

LIVELIHOOD CYCLISTS SURVEY

Bengaluru - 2021



Acknowledgement

We wish to express our heartfelt gratitude to Ms. Manjula V, *IAS, Commissioner, Directorate of Urban Land Transport (DULT)* for supporting and giving us the opportunity to undertake the study on Livelihood cyclists in Bengaluru.

Our sincere thanks to Ms. Revathy Ashok, *Honorary Managing Trustee and CEO, B.PAC* for her valuable guidance throughout study. We would also wish to express our deepest appreciation to the core working team - Ms. Pooja J Patel *Research Associate and Program Coordinator, B.PAC*; Mr. Sharath S R, *Operations Manager, B.PAC*; Mr. Sachiin Taantry, *Manager, Communications and Outreach, B.PAC*, Ms Sumiya Begum, *Intern, B.PAC*.

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Summary

The survey had 604 respondents in the category of livelihood cyclists who were chosen at random from each of the 8 zones across the city of Bengaluru. The survey was conducted with the help of a questionnaire, which was designed by B.PAC in collaboration with DULT. The survey questionnaire includes basic information on livelihood cyclists, their travel pattern, challenges and encouraging factors for cycling.

The respondents for the survey were from the low-income group. The sample target was broadly categorized into two groups-

I. Livelihood Cyclists

II. Non-Bicycle user (likely to use for livelihood)

Insights at a glance

I. Livelihood Cyclists

1. Concentration of livelihood cyclists

Livelihood cyclist respondents were majorly found in **Bommanahalli, Bengaluru South, Bengaluru West and Mahadevapura Zones** of Bengaluru.

2. Using cycle as primary mode of transport

Over 96% respondents used bicycles as a primary mode of transport. 73% use bicycles for the entire commute and only 27% use it as the first and last mile mode of commuting.

3. Monthly income v/s the total cost per month for all modes of transport

92% of the respondents whose monthly income is less than Rs 5000 spend upto Rs 500 per month for all modes of transport combined. 75% of the respondents with monthly income Rs 5000 to Rs 10000 spend upto Rs 500. whereas only 65% respondents with monthly income more than Rs 10,000 spend upto Rs 500.

4. Ownership of cycle

Nearly **94% of respondents owned cycles while 6% hired** it on a rental basis for commuting to their workplaces.

5. Frequency of cycle usage for transportation

96% of the respondents used their cycles daily to commute. The frequency of cycle usage for daily commuting was highest among unskilled workers at 100% and lowest among skilled workers 93%.

6. Reasons for using cycle for transportation

84% of the respondents cited “saving money” as one of the main reasons for using cycles while less than 26% cycled to work for its health benefits.

7. Distance of residence from primary job location

Around 72% respondents had to travel for less than 4 Km by cycle from their residence to their primary job locations.

8. Distance covered for Sales and Marketing/ Delivery (SMD) jobs

95% of the respondents with SMD jobs travelled within 8 Kms everyday (0 to 4 Kms -73% and 4 to 8Kms - 22%) while around 5% had to travel more than 8 Kms by cycle.

9. Challenges faced while cycling

62.13 % of the respondents **cited absence of proper infrastructure and dedicated cycling lanes as the major concern** while 13% feel upset at the unruly behaviour of other drivers. Other worries included probability of theft of their cycles (19%) and bad weather (32%).

10. Unsafe locations for livelihood cyclists

The most unsafe locations cited by livelihood cyclist respondents are **Hoodi circle, ITPL Main Road, Kundalahalli Junction, Bellandur Signal and Sarjapur Main Road** which are congested and witness dense traffic.

11. Willingness to use cycle for transportation

A whopping majority of the respondents (97%) were willing to use cycles as their primary mode of transport everyday if it were made safe and convenient.

12. Encouraging factors for using cycle

Better streetlights, dedicated cycle lanes and parking emerged as the top three factors that would encourage them to use cycling as their primary mode of transport.

79.28% of the respondents cited **better streetlights as extremely important/very important**. 45% felt dedicated cycle lanes were extremely important/very important. 25.06% felt the need for exclusive cycle parking spaces in markets and offices.

II. Non-Bicycle user (likely to use for livelihood)

1. Modes of transport use for daily commute

70% of the non-bicycle users rely on BMTC buses for their daily commute whereas only 1% rely on the metro.

2. Reasons for not cycling

There were slight differences in the concerns expressed by women regarding cycling as compared to men. When women non cyclists were asked the reason for not cycling, about 71% opined that they feel unsafe while cycling in traffic with motorists whereas in case of men, 73% cited lack of infrastructure as the reason for not cycling.

3. Encouraging factors to shift towards using cycle

Non cyclist respondents also had similar reasons as encouraging factors for cycling - namely better street lighting and parking.

70% said better street lighting was extremely important/ very important

48% cited designated cycle lanes as extremely important/ very important

26% of them felt exclusive cycle parking spaces in markets and offices as extremely important/very important

Context

Cycling is one of the most sustainable modes of transport with zero dependence on fossil fuels, zero emissions making it an affordable transport option. Bicycles have always played an important role in the informal sector, especially in supporting the livelihood and mobility among urban poor. It is an easy transport option and allows people to carry out their business with low expense outlay making it accessible to people who work for security agencies, household service providers, delivery companies, vendors and individuals like factory workers, sweepers, newspaper distributors, petty shops service boys and others. Bicycles can play a significant supportive role in providing better and equitable access to jobs and economic activity, providing livelihoods, increasing school enrollments, gender empowerment and enabling a faster access to health facilities.

Urban road infrastructure in India is biased in favour of motorized vehicles. This is on account of extremely high growth in motorized vehicles in urban India over the last two decades and the government's policy inaction to encourage public transport and non-motorized transport. The number of registered motor vehicles in the country has increased from 55 million in 2000 to 295.8 million in 2019 (Shangliao, 2021)

Bicycle users have no rights on the road. Most cyclists risk their lives every day in a city where roads, service roads, arterial roads, lanes, even footpaths, are chock-a-block with vehicles. With about 10 million vehicles jostling for space on the roads, on an average, two cyclists are said to lose their lives every week according to a study by the Centre for Science and Environment (CSE) in 2018. Many cyclists prefer to travel in groups to fight what they call the 'tyranny of motorists' and demand their share of space on the roads. It is not unusual to see such groups commuting to work together so they can help each other if they run into trouble.

The cycle industry was growing at the rate of 5-7% p.a but because of the pandemic it is expected to grow at 15-20% p.a (Palini, 2020). with many first-time users entering the market. Despite the various challenges faced by cyclists, this could prove to be the turning point in India's cycling culture provided government makes suitable and timely interventions detailed out in this report.

India is the second largest manufacturer of cycles in the world, with 22 Mn cycles being sold in 2018-19 and 18 Mn in 19-20. However, the trend of people going to work on cycles has not caught on in urban India yet. Livelihood cyclists use low end cycles out of compulsion and affordability considerations whereas the cycling enthusiasts are faced with very high costs for good quality cycles and most of the components come from China.

There is a huge technology gap across all product segments, making cycles manufactured in India, uncompetitive in terms of price, safety and quality. Also, there's a perception that cycling is unsafe and is a poor man's mode of transport, which is also one of the reasons why cycling is not a preferred mode of transport as incomes rise. Bengaluru is no exception to this trend.

About The Livelihood Cyclists Survey

The aim of this study is to understand the challenges faced by the livelihood cyclists in Bengaluru and their travel patterns and the important motivators for use of cycling as the primary mode of transport. The study also aims to understand the needs and requirements of the cyclist while he/she is riding the cycle across the city, to understand their concerns regarding traffic on the roads, parking facility and other infrastructure. We expect the insights from the study to provide guidance for the design of relevant cycling infrastructure and suggest potential solutions for the concerns expressed by this target group of livelihood cyclists.

The survey was conducted across the 8 zones in the city of Bengaluru among the low-income groups with 604 respondents.

Methodology

The survey had 604 respondents who were chosen at random from each of the 8 zones across the city of Bengaluru. The survey was conducted with the help of a questionnaire, which was designed by B.PAC in collaboration with DULT. The survey questionnaire includes basic information on the livelihood cyclists, their travel pattern, challenges and encouraging factors for cycling.

The respondents for the survey were from the low-income group. The sample target was broadly categorized into two groups-

1. Livelihood cyclists

2. Non-Bicycle user (likely to use for livelihood)

B.PAC used the services of auto drivers from Peace Auto Association for administering the questionnaire and collecting data.

Of the total respondents 83.94% of them are livelihood cyclists and 16.06% are non-cyclists who are likely to use cycles for livelihood provided riding conditions are good.



83.94% OF THE RESPONDENTS ARE
LIVELIHOOD CYCLISTS



16.06% OF THE RESPONDENTS ARE
NON-CYCLISTS
(BUT ARE LIKELY TO USE FOR LIVELIHOOD)

Findings of the Survey

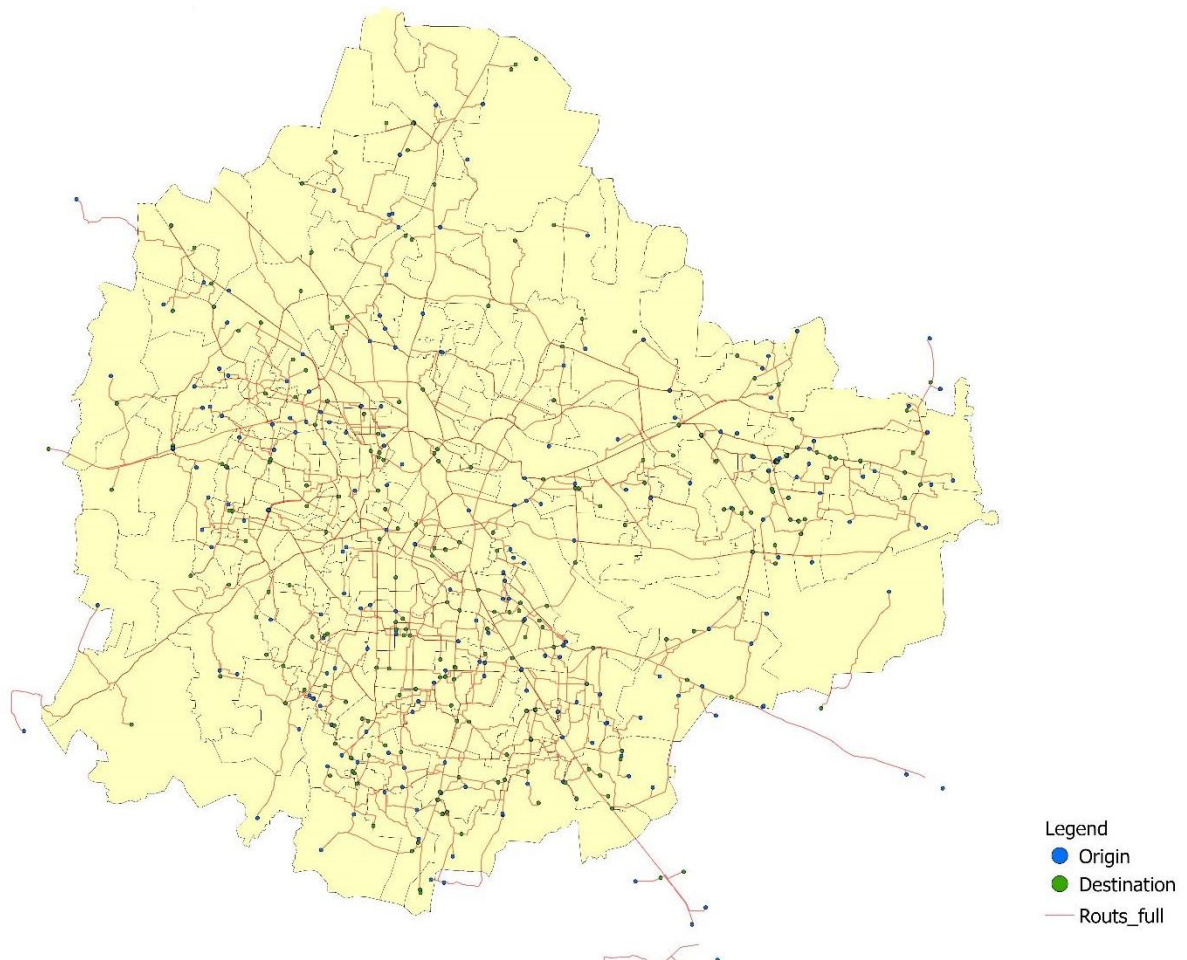
I. Livelihood Cyclists

1. The Demographic Details of Livelihood Cyclists

The responses of 507 livelihood cyclists and the routes that they normally used are captured in the survey along with origin, destination, and the route.

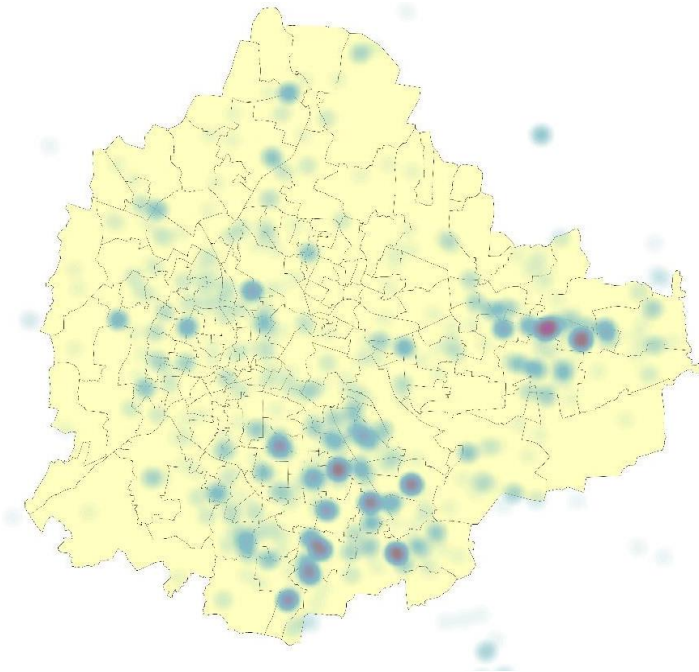
The average length of routes cycled is 5.8 Km.

Routes of Livelihood Cyclists



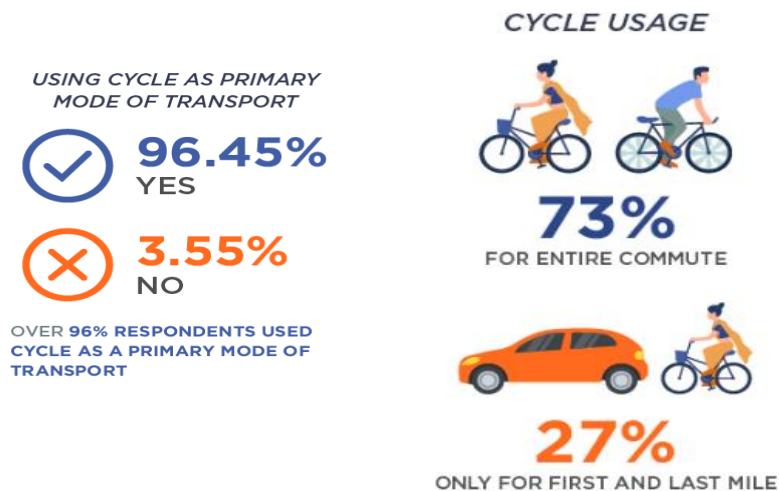
Livelihood cyclist respondents are found majorly in **Bommanahalli, Bengaluru South, Bengaluru West and Mahadevapura Zones of Bengaluru.**

Concentration of Livelihood Cyclists



2. Using cycle as primary mode of transport

Over 96% respondents used bicycles as a primary mode of transport (first mode of transport at the start of the commute) out of which 73% use bicycles for the entire commute and only 27% use it as first and last mile mode of commuting.



3. Second most frequently used transport other than bicycle

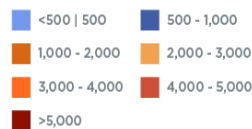
81% of respondent livelihood cyclists said that BMTC is their second most frequently used mode of transport 7% use shared two-four-wheeler, 5% of them use private two/four-wheeler, 3% of them depend on rental two/four-wheeler 3% use auto rickshaw, and 1% of them use metro.

4. Monthly Income v/s the total cost per month for all modes of transport

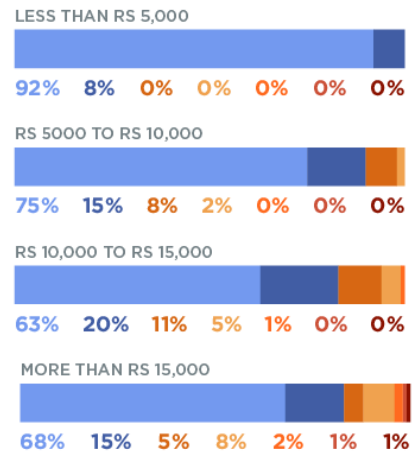
92% of the respondents whose monthly income is less than Rs 5000 spend upto Rs 500/month for all modes of transport.

75% of the respondents with monthly income Rs.5000 to Rs.10,000 spend upto Rs 500/month.

65% respondents with monthly income more than Rs 10,000 spend upto Rs 500/month.



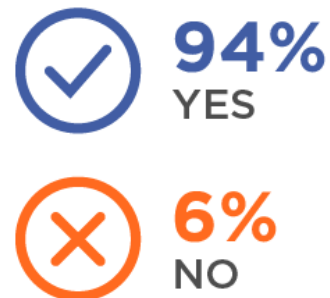
MONTHLY INCOME V/S THE TOTAL COST PER MONTH FOR ALL MODES OF TRANSPORT



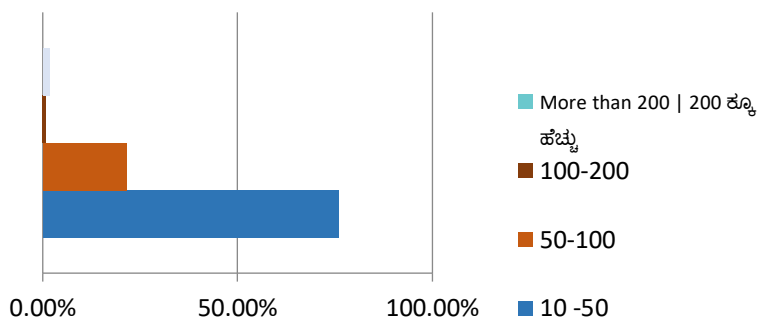
5. Ownership of cycle

Of the livelihood cyclists who responded 94% owned their cycles and 6% rented cycles for commuting to their workplace. Of those who rented bicycles 76% spent Rs. 10 – Rs 50/ day and 21% spent Rs 50- Rs 100/ day.

OWNERSHIP OF BICYCLE



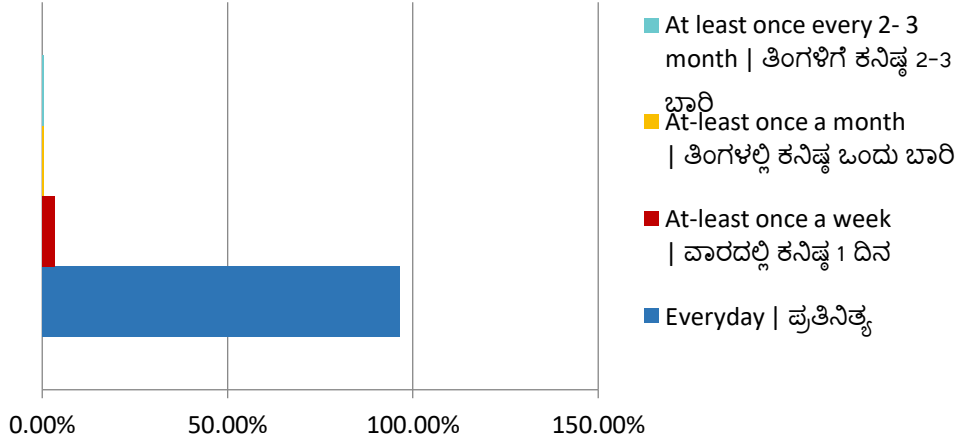
Rental amount/day(INR)



6. Frequency of cycle usage for transportation

96% of the respondents reported using their cycles every day to commute to their workplaces.

Frequency of Cycle Usage for Transportation



The frequency of cycle usage for commuting everyday was highest among unskilled workers.

FREQUENCY



7. Timing of cycle usage for transportation

The study tried to find out onward and return timings of livelihood cyclists to better understand peak time travel patterns.

It was seen that,

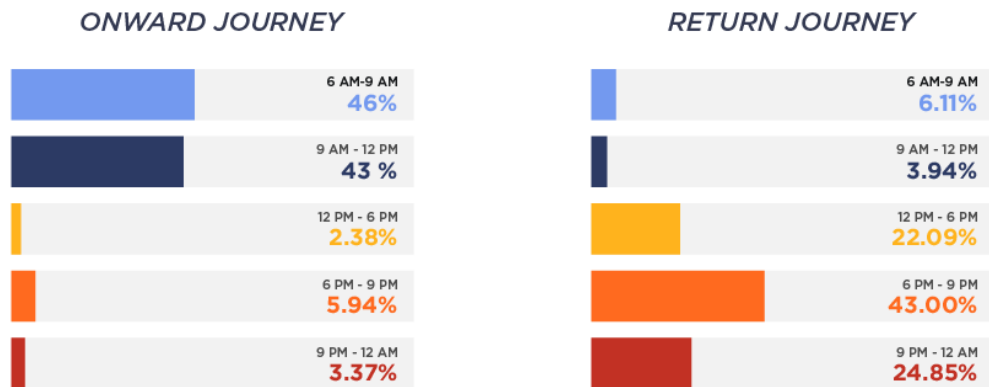
46% do their onward journey between 6am -9am

43% do their onward journey between 9am-12pm

22% do their return journey between 12pm -6pm.

43% do their return journey between 6pm -9pm

25% do return journey between 9pm-12am



8. Reasons for using cycle for transportation

It was evident from the responses that saving money was the prime driver for this category of cyclists to use cycles for daily work commute.

84% stated saving money as the primary reason for using cycles for work commute.

37% stated that they used cycles as a mode of transportation because it is environment friendly.

26% stated cycling to work for its health benefits as it increases stamina and strength.

13% of the respondents pointed out that they use cycles as part of their job.

13% of respondents believed commuting to the workplace in cycles is an efficient way to maintain social distancing as

REASONS FOR USING CYCLE FOR TRANSPORTATION



compared to other modes of transport such as buses, auto rickshaws and cycle rickshaws. Saving money appeared to be the prime reason for cycle usage across all age groups.

9. Distance of residence from primary job location

The study tried to find out how far the livelihood cyclists reside from their primary job locations.

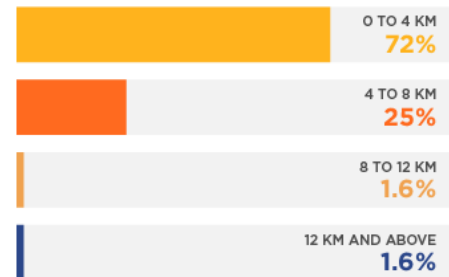
72% respondents stay at a distance of 0 to 4 Kms from their workplaces.

25% stated that their residence was 4 to 8 Kms away from their job location.

1.6% of the respondents resided 8 to 12 Kms from their job locations.

1.6% stayed more than 12 Kms from their work locations.

DISTANCE FROM RESIDENCE TO PRIMARY JOB LOCATION



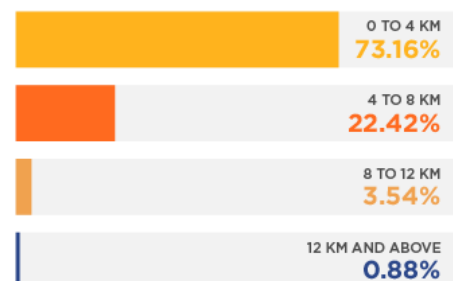
10. Distance covered for Sales and Marketing/ Delivery jobs

Respondents who were into sales and marketing/delivery jobs such as Postmen, Courier service, Delivery boys etc. were asked as to how many kilometres they had to commute by cycle daily.

95% travel within 8 Kms everyday (0 to 4 Kms -73% and 4 to 8Kms - 22%)

Around 5% of the respondents had to travel more than 8 Kms by cycle.

DISTANCE COVERED AS A PART OF JOB (DELIVERY OF GOODS/SERVICES)



11. Challenges Faced in Cycling

62% livelihood cyclists stated absence of proper infrastructure as the major challenge.

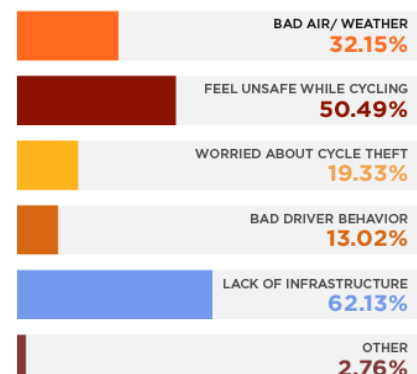
50% feel unsafe while cycling.

32% complained about bad weather.

19% worried about cycle theft

13% feel upset at the unruly behaviour of other drivers.

CHALLENGES FACED IN CYCLING



12. Unsafe locations for livelihood cyclists

Livelihood cyclist respondents were asked to mention any unsafe junctions/ locations in their daily route taken. 50% of them feel unsafe to cycle with motorists. This corresponds well with their identification of unsafe locations to ride in Bengaluru. All such locations identified by them are highly congested due to dense traffic.

The most unsafe locations cited by livelihood cyclist respondents are Hoodi Circle, ITPL Main Road, Kundanahalli Junction, Bellandur Signal and Sarjapur Main Road.

Unsafe Locations for Livelihood cyclists to ride.



13. Encouraging factors for using cycle

The study attempted to find out from the livelihood cyclists the factors that could inspire and encourage them to use cycles for commuting more frequently.

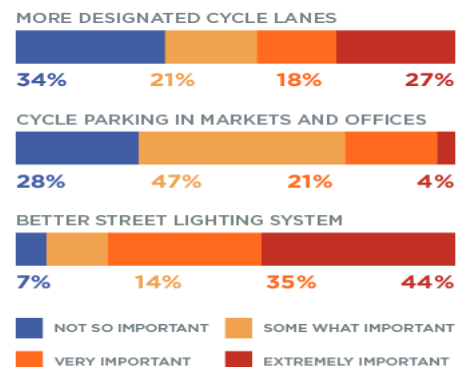
MAJORITY OF THE LIVELIHOOD CYCLISTS WERE OF THE VIEW THAT **BETTER STREET LIGHTS** FOR CYCLISTS WOULD MOTIVATE THEM TO USE CYCLES MORE OFTEN COMPARED TO **DEDICATED STREET LANES**.

79.28% of the respondents cited better streetlights as extremely important/very important

45% felt dedicated cycle lanes were extremely important/important

25.06% felt the need for exclusive cycle parking spaces in markets and offices.

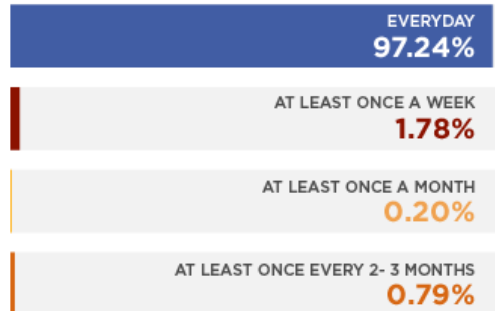
ENCOURAGING FACTORS



14. Willingness to use cycle for transportation.

A whopping majority of the respondents (97%) were willing to use cycles as a mode of transportation everyday if it were made safe and convenient.

WILL YOU USE CYCLE MORE IF IT BECOMES SAFE AND CONVENIENT



II. Non-Bicycle User (likely to use for livelihood)

Similar questions were asked to respondents who were likely to use bicycles for livelihood to understand the reasons for not using bicycles as a major mode of transport and encouraging factors that could motivate them to get on cycles. As mentioned earlier around 16% of the respondents fall under this segment.

1. Modes of transport used for daily commute

People use multiple modes for their daily commute.

Our survey found that of the non-bicycle users in livelihood category:

70% rely on BMTC buses for their daily commute.

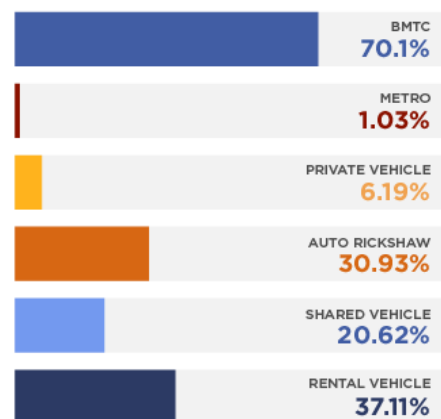
37% on rental two/four wheelers

31% on auto rickshaw

21% on shared two/three/four-wheelers.

Only 1% in this category rely on the metro.

MODES OF TRANSPORT USED



2. Reasons for not cycling

Major reasons that non cyclists cited for not cycling were as follows:

- 70% stated lack of infrastructure.
- 33% feel unsafe while cycling in traffic with motorists.
- 24% cited bad weather conditions.
- 17% do not know to ride.
- 13% are concerned about cycle theft.
- 9% do not feel strong enough to cycle.
- 5% on driver's bad behaviour

3. Encouraging factors to shift towards using cycle.

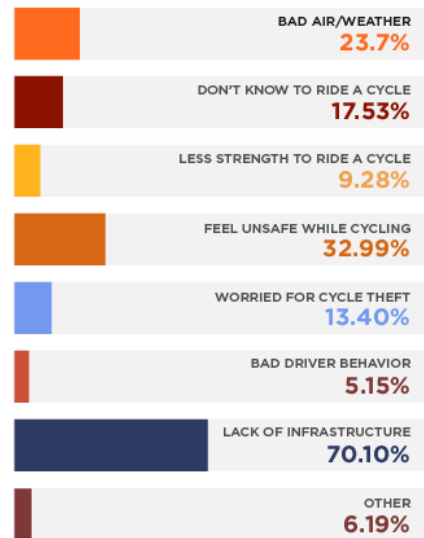
The study also attempted to find out from the non-cyclists (who are likely to use it for livelihood) the factors that could inspire and encourage them to shift towards cycles for commuting. Surprisingly, exclusive parking spaces came out as one of the motivators to use cycles.

- 70% said better street lighting was extremely important/ very important
- 48% cited designated cycle lanes as very important/important
- 26% of them felt exclusive cycle parking spaces in markets and offices as extremely important/important

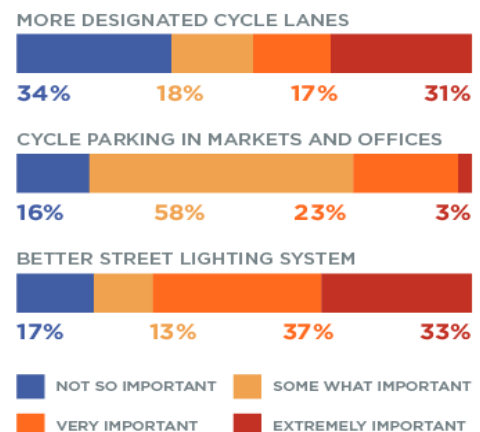
4. Willingness to use cycle for transportation.

86% responded positively that they would switch to cycles if it were made safe and convenient. Out of which 50% of them were willing to use it every day and 36% at least once a week.

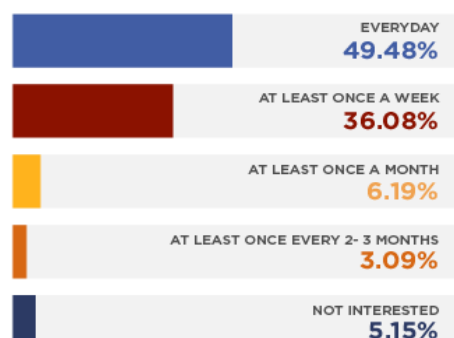
REASONS FOR NOT CYCLING



ENCOURAGING FACTORS



WILL YOU USE CYCLE IF IT BECOMES SAFE AND CONVENIENT



Gender Specific Insights

As mentioned in the profile, the number of women respondents were low. Most of the insights were similar between men and women except few like age factor, occupation and reason for cycling.

The largest cohort amongst women likely to use cycles lies in the age group 18- 24 years at 42%

The largest cohort amongst men likely to use cycles lies in the age group 35-44 years at 36%



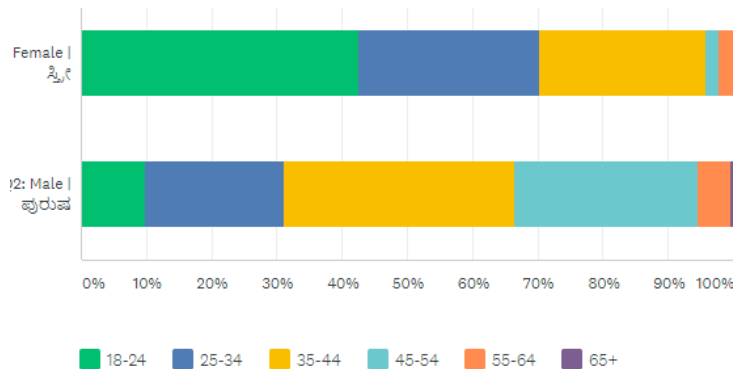
LIVELIHOOD CYCLISTS
70.21%

NON-CYCLISTS
29.79%



LIVELIHOOD CYCLISTS
85.10%

NON-CYCLISTS
14.90%



64% of women respondents from the survey were unskilled workers (labours, helpers, workers, maids, sweepers, etc.)

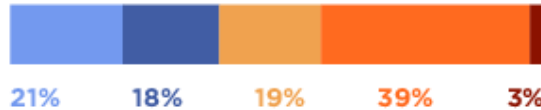
OCCUPATION



FEMALE



MALE



UNSKILLED WORKERS



SKILLED WORKERS



PETTY SHOPS/SMALL BUSINESSES



JOBS

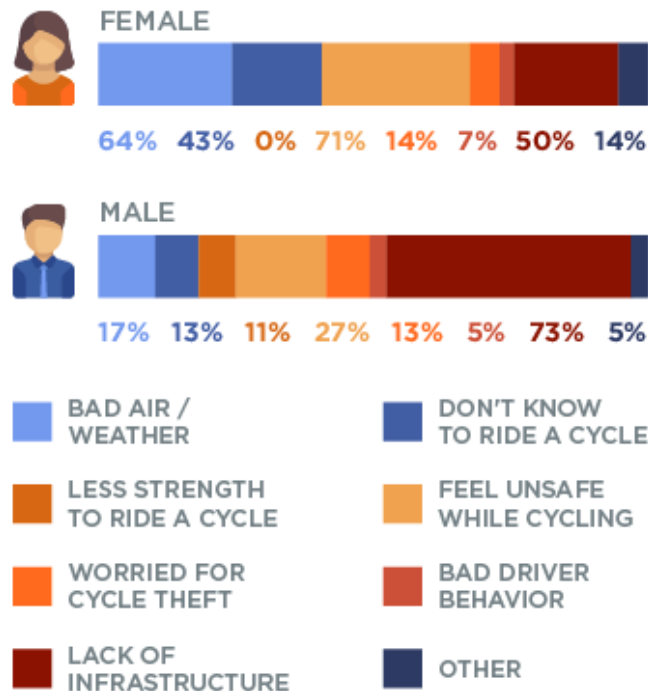


OTHER

There were slight differences in the concerns expressed by women regarding cycling as compared to men.

- 71% opined that they feel unsafe while cycling in case of women
- Feeling Unsafe, bad weather and lack of infrastructure turned out to be dominant themes amongst women for not cycling
- 73% cited lack of infrastructure as the reason for not cycling in case of men
- Lack of infrastructure was the dominant theme amongst men

REASONS FOR NOT CYCLING



Insights and Recommendations

Key Insights

The study findings indicated that cycling is a major mode of transport in Bengaluru for the majority of the respondents who come from poor socio-economic strata. Our survey provides the following key insights :

- **Affordability is a key consideration** : Livelihood Cyclists travel by cycle to reach their workplaces, **not because it is environment friendly or good for health but to save money**. Many of them cannot afford to commute by public transport or own a private vehicle as their monthly income is less than Rs.5000.
- **Health and environment consciousness is not a key driving factor** for cycle usage by this cohort.
- **Cycling is not aspirational** for livelihood cyclists and the moment their income increases, they are likely to prefer motorized transport.
- Women cyclists are much lower in number as compared to men. Safety is a key consideration for women to cycle

Since poor economic status is the major reason to cycle, chances of shifting away from cycling with improved economic status is to be expected. Bicycles are perceived to be a poor man's commute option even though the role of cycling is so important since it promotes physical activity and healthy lifestyles. Cycling is critical to a country like India, where cities are struggling with pollution and citizens are witnessing a rapid increase of diseases linked to unhealthy lifestyles.

Key Recommendations

Following are the recommendations from the insights of the survey,

- **Budgetary allocation for making streets safer for cycling:** It is evident from the survey that merely investing in dedicated cycle lanes is not sufficient. Along with dedicated cycle lanes, making streets safer for cycling through **better street lighting, safer junction crossing, better enforcement of lane discipline and designated parking areas for bicycles** are all important factors for encouraging the shift from motorized transport to cycling.
- **Budgetary allocation for communication:** Government also needs to have a better communication strategy and budget outlay that **educates citizens on health and environment benefits of cycling** and encourages and incentivizes people to cycle.
- **Changing the narrative:** Government must invest in well thought out communication campaigns to dispel the notion from cycling perceived as a “poor person's commute mode” to an “aspirational mode of commute” from “Cycling out of necessity” to “Cycling for better health and fitness and as an environmentally friendly mode of commute”.
- **Special schemes to encourage women to cycle:** Government should introduce special schemes to encourage and motivate women and girls to use bicycles as a

primary mode of transport. We need to increase the share of women who cycle from current 8% to at least 33% in the next three years.

- **Special schemes for affordable ownership of bicycle:** Government should also make **ownership of cycles more affordable and accessible** to the low-income vulnerable groups by having special schemes and providing microfinance to them.

Conclusion : This section of society, namely the livelihood cyclists spend almost 10% of their income on commuting, hence good incentive schemes coupled with a good communication strategy, focus on safety, good street lighting, better design of major junction crossings and enforcement of lane discipline must support any infrastructure development for cycling to be successful.

About B.MOBILE: B.MOBILE is B.PAC's mobility initiative that works on research, policy advocacy, stakeholder awareness in the areas of sustainable mobility, shared/pooled mobility, nonmotorized transit, para transit including related planning and infrastructure needs for providing seamless and integrated first, middle and last mile connectivity to citizens of Bengaluru. Our goal is to push for sustainable mobility for all by encouraging the use of public transport and disincentivizing the private vehicles usage.