





Accelerating COVID-19 related 'best practice' in the urban motorcycle taxi sector in Sub-Saharan Africa Country report: Kenya

**COVID-19 Response & Recovery Transport Research Fund** 

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Accelerating COVID-19 related 'best practice' in the urban motorcycle taxi sector in Sub-Saharan Africa – Kenya Country Report			
Project Report			
Urban transport			
Policy Regulation			
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The outbreak of the COVID-19 epidemic and the various measures put in place to mitigate its spread had a considerable impact on the urban transport sector. This report presents and assesses the findings of a survey of close to 70 motor-tricycle taxi operators and 12 key stakeholder interviews conducted in Nairobi and Kisumu, Kenya. The main purpose is to provide evidence-based inputs to policy formulation.			
Urban transport, motorcycle taxi sector, COVID-19, intermediate forms of transport, Kenya, East Africa, best practice			
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### ACRONYMS

ВВАК	Boda-Boda Association of Kenya
СВО	Community Based Organisation
FCDO	Foreign, Commonwealth & Development Office
HVT	High Volume Transport Applied Research Programme
IMC	IMC Worldwide Ltd
LIC	Low-income country
MCT	Motorcycle Taxi
MIC	Middle-income country
МоН	Ministry of Health
NMTA	Nairobi Metropolitan Transport Authority
NTSA	National Transport and Safety Authority
SACCO	Savings and Credit Cooperative Society
SHG	Self Help Group

### **EXECUTIVE SUMMARY**

This country report details the findings of a study on the impact of the COVID-19 outbreak on the urban motorcycle/ tricycle taxi (MCT/ MTT) sector in Kenya. Urban motorcycle taxi operators in Kenya provide essential transport services. However, they are often ignored in urban policy and are perceived by government agencies as a nuisance in urban areas. The report discusses the measures and restrictions put in place to reduce the spread of COVID-19 relevant to this sector and explores motorcycle/ tricycle taxi operators' perceptions of the acceptability of these restrictions and the extent to which they feel their sector has adapted and adhered to them.

For this report, primary data was collected in two cities - Nairobi and Kisumu- through qualitative interviews and focus group discussions with key stakeholders/ informants and via 67 short operator surveys. Country findings were presented to key stakeholders in a series of (online) workshops, in which discussion amongst the attendees was encouraged. The results of this report – together with similar research activities in five other Sub-Saharan countries – were used for an aggregated report and policy brief on the impact of the COVID-19 outbreak on the urban motorcycle taxi sector in Sub-Saharan Africa.

#### **Key facts**

- The first case of COVID-19 was reported in Kenya in mid-March 2020 and by the end of October the same year, there were 55,877 confirmed cases and 1,013 fatalities;
- The government responded with a series of measures, which included physical distancing, restrictions on movement, a partial lockdown, and a night-time curfew;
- Public transport providers were forced to limit passenger numbers to comply with physical distancing regulations, were required to wear face-masks and to provide hand sanitisers for their clients' use.

#### **Key findings**

- Key stakeholders indicated that the use of public transport, including motorcycle taxis, reduced significantly during the COVID-19 epidemic, and particularly during the partial lockdown, as a result of both limited demand and supply;
- Public transport operators increased fares to compensate for the passengers lost due to physical distancing requirements;
- Violation of transport restrictions by motorcycle operators was mainly driven by the need to sustain livelihoods, and ignorance of the seriousness of the disease in the early stages of the pandemic;
- The MCT surveys showed that impact of COVID-19 on the jobs of the majority of operators (61%) were very large and mainly negative. They operated fewer hours and made fewer journeys. However, some reported increased activities transporting people who felt unsafe using *matatus*, those out to beat police dragnets during curfew hours, or those illegally moving in and out of restricted areas;
- Restrictions, according to the surveys, were mainly enforced by the traffic police (ranked first by 61% of operators). However, MCT unions, self-compliance and peer pressure combined were ranked first by the remaining 34% of the operators.

#### **Key recommendations**

- If a complete ban on transport movements is deemed necessary, police monitoring of major roads is insufficient, as MCT/ MTT are well suited to take back-roads;
- Given the significant negative impact of the COVID-19 restrictions on the MCT/ MTT sector, economic support packages should be in place to limit the impact on livelihoods and ensure higher levels of compliance. These could also take the form of temporarily exemption of (road/ registration/ fuel) tax;
- Both MCT unions and government agencies were generally trusted by MCT operators over COVID-19 issues. Further collaboration between the two institutions – for instance in drawing up emergency preparedness plans – would be beneficial.

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- MCT unions were often unable to enforce compliance with the restrictions. It is recommended that MCT unions should be empowered/granted power to play a more active role in the licensing of MCT operators (as is the case with minibuses. This will enable the unions to exercise more influence on their members.

### **1.** Introduction

In the last 25 years or so, motorcycle taxis (MCTs) – and more recently motor-tricycle taxis (MTTs) – have fundamentally changed mobility and access in urban Sub-Saharan Africa, providing rapid and door-to-door transport, supporting livelihood activities, and facilitating access to essential services, such as health, markets and education. In many African cities, motorcycle taxis – often referred to as *Okadas* in West Africa or *Boda-Bodas* in East Africa – are responsible for the majority of transport movements of both people and goods and provide hundreds of thousands of jobs to low-skilled and/or marginalised youth.

During the recent COVID-19 epidemic, urban motorcycle/ tricycle taxi operators provided essential services, including to key health-workers, but also experienced risks of contracting the virus and spreading it, due to their close and multiple interactions with customers. Understanding the impact of COVID-19 – and of the measures taken to mitigate the spread of the virus – on this widespread intermediate form of transport is crucial for planning, managing and operating urban transport services, so that essential services remain accessible for urban dwellers during periods of lockdown or curfews.

While MCT operators have in many cases shown ingenuity and an ability to adapt and innovate when responding to different (health) challenges, policy-makers and regulators often remain somewhat unwilling to engage with (or are even hostile to) the – often informal – motorcycle taxi sector. Furthermore, because of the intermediate and informal nature of the motorcycle taxi sector, policymakers, urban planners and transport regulators tend to overlook its role and potential (as a force for good/ support but equally as a factor in further spreading COVID-19) or are not sure how to engage with the sector and its representatives. Prior to the COVID-19 pandemic, many of the measures taken by African cities to curb or even completely ban motorcycle taxi riding ignored the essential services they deliver and seem to be mainly a response to the rising number of traffic accidents involving or caused by motorcycle taxi operators/ unions and key stakeholders in urban (health) planning and transport together will be essential for the future sustainable socio-economic and environmental development of SSA's cities.

### 1.1 Project aims and objectives

The aim of the project Accelerating COVID-19 related 'best practice' in the urban motorcycle taxi sector in Sub-Saharan Africa is to improve understanding of the impact of the COVID-19 outbreak (including the measures and restrictions put in place to reduce its spread) on the urban motorcycle taxi sector in Sub-Saharan Africa (SSA), via case studies of three West African countries (Sierra Leone, Liberia and Ghana) and three East African countries (Uganda, Kenya and Tanzania). This report analyses and communicates the data and findings for Kenya.

Knowledge (including false/ ineffective 'knowledge') about how to reduce the chance of COVID-19 infection, through behaviour changes and/or social and technical innovations, may be shared spontaneously among individuals or small groups of riders. However there is limited opportunity to share best practices between motorcycle taxi operators in different cities or between different LICs (and lower MICs). This study's objective, therefore, was to share the findings, best practices, and any social and technological innovations developed/ adapted by motorcycle taxi operators to mitigate the impact of COVID-19. It was intended that by sharing them with urban motorcycle taxi operators and key stakeholders, including policymakers, this would allow for evidence-based rapid interventions. This was done via workshops, a sharing platform freely accessible to all relevant beneficiaries and key stakeholders, and one generic policy brief, together allowing for intra-city, inter-city and international peer-to-peer learning and knowledge exchange.

### 1.2 Transport challenge being addressed during and after COVID-19

Motorcycle taxis play a pivotal role in the provision of urban transport. However, relations and trust between the concerned authorities and motorcycle taxi operators/ unions can be strained at times, possibly affecting the effectiveness of COVID-19 measures and restrictions. This research established:

• If and how the COVID-19 pandemic has affected urban motorcycle taxi services in general;

- If motorcycle taxi operators or unions have been consulted in the COVID-19 measures taken, and what their level of compliance with these has been (including reasons for limited or non-compliance); and
- Social and technological measures and innovations motorcycle taxi operators have introduced to limit infection by or spread of COVID-19.

### 2. Methodology

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### 2.1 Summary of approach

This project used a mixed methods research approach, divided into three key activities or work-packages. The three work packages set out below allowed us to collect important data to answer the various research questions, to create opportunities for the key stakeholders and beneficiaries to discuss and access the findings in user-friendly formats, and to learn from peers across different countries and regions. The approach has high utility due to the multiple opportunities created for peer-to-peer and peer-to-stakeholder learning, as well as for knowledge exchange at an intra-city, inter-city, inter-national and virtual levels.

### 2.1.1 Work Package 1: Data Collection

In each of the study's case countries, data were collected through key informant interviews and motorcycle taxi/ motor tricycle taxi operator surveys in two cities.

### 2.1.2 Work Package 2: Sharing of Findings

Data findings, including responses and socio-technological innovations, were discussed in country-level Focus Group Discussions (FGDs) between the country researcher, key stakeholders, and representatives of the beneficiaries. Due to ongoing COVID-19 restrictions in the case-study countries, typically the number of participants in these FDGs had to be limited to comply with regulations.

#### 2.1.3 Work Package 3: Feeding Back Findings from Regional Workshops

Findings from the country studies and FGDs were presented at a webinar on 16<sup>th</sup> April 2021. The webinar participants included the various country researchers and key stakeholders (from all six case-study countries) such as representatives of MCT unions; traffic police; representatives from ministries of health (and other relevant ministries); market board members; city council representatives; transport sector regulatory bodies; and urban planning departments. The key stakeholders were identified by the country researcher based on a country specific literature review at the start of the project. A website and online open-access sharing platform have been developed (<u>https://www.africawheels.org</u>) on which the study's findings are shown, including short videos (of one to two minutes in duration) of MCT operators explaining COVID-19 related challenges they have experienced and how they have overcome these.

### 2.2 Detailed methodology

Data were collected through a mixture of semi-structured qualitative interviews and short surveys. The research objectives set out in the section above were operationalised in five open-ended qualitative questions that were asked to the key informants/ key stakeholders (see Appendix B for the stakeholder interview form). For each case study country approximately 15 key informants were interviewed (see Appendix A for a list of interviewed stakeholders). The questions asked were:

- 1. What have been the impacts/ effects of COVID-19 on urban transport in general and the motorcycle taxi (MCT) sector specifically?
- 2. If transport-related restrictions or a lockdown were introduced, what were the specifics of these, to what extent have motorcycle taxi unions and/or riders consulted in this, and to what extent have MCT riders complied with these?
- 3. Are there any social or technological innovations or adaptions MCT riders can take (or have taken) to reduce exposure and limit the spread of COVID-19?
- 4. Have experiences with and responses to previous outbreaks/ pandemics been used when addressing the current COVID-19 outbreak (for Sierra Leone and Liberia, think Ebola; for other countries, think for instance of tuberculosis, feared to be spread by using shared helmets)?

5. If motorcycle taxi transport, from all the modes of public transport (shared-car taxis, mini- and midibuses, etc.) poses the lowest risk of COVID transmission, do you think that motorcycle taxi transport should be promoted?

In addition, further survey questions were designed to provide more quantitative data on these five topics. While some of these survey questions were in a simple 'yes/no' format, others used a Likert scale or provided multiple answers to choose from. MCT/ MTT operators were surveyed in two cities in each of our six study countries, with a total of 60 surveys per country. The full research instrument is included in Annex C to this report. Since the MCT surveys were (largely) standardised across the 12 locations (two urban settings in six countries), this resulted in an aggregated 'bank' of about 360 surveys. As can happen when conducting surveys in large numbers, in a few cases one or more questions were not answered or correctly recorded. If, and when this happened, it is reflected in the graphs via the N number.

While 60 to 80 surveys can hardly be considered as sufficient for a meaningful quantitative analysis on its own, it is believed by the researchers that because of the way in which surveys were conducted (as described in the above paragraph), together with the key stakeholder interviews, that the data provides insight on par with what would be expected from a rapid appraisal method, for instance. The qualitative and quantitative data, plus the literature reviews, allowed for some level of triangulation to assess the validity of claims and findings.

### 3. Kenya Context

This section provides a short overview of the first eight months of the COVID-19 epidemic in Kenya and how it impacted on the country's transport sector.

### 3.1 COVID-19 in Kenya

The first case of COVID-19 in Kenya was confirmed in Nairobi on 13<sup>th</sup> March 2020, following the outbreak of the disease in Wuhan, China in December 2019. The index case was a Kenyan citizen who had travelled back to Nairobi from the United States via London on 5<sup>th</sup> March 2020 (1). On the same day, the government initiated a test and trace programme for any persons who may have come into contact with the index case and advised citizens on hygiene measures to be taken to contain the spread of the virus. Soon, more cases followed in Nairobi, and the coastal city of Mombasa.

On 15<sup>th</sup> March 2020, the government announced several directives to curb the spread of COVID-19. The measures included travel restrictions for persons from countries with active cases of COVID-19, with the exception of Kenyan Citizens and foreigners with valid residence permits, provided they self-quarantined or checked in at a government designated quarantine facility. Furthermore, all schools and higher learning institutions were ordered to close by 20<sup>th</sup> March 2020. Public servants were directed to work from home except those offering essential services. Private businesses were also encouraged to allow their employees to work from home whenever possible (2). The government further instituted a daily curfew from 7 pm to 5 am effective 27<sup>th</sup> March 2020, with all movement by persons not authorised to do so – i.e. those who were not medical professionals, health workers or critical and essential service providers – prohibited (3).

As of 27<sup>th</sup> April 2020, there were 363 confirmed cases, 114 recoveries and 14 deaths. It was confirmed that local transmission accounted for 58% of all cases, while 42% of the cases were imported. The epidemic spread from the initial epicentre in Nairobi to 12 more counties, with Nairobi and Mombasa leading with 235 cases and 93 cases, respectively. To mitigate the spread within the country, the government emphasised the earlier restrictions: school closures; mandatory quarantines; a countrywide night-time curfew; closure of clubs, restaurants and non-essential businesses; suspension of international flights; partial lockdowns in five hotspots (Nairobi, Mombasa, Kilifi, Kwale and Mandera); and the closure of international borders. Public service announcements emphasised policies such as social distancing by working from home, a ban on public gatherings and fewer passengers in public transport vehicles (4).

In July, the government began easing some of the restrictions earlier put in place to contain the spread of the virus. The lifting of measures allowed movement into and out of the Nairobi Metropolitan Area, Mombasa County and Mandera County. Furthermore, local air travel was allowed to resume by 15<sup>th</sup> July 2020 and international air travel by 1<sup>st</sup> August 2020. Places of worship also commenced phased reopening. However,

the nationwide curfew from 9 pm to 5 am was extended (5). With the lifting of some of the containment measures, the number of new infections increased, with 14,270 new cases in July 2020, raising the total number of confirmed cases to 20,636. The death toll more than doubled to 341 (6). The government directed phased re-opening of schools on 12<sup>th</sup> October 2020, with learners in grades four, eight and twelve resuming face-to-face learning. Tertiary institutions of learning were also allowed to resume face-to-face learning in the same month (7). By the end of October, there were 55,877 confirmed cases and 1,013 fatalities (8).

The negative effects of the partial lockdowns on the economy were enormous, with an estimated 1.72 million jobs lost between March and June 2020 (9). The lockdowns also had negative effects on the social and psychological wellbeing of Kenyans, with cases of domestic violence, suicides and teenage pregnancies reported to be on the increase (10–12).

### 3.2 COVID-19 and urban transport measures

Mobility in Kenyan cities is dominated by informal sector operators – minibus taxis (*matatus*), three wheeler taxis (*tuk-tuks*), and motorcycle taxis (*boda-boda*). There are currently no state-operated road passenger public transport services in Kenya (13). Nairobi city has a commuter railway system, however the service covers a very small section of the city. The service is a network of diesel trains connecting the city centre and some of its suburbs. International Railway Journal (IRJ) estimates that about 13,000 passengers use this service daily (14). *Tuk-tuks* are more popular in Kisumu and Mombasa as compared to Nairobi. In Nairobi, one finds one or two *tuk-tuks* for every ten motorcycle taxis (15). *Tuk-tuks*, according to Kenya's traffic laws, have a capacity of three passengers. They operate as shared taxis in some routes in Kisumu and Mombasa or as hired taxis. Those operating as shared taxis often carry more than the licensed capacity.

In efforts to contain the spread of COVID-19 in public transport, the Kenyan government directed that all public service vehicles (i.e., *matatus* and buses) reduced the number of passengers carried to about half of the licensed sitting capacity to ensure adequate distancing in their vehicles. The operators were also required to ensure that their passengers always wore face masks and to provide hand washing facilities or alcohol-based sanitisers for their clients at the points of boarding. The operators subsequently increased fares to cover the extra operating costs. Motorcycle taxis were required to carry not more than one passenger, and to sanitise their motorcycle and passenger helmet after carrying each passenger. However, these guidelines were often not followed by the operators (16). The curfews, which cut into the operating hours, as well as the cessation of movement in some parts of the country and additional sanitary expenses, reduced the income for public service vehicle operators and MCTs. However, for those *boda-boda* operators willing to break the rules, the lockdowns and restrictions boosted their businesses. For the two months in which Nairobi and Mombasa were in lockdown, some motorcycle taxis did good business by illegally carrying passengers while evading police roadblocks to move into and out of the cities. This was possible because of the motorcycles' manoeuvrability and ability to use smaller paths, locally called *panya* routes (17). Law abiding citizens typically blamed these 'illegal' travellers for the continued spread of COVID-19.

While *boda-boda* operators were required to wear facemasks and to provide hand sanitisers for use by themselves and their clients, some just carried these to avoid arrest by law enforcement agencies but did not use them as required. Some only sanitised when demanded by their clients. As noted earlier, motorcycle taxi operators became more popular with 'illegal travellers' during the lockdown, and with passengers who tried to avoid crowding in *matatus*. The *boda-boda* operators, through their unions, tried to enforce discipline in the sector. However, maintaining discipline in the sector has always been a challenge. According to Achuka, MCT operators have often been associated with societal vices, such as drugs, arms and human trafficking, robbery with violence, and even murder (18). In one case, efforts by the MCT unions to enforce government directives that required operators to carry only one passenger ended up in violent confrontations between rival groups in Kisumu, leading to the deaths of two operators (19). In response, the local government deregistered some of the MCT unions.

### 3.3 Motorcycle taxi sector in Kenya

Kenya's Economic Survey 2010 suggested that there were over 90,000 *boda-bodas* in the country, which was up from 4000 in 2005. According to figures released by the Motorcycle Assemblers Association of Kenya (MAAK), there were about 600,000 commercial motorcycles on Kenyan roads in 2018 (20). The Kenya

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Economic Survey 2019 estimated the number of new motorcycles registered in 2018 at 195,253 units. There are about 800,000 motorcycles in Kenya, with about 200,000 used by courier companies, private companies, and private individuals; and over 600,000 used as *boda-bodas* (20). Motorcycle taxi unions are mostly registered by the Department of Social Services as Self-Help Groups (SHGs) and Community Based Organisation (CBOs) or as Savings and Credit Cooperatives (SACCOs) by the Department of Cooperative Development. SHGs are smaller groups usually with membership of 12 to 30 people, while CBOs are larger confederations of several SHGs in a town or section of a city.

The *boda-boda* industry has become so big in Kenya that it has come to the attention of senior politicians. The president acknowledges that the sector is one of the biggest drivers of the country's economy, with operators generating up to KES 980 million (US \$ 9.8 million) a day. With a rider's average daily earning of KES 700 (US\$ 7), the sector's annual income is estimated at KES 357 billion (US\$ 3.57 billion). The industry supports 5.2 million Kenyans, directly or indirectly, accounting for 11% of the population (18).

### 4. Perspectives of key stakeholders on COVID-19 and the motorcycle taxi sector

In this section the data collected via the key informant interviews and focus group discussions is presented, analysed and discussed. In each of the six case study countries, approximately 15 interviews were conducted (in Kenya six interviews were conducted in the capital, Nairobi, and another six were conducted in Kisumu). A full list of key stakeholders interviewed is presented in Appendix A; these included urban transport planners; traffic police representatives; health workers; motorcycle taxi union representatives; and market traders' association representatives, amongst others. Two FGDs were held, one in Nairobi and another in Kisumu, with six leaders of MCT operators in each of the cities. The chapter is organised according to the five semi-structured questions that were asked to the informants.

### 4.1 Impacts of COVID-19 on urban transport

Most informants noted that COVID-19 had negative impacts on the urban public transport sector. This was mainly attributed to reduced economic activity due to the partial lockdowns and curfew. Some sectors of the economy like hotels and restaurants; sports and recreational activities; and places of worship were initially closed completely, resulting in reduced demand for transport services. Furthermore, the government encouraged people to work from home whenever possible, further reducing demand for transport services. This was expressed by a representative of a MCT union in Kisumu as follows:

"The curfew limited our working hours. Also, there is this issue of 'work from home'. But we cannot work from home. Boda-boda has to carry someone to get money. So when others were working from home, we lost work" – Motorcycle Taxi Union Representative, Kisumu.

The restrictions had a negative effect on the livelihoods of the MCT operators. A MCT union leader in Kisumu said:

"Some of our members were unable to pay rent, and relocated to their rural homes" – Motorcycle Taxi Union Leader, Kisumu.

A representative of the Nairobi Metropolitan Transport Authority (NMTA) noted that the effect of COVID-19 on MCTs was negative, but not as bad as the impact on *matatus*. This was corroborated by an official of the Boda-Boda Association of Kenya (BBAK) who said:

"We were not severely affected as matatus because we are licensed to carry only one passenger" – Representative of the Boda-Boda Association of Kenya.

*Matatus* and buses were required to reduce the number of passengers they carried to half of their licensed seating capacity ,and to provide facilities for hand-washing and sanitising. This led to a substantial increase in fares to cover for the unutilised capacity and increased operating expenses. Motorcycle taxis, typically charging per kilometre rather than per passenger, subsequently picked up passengers who would have normally used the *matatus*. The curfews and lockdowns also offered an opportunity for some *boda-boda* operators to make more money transporting people to evade police roadblocks as evidenced by the following comment from a representative of the Kisumu Market Traders Association:

"Transporters were very much affected by the curfew. They worked [fewer] hours, their incomes were reduced, as people did not travel much. However, some boda-boda operators made more money, assisting people to avoid police roadblocks" – Kisumu Market Traders Association Representative.

Concerns of people over contracting COVID-19 resulted in many opting for *boda-boda*, to avoid crowding in *matatus*.

#### 4.2 Impact of transport-related measures and consultations of the sector

Most countries responded to the COVID-19 epidemic with a series of measures intended to reduce the chances of virus transmission. With regard to the transport sector, key measures included promoting physical distancing by limiting the number of passengers on a particular mode of transport and introducing hygiene measures to limit the spread. A National Transport and Safety Authority official explained how this affected *matatu* operations:

"Matatus were required to carry half the sitting capacity, like 14 seaters were expected to carry a maximum of seven passengers. Boda-bodas were to carry only one passenger at a time, and to ensure they put on masks and sanitize. But some operators frequently violated these regulations, forcing us to go to the roads to enforce" – NTSA Official, Kisumu.

A public health officer explained how this impacted MCT operations:

"MCTs were to carry only one passenger and both the rider and passenger were required to put on face masks during travel" – Public Health Officer, Kisumu.

Most informants agreed that the restrictions and guidelines were clearly communicated by the government. Kisumu's Director of City Planning explained the major communication methods used:

"These restrictions were communicated through the mass media. The government kept on a campaign through radio, television, and other channels" – Director of City Planning, Kisumu.

The communication was done in both national and local languages as observed by a representative of market traders in Kisumu:

"The restrictions were clearly communicated by the government; there were a lot of publicity campaigns in the media and road shows. Communication was done in both national and local languages" – Market Traders Representative, Kisumu.

In some instances, leaders of transport service providers were called to meetings where the information was passed on to them:

"The county commissioner called our leaders and communicated to them the restrictions. And we were warned that if we violated [these restrictions], particularly the requirement to carry only one passenger, the boda-bodas will be banned" – MCT union leader, Kisumu.

However, a MCT union leader in Nairobi claimed that communication was not clear other than general statements from the cabinet secretary for health and the president, pointing to a possible gap in targeted communication specific to the sector.

There were differences in perceptions as to whether the operators were consulted or not before COVID-19 restrictions were introduced. Some government officials felt that this was an emergency and there was no time for consultation:

"This was an emergency, and there was no time for consultations. The guidelines were issued by the government and everyone was expected to comply" – Director of City Planning, Kisumu.

The same sentiments were expressed by an official of NMTA who said that there was no time for consultations as COVID-19 was an emergency. Some stakeholders were not sure if consultations took place:

*"I am not sure if they were consulted, but the rules were issued by the Ministry of Health" – Market traders' representative, Kisumu.* 

Some MCT leaders said that they were never consulted as government authorities usually ignore their existence. This was amplified by the voice of a *boda-boda* union leader in Nairobi:

No, we were not consulted in any way; It felt like we don't exist" – Boda-Boda Union Leader, Nairobi.

A MCT union leader in Kisumu too felt they were side-lined by the government, and that those who were involved were not genuine boda-boda union leaders:

"We feel side-lined by the government in most of the decision making; those who were involved were not officials of the boda-boda riders" – MCT Union Leader, Kisumu.

The COVID-19 restrictions were enforced by various government agencies including the MoH, traffic police, National Government Administration Officers, City inspectorate and NTSA. MCT union leaders also tried to enforce the regulations but faced some resistance from their members, who were driven by the need to earn their livelihoods, despite the risks. In Kisumu, the County Commissioner warned that if any member of a *matatu* SACCO or *boda-boda* union was found violating the regulations, all the members of the offending group would be banned from operating. This led the union leaders to enforce the regulations more aggressively, resulting in conflicts with members, sometimes ending in violent confrontations:

"Our leaders started enforcing the requirement to carry only one passenger and this brought conflict that turned violent and some people even died" – MCT Union Leader, Kisumu.

Compliance with the COVID-19 regulations varied, but the majority of stakeholders noted that voluntary compliance was generally low and that *boda-boda* operators had to be compelled to comply. An NTSA representative said:

"Most of them did not follow the regulations; we had to go to the road to enforce compliance" – NTSA Representative.

This was affirmed by the Public Health Officer who noted:

"Some operators followed the rules while others ignored [them]; failure to comply led to arrests and fines or imprisonment" – Public Health Officer.

Failure to comply was partly attributed to ignorance about the virus or to a lack of understanding of the exact rules, as noted by a representative of market traders:

*"Many boda-boda operators never understood COVID-19 or took it seriously" – Market Traders Representative.* 

Some operators understood but did not take the virus seriously until some of their own members were affected. A *boda-boda* union leader in Nairobi reported:

"Members understood but did not take it seriously because people always need visible evidence" – Boda-Boda Union Representative, Nairobi.

Another MCT union leader in Kisumu said:

"In the beginning, they never took it seriously, but when people started dying and some of our members [also] died, then they started fearing [the virus]" – MCT Union Leader, Kisumu.

Some *boda-boda* operators were also not following regulations due to desperation to earn a livelihood:

"Some felt that there were few passengers to carry, and whenever they got an opportunity to carry two people at say one hundred shillings, they would do so. The regulations were being implemented by force but some operators were tough headed and were even ready to fight" – MCT Union Leader, Kisumu.

#### 4.3 Social or technological adaptations made by motorcycle taxi operators

Other than the regulations set out by the government to limit the spread of COVID-19 – carrying one passenger at a time, sanitising passengers' hands upon boarding and on alighting, sanitising frequently touched areas, avoiding crowding and putting on face masks – *boda-boda* operators and passengers took very limited initiatives or innovations to limit the spread of COVID-19. There was a general consensus that if strictly followed, the measures put in place by the government were adequate, and the government tried to facilitate MCT operators in complying. For example, in Nairobi, the government distributed face masks *to boda-boda* operators. A *boda-boda* union leader in Nairobi said:

"The county commissioner gave us masks; we also made our own masks and gave [them] to all members; and [we] bought small cans for washing hands that [were] tied to the motorcycle so the riders only bought soap" – Boda-boda Union Leader, Nairobi.

The government encouraged the use of mobile money transfers to pay for goods and services, including transport fares. However, most *boda-boda* operators continued accepting cash payments and only accepted mobile money transfers from regular customers known to them. This was because of some clients paying using mobile money and later reversing the payments:

"I only accept M-Pesa payments from regular customers known to me, because some people pay using M-Pesa, and immediately once you leave, they reverse the payment. Safaricom have tried to stop this by introducing a 'wallet' for small scale traders and by calling the recipients before reversing the money. But you see, we are ever in a hurry, so we do not have time to wait for someone to pay via M-Pesa" –MCT Union Leader, Kisumu.

### 4.4 Useful lessons from previous health crises

Unlike other study countries, Kenya has not experienced a serious health crisis occasioned by a highly contagious virus like Ebola, for instance. However, important lessons were learnt from how the country managed HIV and tuberculosis (21). Community volunteer extension workers who have been involved in the fight against HIV and tuberculosis were activated in the fight against COVID-19. These workers have an established referral system linking up with government health facilities. They were very useful in contact tracing and training people in home-based care, and usually work with CBOs in educating the public on health matters.

During Ebola outbreaks in neighbouring Uganda and DR Congo, Kenya enhanced surveillance at the borders and ports of entry. This was also done with the outbreak of COVID-19. Kenya closed borders for travellers from the affected countries and enhanced its surveillance. Locally, in the initial stages of the outbreak of COVID-19, the government ordered cessation of movement in and out of certain counties – Nairobi Metropolitan Area, Mombasa County, and Mandera County. However, *boda-boda* operators were the weak link, facilitating illegal movement of people in and out of the locked-down areas.

### 4.5 Motorcycle taxis as a low-risk means of transport?

Motorcycle taxis were generally perceived as being a low risk means of transport for two main reasons. Firstly, MCTs are designed and licensed to carry only one passenger; and secondly, the passenger and the rider are not in any enclosure, allowing fresh air to flow. On the other hand, wearing of shared passenger helmets for motorcycle taxi transport can be a potential source of virus transmission. MCT passengers avoided using helmets to reduce the risk of virus transmission. An official of the NTSA noted that they relaxed enforcement of the requirement for MCT passengers to wear helmets with the onset of COVID-19. This however increased the risk of head injuries in the event of an accident.

Most respondents agreed with the statement that if MCTs pose lower risk of COVID-19 transmission, they should be promoted as long as they comply with the MOH guidelines:

"Boda-boda should be promoted because unlike matatus, there is no crowding; in fact boda-boda should be encouraged and matatus discouraged" – Motorcycle Taxi Union Leader, Kisumu.

This sentiment was echoed by a MCT union leader in Nairobi as follows:

"Boda-boda should be given priority as [they are] safer" – MCT Union Leader, Nairobi.

One may argue that these union leaders were promoting their sector to ward off competition from *matatus*. However, other stakeholders, including government officials agreed that *boda-boda* pose less risk as compared to matatus:

"They pose less risk, particularly if they sanitise and put on face masks" – NTSA official.

A market trader who is a regular user of MCTs said:

"Boda-boda should be promoted, but their unions should cooperate with the government to bring order into the sector" – Market Trader.

Although he agreed that MCTs pose less risk in transmission of COVID-19, an official of NMTA was hesitant to recommend promotion of MCTs, because they are fast and prone to accidents.

### 5. Motorcycle taxi survey findings

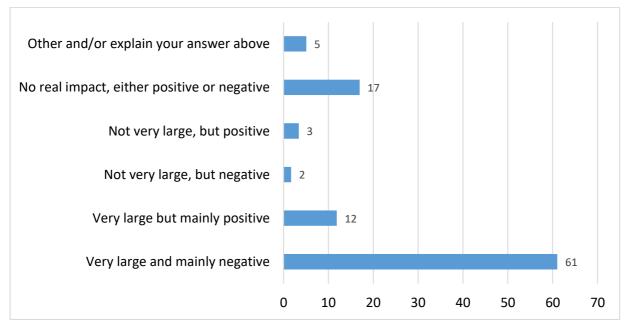
The findings of the MCT surveys are presented in the following subsections. A total of 67 surveys were done in Kenya, (36 in Kisumu and 31 in Nairobi). In the process of data collection, the country researcher, not only ticked the survey responses, but also asked the respondents to explain their answers. This enabled us to appreciate the context and proved to be very useful in the interpretation of the data.

### 5.1 Impact of COVID-19 on the jobs of motorcycle taxi riders

COVID-19 affected the urban transport sector, just as it affected other sectors of the Kenyan economy. Sixty one percent of MCT riders responded that the impact of COVID-19 on their jobs was large and mainly negative (Figure 1). They lost income due to reduced economic activity, reduced operating hours, and increased operating costs associated with sanitising and maintaining physical distance. This loss of income even forced some MCT riders who could not afford to pay the higher costs normally associated with living in an urban location out of the cities:

# "Some of our members relocated to their rural homes because they could not pay rent in town" – MCT Union Leader, Kisumu.

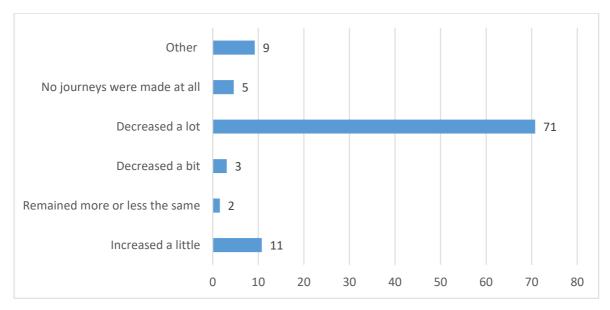
A good part of the 12% of MCT operators who indicated that COVID-19 had a large but mainly positive impact on their jobs may have been involved in the illegal transport of passengers, as highlighted above. Others in this category may have benefitted from passengers' reluctance to take more conventional modes of public transport.



### Figure 1: Impact of COVID-19 on the Jobs Of Motorcycle Taxi Riders

Seventy one percent of MCT riders reported that the number of journeys they made decreased a lot during the COVID-19 period (Figure 2). This was due to reduced demand for transport as the government encouraged people to minimise their movement and to work from home where possible. A small percentage (11%) of MCT riders reported a small increase in the number of journeys they made. Again, this can possibly be attributed to some commuters who previously used *matatus* preferring to use MCTs, or those who were carrying passengers to avoid police dragnets during the partial lockdowns as was noted in Nairobi. Five percent of respondents made no journeys at all, while 2% indicated that the number of journeys they made remained the same.





### 5.2 COVID-19 Restrictions, consultations and communication

The Kenyan government instituted several measures to contain the spread of COVID-19. Some of the measures included reducing the number of passengers, sanitising, and curfews that affected urban transport, including motorcycle taxis. Compliance with these restrictions was a challenge in most cases. It was therefore important to understand whether these restrictions were clearly communicated by the government and whether the MCTs were consulted in designing the regulations. It was observed in the qualitative interviews with stakeholders that opinions were divided on whether the MCT riders were consulted or not. The survey results (Figure 3) show that 60% of respondents indicated that they or their unions were not consulted in formulating the rules; 15% were not involved but were aware that their union leaders were involved; while 25% indicated that they were involved. The findings of this survey confirm assertions by some government officials that this was an emergency situation, and that the government deemed that there was not enough time available for consultations with stakeholders.

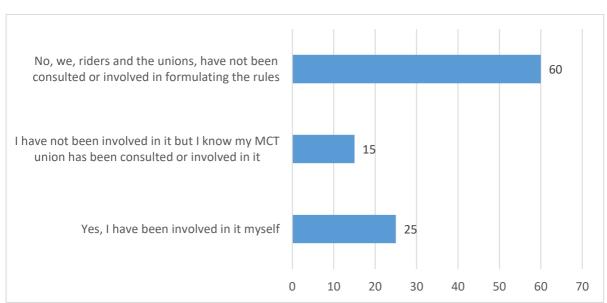
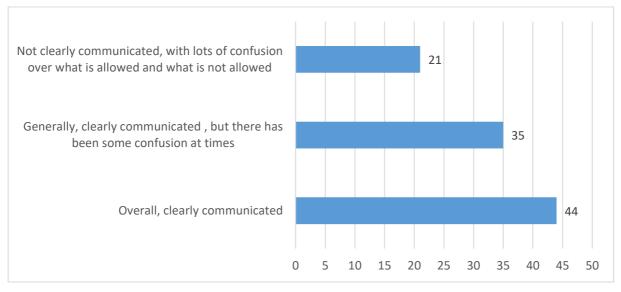


Figure 3: Consultations with MCT riders in formulating COVID-19 containment rules

Clear communication of the reasons for any restrictions is important in facilitating voluntary compliance. As noted in the qualitative interviews, voluntary compliance was minimal, and adherence had to be enforced by various government agencies. It was therefore important to investigate if the reasons for the restrictions were clearly communicated to MCT operators. The results (Figure 4) indicate that 44% of respondents agreed that the reasons for the restrictions were overall clearly communicated by the government; 35% said that they

were generally clearly communicated by the government but there was some confusion at times; while 21% felt that the reasons were not clearly communicated, with lots of confusion over what was allowed and what was not allowed.

#### Figure 4: Clarity of communication of COVID-19 restrictions



Trust is important in obtaining compliance with any regulation that negatively affects people's livelihoods, even if it is for their own health and safety. The survey sought to establish whether the MCT operators trusted their unions and the government regarding the COVID-19 restrictions and measures taken. The responses to the question on the degree of trust of MCT unions are presented in Figure 5. Two-thirds of the respondents trusted their unions, either most of the time or nearly always. However, one-third of the operators do not trust their unions at all or just a little.

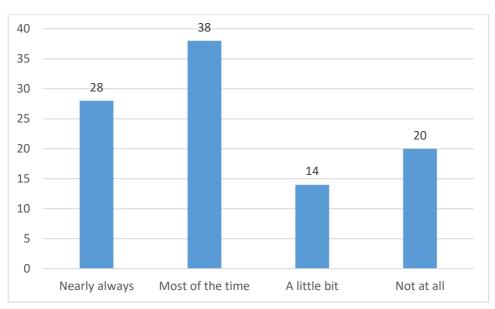
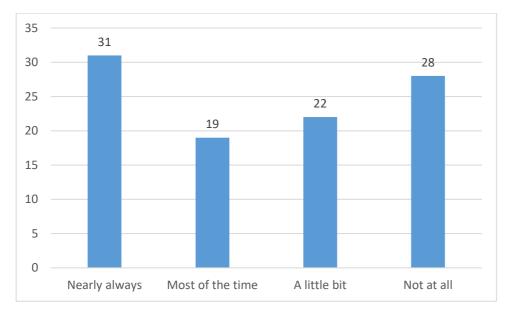


Figure 5: Trust of MCT unions regarding the COVID-19 restrictions and measures taken

Results of the responses of MCT operators to the question on their trust of the government regarding the COVID-19 restrictions and measures taken are presented in Figure 6. 57% of the motorcycle taxi operators either trust the government nearly always or most of the time, while a substantial portion (43%) have only a little bit or no trust at all in the government. Closer collaboration between the MCT unions and the government would have clearly benefitted the latter in achieving higher levels of compliance.

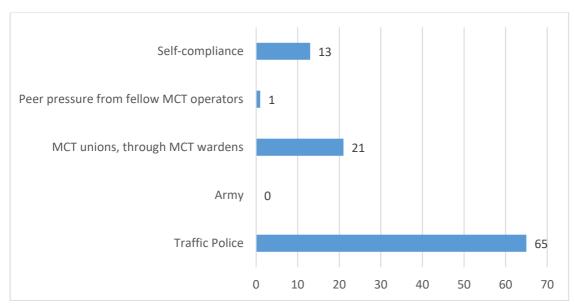


#### Figure 6: MCT operators trust of the government regarding COVID-19 restrictions and measures taken

### 5.3 Enforcement and compliance with COVID-19 restrictions and rules

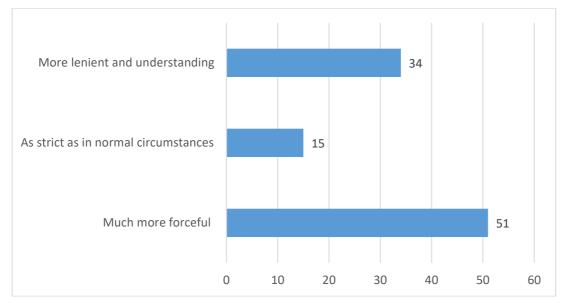
The survey sought to establish who enforced the COVID-19 restrictions and the perceptions of MCT operators on how the restrictions were enforced. As noted in the qualitative interviews, the restrictions were enforced by a range of actors, namely the police, national government administrators, MOH officials, NTSA officials and City Inspectorate officers. MCT union leaders also tried to enforce the restrictions among their members. The survey results (Figure 7) indicate that 64% of respondents ranked traffic police first as enforcers; 21% ranked MCT unions first; 13% ranked self-compliance first; while only one per cent ranked pressure from fellow MCT operators first. This again shows that there was a missed opportunity for the police and MCT unions to work together in enforcing compliance, given that both the government and MCT unions were well trusted by the MCT operators.





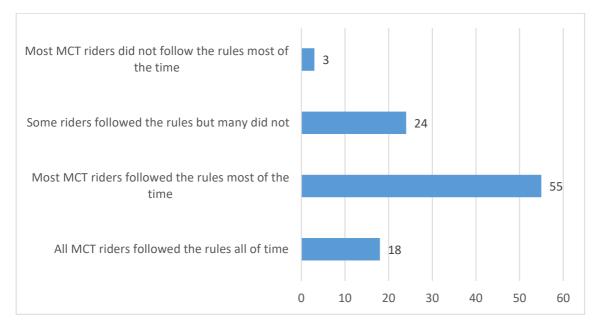
Those who were enforcing the restrictions were perceived by 51% of MCT operators to be more forceful in charging higher fines and confiscating motorcycles; 15% perceived them to be as strict as in normal circumstances; and 34% perceived them to be more lenient and understanding (Figure 8). The force with which the restrictions were enforced brought tensions between the enforcement agencies and MCT operators, sometimes turning violent as was the case between some MCT operators and their union leaders noted in the qualitative interviews in Kisumu.

#### Figure 8: Perception of MCT operators on enforcement of COVID-19 restrictions



Forceful enforcement of the rules may have raised compliance levels, but not all MCT operators followed the rules (Figure 9). 55% of the respondents indicated that most of the riders followed the rules most of the time; 24% indicated that some riders followed the rules, but many did not; 18% responded that all riders followed the rules all the time; and just three percent responded that most of the riders did not follow the rules most of the time. Note that we asked whether the respondent thought that motorcycle taxi operators in general complied with the rules rather than whether the interviewee complied with the rules, to reduce a social-desirable bias in the response.

#### Figure 9: Extent of compliance with COVID-19 rules by MCT operators

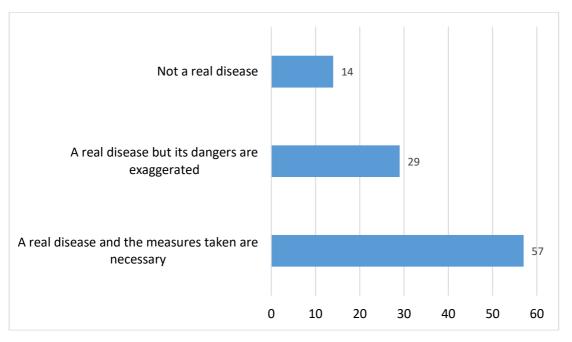


### 5.4 Perception of MCT riders on COVID-19

Just like any other new disease, some people were initially sceptical about the reality of COVID-19 or the seriousness of its effects. Therefore, it was not unusual for MCT operators to not take the disease seriously in the initial stages. As noted in the qualitative interviews, some officials of MCT unions said that their members did not take it seriously until some of them or people they knew became sick or died. Results of the survey (Figure 10) indicate that 57% of respondents perceived the disease as real and the measures taken were necessary; 29% felt that the disease is real, but its dangers are exaggerated; while 14% of respondents thought that COVID-19 is not a real disease. Most motorcycle taxi operators are young and are therefore less likely to experience any serious health complications, if infected by COVID-19.

Accelerating COVID-19 related 'best practice' in the urban motorcycle taxi sector in Sub-Saharan Africa: Kenya Country Report

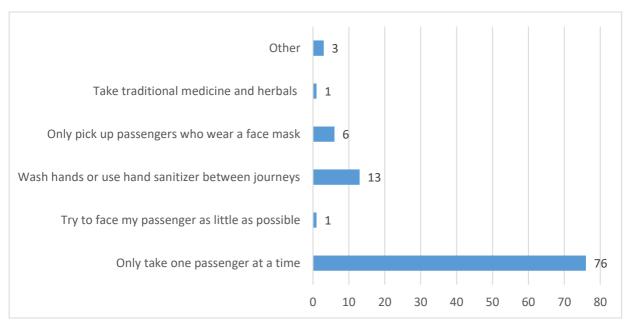
### Figure 10: Perception of MCT operators on COVID-19



### **5.5** Social measures taken by MCT operators to reduce the spread of COVID-19

A wide range of measures were taken by MCT operators to reduce their exposure and to limit the spread of COVID-19, as presented in Figure 11. The three most advocated measures of washing hands, wearing facemasks and physically distancing were the most frequent responses. Carrying only one passenger at a time as a means of keeping physical distance and was also mentioned, although in the qualitative interviews it was clear that some MCT operators would carry more than one passenger out of necessity to earn a living.

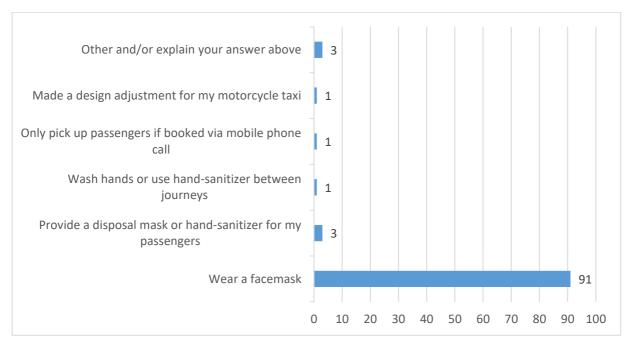




### 5.6 Technological measures and innovations by MCT operators to reduce the spread of COVID-19

The most frequently mentioned technological measure taken by MCT operators was wearing face masks (Figure 12). Providing disposable masks for passengers and washing hands or sanitising were less frequently mentioned, perhaps due to the costs involved.

### Figure 12: Technological measures by MCT operators to limit exposure and spread of COVID-19



### 6. Conclusion

The effects of COVID-19 on urban transport were large and negative, with passenger service vehicles required to reduce the number of passengers carried at a time to half the licensed seating capacity. Combined with decreased operating hours due to a night-time curfew, and reduced mobility due to decreased economic and social activities, the restrictions significantly affected the sector. Most motorcycle taxis reported lower earnings and fewer journeys, apart from a few that had increased work by facilitating the illegal movement of people into and out of locked down areas.

The transport-related restrictions introduced during the COVID-19 pandemic were necessary to reduce the spread of the virus. However, voluntary compliance was generally low as motorcycle taxi operators felt they had not been consulted on restrictions or that the manner in which the restrictions were communicated was not very clear. It was also noted that some operators violated the regulations out of necessity to earn a living. This demonstrates the precarious nature of the occupation the MCT operators are engaged in. The government authorities forcefully enforced the regulations with little regard for the circumstances of the operators.

Social and technological measures taken by motorcycle taxi operators to reduce their exposure to COVID-19 and contain the spread of the virus were mainly carrying one passenger at a time, wearing face masks, sanitising their hands, and providing sanitisers for their clients. Some of these measures increased their operational expenses, thereby reducing their margins. Generally, the MCT operators and other stakeholders agreed that the containment measures announced by the government were adequate if strictly followed, but the main challenge was that many MCT operators did not comply with (all) the regulations. This has led to a further deterioration in the relationship between government agencies and MCT operators, with the latter often viewed as a (necessary) nuisance in cities.

Kenya has not experienced a severe outbreak of Ebola or another highly infectious disease in recent years. However, the country has experience in dealing with HIV/ Aids and tuberculosis. The country developed an efficient network of community-based health volunteers in the fight against HIV and TB, and the same workers proved to be very useful in contact tracing and referrals during the COVID-19 pandemic. Government agencies also became flexible and more lenient regarding the wearing of helmets by MCT passengers, to reduce the spread of COVID-19.

Motorcycle taxis are generally perceived to have a lower risk of transmission of COVID-19 as compared to other modes of urban passenger transport. This is, according to the interviewees, because there is less crowding as compared to *matatus* and buses, and both the passenger and the rider are in the open, with a consistent flow of fresh air. A good portion of the respondents therefore argued that MCTs should be promoted as a means of urban mobility. However, those respondents also clarified that there is a need to bring order to the sector to reduce accidents and tame the operators' (alleged) unruly behaviour. There is an opportunity here for the government to empower and co-operate with MCT unions for self-regulation of the sector.

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### **APPENDIX A: KEY STAKEHOLDERS INTERVIEWED**

Representatives of the following organisations/ institutions were interviewed

- Kisumu Central Boda-boda Union
- Kisumu Market Traders Association
- National Transport and Safety Authority Kisumu Region
- Kisumu City Directorate of Public Health
- Kisumu City Directorate of Planning
- Traffic Police, Kisumu
- Boda-Boda Association of Kenya Nairobi
- Nairobi Metropolitan Transport Authority
- National Transport and Safety Authority Nairobi Region
- Market Traders Association Nairobi
- Traffic Police Nairobi Central
- Directorate of City Planning Nairobi

### **APPENDIX B: KEY STAKEHOLDER INTERVIEW QUESTIONS**

**Project Title:** Accelerating Covid-19 related 'best practice' in the urban motorcycle taxi sector in Sub-Saharan Africa

**Introduction:** This survey/interview is funded by UK Aid via the High Volume Transport Programme in order to better understand the impact of COVID-19 on the transport sector, and specifically the motorcycle taxi sector, in 6 African countries. Participation in the survey/interview is voluntary and there is no financial compensation available, but the researchers do hope that your responses will help to inform policy makers and practitioners to develop good and evidence-based interventions. Your answers will be anonymised, so we will not link your name to your answers and aggregated with other responses. However, we do ask you to provide your name and mobile number, in case we want to contact you again for further questions and/or to share with you the findings of our study.

#### Signature of interviewee

Interview number (to be linked to name and phone-number of interviewee, kept on a separate piece of paper)

Date:

Location:

Name of data collector:

**COVID-Q1** What have been the impacts/effects of COVID-19 on urban transport in general and the motorcycle taxi (MCT) sector specifically?

**COVID-Q2** If transport-related restrictions or a lockdown were introduced, what were these specifics of these, to what extent have motorcycle taxi unions and/or riders consulted in this and to what extent have MCT riders been in compliance with these?

**COVID-Q3** Are there any social or technological innovations or adaptions MCT riders can take or have been taken to reduce exposure and limit the spread of COVID?

**COVID-Q4** Have experiences with and responses to previous outbreaks/pandemics been used when addressing the current COVID outbreak (for Sierra Leone and Liberia, think Ebola, for other countries, think for instance tuberculosis, feared to be spread by using shared helmets)?

**COVID-Q5** If motorcycle taxi transport, from all the modes of public transport (shared-car taxi, mini and midibus, etc.) poses the lowest risk of COVID transmission, do you think that motorcycle taxi transport should be promoted?

## **APPENDIX C: MOTORCYCLE/ TRICYCLE OPERATOR QUESTIONS**

**Project Title:** Accelerating Covid-19 related 'best practice' in the urban motorcycle taxi sector in Sub-Saharan Africa

**Introduction:** This survey/interview is funded by UK Aid via the High Volume Transport Programme in order to better understand the impact of COVID-19 on the transport sector, and specifically the motorcycle taxi sector, in 6 African countries. Participation in the survey/interview is voluntary and there is no financial compensation available, but the researchers do hope that your responses will help to inform policy makers and practitioners to develop good and evidence-based interventions. Your answers will be anonymised, so we will not link your name to your answers and aggregated with other responses. However, we do ask you to provide your name and mobile number, in case we want to contact you again for further questions and/or to share with you the findings of our study.

### Signature of interviewee

Interview number (to be linked to name and phone-number of interviewee, kept on a separate piece of paper)

Date:

Location:

Name of data collector:

Member of motorcycle taxi union: YES/NO

Motorcycle taxi operator or motor-tricycle taxi operator:

**COVID-Q1a** The impact of COVID-19 on my job as a motorcycle taxi rider is/was:

- 1. Very large and mainly negative
- 2. Very large but mainly positive
- 3. Not very large, but negative
- 4. Not very large, but positive
- 5. No real impact, either positive or negative
- 6. Other and/or explain your answer above .....

**COVID-Q1b** During the COVID-19 the number of MCT journeys I made/make per week:

- 1. Increased a lot
- 2. Increased a little
- 3. Remained more or less the same
- 4. Decreased a bit
- 5. Decreased a lot
- 6. No journeys were made at all
- 7. Other and/or explain your answer above .....

	Pre-Covid normal day	Pre-Covid busy day	During Covid normal day	During Covid busy day	During Covid- lockdown normal day	During Covid- lockdown busy day
Number of journeys per day*						busy duy
Duration of total number of trips in time (hours per day)						
Duration of total number of trips in distance (kilometres per day)						

\*For the interviewer: while exact number may be difficult to recall, key is to find out relative changes between the various column categories.

\*\* For the interviewer: while the exact length in time or kms may be difficult to recall, key is to find out relative changes between the various column categories.

**COVID-Q1c** Please explain the reasons for the changes in the boxes in the above table.

**COVID-Q2a** What restrictions on MCT riding were introduced during the lock-down? (please tick all that apply)

1.	MCTs were not allowed to operate during the lockdown	
2.	MCTs were only allowed to operate along certain routes/in certain areas $\hfill \Box$	
3.	MCTs were only operated to operate during certain times of day or night	
4.	MCTs were limited to operate with no more than 1 passenger	
5.	MCTs were only allowed to operate if following certain health measures, such as	

- 6. No restrictions were imposed on the operation of MCTs
- 7. Other and/or explain your answer above .....

COVID-Q2b Were the above restrictions

- 1. Overall, clearly communicated by the government and health department/ministry
- 2. Generally, clearly communicated by the government and health department/ministry, but there has been some confusion at times
- 3. Not clearly communicated by the government and health department/ministry, with lots of confusion over what is allowed and what is not allowed.
- 4. Other and/or explain your answer above .....

#### **COVID-Q2c** Do you trust the following institutions regarding COVID restrictions and measures taken?

	Always	Most of the times	Sometimes	Never	Do not know
The government					
The health department/ministry					
The police/army					
Motorcycle taxi unions					

COVID-Q2d Have motorcycle taxi unions and operators been consulted or involved in designing these rules?

- 1. Yes, I have been involved in it myself
- 2. I have not been involved in it but I know my MCT union has been consulted or involved in it.
- 3. No, we, riders and the unions, have not been consulted or involved in formulating the rules
- 4. Other and/or explain your answer above.....

**COVID-Q2e** Who enforced the above restrictions? (tick all that apply)

1.	Traffic Police	
2.	Army	
3.	MCT unions (through MCT wardens, if in place)	
4.	Peer pressure from fellow MCT operators	
5.	Self-compliance	
6.	Other and/or explain your answer above	

**COVID-Q2f** Compared to normal times, have those who enforced the above restrictions been?

- 1. Much more forceful (higher fines, confiscation of motorcycle, etc.)
- 2. As strict as in normal circumstances
- 3. More lenient and understanding (not giving fines for instance)
- 4. Other and/or explain your answer above .....
- COVID-Q2g To what extent were the above restrictions followed by MCT operators?
  - 1. All MCT riders followed the rules all of time
  - 2. Most MCT riders followed the rules most of the time
  - 3. Some riders followed the rules but many did not



- 4. Most MCT riders did not follow the rules most of the time
- 5. All MCT riders did not follow the rules at any time
- 6. Please provide examples of how rules were broken by MCT riders .....

COVID-Q2h Do you think that COVID is?

- 1. A real disease and the measures taken are necessary
- 2. A real disease but its dangers are exaggerated
- 3. Not a real disease
- 4. Other and/or explain your answer above.....

**COVID-Q3a** What social measures or innovations have you and other MCT riders taken to reduce exposure and limit the spread of COVID (tick all that apply)

1.	Only take one passenger at a time	
2.	Try to face my passenger as little as possible	
3.	Wash hands or use hand-sanitizer between journeys	
4.	Only pick up passengers who are clearly socially distancing themselves	
5.	Only pick-up passengers who wear a facemask	
6.	Only drive people around who I know	
7.	Take drugs (pills, vitamin supplements, herbals, traditional medicine, etc.)	
8.	Other and/or explain your answer above:	

**COVID-Q3b** What technological measures or innovations have you and other MCT riders taken to reduce exposure and limit the spread of COVID (tick all that apply)

í	1.	Wear a facemask	
4	2.	Provide a disposal mask or hand-sanitizer for my passengers	
	3.	Wash hands or use hand-sanitizer between journeys	
4	4.	Clean my motorcycle regularly with disinfections where passengers sit or hold on to.	
[	5.	Only pick up passengers if booked via a mobile phone call	
6	6.	Made a design adjustment for my motorcycle taxi	
-	7.	Other and/or explain your answer above:	

COVID-Q4a Previous outbreaks of diseases/pandemics have affected my motorcycle taxi job

- 1. Yes, namely (name outbreak/disease)
- 2. No, not really

**COVID-Q4b** If answered yes to the above question, in what way have previous outbreaks prepared you:

.....

**COVID** - **Q5a** If you have gained new regular customers what are the reasons quoted for them switching to motorcycle taxis (tick all that apply):

1.	Another mode of transport not available on my route	
2.	Frequency of other modes is reduced	
3.	Irregular service from other transport modes	
4.	Fear of Covid19 infection from using other modes of transport	
5.	Easier to socially distance from other passengers on motorcycle taxis	

7. The journey now takes much longer on other transport modes	
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8. Other reasons (please specify) .....

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