



# BREAKING BARRIERS: PROMOTING CYCLING AMONG WOMEN IN NAIROBI



MARCH 2023

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**Photography:** Shutterstock, ITDP

This report was supported by generous funding from the FIA Foundation.

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The study was conducted by Flone Initiative, a charitable women-led Pan-African organisation working to create safe, sustainable, and accessible public transport spaces for women and vulnerable groups in Africa by influencing behavioural change, generating knowledge, and building movement.

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## LIST OF ACRONYMS AND ABBREVIATIONS

CDKN	CLIMATE AND DEVELOPMENT KNOWLEDGE NETWORK
FGD	FOCUS GROUP DISCUSSION
ITDP	INSTITUTE FOR TRANSPORTATION AND DEVELOPMENT POLICY
KENHA	KENYA NATIONAL HIGHWAYS AUTHORITY
KII	KEY INFORMANT INTERVIEW
KRA	KENYA REVENUE AUTHORITY
KURA	KENYA URBAN ROADS AUTHORITY
NAMATA	NAIROBI METROPOLITAN AREA TRANSPORT AUTHORITY
NCCG	NAIROBI CITY COUNTY GOVERNMENT
NMS	NAIROBI METROPOLITAN SERVICES
NMT	NON-MOTORISED TRANSPORT
NTSA	NATIONAL TRANSPORT AND SAFETY AUTHORITY
PSV	PUBLIC SERVICE VEHICLE
UNEP	UNITED NATIONS ENVIRONMENTAL PROGRAMME
WIT	WOMEN IN TRANSPORT
CBD	NAIROBI CENTRAL BUSINESS DISTRICT



# EXECUTIVE SUMMARY

The shift to sustainable mobility has led to an acceleration of investments in non-motorised transport in Nairobi City County. However, these investments, particularly in cycling, have not translated into increased use of bicycles by women, who account for only 3.1% of cyclists within the county. This research seeks to identify the barriers limiting female participation in cycling in Nairobi City County.

The study had four objectives:

- 1) to establish the level of women's uptake of cycling in Nairobi City County;
- 2) to identify the factors constraining their participation in cycling;
- 3) to establish the motivations and support for women's uptake of cycling;
- 4) and to provide key recommendations to increase women's uptake of cycling.

A mixed methodology approach was adopted, comprising both qualitative and quantitative methods, including online surveys, two focus group discussions

with female cyclists and non-cyclists, field tours, and key informant interviews with local stakeholders. Comparative and collective analysis of the results was conducted to guide the recommendations targeting transport authorities and policy makers, development partners, academia and civil society organisations.

**The key findings of the research are that the uptake of cycling among women in Nairobi City County is still relatively low, due to barriers such as negative socio-cultural perceptions of women who cycle, unsafe roads, a lack of security, women lacking cycling skills, limited access to cycling infrastructure and infrastructural deficits.**

As an action-oriented project, the study provides gender-responsive strategies aimed at breaking barriers and increasing the participation of women in cycling within Nairobi City. These recommendations centre on raising public awareness, enhancing safety and security on roads, and promoting access to cycling opportunities.



# 1.0 INTRODUCTION

## 1.1 Background to the Study

The transport sector contributes about 67% of energy-related greenhouse gas (GHG) emissions and 11% of total emissions in Kenya. These emissions are projected to increase to 15% by 2030 due to the increasing rates of motorisation and urbanisation. Kenya has committed in its Nationally Determined Contributions (NDCs) to reduce its emissions by 32% by 2030<sup>1</sup>, in response to global commitments to decarbonise the transport sector by 2050.

To realise these goals, Kenya is promoting a shift to sustainable consumption and production patterns through the Climate Change Act, 2016. Sustainable mobility is a key part of this and the adoption of mass transport<sup>2</sup> and non-motorised transport (NMT) strategies are key policies to achieve this. Nairobi City County in particular, has been accelerating investments in non-motorised transport through the adoption of a Non-motorised Transport Policy in 2017 and the construction of walkways and cycling lanes within the county. However, these investments, particularly in cycling infrastructure, have not resulted in increased usage of cycling by women. This study seeks to add greater understanding to why this is the case, and how more women might be encouraged to cycle in Nairobi City County.

The study's objectives were to aid policy development which seeks to increase female participation in cycling because of the wide range of benefits which it can bring individually and to the environment and local air quality, through better understanding of the the issues facing women cycling in Nairobi currently.

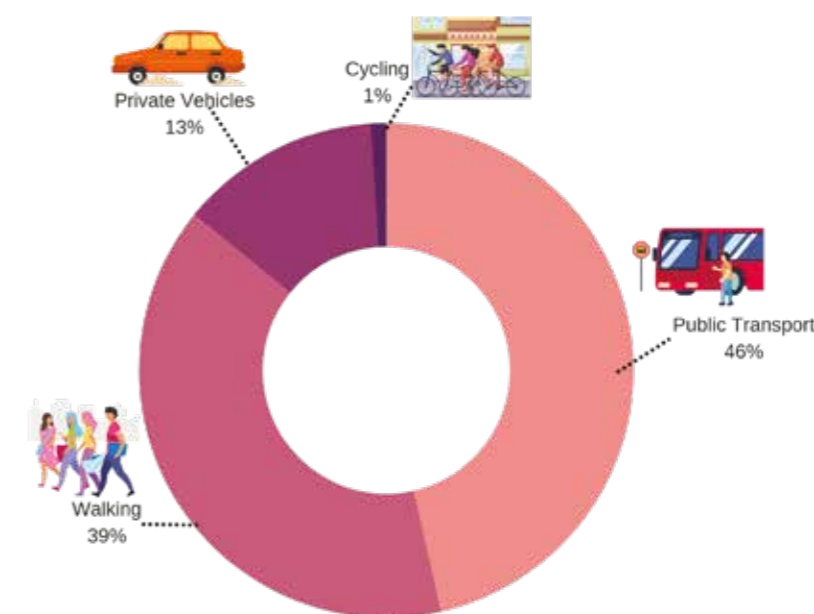
## 1.2 Study Context

Nairobi City County hosts Kenya's capital, Nairobi, the largest city in Kenya and one of the most rapidly growing cities in Africa. With a current population of 4.4 million people, Nairobi is witnessing a population growth rate of 4% per annum. This is attributed to accelerating infrastructure growth, and its strategic role as the socio-economic hub of East and Central Africa. The increasing population within the city, paired with the high rate of urbanisation, has resulted in 1.2 million tonnes of CO<sub>2</sub> emissions annually, which are projected to increase by 17% in 2023.<sup>3</sup>

### 1.2.1 MODAL SHARE OF TRANSPORT IN NAIROBI CITY COUNTY

The predominant modes of transport among Nairobi residents are public transport (46%) and walking (39%), while cycling is the least popular (1%) among the populace, as illustrated in Figure 1 below.

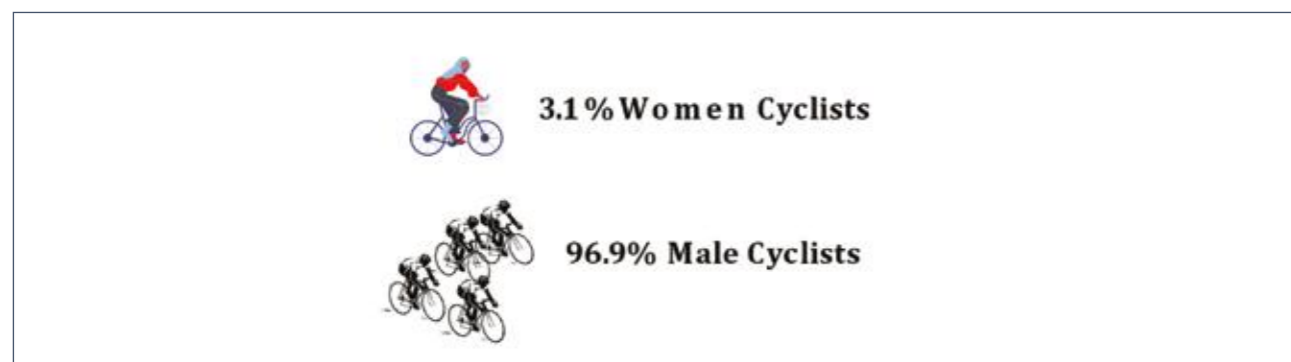
Figure 1: Modal Share in Nairobi



Source: TUMI Nairobi Facts Sheet (2022)

A June 2021 newsletter by Climate and Development Knowledge Network (CDKN)<sup>4</sup> further estimates that the 1% of cycling modal share accounts for approximately 55,000 daily trips in in the city. Gender disaggregation of these cycling trips is as shown in Figure 2 below, with the vast majority - 96% - undertaken by men, and just 3.1% by women.

Figure 2: Cycling in Nairobi City County



Source: Nairobi City County, Non-Motorised Transport Policy, 2017



### 1.3 Legal, policy and programmatic interventions

It is in this context that a great number of initiatives have been developed to promote low carbon mobility at the global, regional and national level. Relevant policy and programme initiatives to promote cycling as a mode of transport are in Table 1 below.

TABLE 1: SUMMARY OF LEGAL AND POLICY FRAMEWORKS

Scope	Legal / Policy Provision	Institution	Linkage to the Report
Global	UN Sustainable Development Goals (SDGs)	United Nations	Goal 5 on gender equality and empowerment of women and girls helps in bridging the gender gap in cycling and breaking socio-cultural stereotypes on cycling.
			Goal 9 on building resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation.
			GOAL 11: Making cities and human settlements inclusive, safe, resilient and sustainable, particularly Target 11.2 on providing access to safe, affordable, accessible and sustainable transport systems for all, especially vulnerable groups such as women.
	New Urban Agenda		It recommends an increase in accessible and sustainable transport and the development of non-motorised modes of transport.
Regional (Africa)	Africa Agenda 2063	African Union	Prioritises sustainable and inclusive growth where citizens are healthy and women and children are empowered.
	AU-African Road Safety Observatory: Road Safety Matters in Africa		Builds on a body of data on road safety and monitors its performance in Africa.
	Pan African Action Plan on Active Mobility (PAAPAM)	United Nations Environment Programme	Aims to advance walking and cycling across Africa.

Scope	Legal / Policy Provision	Institution	Linkage to the Report
National (Kenya)	Kenya Vision 2030	Government of Kenya	Promotes the construction of road infrastructure across Kenya to ensure accessibility and regional connectivity.
	Integrated National Transport Policy (2020)	Ministry of Transport, Infrastructure, Housing, Urban Development, and Public Works	Promotes an integrated approach in transport planning
	Street Design Manual for Urban Areas (SDMUAK)	Ministry of Transport, Infrastructure, Housing, Urban Development, and Public Works and the Institute for Transportation and Development Policy (ITDP)	Provides guidelines and standards for planning and designing inclusive urban streets for motorised and non-motorised users.
	Physical and Land Use Planning Act, 2019	Ministry of Lands and Physical Planning	The legal framework for land use planning from the national, county to local (urban) contexts in Kenya.
	Draft National Building Code, 2020	Ministry of Transport, Housing, Urban Development and Public Works	Provides the code of conduct for construction of buildings in Kenya, which could make a specification for provision of bicycle parking and changing rooms (particularly in public buildings).
	National Transport and Safety Authority Act of 2012	National Transport and Safety Authority	Legal framework for the establishment of the authority responsible for ensuring safety in the transport sector.
	Traffic Act Cap 403	Ministry of Transport, Housing, Urban Development and Public Works	Consolidates the traffic laws related to road transport. However, it is under review, with the aim of ensuring cycling traffic rules are incorporated.
	Highway Code		A set of rules and guidelines on how drivers, motorists, cyclists, and pedestrians should use the road.
	People with Disability Act, 2003	National Council for Persons with Disabilities (PWDs)	Provides for the rights of PWDs, to ensure their inclusion and proper treatment.

Scope	Legal / Policy Provision	Institution	Linkage to the Report
Local (Nairobi County)	Nairobi City County Transport Act (2020)	Nairobi City County	Provides the development of the Capital City Transport Plan that puts into consideration all modes of transport in Nairobi.
	Non-Motorised Transport Policy (2017)	Nairobi Metropolitan Services (NMS)	Provides the road map for expanding planning and uptake of NMT in Nairobi.
	Nairobi County Integrated Urban Development Plan	Nairobi City County	This is a master plan that provides the framework for the restructuring of Nairobi City County's urban form.
Programmatic Interventions	Investments	Nairobi Metropolitan Services (NMS)	Ksh.1.4 billion was allocated to the construction of new pedestrian and cycling lanes covering 116 kilometres in estates. In 2020, NMS constructed footpaths and cycling lanes within streets in Nairobi CBD (Kenyatta Avenue, Aga Khan Walk and Wabera Street).
	Railway City	Kenya Railways Corporation	This is an upcoming iconic multi-modal urban development on the Standard Gauge Railway in Nairobi that offers an opportunity of integration of cycling in the city's transport system.
	Nairobi Metropolitan Area Transport Authority (NAMATA) BRT system	Nairobi Metropolitan Area Transport Authority	The first BRT system under construction in Kenya, which provides an opportunity for integration of cycling in the public transit system.

Whilst there are extensive policy frameworks in place to promote cycling as a mode, there are two serious limitations in terms of their impact. First they have not translated into coordinated action among various stakeholders to deliver the intended outcomes. Secondly there is no specific policy designed to address the needs of women cyclists within Nairobi, or in Kenya more widely. This is a gap which must be filled.

# 2.0 METHODOLOGY

The study was undertaken in two phases. The first was an extensive literature review, which was then followed by a data collection and analysis phase which drew on both qualitative and quantitative methods.

Quantitative primary data collection was through an online survey (See Appendix A) delivered to 80 female respondents, of which 58 were cyclists and 22 were non-cyclists. To understand the factors influencing the uptake of cycling by women within Nairobi City County, a broad sample of female cyclists and non-cyclists were selected from different parts of the city. The respondents included students, full-time parents, part-time and full-time employees, and retirees. The survey was circulated through social media platforms such as LinkedIn, Twitter and WhatsApp cycling groups.

The data collected from the survey was supplemented with two facilitator-led focus group discussions (FGDs) to gather valuable perceptions and insights on the experiences of female cyclists and non-cyclists within Nairobi. The FGDs entailed conversations with ten female cyclists and ten non-cyclists drawn from cyclist groups in Nairobi and the Flone Initiative's Women in Transport Database, respectively.

To supplement this survey data, and to gather in-depth information on the topic, key informant

interviews with local stakeholders were also undertaken. The aim of the interviews was to understand informants' perception of the uptake of cycling among women within Nairobi, the role they play in enhancing gender-inclusive cycling, and their views on how the current situation could be improved.

These stakeholders included:

1. Institute for Transportation and Development Policy – Africa (ITDP)
2. United Nations Environment Programme (UNEP)
3. Baiskeli Centre – A bike parking facility in Nairobi
4. Bicycle Retailers in Nairobi

Data on the lived experiences of female cyclists was also gathered through participation in cycling events organised by cyclist groups, such as Critical Mass Nairobi, Spin Kings, Dada Rides and Mama Cycling.

There were challenges in terms of securing interviews with some key transport stakeholders and female respondents due to time constraints. In addition, the online survey received a disproportionately large number of male respondents although their data was omitted in the analysis phase so as to ensure a female perspective.





# 3.0 KEY FINDINGS

## 3.1 Overview

Overall, the study confirmed the very low level of uptake of cycling among women in Nairobi which is seen in the official data. This is attributed to barriers such as negative socio-cultural perceptions, safety and security concerns, long cycling distances, poor infrastructure, care-giving responsibilities, and environmental factors, which were an issue for both female cyclists and female non-cyclists. More details on these findings are outlined below.

## 3.2 Overall uptake level of cycling among women

Cycling is most popular among women aged between 30 and 40, although the numbers cycling decrease the older the women get. There was no data gathered on female cyclists below the age of 20 as none responded to the survey.

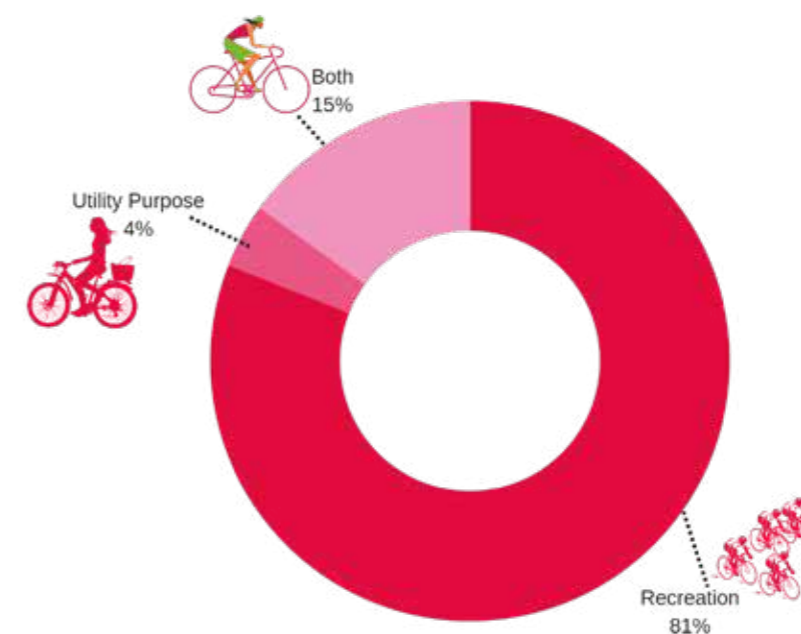
As Figure 3 below shows, the majority of female cyclists in the survey - 81% - cycle for recreational

reasons usually in excursions organised by cycling groups. Recreational cycling was popular among the respondents because it gave them a sense of belonging to a community and because cycling in a group guaranteed safety from harassment from other road users. Only 4% of the cyclists cycle either to commute to work or to run errands, while 15% cycle for both recreation and utility.

The motivations for cycling are correlated to the frequency of cycling; 33% of the respondents cycle once a year, while 19% cycle once a month, mainly for recreational reasons. Only 2% cycle on a daily basis, which shows the very low uptake level of cycling as a primary mode of transport among women in the city.

Female cyclists who cycle less than a kilometre do so mainly to carry out errands, such as shopping at a local supermarket. Those who cycle more than 20 kilometres do so mainly for recreational reasons. Respondents pointed out that they would cycle longer distances and more frequently if the right infrastructure was in place and their safety and security was guaranteed.

Figure 3: Purpose of cycling among female cyclists



*“What I enjoy the most about cycling for leisure is social interactions during cycling events organised by our group. I get the chance to catch up with others and relax.” (Cyclist, FGD participant).*

*“I enjoy cycling in a group since I feel safer and can easily get help in case of a mechanical issue. You also encourage each other to cycle more and for longer distances. Before joining the cycling group, I could cycle only five kilometres, but now I can do forty kilometres.” (Cyclist, FGD Participant).*

### 3.3 Barriers and challenges that limit the uptake of cycling among women

#### 3.3.1 SOCIO-CULTURAL PERCEPTIONS

The study confirmed the significance of the role played by the socialisation of girls from childhood in shaping their somewhat negative approach to cycling. Respondents cited a range of reasons for this aversion, including for example the fact that as children bicycles and cycling were associated with boys. Women who cycled as children encountered disapproval and discouragement from peers and adults once they hit adolescence due to negative societal myths and misconceptions about women's involvement in cycling. Further, the male gaze and comments on their appearance in cycling gear also discouraged women from taking up cycling.

*“When I tried cycling as a young girl, an older man saw me and discouraged me by saying it would break my virginity. Those words were very demotivating and I stopped cycling. Though I later came to learn that it is a misconception.” (Non-cyclist FGD participant).*

These negative socio-cultural perceptions were reported among both cycling and non-cycling respondents. However, some respondents felt it was their role to challenge these stereotypes and hopefully to become role models to other young female cyclists.



Examples of the existing cycling lanes within Nairobi City County

#### 3.3.2 THE SAFETY OF CYCLISTS ON THE ROAD IS NOT GUARANTEED

The lack of safety and security on the roads was cited as a major hindrance by both cyclists and non-cyclists. This lack of safety manifests as:

- a) **Sexual harassment** such as obscene verbal commentary and non-consensual physical contact. About 45% of the female cyclist respondents reported having encountered sexual and physical harassment on the road within the past six months.

*“When I cycle alone, I prefer to wear long pants and long dresses to avoid harassment, but when I am in a group, I feel safer and free to cycle in shorts.” (Cyclist FGD participant).*

- b) **Rough treatment from motorists**, such as being knocked down or pushed off the road. This is not helped by the fact that the current traffic laws (Traffic Law Cap 407) do not recognise and provide regulations for cyclists as road users.

*“Motorcycle riders have the habit of squeezing between and pushing cyclists off the road. Motorcycles too have risky driving habits like overlapping and overtaking on bends that limit the safety of cyclists.” (Cyclist FGD participant).*



Source: ITDP

- c) **Insecurity**, such as a fear of being mugged or robbed of their personal belongings or of the bicycle itself, especially when cycling at night.

*“Insecurity is an issue since you can lose your valuables as you are vulnerable to attack, especially at night or when cycling alone in isolated places. The security of the bicycle is also a factor since good bikes are attractive to thieves.” (Cyclist FGD participant).*

*“Sometimes you have several errands to run at different places and times and so if you get late at night, it may be unsafe and insecure to cycle.” (Cyclist FGD participant).*

#### 3.3.3 WOMEN LACK CYCLING SKILLS

Because of the way women and girls are socialised, they often don't learn how to cycle. In addition, the conditions within which any cycle training is conducted is not considered to be safe for women which meant that many gave up on the first trial. Those who gained some skills reported not having the confidence to cycle on the road, particularly due to past traumatic cycling experiences or lack of knowledge of traffic rules.

*“For my first bike training experience, my trainer let me ride down a hilly place on my own, which landed me into a garbage pit. I was done with cycling there and then.” (Non-cyclist FGD participant).*

#### 3.3.4 WOMEN HAVE LIMITED ACCESS TO BICYCLES

The study found that lack of female-friendly bikes may contribute to the low demand for bicycles among women. Women indicated that they prefer bicycles with a step-through frame. Such bicycles are easier to mount and dis-mount, and also have wide cushioning saddles, which are preferred by women and girls. However, few cycle shops stock them.

Bicycle affordability is also a major limiting factor, particularly for women in low-income households. A good quality bicycle costs an average of between Kshs 12,000 to Kshs 22,000 (USD 98 to USD 150), which is not affordable for a majority of the city's residents. In Kenya cycling, especially in urban areas, is often associated with middle- and high-income earners, in sharp contrast to other developing countries, where it is viewed as a mode of transport for low-income earners.



Vehicles parked on or along cycling tracks in the city

Source: ITDP

**3.3.5 THERE ARE INADEQUATE SUPPORTING CYCLING FACILITIES AND AMENITIES**

The lack of bicycle parking facilities, showering amenities within public buildings and other cycle-friendly facilities was also reported as an impediment to the uptake of cycling among women in the city.

The study found that there was only one bike parking facility within Nairobi City County – the **Baiskeli Centre** located outside the city’s Central Business District (See Annex 1). The facility offers daily parking and changing facilities for both female and male cyclists, although the amenities allocated for female cyclists were often underutilised compared to those for male cyclists. Despite the facility offering state-of-the-art services, its location is not very accessible since cyclists usually have to walk or use public transport from the facility to their places of work after parking their bikes.

*“It was challenging to secure a building space in a convenient place within the city since most landlords cannot understand what value for money a bike parking facility brings. This is due to the minimal popularity of cycling within Nairobi. So, we had to settle for this space, which remains underutilised daily.”* Owner, Baiskeli Centre.

Bicycle parking and changing facilities are also non-existent in most public buildings within the city, probably because the Kenyan Draft National Building Code, 2020 fails to provide standards for such facilities. This tends to discourage women to take up cycling for their daily commute.

*“In many commercial buildings like in supermarkets, there are no designated places for cyclists to park and they cannot guarantee the security of the bicycle if you do not lock it.”* (Cyclist FGD participant).

*“When you cycle to destinations of a formal nature, you are likely to arrive sweaty and you have to shower and change clothing. Showers and changing facilities are usually not provided in most buildings.”* (Cyclist FGD participant).

**3.3.6 LIMITED AVAILABILITY OF CYCLING INTERVENTIONS**

A majority of the roads within the city lack cycling lanes, which are key to ensuring the safety of cyclists. As a result, all cyclists have to share the road carriageway with vehicles, which is not safe. Moreover, the available infrastructure is poorly designed and maintained, has physical barriers which hamper cyclists and is often encroached upon by motorists and street vendors.

The study found that these infrastructural deficiencies were mainly in low- and middle- income neighbourhoods. Women from such neighbourhoods do not feel motivated or safe to take up cycling because of these social inequalities in the provision of infrastructure within the city. Some new roads in the city come with cycling lanes and pavements, but these are mainly in affluent areas. They also tend to be under-utilised because high-income residents tend to cycle mainly for recreational purposes, not to commute.

*“Cycle tracks end in abrupt curves, and you must dismount and carry your bike around the curve. There are cycle tracks that are paved with rough blocks, making it uncomfortable. Some have good cycle tracks, but cyclists feel unsafe when they meet the intersections.”* (FGD respondent).

**3.3.7 LOW IMPLEMENTATION OF NMT POLICIES**

Whilst favourable national and county policies exist, they do not have provisions on cycling as a mode of transport. Moreover, the enforcement of these policies is also low, which has translated into inadequate investments in non-motorised transport infrastructure. Whilst key organisations, such as the Institute for Transportation and Development Policy (ITDP) and the United Nations Environment Programme (UNEP), are closing this gap by providing technical and financial assistance to the Kenyan government so that it is better able to implement these policies, their reach is limited and more needs to be done in this regard. An important element is the data gap on user needs which undermines infrastructure planning for the city.

*“Positive changes have been realised since more county governments are investing in NMT facilities for walking and cycling. There has been increased advocacy for car-free days to promote walking and cycling.”* (Key informant).

*“These efforts have seen county governments increasingly commit a percentage of their budgets to the infrastructure development of NMT facilities in Kenya. For example, NMS has committed 20% of all the transport budgets to develop walking and cycling facilities in Nairobi.”* (Key informant).



# 4.0 CONCLUSIONS AND RECOMMENDATIONS

## 4.1 Conclusions

This study shows that negative socio-cultural perceptions of female cyclists and unsafe roads were the key limiting barriers that prevent women in Nairobi City County from taking up cycling. These were consistent messages from both cycling and non-cycling women who took part in this study and provide insight to policy makers and city urban planners on key areas for intervention.

Additionally, it is evident that the required investments and solutions need to be gender-responsive and practical. These targeted and informed investments should also address negative and patriarchal socio-cultural structures and security concerns in order to reassure women of their freedom to be fully mobile and to access opportunities.

## 4.2 Recommendations

The key areas of intervention should include:

### 4.2.1 BREAKING SOCIO-CULTURAL BARRIERS

Societal structures and perceptions play an integral role in shaping the behaviours and freedoms of women. To reduce the negative socio-cultural perceptions of female cyclists, sustained public awareness programmes should be carried out. This can be done through dissemination of behavioural change messages in print and social media campaigns that not only normalise cycling for women, but also market cycling as an alternative and sustainable mode of transport. Female cycling champions and religious and cultural leaders should be actively involved in driving this message.

In particular, men and boys should be included in such programmes to understand better the root causes of these negative socio-cultural behaviours.

### 4.2.2 PREVENTION OF SEXUAL AND PHYSICAL HARASSMENT

Women's safety concerns can be addressed through the utilisation of tools such as [Report It! Stop It!](#) that collects real-time data on women's experiences in public spaces to inform decision makers in planning for safer spaces.

Provision of infrastructure that visibly enhances the security of women and society at large is essential. This could include proper street lighting, CCTV cameras, and clear and continuous networks of cycle paths. A supportive reporting system with well-trained staff should also be provided by the Nairobi City County. This system would ensure fair and prompt legal action against the perpetrators of violence against female cyclists.

The reporting system should have staff trained in gender sensitivity and how to act in case of an incident.

### 4.2.3 SAFER ROADS

The limited knowledge of road users of traffic laws and the rights of different road users is a key contributor to the lack of safety on roads, and hence the low cycling levels among women within Nairobi City County.

Safe environments encourage cycling. Nairobi has a strong NMT policy framework which it should prioritise to accelerate cycling in the city by urgently delivering segregated cycle lanes on strategic routes. Reducing traffic speed, through police enforcement and physical design interventions, such as speed humps and cycle-friendly chicanes, is also vital to make cycling safer and more attractive on minor roads and minimise injury if collisions occur. To reduce conflict situations Nairobi City County should work with boda bodas (motorcycle taxi riders) associations and public service vehicle drivers to systematically improve training and awareness of how to safely share the road with cyclists.

Safety audits to collect gender disaggregated data on the safety status of roads within the city would inform improvements that ensure safer journeys for everyone. This study faced limitations in accessing data. Gender disaggregated data across the cycling value chain is essential in informing future research studies.

The existing Traffic Act and related transport laws in Kenya are currently under review, and Flone Initiative will provide a gender lens on the transport policymaking process through that review, to ensure that inclusive and equitable provisions are made.

### 4.2.4 ACCESS TO CYCLING OPPORTUNITIES

Non-cycling women have the desire to take up cycling, but do not have access to opportunities to own a bicycle or to learn to cycle. A database of bicycle vendors, professional cycling trainers and institutions, law makers, mentors, and other stakeholders in the cycling industry would help to provide women with cycling opportunities.

More family-friendly cycling events that integrate adult and young family members would also encourage the uptake of cycling among women and girls. These events should also celebrate and recognise female cyclists in order to inspire and motivate female non-cyclists in Nairobi.

To promote the uptake of cycling among women in Nairobi City County, collaboration between policy makers, institutions, private actors, and civil society groups will be imperative.

# APPENDIX

## Appendix A: Survey Questionnaire

### WELCOME TO THE SURVEY

Thank you for your willingness to take part in this survey.

Flone Initiative is a women led organization, working towards the creation of safe, inclusive, sustainable and accessible public transportation spaces for women and vulnerable groups in Africa, by influencing behavioural change, generating knowledge, and movement-building.

While studies show that those cycling to work in Nairobi spent fewer minutes/hours to get to their destination than those using the public service transport (PSV) and personal cars, the uptake on cycling in the city especially by women is still very low.

We are interested in gathering your views on the uptake of utility cycling by women in Nairobi County. The study findings are aimed at establishing the existing gaps and suggesting ways of encouraging women to cycle more.

The survey will only take 8-10 minutes. You are invited to respond to the survey questions under the sections that are most appropriate for you. Any personally identifiable information will be kept confidential to the research team. By completing the questionnaire you are consenting to take part in this research.

If you have any questions about the survey please email us at [research@floneinitiative.org](mailto:research@floneinitiative.org)

You can be able to follow the study findings report once completed on our social media handles as follows;

Facebook: <https://www.facebook.com/FloneInitiative>

Twitter: [@FloneInitiative](https://twitter.com/FloneInitiative)

1. What is your gender?

- Female
- Male
- Other

2. What is your age range in years?

- 17 or younger
- 18 - 20
- 21 - 29
- 30 - 39
- 40 - 49
- 50 - 59
- 60 - 69
- 70 and over

3. Which route or corridor to Nairobi Central Business District (CBD) do you identify with?

- Limuru-Uthiru-Kangemi-Westlands-CBD
- Athi River and Kitengela - Mlolongo - Imara Daima - CBD
- Rongai-Bomas-Langata Road-CBD
- Ruiru-Kahawa-Githurai-Muthaiga-Ngara-CBD
- Dandora - Kariobangi - Huruma-Mathare-Pangani-CBD
- Ngong town-Karen-Kibera-CBD
- Dagoretti-Kawangware-Kenyatta-Upper Hill-CBD
- Ruai-Njiru-Kayole-Komarock-Umoja-Donholm-Jogoo Road-CBD
- Kiambu-Ridgeways (Kiambu Road)-Muthaiga - CBD
- Other (please specify)

4. What common modes of transport do you use in your daily commute?

- Walking
- Bicycle
- Motorbike
- Matatu/bus
- Private car
- Tuktuk
- Commuter train
- Uber/Taxify/Little Cab
- Company, school or university bus

5. Would you consider a bicycle as your main mode of your daily commute?

- Yes
- No

6. If No in question 5 above, what are your **top three** reasons for this?

- Environmental (air pollution or exposure to rain or hot sun)
- It is physically draining
- Long distance to cycling destination
- Concerns about safety
- Concerns about personal security
- It is degrading (pressure to look good or presentable)
- Too many things to carry
- I usually travel with small children
- Other (please specify)

7. What would be your top two reasons to consider a Bicycle as your main mode of transport in Nairobi?

- It is affordable
- It is fun
- It is fast
- It is reliable
- It is healthy
- Environmental friendly
- Other (please specify)

8. How often do you generally ride a bicycle?

- Every day
- Several times per week
- Once per week
- Once every two weeks
- Once a month
- Once or twice every two or three months
- At least once every year

9. On average, what distance do you generally cover while cycling weekly?

- Less than a Kilometer
- 1 - 5 Kilometers
- 6 - 10 Kilometers
- 11 - 15 Kilometers
- 16 - 20 Kilometers
- Above 20 Kilometers

10. Are most of your bicycle trips recreational or utilitarian?

- Mostly recreational (i.e. for fun, for fitness, etc.)
- Mostly utilitarian/transportation (i.e. to work, school, errands e.g. shopping, etc.)
- A mix of both

11. Where do you cycle most of the time?

- Off-road paths or shared pedestrian/bike paths
- On-road (in bike lanes)
- On the road (no bicycle lanes)
- Both on-road and off-road
- Other (please specify)

12. What general category or cyclist would you mostly place yourself under the following statement describing the comfort level using available facilities?

- Strong and Fearless (cycle regardless of road condition)
- Enthused and Confident (comfortable sharing road but prefer own facilities)
- Interested but Concerned (curious about cycling, would ride if it felt safer on road)
- None of the above

13. How stressful is your usual cycling commute?

Very Stressful                      Somewhat Stressful                      Not Stressful

14. How safe do you feel while cycling in Nairobi?

Very Unsafe                      Unsafe                      Safe                      Very Safe

15. Have you been involved in an accident while cycling in the last one year?

- Yes
- No

16. How frequently have you been involved in an accident while cycling in the past one year?

- Never
- Fewer than 3 times
- 3 - 5 times
- More than 5 times

17. What specific spots or roads in Nairobi would you consider unsafe for cyclists?

18. How would you describe your interactions/relationships with the following groups while cycling in Nairobi?  
(Tick appropriately for each category)

	Not Friendly	Somewhat Friendly	Friendly	Very Friendly
Pedestrians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motorcyclists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motorists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19. When cycling on the road, have you experienced intentional harassment from other road users in the last 6 months?

- Yes
- No
- I don't cycle on the road

20. If yes in question 19 above, which form(s) of harassment have you experienced in the last 6 months?

- Deliberately driving too close (causing fear/anxiety)
- Deliberately blocking your path
- Sexual harassment
- Verbal (Shouting abuse)
- Making obscene gestures
- Sounding the horn in an aggressive manner
- Other (please specify)

21. What are the **top three challenges** or **constraints** you usually encounter while cycling in Nairobi?

- Lack of cycling facilities
- Poorly designed cycling facilities
- Encroachments of cycling facilities
- Physical barriers such as uneven roads, hilly terrain, waterways, busy streets, etc.
- Unsafe cycling and crossing facilities
- Poor lighting especially at night
- Careless behaviour or actions by other road users
- Sexual harassment
- Traffic congestion
- Environmental (Air pollution)

22. What **top three measures** would you suggest to make it easier for you to cycle in Nairobi?

- Dedicated cycle tracks
- Adequate and Secure bicycle parking facilities
- Shower facilities at your destination
- Better lighting conditions
- Information on directions and safe cycling routes
- Less harassment while cycling
- Support from family and friends
- Better pedestrian behaviour
- Better driving by motorists on roads
- Less physical barriers on roads and cycling tracks
- Other (please specify)

23. What specific spot or location if any in Nairobi County do you consider unsafe for cyclists?

24. Is there anything that you would like to add on the topic of women and cycling?

### Appendix B: Baiskeli Centre

Kenya's first privately owned bicycle parking facility. It hosts parking racks, shower and changing facilities, and lockers for storing cycling gear. It also sells bicycles and accessories. It has a bicycle storage capacity of over 50 bicycles and changing/shower facilities designated for male and female users (see photos below).





# ENDNOTES

<sup>1</sup> GHG Report Kenya (2020) Kenya National Bureau of Statistics, Kenya facts (2015)  
<https://www.knbs.or.ke/?wpmpro=kenya-facts-2015>

<sup>2</sup> Also referred to as active transportation and human powered transportation) includes walking and bicycling, and small-wheeled transport (cycle rickshaws, skates, skateboards, push scooters and hand carts) and wheelchair travel, which are especially important for short trips up to 7 kilometres.

<sup>3</sup> Mwatu, S., Mbaka, C., & Njogu, D. (2022, May 29). Accelerating Green Urban Growth in Nairobi. Retrieved from KIPPRA: <https://kippra.or.ke/accelerating-green-urban-growth-in-nairobi/>

<sup>4</sup> Climate & Development Knowledge Network. (2021). NAIROBI NMT NEWSLETTER

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