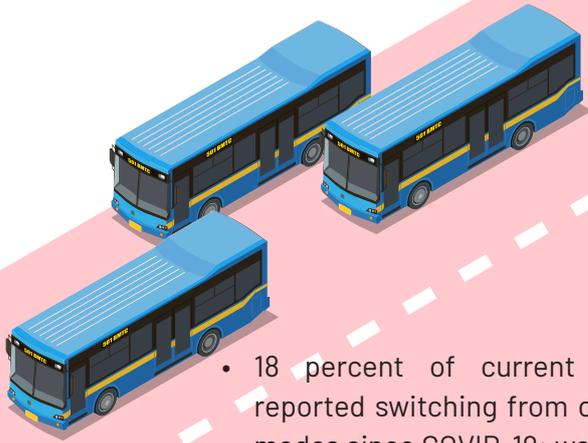
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Key Highlights and Recommendations

- Bengaluru is India's third-most populous city, but it struggles with heavy traffic congestion and a worsening state of air and noise pollution—owing to rapid urbanization without adequate improvements in public bus transport services. Despite the recent increase in BMTC's bus fleet, which stands at slightly more than 6,400, the number of buses per 1000 people in the city stands at 0.55 which is less than half the requirement.
- Despite a decline in the bus ridership in recent years, buses remain the predominant mode of travel, providing more than 3.6 million trips per day and registering a mode share of 28 percent in all work trips (according to the data provided by the Census of India-2011). More recent data from the draft Comprehensive Mobility Plan (CMP) prepared by BMRCL¹ suggests that the share of public transport, including both bus and metro, is 32 percent.
- Greenpeace India conducted a survey of bus users of Bengaluru in January-February 2022, to know more about their travel experience, challenges and demands.
- 558 people took part in the survey, including 243 women (206 of them aged between 18 and 50 years), 312 men (223 of them aged between 18 and 50 years), and 1 transgender person.
- The survey's findings suggest that 88 percent of existing bus users prefer buses over other modes of transport, including the metro. Convenience and cost-effectiveness were cited as the main reasons for preferring bus rides.
- Most bus users (58 percent) do not own any vehicle, indicating that a large share of bus users might be captive riders.
- Nearly two-thirds of respondents (64 percent) reported travelling for less than half an hour on their daily bus commute, and 60 percent of bus users travelled less than 5 km on their regular bus journeys.
- 59 percent of respondents (including 61 percent women and 57 percent men) reported 15 to 30 minutes as their bus commute time and the proportion of very short and very long journeys was found to be low.
- Two-thirds of all respondents reported an increase in either travel time or waiting time since the COVID-19 outbreak.
- Post-COVID-19 increase in the cost of travel was reported as a major concern—more so by women (18 percent) than men (10 percent).

1. Draft CMP-2019 can be accessed here: <https://opencity.in/documents/bengaluru-comprehensive-mobility-plan-cmp-draft-october-2019>. Interestingly, the draft has been prepared jointly by Bengaluru Metro Rail Corporation Limited (BMRCL) and DULT (Department of Urban Land and Transport) while BMRCL is itself a mobility service provider under CMP. This creates a serious conflict of interest which has provoked critical response from civil society organisations. See: <https://bengaluru.citizenmatters.in/bengaluru-metro-bmrcl-comprehensive-mobility-plan-validity-umta-central-funding-42341>



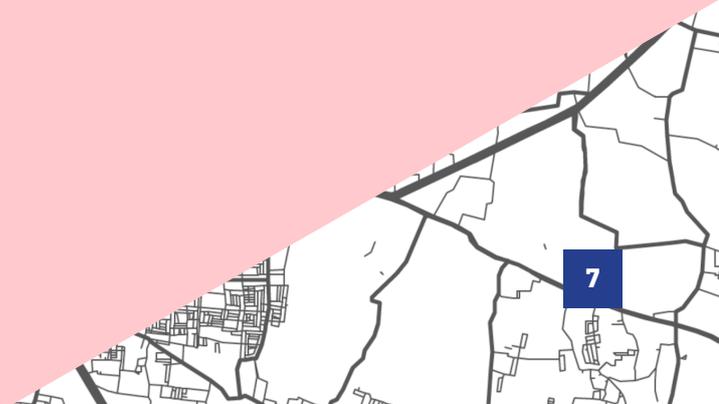
- 18 percent of current bus users reported switching from one of these modes since COVID-19: walk or bicycle (8 percent), car (5 percent), and auto-rickshaw (5 percent). This indicates the impact of COVID-19 on household and personal travel budgets.
- Among the changes bus users want in the system are more buses (45 percent of all responses), improvement in the timetable (23 percent), separate lanes for buses (17 percent), better first and last-mile connectivity (9 percent), and fare-free public transport (5 percent).
- Among the critically needed improvements on bus stops, improving the safety and security, and toilets for all genders were the two most preferred demands. Safety and security were particularly a major concern among women (39 percent of women chose this as the top preference).
- One-third of respondents reported bus fares to be somewhat expensive. 79 percent of bus users said that it would be a good initiative to make public bus transport free for women and students. More than one-third of bus users said that the bus fares should be abolished for all.

increasing BMTC's fleet size.

- We also recommend that priority bus lanes should be protected and extended to more routes (starting with 10 other corridors where bus lanes are already proposed) to achieve socially and environmentally just mobility for all.
- Our recommendation is to reduce fares for all and make buses free for women, children, senior citizens, differently abled persons, and economically disadvantaged groups.
- All bus stops should be safe and inclusive spaces for people of all gender identities. Lighting, visibility, vibrant street culture, and accountability through 'eyes on the street' should be given priority in any strategy to improve safety. The use of surveillance through CCTV to monitor bus stops and public places should be minimized.
- BMTC and other concerned government agencies should prepare a plan for reducing the waiting time to less than 5 minutes across the city and enhance the operational efficiency (measured in terms of speed, vehicle-km, ridership/carriage etc.) by interventions such as priority bus lanes and better integration with adequately planned pedestrian sidewalks/bicycling paths.



Based on this survey, we recommend that more universally accessible low-floor buses should be procured in a phased manner with annual targets of



Introduction

Bengaluru struggles with one of the worst traffic congestion issues in India and the world. Some estimates suggest that about 40 thousand crores worth of time is wasted in the city's traffic jam annually, while urban traffic accounts for annual emissions of more than 2-3 lakh tonnes of Greenhouse gases (GHG). Transport is one of the key emission sources for Bengaluru—vehicle exhaust and on-road dust resuspension account for a combined 56 percent and 70 percent of total PM2.5 and PM10 emissions². Bengaluru is India's third-most populous city but chronic traffic congestion and a worsening state of air and noise pollution are leading it towards a risky and unsustainable future. A recent Greenpeace India report³ observed that the annual average of PM2.5 and PM10 emissions exceeded WHO's revised air quality standards. Bengaluru saw annual PM2.5 levels exceed WHO guidelines of 5 µg/m³ by six to seven times. According to a [tool](#)⁴ by IQ Airvisual and Greenpeace, air pollution was responsible for 12,000 premature deaths every year in Bengaluru.

A significant factor contributing to this crisis is the rapid urbanisation in the last few decades without adequate improvements in the city's bus transport system. Despite the recent increase in BMTC's bus fleet—which was slightly less than 6.5 thousand according to the latest Karnataka State Economic Survey for the year 2021-22 – the number of buses per 1000 people in the city stands at 0.55 which is less than half of what is required.

The situation has worsened due to the sharp increase in ownership of personal vehicles in recent decades. The mode share of personal automobiles (combined share of two-wheeler and four-wheeler) in Bengaluru is roughly 25 percent. Despite the rapid takeover of roads by personal motor vehicles, buses remain the city's lifeline and provide approximately 4 million trips per day. Census of India (2011) data also suggests that buses are the most widely used mode of transport for work trips in the city with a mode share of 28 percent (27 percent among men and 30 percent among women).

However, a lack of adequate investments in Bengaluru's bus system over the years has resulted in a decline in bus ridership⁵ as well as operational efficiency. For

2. Source: <http://www.urbanemissions.info/wp-content/uploads/docs/2019-01-APR-AQ-Bengaluru.pdf>

3. <https://www.greenpeace.org/static/planet4-india-stateless/2022/01/600bb6e7-are-cities-in-southern-india-breathing-safe-air.pdf>

4. <https://www.greenpeace.org/india/en/press/10991/1800-deaths-per-million-estimated-due-to-pm2-5-air-pollution-in-delhi-reveals-a-new-finding-by-greenpeace-and-iqair/>

5. <https://timesofindia.indiatimes.com/city/bengaluru/as-commuters-shift-gears-bmtcs-daily-ridership-drops-to-36-lakh/articleshow/71238762.cms>

example, the average daily vehicle-km has reportedly reduced from 230 km per bus to 200 km per bus⁶ between 2015 and 2019. Concerted efforts by various city-based civil society organisations, research agencies, and commuter forums (most notably the [Bengaluru Bus Prayanikara Vedike](#)) have led to several actions for improving the city's bus system. Of these, the priority bus lane between 'Tin Factory' intersection and 'Central Silk Board' intersection is the most notable intervention.

Like most cities in India, Bengaluru has seen a surge of investment in transport infrastructure that facilitates and caters to the demands of car users, amounting to serious social and environmental costs. Over the last few years, residents and civil society organization of Bengaluru have successfully rallied against car-centric infrastructure, such as the controversial steel flyover which was proposed on a 7 km stretch primarily to reduce the travel time of car users travelling to the airport⁷. Building on this, a systematic shift is needed to achieve affordable, safe, inclusive, comfortable, and reliable bus-based public transport.

In this context, the present report is an attempt to contribute to the ongoing citizen initiatives to reclaim a sustainable future for the city. The survey captures the everyday travel experiences of bus users and the challenges they face. The findings of the report emphasize the importance of improving, and investing in, the public bus system for a socially just transition towards sustainability.



6. <https://www.uitp.org/news/bangalores-bus-priority-lane-move-people-out-of-congestion>

7. <https://www.financialexpress.com/india-news/bangalore-steel-flyover-controversy-all-you-want-to-know-in-10-points/572272/>

About the Survey

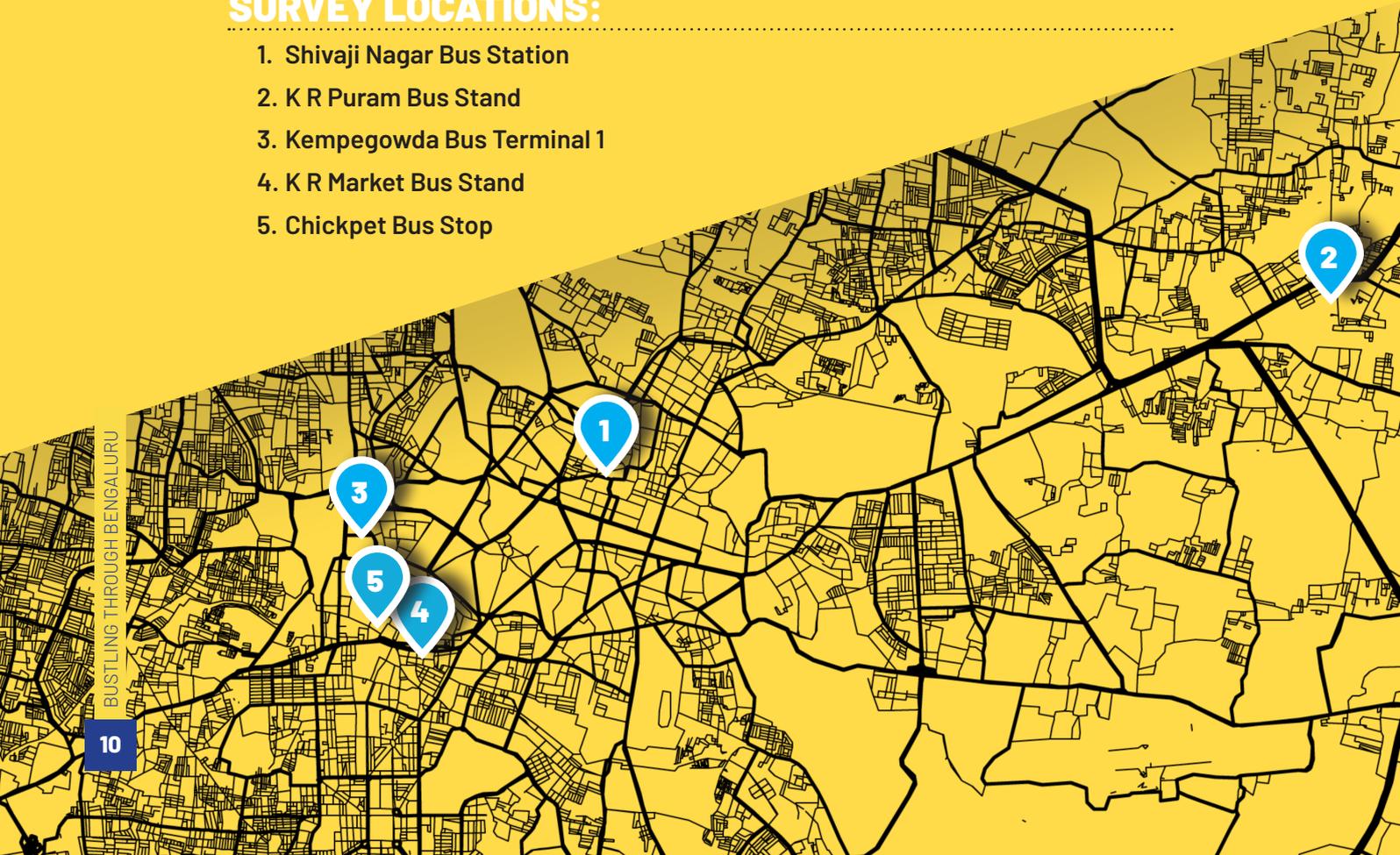
This survey of bus users in Bengaluru was planned as part of a national campaign to seek feedback from commuters for improving bus services in Bengaluru. Contrary to mainstream perception of popularity of private vehicles, buses remain the dominant mode of transport in Bengaluru across age, gender, and income groups. Though cars and metro rail have received undue attention in public investment priorities over the years, 'old-fashioned' buses continue to provide environment-friendly access to all commuters in the rapidly expanding city.

A total of 558 bus users were surveyed in Bengaluru between January and February 2022. The survey was conducted at three bus stops and two bus terminals in Bengaluru Metropolitan Area. Members of the survey team randomly selected respondents at these locations according to the availability and consent of the bus users interviewed. Special attention was paid to ensure the diversity of gender, age, and physical ability while selecting respondents. The respondents included daily wage workers, young adults, college students, senior citizens, working women, and members of the transgender community.

The survey team followed all COVID-19-related protocols due to public health concerns.

SURVEY LOCATIONS:

1. Shivaji Nagar Bus Station
2. K R Puram Bus Stand
3. Kempegowda Bus Terminal 1
4. K R Market Bus Stand
5. Chickpet Bus Stop

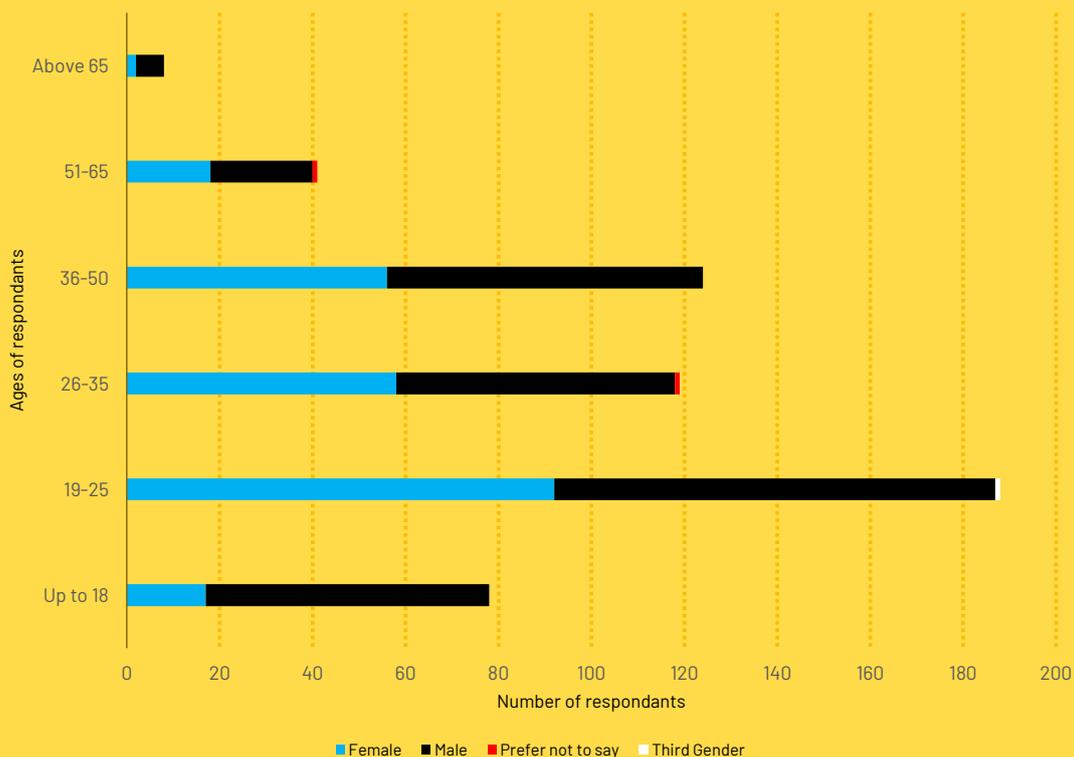


Characteristics of Survey Respondants

AGE AND GENDER

The majority of respondents were aged between 18 and 35. 243 women (206 of them aged between 18 and 50 years), 312 men (223 of them aged between 18 and 50 years) and 1 transgender person took part in the survey while 2 people did not share their gender identity.

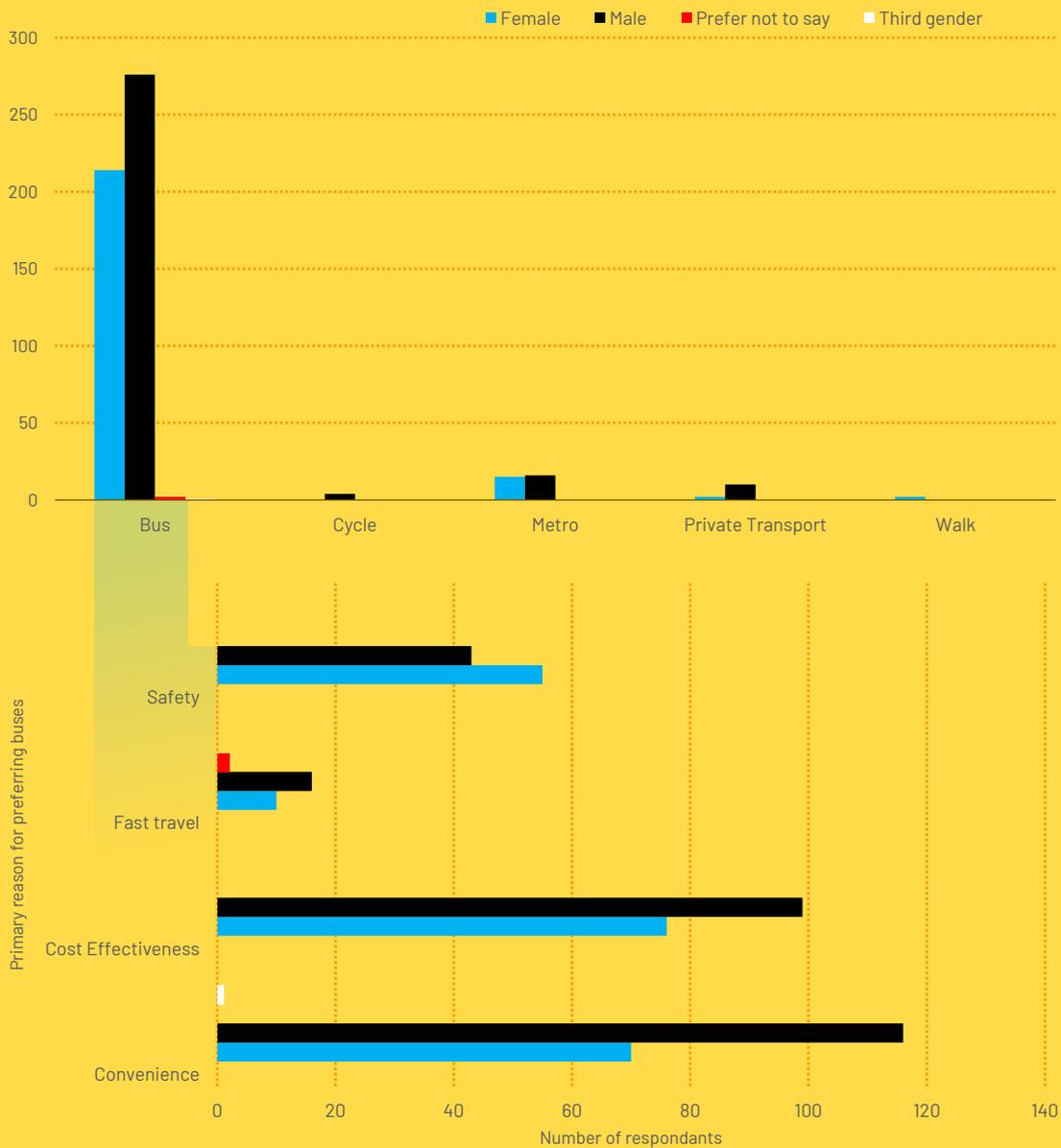
Age Group	Upto 18	19-25	26-35	36-50	51-65	Above 65
Female	17	92	58	56	18	2
Male	61	95	60	68	22	6
Prefer not to say	-	-	1	-	1	-
Third Gender	-	1	-	-	-	-
Number of respondents	78	188	119	124	41	8
Percentage of respondents	14.0	33.7	21.3	22.2	7.3	1.4



Findings

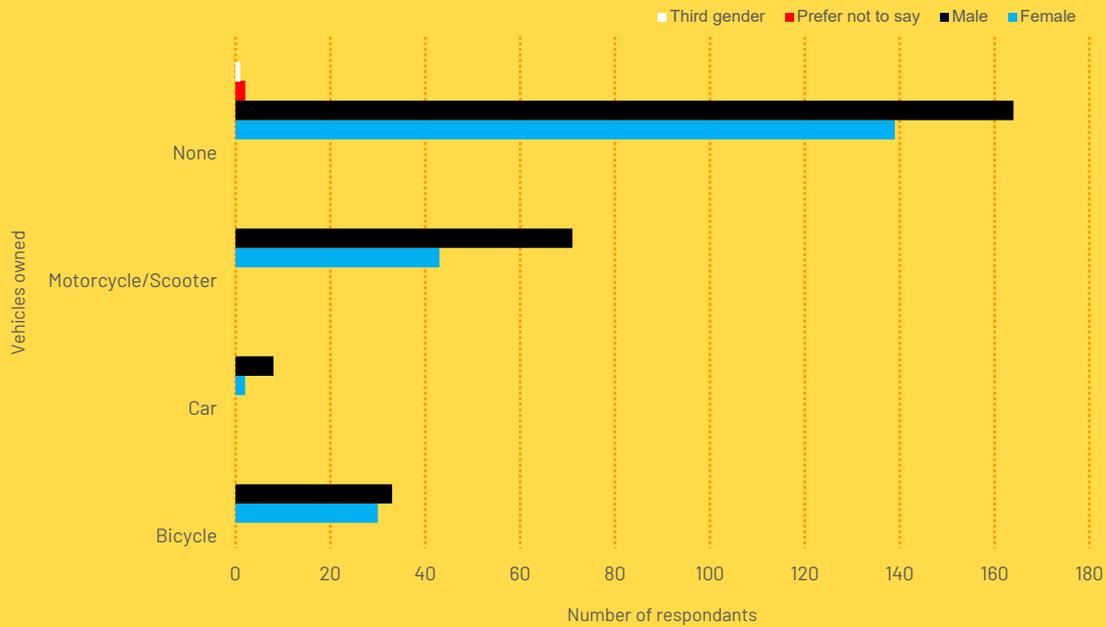
PREFERRED MODE

'Bus' was recorded as the preferred mode of transport by 88 percent of bus users across the gender categories. Convenience and cost-effectiveness were cited as the main reasons for preferring buses. Safety figured as the main reason for opting buses more often in the case of women than in the case of men.



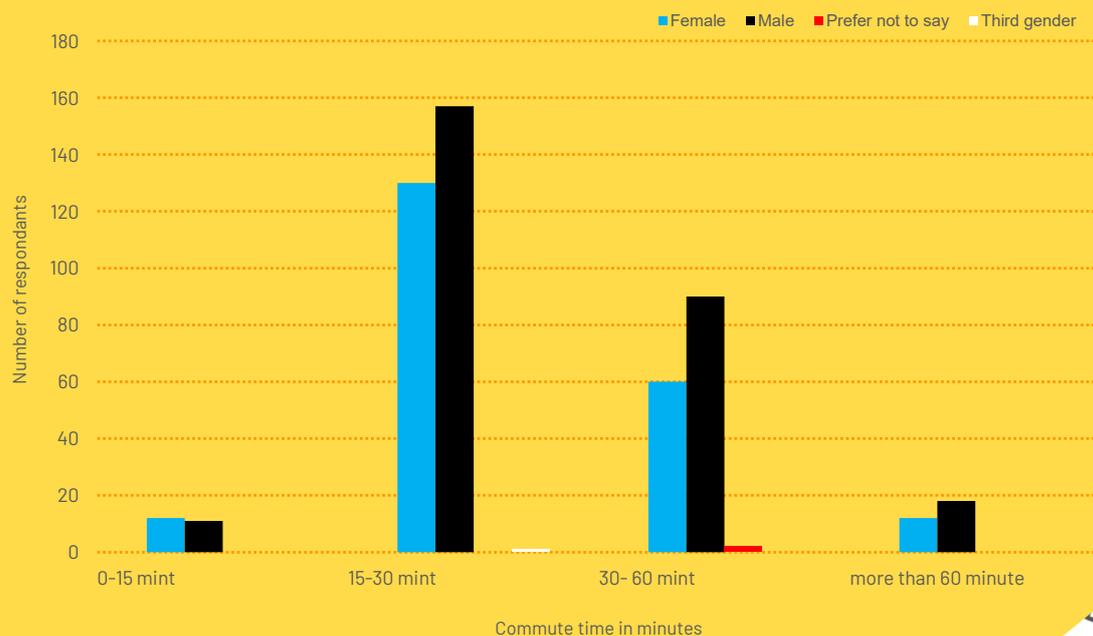
VEHICLE OWNERSHIP

Most bus users do not own any private vehicles, indicating that a large share of bus users might be captive riders. Male bus users owned motorised two-wheelers more commonly.

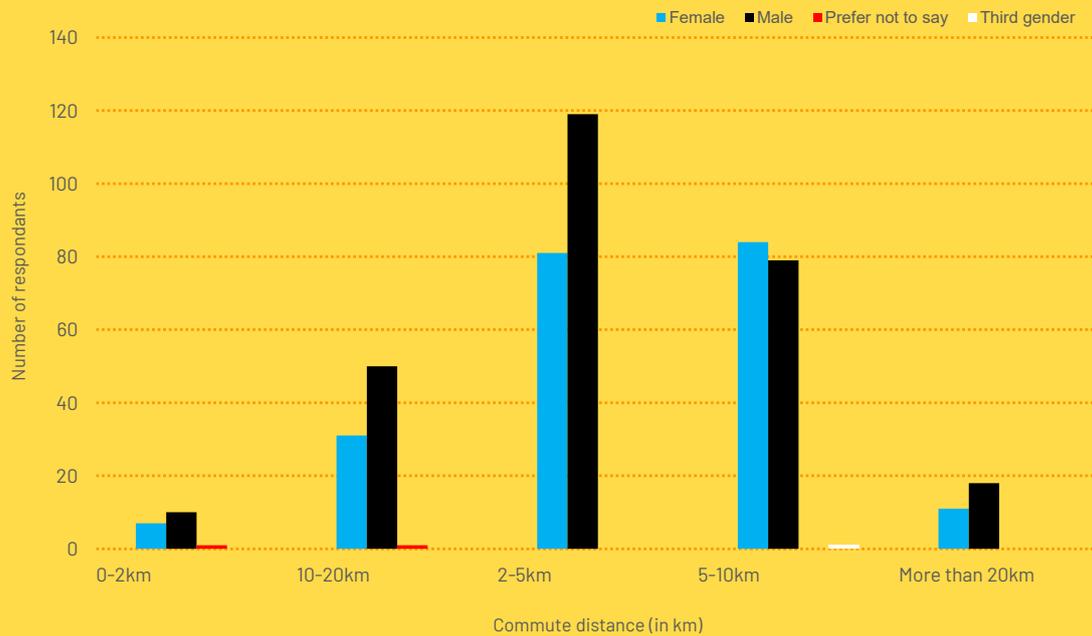


TRAVEL TIME AND DISTANCE

59 percent of respondents, including 61 percent women and 57 percent men, reported 15 to 30 minutes as their bus commute time and the proportion of very short and very long journeys was found to be low.

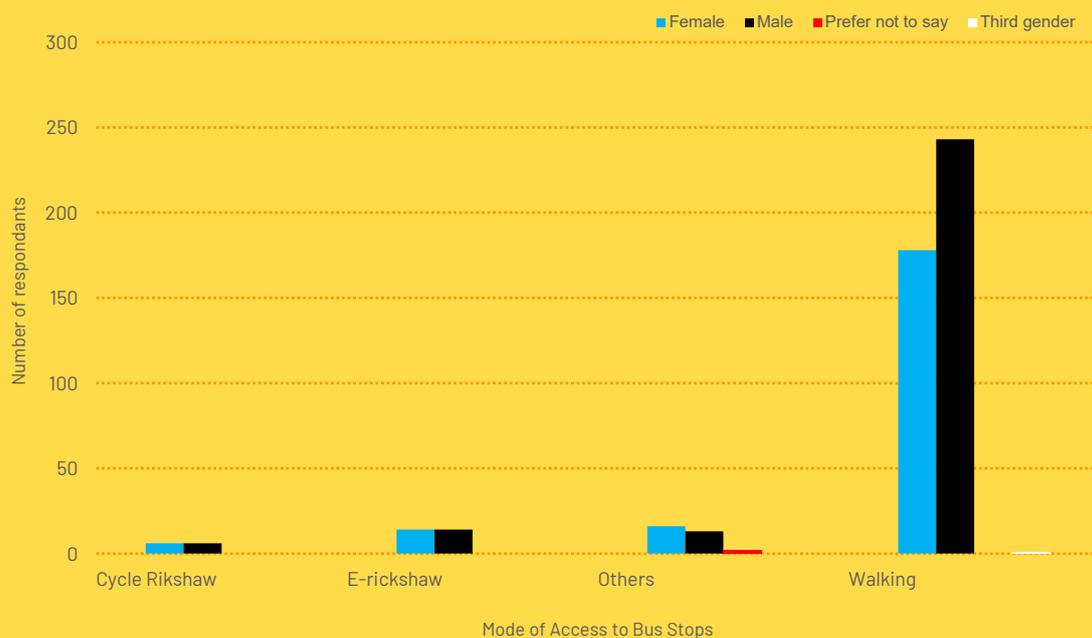


The survey data suggests that women commuters are travelling longer distances than their male counterparts. 46 percent women and 35 percent men travel distances longer than 5 km on average.



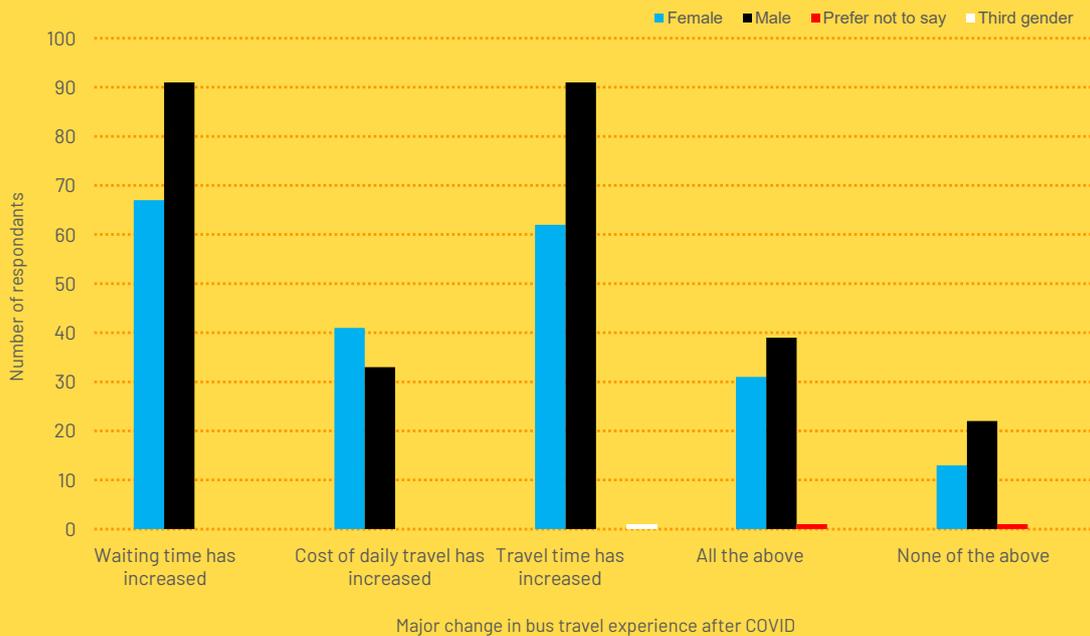
MODE OF ACCESS TO BUS STOPS

Almost all bus users reported walking to access/reach the nearest bus stop. The use of cycle rickshaw, electric rickshaw or other vehicles in accessing bus stops is extremely limited.

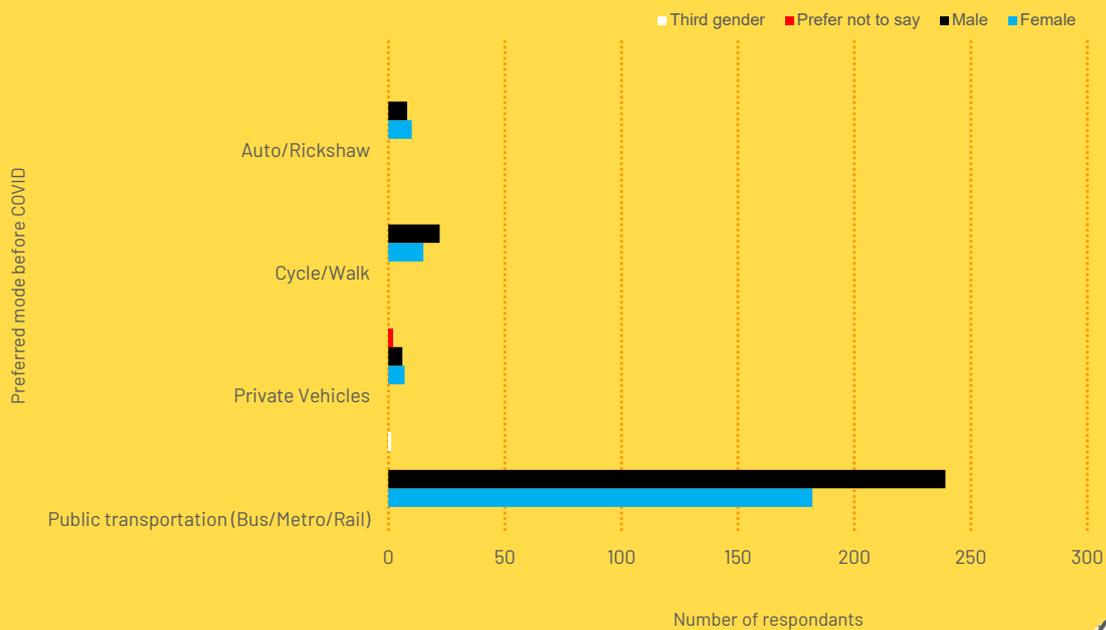


IMPACT OF COVID-19

COVID-19 has impacted the bus travel experience for many users. Two-thirds of all respondents reported an increase in either travel time or waiting time since COVID-19. Increase in the cost of travel was also reported as a major change since COVID-19. Interestingly, post-COVID-19 increase in the cost of travel was reported as a major concern more often by women (18 percent) than men (10 percent).

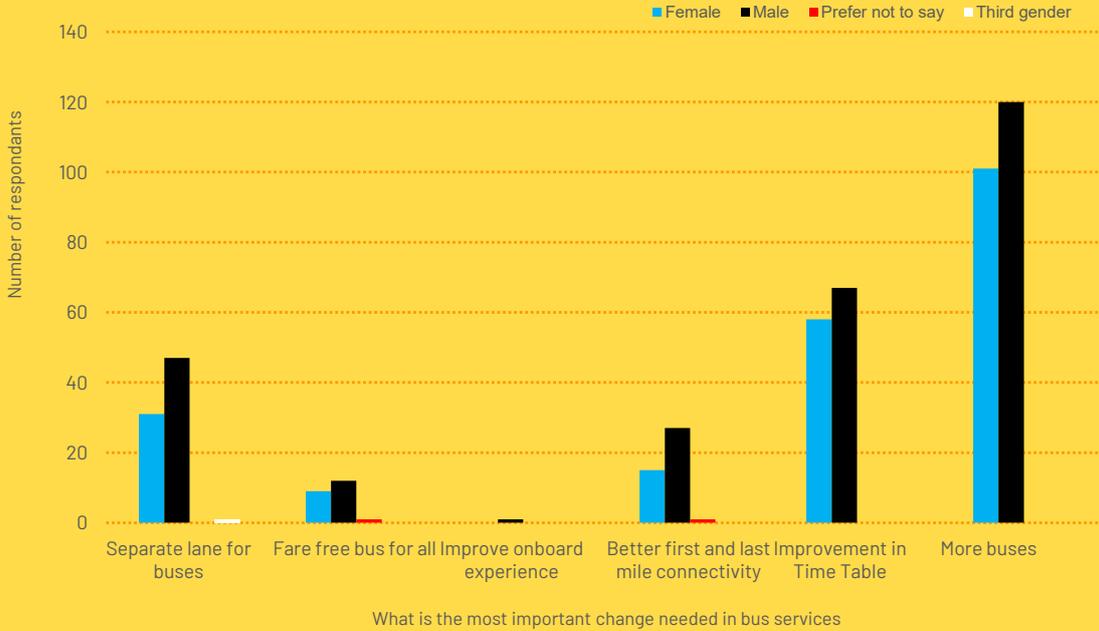


18 percent of current bus users reported switching from one of these modes since COVID-19: walk or bicycle (8 percent), car (5 percent), auto rickshaw (5 percent). This is indicative of the impact of COVID-19 on household and personal travel budgets.

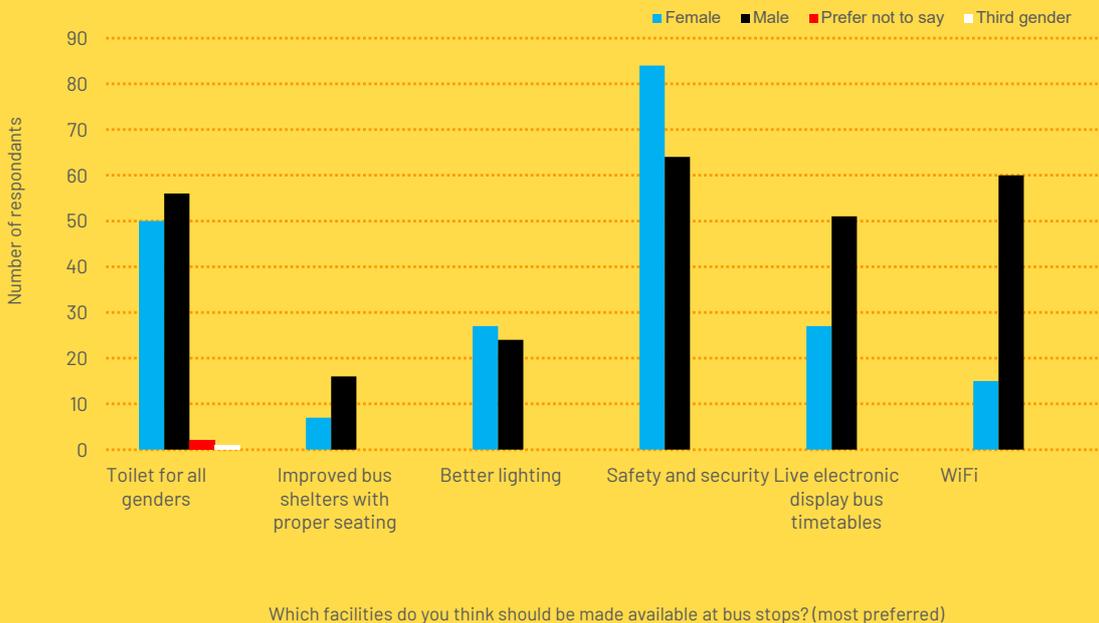


WHAT DO THE USERS WANT TO CHANGE ON THE BUS?

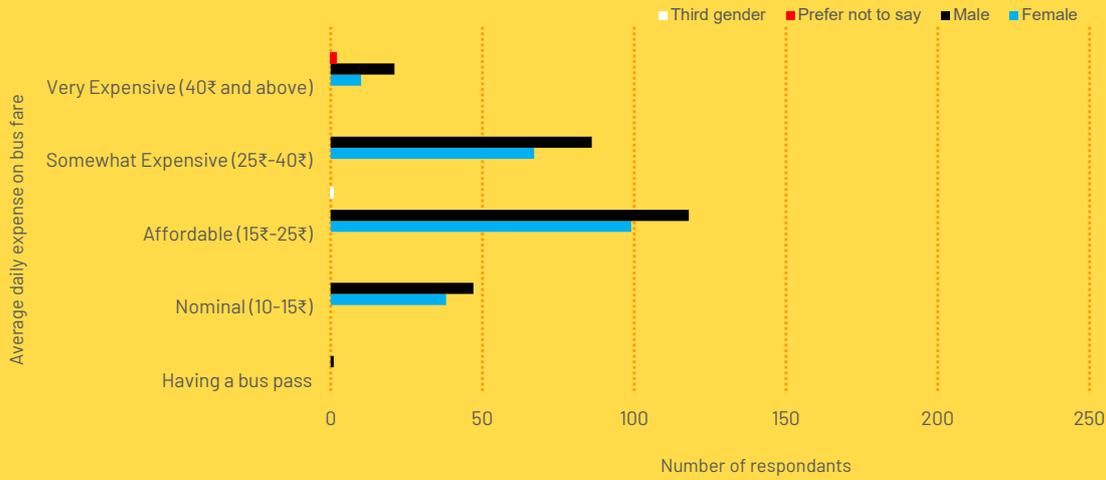
Demand for more buses (45 percent of all responses) and improvement in the timetable (23 percent of all responses) were among the most popular responses when bus users were asked about changes required in the bus service. These were followed by separate lanes for buses (17 percent), better first and last-mile connectivity (9 percent), fare-free public transport (5 percent).



Among the critically needed improvements on bus stops, improving the safety and security, and toilets for all genders were the two most preferred demands. Safety and security were particularly a major concern among women (39 percent of women cited this as the top preference) indicating the lack of safe public spaces in the city, especially at, and near, bus stops. Other demands which found support among bus users were: WiFi (14 percent), live display of the timetable (14 percent), better lighting (10 percent), and adequate bus shelter (5 percent).



FARE

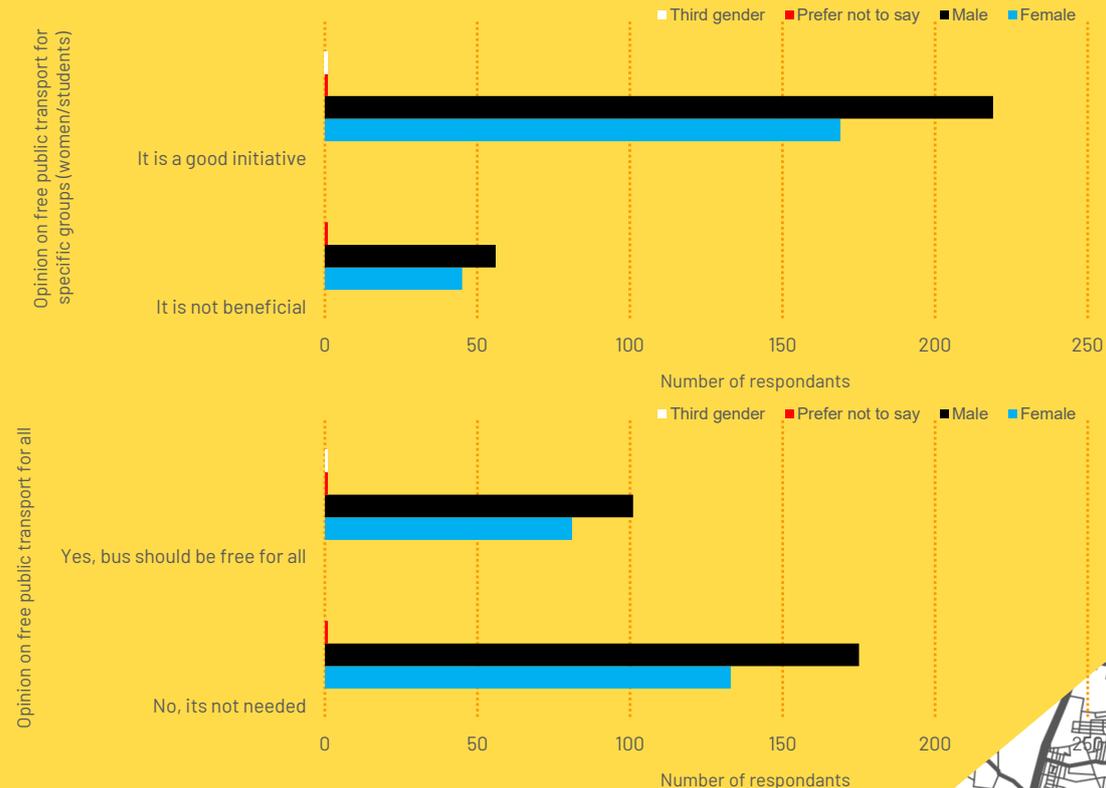


Though a large percentage of bus users reported that they find their average daily expenses on bus fares to be affordable, almost one-third of bus users found their bus fares somewhat expensive. Only a few bus users among those surveyed had a bus pass.

FARE-FREE BUS TRAVEL

Bus users of all gender identities opined that fare-free public transport for specific targeted groups such as women and students could be a good initiative. Asked about making public bus transport free for women and students, 79 percent of bus users felt that it would be a good initiative.

However, the opinion got divided over the idea of making bus transport free for all. A majority (65 percent) of bus users felt that it wasn't needed but more than one-third of bus users said that bus rides should be made free for all.



Recommendations

MAKE BUSES AFFORDABLE

BMTC bus fares are the most expensive among major public bus systems in India (Please see the chart below for comparison).



Source: Bengaluru Bus Prayanikara Vedike, 2022⁸

Public transport is essential to access jobs, education, and health services in the city. If the BMTC bus fares remain so expensive, it will further affect the already economically-stressed working class in these testing times.

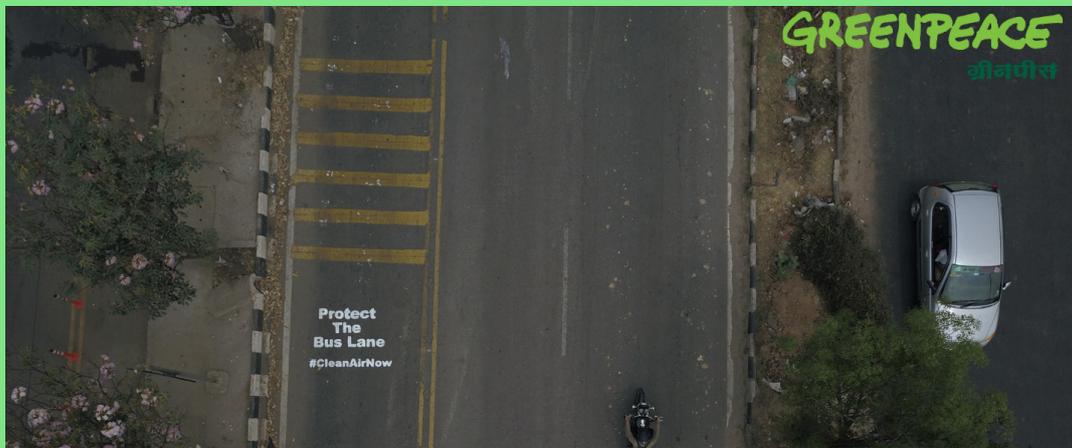
It is the responsibility of the government to allocate enough financial resources (estimated to be roughly 1000 crore annually) for procuring buses and subsidising the services run by BMTC. More particularly, making bus journeys free for women and children will allow them to continue travelling without creating additional stress on household budgets.

8. To see the analysis and follow the campaign for fare reduction in Bengaluru, please check out: <https://bbpvedike.wordpress.com/who-we-are/>

PROTECT AND EXTEND THE PRIORITY BUS LANE

The bus lane on the Outer Ring Road has helped commuters and BMTC in various ways by increasing the speed of buses and reducing the waiting time significantly. However, car users have been pushing for dismantling the priority bus lane arguing that it is creating congestion on roads⁹.

This is neither new nor surprising since we have seen similar mobilisations by privileged automobile users and their lobbies against BRT corridors in Delhi, Indore and other cities. Seeing no change in the behaviour of the car users, one wonders what would it take for them to accept a more scientific understanding of the problem—increasing the road space for car use will not move the city faster. A bus lane is at least ten times more efficient than a mixed traffic lane when we compare the number of people being carried.



[‘Protect The Bus lane’ markings by Greenpeace volunteers]

Interestingly, every one out of every six respondents in our survey considered bus lanes as the most urgently needed reform in Bengaluru’s bus system. Clearly, commuters understand the usefulness of such a system. However, car owners are unable to see the merits because it goes against their narrow interest in dominating the road space while causing irreparable harm to public health and the environment.

The existing bus lane should be protected as an exclusive space for the movement of buses and more such lanes should be implemented for at least the proposed 200 kms in Bengaluru by identifying suitable corridors.

BRING MORE BUSES

The rapidly growing city of Bengaluru needs a proportional increase in BMTC’s fleet at regular intervals. However, the public bus fleet has only marginally increased in the last decade due to lack of support from the state government. According to the Karnataka State Economic Survey 2021-22, Bengaluru has only 6484 buses servicing

9. <https://www.deccanherald.com/specials/point-blank/dont-disturb-the-bus-lanes-1096872.html>

5.02 million people. A policy commitment should be made to increase the number of buses in a phased manner to double the current fleet in the next three years. Electric buses powered by renewable energy can be prioritised while augmenting the bus fleet size. It will help the city to reduce its GHG emissions and improve the air quality.

MAKE BUSES MORE INCLUSIVE

While procuring new buses, it should be prioritised that buses be low-floor and easily accessible for differently-abled people. Semi-low-floor buses pose difficulties in boarding and deboarding for children, differently-abled individuals, and the elderly.

All bus stops should be regularly audited for safety and maintenance of facilities including lighting, toilet, and seating. The lack of safety around bus stops as well as on-board buses is a major deterrent to women's mobility and social-economic participation.

At the same time, more transparency and accountability should be brought into the decisions related to the location of bus stops and modification of bus routes.

EMPLOYEE WELFARE

Only permanent, well-trained and well-paid workers working in a safe and relaxed environment can be expected to deliver good public transport services. Bus drivers should be entitled to fair compensation for their services. The system that ties wages to vehicle kilometres must be put to an end. BMTC must hire more workers to bring an end to the overworked condition of transport workers.

According to recent media reports, the state government is considering removing bus conductors altogether¹⁰. If implemented, this will be counterproductive since bus drivers will face the additional stress of ticket collection and passenger hospitality. With a transition to a fare-free public bus system, the role of conductors can be redefined as caretakers rather than fare collectors.

DEDICATED BUS FUND

Public transport will always require subsidies and assured provision of funds to ensure reliable and affordable services. A dedicated state-level bus fund must be created to ensure this.

PUBLIC AWARENESS AND INTEGRATED FIRST AND LAST-MILE CONNECTIVITY

As per the National Urban Transport Policy (NUTP) guidelines, the BMTC, DULT, BBMP, and other stakeholders should run a public outreach campaign to shift the mindset around public buses in the city. In 2010, the BMTC started observing "Bus Day" on the 4th day of every month which gained a lot of attention. The Corporation should reinitiate similar activities and create a space for regular interaction with the public. It can build trust in the relationship between bus commuters and bus operators while also motivating people to shift to public transport. Buses should also be integrated with other travel modes such as cycling, walking, and other public transport to ensure first and last-mile connectivity.

10. <https://www.hindustantimes.com/cities/bengaluru-news/here-is-how-the-bmtc-is-planning-for-buses-to-go-conductor-less-soon-101649334312113.html>

Appendix: Survey Form

1. Name
2. Age
3. Gender
4. Occupation
5. Contact Number/Email ID

6. What's your preferred mode of transport?
 - Bus
 - Metro
 - Cycle
 - Private Transport

7. Why do you prefer this type of transport?
 - Cost-effective
 - Convenient
 - Safe
 - Fast

8. Do you own any of these? (Yes/No)
 - Car
 - Motorcycle/Scooter
 - Bicycle
 - None

9. How long is your daily commute time including the waiting time at the bus stops?
 - 0-15 minutes
 - 15-30 minutes
 - 30-60 minutes
 - More than 60 minutes

10. How far do you travel in your daily commute?
 - 0-2 km
 - 2-5 km
 - 5-10 km
 - 10-20 km
 - More than 20 km

cont...

11. Do you have a bus pass?

- Yes
- No

12. How do you reach your nearest bus stop?

- Walking
- E-rickshaw
- Cycle Rickshaw
- Others

13. How has COVID impacted your daily commute?

- Travelling time has increased
- Bus waiting time has increased
- Cost of daily travel has increased
- All the above
- None of the above

14. Which mode did you use for regular commuting before COVID?

- Public transportation (Bus/Metro/Rail)
- Cycle/Walk
- Auto/Rickshaw
- Private Vehicles

15. (If there is a change of preferred mode after COVID) What is the reason for shifting to a different mode during/after COVID?

16. How much do you spend on transportation on a daily basis?

- Extremely Nominal (₹10-₹15)
- Nominal (₹15-₹25)
- Moderately Expensive (₹25-₹40)
- Expensive (₹40 and above)

17. How safe do you feel in using public bus transport? Did you feel the same before COVID? From 1 to 5 (1 being not safe at all to 5 being extremely safe)

18. What's one thing that can be done to make our Bus transport system better?

- Increase the number of Bus
- A separate lane for bus service
- Improvement in Time Table
- First and last mile connectivity
- Bus should be free for all
- Other -----

19. Which facilities do you think should be made available at bus stops?

- Better lighting
- Ensure safety and security
- LED display for information of bus timetable
- Toilet
- WiFi
- A better Bus Shelters
- Other _____

20. What do you think about free services for specific groups such as women and students?

- It is a good initiative
- It is not beneficial
- Other _____

21. What do you think about public transport being free for all users?

- Yes, Bus should be free for all
- No, it's not needed
- Other _____

22. One interesting bus story if you would like to share



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Greenpeace India is an independent campaigning organization that acts to change attitudes and behaviour, to protect and conserve the environment and to promote peace.

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