



**AfCAP**  
Africa Community Access Partnership



# Gender Mainstreaming in the Motorcycle Taxi Sector in Rural Sierra Leone and Liberia

Final Report



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The views in this document are those of the authors and they do not necessarily reflect the views of the Research for Community Access Partnership (ReCAP) or Cardno Emerging Markets (UK) Ltd for whom the document was prepared.

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## **Abstract**

This Final Report on the 'Gender Mainstreaming in the Motorcycle Taxi Sector in rural Sierra Leone and Liberia' project provides a background and context to the study, discusses the selected data collection tools, elaborates on the field data collection process and presents the key findings and policy recommendations that were obtained. The introduction and spread of motorcycle taxis in rural areas in Sierra Leone and Liberia have radically changed access and mobility for villagers. Rural women benefit strongly from this development, but motorcycle taxi operators are almost all males. However, in both countries there is a significant group of women who indicate a willingness and interest in becoming motorcycle taxi operators. A substantial part of the male population would be supportive of this, our study found. However, a number of obstacles were identified in realising this, with the unwillingness of businessmen to lease motorcycles – the most common way for operators to obtain a motorcycle – to women being perhaps the largest. Whether or not motorcycle taxis will become female operated as well, the positive contribution they have made to the lives and livelihoods of rural women is significant.

## **Key words**

Motorcycle taxis, unions, gender mainstreaming, track construction, access to social amenities, health, road safety, motor tricycles, training and maintenance, empowerment, methodology, data collection tools, focus group discussions, surveys, traffic counts, policy recommendations.

### **AFRICA COMMUNITY ACCESS PARTNERSHIP (AfCAP)**

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AfCAP is a research programme, funded by UK Aid, with the aim of promoting safe and sustainable transport for rural communities in Africa. The AfCAP partnership supports knowledge sharing between participating countries in order to enhance the uptake of low cost, proven solutions for rural access that maximise the use of local resources. The programme follows on from the AFCAP1 programme that ran from 2008 to 2014. AfCAP is brought together with the Asia Community Access Partnership (AsCAP) under the Research for Community Access Partnership (ReCAP), managed by Cardno Emerging Markets (UK) Ltd.

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## **Acronyms, Units and Currencies**

4WT	Four-Wheeled Taxi
\$	United States Dollar
AFCAP	Africa Community Access Partnership
AKA Research	Sierra Leone Research NGO
ASCAP	Asia Community Access Partnership
CBO	Community Based Organisation
DfID	Department for International Development
ESRC	Economic and Social Research Council (UK)
GC	Global Communities (US NGO)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPS	Global Positioning System
Le	Leone (Sierra Leone currency)
LIDA	Lofa Integrated Development Association
MCT	Motorcycle Taxi
LRD	Liberian Dollar
RECAP	Research for Community Access Partnership
SSA	Sub-Saharan Africa
UK	United Kingdom (of Great Britain and Northern Ireland)
UKAid	United Kingdom Aid (Department for International Development, UK)

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## Executive Summary

This is the Final Report on the 'Gender Mainstreaming in the motorcycle taxi sector in rural Sierra Leone and Liberia' project. The study aimed to establish the main barriers and challenges women experience in becoming commercial motorcycle taxi riders in semi-urban and rural settings, and how these can be overcome. It also assessed to what extent rural motorcycle taxi services have helped women in accessing market, health, and educational facilities. To answer this question, three research sites in rural Sierra Leone (Kenema, Moyamba, and Bombali District) and one research site in rural Liberia (Nimba County) that included a community-driven rural track construction project were selected. The study's key findings and recommendations are as follows:

- ▶ The introduction of motorcycle taxi (MCT) services in rural Sierra Leone and Liberia has transformed access and mobility opportunities for villagers. MCT services have enabled a big step-up in local market integration and are offering easy and quick access to (maternal) health facilities. **Women are the key beneficiaries.**
- ▶ The expansion of MCT services are a **low cost but effective means of achieving inclusive and sustainable rural development.** Donors and the national government should actively look for opportunities to promote the spread of MCT services in rural areas.
- ▶ As prime users of MCT services, women have expressed an interest in becoming MCT operators themselves. **Key obstacles** to realise this are the lack of capital to purchase a motorcycle and/or the reluctance of business people to rent out motorcycles.
- ▶ In Freetown, the first female operated passenger tricycles (auto-rickshaws) appeared in 2017. The rural equivalent is the cargo motor tricycle. To promote the spread of female operated MCTs (and cargo motor tricycles), **a credit scheme** for women cooperatives for the purchase of these intermediate forms of transport by women should be created. Driving lessons, in collaboration with MCT unions, are also necessary.
- ▶ The use of MCT services by women and their collaboration with MCT operators for petty trade/business activities have contributed to the **empowerment of women.** This has led to deep socio-economic and cultural transformations, breaking with traditional patrimonial village structures.
- ▶ Other development interventions can learn from or even complement the MCT phenomenon, as **affordable and accessible transport services are essential** and both a prerequisite as well as catalyst for socio-economic development in rural areas.
- ▶ To further facilitate the spontaneous spread of MCT services in rural Sub-Saharan Africa (SSA), **rural footpaths should be upgraded to motorcycle accessible tracks.** This can either be complementary, or an alternative to the much more expensive construction of feeder roads.
- ▶ **Women should have the option of being involved** in the provision of labour and local materials for the track construction process. This enables them to save money to start-up businesses or expand their income-generating activities, such as cash-crop farming. In turn, these activities will benefit from the increased opportunities for access and mobility.
- ▶ **The construction of tracks should be a community owned and driven process.** This can be ensured by setting up and/or training existing community-based organisations.

## **1 Background to the Study**

This research initiative is in response to a ReCAP call on “gender mainstreaming in rural transport”, which followed on from the Gender Mainstreaming discussion facilitated on GATNET during November-December 2015.

The research project recognises that the motorcycle taxi sector provides a significant part of both urban and rural transport services in Sierra Leone and Liberia, and many other developing countries. Motorcycle taxis are partly replacing other forms of motorised public transport and partly offering motorised public transport in areas and on routes not previously served by public transport providers. The sector is male dominated, and there is little understanding of what the obstacles are for gender mainstreaming in the sector or ways to achieve this.

Previous research experiences by the project team and initial scoping activities for this research project suggest that both motorcycle taxi unions and female stakeholders in Sierra Leone and Liberia are interested in more women becoming motorcycle taxi riders. The motorcycle taxi sector is a relatively new phenomenon in many Sub-Saharan countries and few transport policies have been formulated which recognise this new development. Those that have been formulated are dominated by road safety concerns, banning the activity in certain parts of the country, such as urban areas, or even universally across the country, as is the case in Ghana (although currently under review). Few if any policies recognise the sector’s significance for making motorised transport available to the majority of urban and rural populations.

In Sierra Leone and Liberia, the spread of commercial motorcycle taxis started in the early 2000s when the civil wars came to an end. During the wars, many car taxis and mini-buses were either destroyed or driven to safety and sold in neighbouring countries. Furthermore, road maintenance, let alone road construction, came to a complete standstill. These factors, in addition to the lower purchasing costs of motorcycles as compared to cars and mini-buses, contributed to the introduction and rapid spread of motorcycle taxis in both countries, first in the urban areas and later to rural localities. So far, studies on this phenomenon in Sierra Leone and Liberia have mainly focused on those early years, where it was argued that many of the riders were ex-combatants who had failed to make a meaningful livelihood from their Disarmament, Demobilisation and Reintegration training (Peters, 2007; Denov, 2011); on the role of motorcycle taxis in urban areas (Burge, 2011; Menzel, 2011); and on the role of motorcycle taxi unions (Richards et al., 2004; Baker, 2006; 2008).

However, the socio-economic impact on rural communities of the introduction of rural motorcycle taxi services – and how this impacts the two genders differently – has hardly been researched, let alone quantified. Due to the rapid spread of motorcycle taxi services, which have greatly increased in number, some excellent studies such as Porter’s (2008) study on the gendered dimensions of transport in sub-Saharan Africa have become partly outdated. The importance of rural motorcycle (taxi) transport for development can hardly be overstated. For instance, a study by the World Bank showed that nurses and certified midwives working in Liberia in rural settings valued having a motorcycle at their disposal more than having appropriate housing, working in an urban environment, or not having a heavy workload (Vujicic et al., 2010). This is important as not only do key government workers praise the merits of motorcycle transport in rural Liberia, but female nurses and midwives riding motorcycles can act as trailblazers for a wider acceptance of female riders, in the same way that female NGO workers riding motorcycles do.

A rather novel initiative in response to rapid growth of motorcycle taxis in rural Liberia is a project by Global Communities in Northern Liberia. This project upgraded several footpaths connecting villages to motorcycle accessible trails. A three year study, funded by the ESRC/DfID is assessing its impact

(Jenkins & Peters, 2016). The Liberian research site for our Gender Research included the area where footpath to track upgrading took place.



**Picture 1 - Female NGO worker in Sierra Leone with a motorcycle**

## **2 Research Objective and Questions**

### **2.1 Research Objective**

The study aimed to understand barriers to women’s greater involvement in the motorcycle taxi sector, both as users and service providers, including addressing the challenges posed by poor track conditions. The approach was ethnographic, seeking to document how women talk about this issue in their own words and terms, and how they frame possible approaches to the reduction of obstacles. Other stakeholders were also considered from the same analytical perspective. As with much ethnographic work, a major emphasis was placed on correctly understanding the messages provided by informants. This mainly involved qualitative analysis, but was supported by quantitative contextualisation. Road-side traffic counts were conducted to assess, among other things, the gender balance of travellers across the various forms of (intermediate) transport. In addition, short passenger and operator surveys were conducted at the traffic count points to gain additional insights into the role played by MCTs in rural Sierra Leone and Liberia.

### **2.2 Research Questions**

- a. To what extent has the availability of services provided by motorcycle taxis in rural areas changed the lives and livelihood opportunities for women?
- b. What are the barriers and challenges women face in becoming motorcycle taxi riders in peri-urban and rural settings?
- c. Will track building, with explicit gender mainstreaming values, help women to become motorcycle professionals, or to take up roles and livelihoods not hitherto associated with females?

## **3 The Research Sites and Research Team**

The research was conducted in rural areas in Sierra Leone and Liberia. The research sites are encircled on the map in Figure 1. All four sites can be classified as post-war reconstruction areas, with some communities still receiving people who fled during the war. Moreover, the 2014/15 Ebola virus epidemic affected all four sites.

The research team initially selected two sites in rural Sierra Leone (Kenema and Moyamba District), but a third site (in Bombali District) was added following comments made by the local ReCAP representative in Sierra Leone, who rightly observed a bias towards the South and East of the

country. The Sierra Leone research team has conducted extensive research in the Bombali District in the past, which made this addition feasible despite the limited time available. The research focused on three rural feeder roads/tracks and the communities in their respective catchment areas. All three roads are ultimately connected to urban hubs (Kenema for Kenema District; Bo for Moyamba District; and Magburaka/Makeni for Bombali District) providing access to markets, health and educational facilities (beyond primary school level) for rural dwellers. This urban-rural nexus of motorcycle transportation and the opportunities and challenges for female riders within this is an additional dimension of interest to the research. Furthermore, the Bombali study offered the opportunity to assess the impact of a large scale agro-industry project (the 10,000 hectare Addax Bioenergy sugarcane plantation) with associated rural road construction, on rural transformation and gender roles in the motorcycle transport sector. The Chief Researcher and SL Research Assistant, with the help of local assistants/enumerators, spent approximately five days in each of the three research sites collecting data.



Figure 1 - Map of Sierra Leone and Liberia showing research sites

In Liberia, the research team focussed on an area in Nimba County, northern Liberia, where a community-driven track construction project was taking place. This project was funded by GIZ and implemented by Global Communities (GC). The project aimed to facilitate rural transformation and

allow for livelihood diversification through the extensive use of local resources (labour and materials). Moreover, via the involvement of women in the track planning, design, implementation and maintenance, it aimed to empower women to overcome traditional/patriarchal – but constraining – barriers. The researchers also gathered data in Nimba County locations, which did not benefit from track construction, to allow data to be compared and contrasted with the data from respondents involved in the track construction projects, and villagers living within the track construction areas. Data collection took approximately 15 days.



**Picture 2 - Newly constructed track bridge next to the old footbridge near Gogein, Nimba County, Liberia**

Following scoping visits to Sierra Leone and Liberia in November 2016, it became clear that in Sierra Leone, the motorcycle unions in Bo and Kenema play an important role in accessing both female riders and rural motorcycle taxi providers. It also became clear that any intervention to encourage gender mainstreaming in motorcycle taxi provision in rural areas should include the unions.

In Liberia, it became clear from the scoping exercise that – in addition to the stated research objective – gathering detailed information on the (potential) impact of increased access for women and girls in the rural and peri-urban areas would greatly add to the findings and recommendations regarding gender mainstreaming in rural transport.

The Principle Investigator, Krijn Peters, had overall responsibility for the research outputs and was responsible for delivering the ReCAP-stipulated milestones (including this report). The Chief Researcher, Esther Mokuwa of AKA Research, with the support of a Research Assistant, conducted the research and data collection in Sierra Leone (supported by Professor Paul Richards) and contributed to field work in Liberia. In Liberia, the data was predominately collected by LIDA, a local Liberian NGO, with further support by Krijn Peters and PhD student Jack Jenkins. Additional advice was provided by Jim Clarke, independent consultant, and Kristina Leipoldt, GIZ.

## **4 Data Collection Tools**

### **4.1 Research Strategy**

In order to fulfil and answer the research objectives and questions listed in Section 2 of this report, the team did the following:

1. Explored the above research questions with women riders (if present), rural women and men, and groups of women exposed to track improvement. This was done by conducting both individual interviews and focus group discussions (see Section 4.2 for more details).

2. Explored reactions of other key stakeholder groups (male riders, police, motorcycle “supporters” [hire purchase providers, etc.], and passengers) to a list of topics raised by focus groups.
3. Collected key contextual data to:
  - a. estimate the proportions of female riders from rider union records and/or other sources (licencing and vehicle registration records);
  - b. estimate (from road-side census activity) the proportions of male and female riders and passengers at selected semi-urban and rural sites (close to pick-up and destination points);
  - c. assess the nature and extent of new female roles and livelihood activities facilitated by access to motorcycle taxi services, through the administration of a short survey instrument sampling women in representative semi-urban and rural locations.

## **4.2 Research Methods**

### *4.2.1 Focus Groups*

The team made use of focus group techniques developed by Mokuwa and others in previous work in remote rural communities in Liberia and Sierra Leone (Mokuwa et al., 2014). Focus groups are effective at gathering normative (shared public) understandings of issues of concern, but they need to be designed and implemented with a good knowledge of the way in which local power structures govern what can be said in public, and who can say it. The techniques applied pay particular attention to the intersecting issues of gender, age and social standing.

The focus groups were split into a female only focus group and a male only focus group, but aside from this we anticipated that the groups were heterogeneous in composition with young and old people, people with different occupations, people with different positions within the village hierarchy, etc. Sessions were supervised with attention to participation by silent groups or individuals, covert signals conveyed by “body language”, and problems posed by leading questions. The method was developed and applied extensively in typical village conditions on the Liberia/Sierra Leone border with a research grant from the International Initiative for Impact Evaluation (3IE), who peer reviewed the method and its outputs (Mokuwa et al., 2014). In order to make discussions genuinely group driven, no predefined list of questions was established. Instead, a list of talking points was used on which questions were based, depending on the flow of the focus groups. The starting question was: “what are the good and bad things about motorcycle taxis?” In Liberia, we conducted 10 focus group discussions – 5 with men and 5 with women – in five different locations (Doumpa, Zehplay, Gogoin, Borpea and Beagonpa). Communities where the focus group discussions were conducted were selected on the basis of their level of road access, varying from communities accessible only by foot to communities along an all-season accessible feeder road. In Sierra Leone, we also conducted 8 focus group discussions. Four were conducted with men, in Woreh Bana, Mabileh and Rolunk (Bombali District) and Gondama (Moyamba District). Four were conducted with women, in Woreh Bana and Mabileh (Bombali District), Gondama (Moyamba District) and Bambara (Kenema District).

### *4.2.2 Census Activity*

A traffic census activity was undertaken at relevant observation points, normally just outside a community along the selected road in order to prevent intra-village traffic movements being counted as well. The observation point was either at the start or end of the surveyed road, depending on local circumstances. The census – which was a traffic count plus the collection of very basic information regarding the vehicle, operator and passengers/load, where relevant – took place from 6am to 6pm. It was conducted in the Doumpa and Gogoin locations on a normal weekday and

on Saclepea market day (Tuesday). Local literates were inducted and supervised in executing the census activity.

### **4.2.3 Survey Activity**

A short questionnaire was designed for both countries to assess the impact of the motorcycle taxi “revolution” on women’s activities, such as patterns and frequency of recent trips, frequency of attendance at periodic markets, travel in different seasons, impact of motorcycle taxi transportation on family and public roles, and emergent livelihood activities. A Likert scale was originally tried but encountered difficulties with the respondent, who preferred either ‘yes’ or ‘no’ rather than degrees of ‘yes’ or ‘no’. In Sierra Leone, surveys were conducted within the communities where the focus group discussions were also organised. Randomisation by household was attempted, though it is recognised that this can be challenged by seasonality and other factors affecting women’s availability to answer survey questions. For the operators of MCTs, most were interviewed at the small MCT hubs in the villages or at the junctions to larger roads.

In Sierra Leone, the passenger survey numbers were as follows:

- Kamajei area, n=50 of which 7 were male passengers;
- Small Bo area, n=61 of which 18 were male passengers;
- Addax area, n=31 of which 16 were male passengers.

The MCT operator interview numbers (all male) were as follows:

- Kamajei area, n=33;
- Small Bo area, n=34;
- Addax area, n=30.

In Liberia, the passenger and operator questionnaires were conducted at the traffic count points by the researchers (not enumerators) with MCTs stopping on average for about 5 to 10 minutes.

Passenger numbers were as follows:

- Doumpa area, n=32 of which 12 were male passengers;
- Zehplay area, n=30 of which 11 were male passengers;
- Gogoin, n=17 of which 6 were male passengers.

The MCT operator interview numbers (all male) were as follows:

- Doumpa area, n=22;
- Zehplay area, n=27;
- Gogoin, n=21.

Hence, in total, 221 passengers (of whom 151 were women) and 166 MCT operators (whom were all male) were interviewed.

## **5 Research Findings**

### **5.1 Traffic Count Data**

#### **5.1.1 Liberia Data**

No female motorcycle taxi riders were encountered during this study.<sup>1</sup> It was hypothesised, based on observations from previous experience working in the study areas, that women constituted the

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<sup>1</sup> Interviewees spoke about a female motorcycle taxi rider who lived in Tapeta, to the south of the study areas. Trained in riding while working for an NGO (which is not an uncommon occurrence), when interviewed she explained that she only uses her motorcycle for personal transport, and does not operate commercially.

majority of passengers in rural areas, especially on market days. One purpose of the traffic censuses conducted along the Doumpa road and the Gogoin track network was to test this claim.

**Table 1 - Male, female, and child MCT passengers on market days and non-market days**

	Gogoin (Market Day)	Gogoin (Non-Market Day)	Doumpa (Market Day)	Doumpa (Non-Market Day)
<b>Passengers</b>	19	25	104	12
<b>Men</b>	7 (36.84%)	10 (40%)	28 (26.92%)	7 (58.33%)
<b>Women</b>	9 (47.37%)	10 (40%)	66 (63.46%)	3 (25%)
<b>Children</b>	3 (15.79%)	5 (20%)	10 (9.62%)	2 (26.67%)

As Table 1 shows, traffic in the Gogoin track location was significantly lower than in Doumpa, as expected, because motorcycle access has only been possible since March 2017 (data was collected in April/May 2017), and operators and users are still adapting to the newly opened route. In both locations, the majority of passengers on market days were females. On non-market days, male and female passengers were either equal in number (Gogoin), or male passengers outnumbered female passengers (Doumpa).

The day on which the non-market day traffic count was conducted in the Gogoin location was the day prior to the Saclepea market. An interesting finding was that more people travelled on this non-market day than on the market day. The explanation for this finding is that in order to reach the Saclepea market early, people along the Gogoin track network leave the day before the market day and spend the night in either Gogoin or Saclepea. At the time of the census, MCTs had just started to operate on the tracks, and some sections were still under construction, so villagers were not yet taking full advantage of the possibility of motorised access.

### 5.1.2 Sierra Leone Data

Again, we encountered no operational female motorcycle taxi riders in this study, but a training session for female riders organised by the motorcycle riders' union (henceforth 'bike riders union') in Kenema was attended. One of the purposes of the censuses we undertook on farm access roads leading to two sizeable villages (Woreh Bana in Makari Gbanta chiefdom, Bombali District, and Gondama in Kamajei chiefdom, Moyamba District) was to test claims that women constituted the majority of passengers in rural areas, especially on market days. The censuses were limited in duration and scope, but provided provisional evidence of this claim.

**Table 2 - Women passengers outnumber men in two motorcycle traffic censuses**

	Bombali/Woreh Bana	Moyamba/Gondama
<b>Men</b>	52 (35.5%)	38 (30.7%)
<b>Women</b>	72 (51.1%)	68 (54.8%)
<b>Children</b>	18 (12.8%)	18 (14.5%)
<b>Total</b>	142	124

The average loading was 1.5 passengers on the Woreh Bana road, but there was dangerous overloading in 12 out of 92 motorcycles recorded (8 cases with 3 passengers, 5 cases with 4 passengers, and 1 case with 5 passengers). The equivalent data for the Gondama road showed less overloading, probably because the road was longer and more difficult for the rider to navigate (an average of 1.4 passengers per motorcycle, with only 5 motorcycles (out of 124) carrying 3 passengers. It is interesting to note that a number of motorcycles on these roads operate without commercial licence plates (7% on the Woreh Bana road, and as many as 20% on the Gondama road). Some rural riders reported that they had returned to their villages and operate on the rural roads to escape problems with police checks in town.



Picture 3 - Female passengers using a motorcycle taxi in northern Sierra Leone.<sup>2</sup>

## 5.2 Liberia Focus Group Discussions

### 5.2.1 Women's Focus Groups

Focus groups typically consisted of around thirty women, and discussions were mainly conducted in English or the local Gio language. However, the number of attendees tended to fluctuate, with some women joining and others leaving depending on other commitments. In the larger villages – Doumpa, Zehplay, and Gogoin – the number of women present was around fifty. Discussions included the following topics: transport prior to the war and following the war (up to the present day), advantages and disadvantages of motorcycle taxi transport, attitudes of riders to women passengers, preferences for the gender of the rider, and possible advantages and obstacles to women working as riders. During each session, which lasted between 60 and 90 minutes, both community leaders (female sub-chiefs and women's leaders) and female villagers participated actively.

#### 5.2.1.1 Motorcycle Taxis and Business Activities

The focus group participants explained that motorcycle taxis have increased the availability of a wider range of goods in communities, which means that local people do not need to travel to Saclepea: *Because of the visit of [motorcycle taxis] to the community we are now able to get frozen fish and rice.* Saclepea is the area's largest town, and a motorcycle taxi to Saclepea from Gogoin, for instance, costs around \$150-200 LRD one way.<sup>3</sup> Business activity has increased in recent years, with people deciding to start up new businesses involved in bringing goods from further afield to sell locally: *[Motorcycle taxis] have enabled us to do petty trading, so everybody is doing their little business.* This statement suggests that a significant number of women are benefitting from the business opportunities brought about by increased connectivity. In Liberia as well as in Sierra Leone, as found in our parallel study, women and riders form informal cooperative business units in which the rider acts as a courier for the goods a woman wishes to buy or sell: *We can give money to riders to get us things from the market [although] sometimes they don't deliver our goods on time.* Using the MCT as a courier saves the women both time and money.

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<sup>2</sup> ReCAP/DfID do not endorse unsafe riding practices.

<sup>3</sup> USD \$1.60-\$2.13 at the exchange rate at the commencement of data collection (LRD \$1 = USD \$0.01064).

### 5.2.1.2 Motorcycle Taxis, Access to Healthcare, and Emergencies

A topic that was explored in the focus group discussions, and which was often raised as a major positive outcome of motorcycle taxis by participants even before the interviewer had brought it up, is the ability of motorcycle taxis to quickly and effectively respond to medical emergencies. Doumpa is accessible by 4-wheeled vehicles, and it can therefore be reached by ambulance. However, local people still choose to use motorcycle taxis most of the time because they are quicker: *Because of the visit of [motorcycle taxis] to the community we are now able to get quick treatment, and there are less sicknesses.* In Gogein, participants spoke of the quick access to healthcare brought about by motorcycle taxis, saying that they are able to make a phone call to riders in the event of an emergency, and that maternal health has improved significantly: *Some pregnant women have gone to hospital on [motorcycle taxis] and given birth safely.*

Similarly, research conducted in rural Tanzania by Porter et al. (2014a) found that the spread of mobile phones into rural areas has significantly complemented motorcycle taxi services by allowing rural people to solve medical emergencies by calling up motorcycle taxi operators when required, rather than having to search for a vehicle (which often involves a long walk to a distant paved road). In Borpea, which has only recently got motorcycle access, sick people are still carried to Gogein in a hammock before taking a motorcycle to the health centre because there are still very few motorcycles going to the community, and perhaps more importantly, there are no motorcycle taxi riders living in the community.

### 5.2.1.3 Women as Motorcycle Taxi Operators

The focus groups explored women's perceptions of riding and their attitudes towards the idea of women becoming operators. A number of women were interested in becoming riders for a variety of reasons – for example, to help to pay for their own and their children's school fees, to help their children or family financially, and to help their other business interests: *If I was a rider I could buy my own items instead of giving money to other riders to buy things for me.* Some highlighted practical constraints; for example, one participant said that women just do not have the money to purchase a motorcycle. Asked why women cannot enter into a work and pay agreement like men often do, another participant explained that there is a perception that women are not as brave or as strong as men, so finding a businessman or entrepreneur who would be willing to enter into a work and pay agreement with a woman is difficult. Another practical constraint raised was that women are not trained to ride. One participant said that if she were to receive training in how to ride a motorcycle, she would be able to become a rider. Other participants said that women are afraid to ride, and therefore there is a lack of interest from women.

However, we encountered a number of women who were ready to become riders: *I would be able to ride if trained.* Many were very keen to find employment and to start earning their own money: *[I want to ride because] I want to earn my own money; my husband doesn't [give me] his money.* There is scope for a future action research study into the impact of an intervention in which women are offered motorcycles on credit to use as a transport service. It is hypothesised that if women are seen to operate a motorcycle taxi successfully, then it would be more likely that businesspeople would enter into a work and pay agreement with women, since the ability of women to operate a motorcycle taxi successfully would have been demonstrated. Some caution is needed here: Porter et al. (2014b) found that women in Ghana expressed a similar interest in riding bicycles in a baseline study, only to hand over the bicycle to the husband, once provided with it as part of an action research study.

Actually, women were themselves doubtful about the ability of women to ride. Many said that women lack the strength to become riders, with one participant saying that she would only consider riding with a female rider if she was travelling without a load. Another said that women's lack of

strength would make it risky for her to ride, suggesting that she would be vulnerable to accidents. Risk was a recurring theme in a number of ways, for example in relation to crime: *[Women] are not strong enough to deal with breakdowns in risky areas or far away*; and sexual harassment: *[Riding is risky] because of sexual harassment while carrying male passengers in [isolated] areas*.

Others explained that women are expected to stay at home to carry out domestic duties including cooking and childcare, especially if they are the only female in the family: *I am the only girl in the family so I should stay at home*. Women were worried about how they would be viewed by others if they were to become riders, with one participant saying that because of traditional reasons, people would think a woman was a prostitute if she became a rider. Many thought that women becoming riders would put a strain on relationships because husbands or partners would become jealous: *Husbands and boyfriends would be very jealous because they would think that another man might approach their woman*. One participant explained that women think that it will be difficult for them to get pregnant if they ride motorcycles too often. However, others were enthusiastic about the idea, saying that women are more than capable of riding, and that women would ride more carefully and therefore have fewer accidents: *[If women were to ride] you would only find one [a single] woman had had an accident if you came back to count after a year*.

#### 5.2.1.4 Accidents and Robberies

During the women's focus groups, no participants said that they had been robbed while riding a motorcycle taxi, or that they had heard about a fellow community member being robbed: *No, we have never experienced robberies here [while using motorcycle taxis]*; and *Nobody has been robbed [while riding motorcycle taxis]*. Motorcycle accidents, however, are quite common. A number of causes of accidents were identified, with bad road conditions and broken bridges being listed most often. Other causes included the overloading of motorcycles, speeding, drink driving, and passengers not sitting on the motorcycle correctly: *Women passengers can cause accidents by moving around when they get scared*.

When asked to classify the accidents that happened with motorcycles into one of three categories: minor (brushes and scratches); serious (requiring a visit to a clinic); and very serious (requiring hospitalisation), it became clear that the overwhelming majority of the accidents were of the first and second category. For instance, in the Doumpa female focus group, twelve participants indicated that they had been involved in a minor accident that required basic treatment and four indicated that they had been involved in a moderate accident that was more serious, for example one that caused broken bones. None indicated that they had been involved in a major accident requiring hospitalisation. Few major accidents have occurred, but with limited access to (sometimes rather expensive) medical care, there is a risk that even minor accidents can have serious consequences: *There are too many accidents and injuries are difficult to cure*. Research conducted in Tanzania found that the average length of disability (i.e. the number of days in which an injured individual could not participate in normal daily activities) following a motorcycle accident was 25.9 days (Jinadasa et al., 2013). Lost productivity over such a substantial period of time can have serious repercussions on the rural poor and their families.

#### 5.2.1.5 Rider Gender Preferences of Female Passengers

While some participants said that they would prefer to ride with a male rider over a female rider if they had the option, many women indicated that they would prefer to ride with a female rider, for a variety of reasons. Reasons included women being more patient and more careful: *[I would choose the female rider because] women would take their time when riding because women are always careful in things like that*. One participant said that she would choose a female rider because she would not come on to her while riding. In Zehplay, out of a total of 27 participants, 24 indicated they

would choose a female rider over a male rider, given the option. Just three indicated that they would choose the male rider.

Those who indicated that they would prefer to ride with a male rider said that this is because men are stronger than women: *[I would choose a male rider because] men are very brave and strong, and will go faster*. As previously stated, one participant said that she would only choose a female rider over a male rider if she was travelling without a load, again suggesting that she thinks that a woman would struggle to handle a fully loaded motorcycle taxi (or lift it up again if fallen).

#### 5.2.1.6 Transport Preferences

Women were often divided in their opinions where there was a choice between motorcycle taxis and 4-wheel taxis. A major advantage that motorcycle taxis have over 4-wheel taxis is that they are much faster, especially on bad roads. Furthermore, motorcycle taxi passengers are not forced to wait when embarking on their journey, unlike 4-wheel taxi passengers, who can only leave when the taxi is full. Sharing a motorcycle taxi with two or even three other passengers can reduce the fare per person, but market sellers often opt to travel alone and set off immediately, in order to reach the market more quickly; or they may be carrying freight, making it impossible to take on additional passengers. The main advantage that 4-wheel taxis have over motorcycle taxis is that they are safer: *[4-wheel taxis] have fewer accidents than [motorcycle taxis]; and If we have an accident in a [4-wheel taxi] we won't get hurt as badly as we would in an accident on a [motorcycle taxi]*. As mentioned, key causes for accidents highlighted by participants are overloading of motorcycles, broken bridges, and bad road conditions. A lack of training was also listed: *Riders should be trained before [riding commercially] and should not be learners [as some are]*. Four-wheel taxis fares are also cheaper than motorcycle taxis, are able to carry more passengers, and offer some protection from the elements: *When it rains we don't get wet when using [4-wheel taxis]*. Speeding was not raised as a major issue in the women's focus groups, however some participants did comment on the issue: *I am afraid of speed but I love motorcycles overall; and Some riders just love to speed*.



Picture 4 - MCT passengers often have to disembark to cross locally made 'bridges'.

#### 5.2.1.7 Social Consequences of the Spread of Motorcycle Taxis

Focus groups identified some negative social consequences of the spread of motorcycle taxis. Some women, whose husbands are motorcycle taxi operators, stated that the profession puts a strain on their relationships: *There is a lack of commitment in relationships by our husbands who are riders*. Others argued that sometimes riders bring their girlfriends into the community, causing fights with their wives.

Participants were also worried about the number of youths dropping out of school in order to become motorcycle taxi riders. In Zehplay, which has had motorcycle access for a long time, this

seems to happen frequently: *Most young men have dropped out of school to become riders.* In Borpea, which has only recently got motorcycle access, young people are still in school and have not yet chosen to become riders. With no resident motorcycle taxis in the community, it is likely that some will eventually take up the profession. In Zehplay, participants blamed motorcycle taxi riders for criminal activities: *Some riders are involved in kidnapping people for ritualistic killings; and Sometimes MCT riders come in the night and take our livestock.*

### 5.2.2 Men's Focus Groups

Men's focus groups were organised in the same communities as the women's focus groups. As in the women's focus groups, focus groups typically consisted of around thirty men, but in the larger villages, the number was around fifty. Numbers also fluctuated, depending on participants' other commitments. Senior men including chiefs, elders and youth representatives, motorcycle taxi riders and ordinary villagers were present.

The importance of motorcycle taxis for business activities in rural communities was confirmed by the men's focus group discussions: *It takes less time for women to go to market and come back [now that motorcycle taxis operate] so they can do more business; and [Motorcycle taxis] have helped women by increasing petty trading.* Statements mostly concerned how motorcycle taxis have increased business activity and trading by reducing the time, costs and effort required for transport. Note here that head-loading of for instance farming produce is labour intensive, representing significant opportunity costs for the household if sourced within the family or significant financial costs if labour needs to be hired. The important role that motorcycle taxis play in taking ill people to healthcare centres was confirmed by the men's focus groups: *[Motorcycle taxis] carry sick people and pregnant women to hospital.* In Borpea, where motorcycle access has only recently been achieved, participants were very keen to highlight just how important a role they play: *Because of the [newly constructed motorcycle tracks] we don't die of health problems because [motorcycle taxis] can come and take [sick people to healthcare facilities].*

In response to questions about why there are few (if any) female motorcycle taxi riders in the area, most participants gave reasons relating to an unwillingness to ride by women. According to the male contributors, women are fearful that becoming a rider would be particularly risky; there is a threat that they will be raped, have their motorcycle stolen, or be injured due to the dangerous road conditions. Other participants said that women may be ashamed of becoming a rider. A woman may choose not to become a rider because doing so would make their husbands or partners jealous: *No, [women should not become riders] because of jealousy [of husbands/partners]; and She would show disrespect to her husband because he would not want other men to follow her.* Whereas in the women's focus groups a lack of support in obtaining a motorcycle was often given as a reason for there being few or no female riders, only one male focus group participant raised this: *They don't have support to get a [motorcycle].*

Some stated that women should be at home doing domestic tasks because their role in looking after the home is too important. However, some participants were favourable to the idea, saying that it would empower women and help households financially. Furthermore, more riders, be they male or female, would make it easier to solve health emergencies. This is especially relevant for locations where there are hitherto no resident riders, because there would be more operators available to take patients to hospital.

## 5.3 Sierra Leone Focus Group Discussions

### 5.3.1 Women's Focus Group Findings

Four focus groups with women were organised in Woreh Bana and Maboleh (Bombali District), Gondama (Moyamba District) and Bambara (Kenema District). Each group involved between 20 and 30 women and included five or six senior women (sub-chiefs, leaders of women's community organisations, and traditional birth attendants). As in the Liberia portion of this study, no predefined list of questions was established. Instead, a list of talking points was used on which questions were based, depending on the flow of the focus groups. Focus groups discussions were conducted in Krio (the Lingua Franca in Sierra Leone) by the lead researcher, Esther Mokuwa, with the assistance of AKA researcher Paul Richards and local research assistants from AKA Research, the local partner NGO. In the Moyamba and Kenema Districts, the researchers also communicated in the local ethnic language, Mende.

The focus group topics included advantages and disadvantages of motorcycle taxi (known in Sierra Leone as *okada*) transport, beneficial and negative changes brought about through the *okadas*, attitudes of riders to women passengers, preferences for the gender of the rider, and possible advantages and obstacles to women working as riders. Each session lasted between 60 and 90 minutes, and there was active participation by non-elite women as well as community leaders. A total of 161 statements were recorded, and 19 topics emerged from the focus group discussions. Most of these topics are discussed hereafter and illustrated with quotes from the focus group participants.

#### 5.3.1.1 Motorcycles and Business

A key topic brought up by the women's focus groups across all three research sites was the significant contribution *okada* motorcycles have made to women's business activities: *It has helped to promote our business (charcoal) [by providing] transportation to the junction to sell.*

As in Liberia, in Sierra Leone women and motorcycle riders form informal cooperative business units in which the rider acts as the courier for the goods a woman wishes to buy or sell: *The riders have helped us greatly because [we] can just send them to town to buy all the goods we need in town.* Motorcycle taxis riders do not only act as couriers but also as 'pay-day' loan providers: *The riders even loan us if [we] are without money at a particular time.* One statement indicated the role of motorcycle riders in alleviating the pre-harvest hungry season: *During the hungry period in August, we give money to okada men to buy food and bring it for us.* This was another important insight into a general change in the rural business environment brought about by the motorcycle "revolution". Village money lenders, which constituted the pre-war "hub" of village mercantilism – see also Richards (1986) – are now no more: *Now we borrow and pay within the shortest period, as okada riders go and get us what we need; [this] minimises our level of borrowing.* Focus group participants confirmed that the "okada revolution" emerged after the civil war, and terminated the regime of the village money lender, a source of grievance initially exploited by the rebel Revolutionary United Front (Richards, 1995).

#### 5.3.1.2 Motorcycles and Emergencies

A major feature of the "motorcycle revolution" is the difference it has made to the speed with which medical emergencies can be addressed. Typically, with complications in labour and childbirth, for example, villagers will wait for a day or two before deciding if the case is severe enough to require referral. Then, families have to come together to assign persons to accompany the patient, and to provide for the costs of the journey, the treatment itself, and any medication. If the case is severe, hammock carriers have to be hired at considerable expense. The *okada* can now be used as an

ambulance, with the sick or injured person sandwiched between the rider and a second pillion passenger: *If we want to carry the sick long distances for treatment, we mostly use motorbikes.* Medical facilities can be reached in a short space of time, without the delay that once would have been associated with the use of a hammock (see also Green et al., 2013), and at any time of the day: *Men [riders] can be asked at any time to carry passengers, be it at night or day.* On the rural roads, they can even beat a conventional vehicle, if the vehicle could reach the village in the first place: *[Motorcycles] can ... carry the sick for medication faster than vehicles, no matter the road condition.* During the recent Ebola epidemic, *Okada* riders played an important role in bringing cases from outlying villages to the last point on the road system reachable by an Ebola ambulance, in ferrying blood samples for testing, and in delivering urgently needed supplies (Richards, 2016). The remarks in the focus groups confirmed the positive difference that *okada* motorcycles have made to emergency medical treatment, but mainly in the larger villages with one or more resident riders. In one village (Bambara), which is currently without a resident rider, it was reported that motorcycle transportation to healthcare is still not possible: *We [still] mostly use hammocks to carry the sick to Gelehun health centre for medication.* Either a resident motorcycle taxi operator or a mobile phone signal (so that at least an operator can be called) will make a crucial difference here.

### 5.3.1.3 Women as Motorcycle Riders

The focus groups with women all discussed what participants thought about the idea of women being trained to ride motorcycle taxis. Some were concerned by practical constraints. Business people and relatives will fund a motorcycle for a young man, it was argued, but are sceptical that women can ride successfully and repay the loan, since there are few if any successful precedents. Some women thought that this was an opportunity for a project to step in and offer loans to women (to break this bottleneck): *[Women] do not have the money to buy [motorcycles]. If we accept to learn or train to ride a [motorcycle] will you provide [motorcycles] for us? Will it be possible if [a project] can provide cash or loan [to buy a [motorcycle]]?* Others were doubtful about riding on other grounds, citing issues such as menstruation, anticipated difficulties with jealous husbands, child care and domestic duties: *[Women] can't leave their family to ride; [Women] take care of the children in the home.*

However, enthusiasm for the idea was also expressed, mainly from younger women, who at times evidenced a strong sense of their right to gender equality. Riding motorcycles would exemplify this: *Yes, [we want to ride] for [our] right, as the 50/50 [campaign] say; yes, [we want to ride, to] make us [women] proud; [Women want to ride, to elicit] admiration.* Some were urgent to start: *If really [we were to have] access to [motorcycles] we [would] love to ride because it is a means of earning our daily bread and [supporting] our families; when can we have [motorcycles] here? When are we expecting training?*



Picture 5 - woman taking a motorcycle taxi riding lesson in Kenema, Sierra Leone

Some thought the idea of women riders might make riding more comfortable for female passengers: *If menstruation or any uncomfortable situation occurs, as [a] woman [the female rider] will help me.* One woman thought that if there were woman riders, gender segregated transport might be a good idea: *I would like the government to pass a law in parliament that all women are to ride on women okada motorcycles and men on men okada motorcycles.* Another woman who indicated her readiness to train as a motorcycle rider wondered: *If a policeman or government [person] sees a woman riding a motorcycle as a means of transport would they accept us?* Interestingly, sexual harassment by male riders was not reported: *No, we have not heard of such [harassment] in this community and [if there were such cases] it will be treated seriously by the chieftdom authorities.* Most of the *okada* riders serving the road are known to the community or are even based in it. According to the focus group respondents, this may explain to some extent the absence of sexual harassment.

#### 5.3.1.4 A Preference by Women for Male Riders

Although the idea of women riders was welcomed by some, most women expressed a preference for male riders. Comments by the women focus group participants mainly relate to the presumed greater strength of the male rider: *[Men] have the strength to control motorcycles in accident and can ride in long distances.* Some strength is needed for long rides on rough roads, and to keep an often overloaded motorcycle from falling on frequent muddy or otherwise treacherous parts of a motorcycle trail, where bad bridges, or no bridges at all, are a common occurrence. Strength is perceived to be a crucial factor in avoiding accidents, and to disentangle passenger, motorcycle and loads if an accident occurs: *[I] prefer the man [as a rider] because he can lift whatever load (strength) and [if there is an] accident he can easily lift the motorcycle from the passenger.* Some young women were also explicit that they would use their femininity to “talk the price” down with a male rider, but this strategy would be ineffective with a “hard-headed” woman rider. Women “*don’t joke with their money*”, it was said.

#### 5.3.1.5 Transport Preferences and Safety Issues

Women were often divided in their opinions where there was a choice between motorcycle taxis and 4-wheel taxis and vans (*poda-poda*). The motorcycle taxi does not need to wait for a full load of passengers before departing, and is more likely to deliver the passenger to their precise destination, but it is more exposed to wind, rain, and dust, and carries a greater risk of accident. In addition, it is about twice as expensive as more conventional forms of transport. One woman explained her choice would depend on the condition of the vehicle: *My decision is based on the type of transport and its condition, whether it is roadworthy.*

Some women commented on the fact that, in a car taxi, one is better protected whenever an accident happens: *[There is a better] chance of survival in case of accident in a [4-wheel] vehicle than on a [motorcycle], and it is very safe.* Even when the option of the motorcycle has been chosen, there are still safety issues to be considered. Riders are commended for their skill: *Anyway, all riders coming here are good in riding and in their character towards us.* However, their lack of professional knowledge is also commented upon, perhaps in contrast to the 4-wheel drivers, who have often served a substantial apprenticeship: *[There is a need to] train the motorcycle riders on how to use the road signs.*

Opinions were also divided on whether men or women riders were preferred. Men might be a safer option if faced with a thief or hijacker in the bush: *Men can fight any [person who] would want to harm [us] or steal the okada;* but a woman rider might overall be less reckless than a man: *[Women riders] will ride with much [more] care than men, to avoid accidents.*

### 5.3.1.6 Speed and Speeding

Focus groups discussed speed, and speeding. It is generally agreed that the *okada* is “the fastest means of transportation”, and that this is valuable as the pace of life for women increases, with many now trying to combine trading activity with family life: *If [a woman] has to see her husband in another town, the motorcycle is the fastest means.* The motorcycle taxi goes door-to-door, and does not wait long periods to collect passengers: *[Motorcycle taxis] don’t wait for passengers to fill up before moving like the [4-wheel taxi] does.*

However, the need for urgency by riders and passengers can result in excessive speeding. Some women were of the view that the fault lies with the rider: *[Riders cause speeding because they] are in the habit to run [too fast] at all times.* Others felt that speeding was the result of passengers always urging the rider to hurry: *[Passengers] cause speeding because they are rushing to attend to something very important.* One woman thought the problem of speeding needed intervention: *[Control is necessary] to ... enforce more laws, [to] reduce speed.*

### 5.3.2 Men’s Focus Group Findings

To better understand the opportunities and constraints for gender mainstreaming in the motorcycle taxi sector, it is equally important to record the perceptions of men. Therefore, four focus groups with men were organised in Woreh Bana, Maboleh and Rolunk (Bombali District) and Gondama (Moyamba District). It was not possible to arrange a discussion in Bambara (Kenema District) within the time available. Each group involved between 20 and 30 men, and included several senior men (chiefs and elders) and youth representatives, including motorcycle taxi riders. As with the women’s focus groups, a prompt list was used to guide discussion topics. In all, 254 statements were transcribed. Coding identified 31 separate topics.

There were sizeable discussions on the topics of police and crime that were not present in the women’s discussions. The sampling of discussion topics follows more or less the ordering adopted for the presentation of the women’s results. It was observed that, where topics overlapped, there was often a sizeable amount of agreement between the male and female opinions expressed.

#### 5.3.2.1 Motorcycles and Business

The important role of motorcycles in market integration, commented on by the women, is confirmed by the men’s discussion. In Gondama, one man remarked: *Now there are lot of small businesses in the community.* This is in strong contrast to the pre-war situation when it would have been hard to buy even a candle or box of matches. In those days, Gondama was cut off in the rainy season by five sizeable rivers. Today, all the rivers are bridged, and motorcycles reach the village over the locally constructed “motorcycle bridges” (except for the bridge closest to the village, which still needs to be upgraded).



Picture 6 - Motorcycle taxis reach deep rural locations, Nimba County, Liberia

One man in Worreh Bana wanted fewer motorcycle taxis to operate: *[If there are fewer motorcycle taxis] people will not travel to go and get their own goods, so they can buy from me.* Evidently, he is one of the few remaining mercantilists. The emergent commercial relationship between traders and motorcyclists, in which the riders act as couriers, and even offer short-term credit, is confirmed: *[Motorcycle taxi] riders help buy items for us.*

However, the men's discussions added some important additional information on the contribution motorcycle riding makes to community social life: *[Motorcycles have] made us to have more friends, as we move from one place to the next.* The riders themselves are seen by some to have become more community-minded: *It has changed the riders' mentality, as they even help in carrying people to funerals [for] free.* They are also becoming people of substance: *[They] build houses in Makeni.* At the same time, they are accused of being arrogant: *Most [riders] disguise themselves and make themselves superior.*

### 5.3.2.2 Motorcycles and Post-War Reintegration

The post-war origins of motorcycling were confirmed: *[We] started to use okada after [the] war.* The *okada* is seen as the generator of self-employment for youth. The mode of transport spread into the rural areas from Makeni town, the "capital" of the rebels at the end of the war: *Our brothers from Makeni used to come here, and some called us to buy [motorcycles] for us to start employment.* The role of motorcycle taxi riding in drawing young men back into society is highlighted as well: *[Motorcycle taxi riding] has made youth to be responsible for themselves and their families.* High levels of youth employment was something that was cynically exploited by the various armed factions during the war, who found the young relatively easy to recruit. The motorcycle taxis have provided jobs for tens, if not hundreds of thousands (semi-literate) young riders and as such, it can be argued, contributed to lasting peace.

### 5.3.2.3 Motorcycles, Emergencies and Security

The role of the *okada* as a game-changer for accessing medical assistance, as observed by the women focus groups, was verified by the men's groups. The importance of having riders who are resident in the community for night-time emergencies was also emphasised. Now that it has a road suitable for motorcycles, Gondama has become less reliant on the hammock for transporting sick and injured patients. However, there is still anxiety about the home-made bridge into the town: *Because the bridge is of no use, [motorcycles] are stolen when they are left over the bridge. So, let the bridge be made so [motorcycles] can come into the town and we will be able to carry the sick to hospital directly, especially when there is an outbreak.*

The men's focus groups spent considerable time discussing an evident down-side to the motorcycle revolution, namely that thieving is apparently on the rise (especially the theft of farm animals). Thieves working in collaboration with motorcycle taxi riders are able to escape more easily. *[Motorcycle taxis facilitate] stealing of our animals (goat, sheep, chickens); Passengers [who steal] instruct riders to run so they can get away from the crime scene.* Riders seem to be especially alert to "raids" by thieves and outside riders. There is a clear concern that women riders would not be as effective as their male counterparts in offering protection against this kind of crime: *[I prefer a male rider], they have the strength to fight thieves.*

### 5.3.2.4 Women as Motorcycle Riders

Views on the idea of women riders were, as with the women's focus groups, mixed. The majority of the men thought it was not a good idea, but there was a sizeable group who seemed firmly in favour.

Those who thought it was not a good idea expressed doubts, as did the women's groups, about whether women were strong or courageous enough to cope with the challenges of rural riding: *No [to women riders], they will not be able to fight robbers; No, [because of the] fear of night riding; Some women will miscarry if they are pregnant; They will not withstand police harassment.* There were a good number of socially conservative comments as well: *Women are to care for the home; there will be no respect for their husband.* Perhaps most revealing of all, it was remarked: *They will start challenging us [the men] in income earning.*

However, other men were surprisingly positive about the idea: *More customers will come their way; Women are careful riders; Yes, women are to be trained, even my wife – I [will] prefer [her to ride], so she can help [support] the home too.* Perhaps most ingeniously, one man – perhaps a rider frustrated by harassment from officials – welcomed the idea on the following grounds: *The government likes women, and if they start [riding], the government will support riders [more generally].*

Discussing reasons for preferring a male or female rider, the comments from the men's groups again echoed those from the women, being almost entirely focused on whether women were strong enough to ride long distances on bad roads, or cope with the challenges of accidents.

#### 5.3.2.5 Safety Issues, Speed and Speeding

Most participants in the men's focus groups knew of accidents occurring, but few had experienced accidents themselves. For example, for the focus group in Worreh Bana, only four participants had been directly involved in a motorcycle accident. In Maboheh, nine men had direct experience of an accident; Maboheh is on a dirt road that at the time was graded by the biofuel company, and so there was more of a chance to speed.

The rather low figure for involvement of passengers in accidents is borne out in the questionnaire data. Road accidents involving motorcycle taxis on earth roads often occur at low speeds, resulting in bruises and minor injuries, rather than anything requiring serious medical attention. Avoiding a fall on a motorcycle depends on the skill and strength of the rider, especially if the vehicle is overloaded. This is where several commentators remained sceptical about the ability of women riders to stay out of ditches in the rain: *In the rainy season we have falls due to bad road conditions; The tyres mostly are smooth [and] that causes accidents; [I would] choose [a] male rider – they can fight against accident[s].* One man took the view, however, that women might be rather better at avoiding accidents than their male counterparts, because they would be cautious and careful riders: *[I would] choose [a] female rider – they don't easily get accidents because [they are] mindful.* The male focus groups confirmed what the women said – that they think that 4-wheel vehicles are safer, but that motorcycles are quicker.

The topic of speeding elicited much discussion. The focus groups appear evenly divided on whether the cause of speeding is passengers urging the rider on, or the rider rushing, whether for bravado: *[They show off] to others that they can ride well; or: To get admired.* Riders might also speed to maximise the number of fares: *[They speed] to target another passenger.*

#### 5.3.2.6 Authority

Men spent some time discussing the issue of the authorities. Commercial motorcycles are taxed (through the road and driver licence fees, and insurance requirements) relatively more heavily than 4-wheel commercial vehicles. Riders are aware of this disparity, and question it. In particular, they express solidarity with those who evade payment, and are punished by jail sentences and confiscation of their motorcycles. The riders tend to blame the high cost of licences for riding without one: *There are lot of [motorcycle taxi] riders in prison because of [riding without] licences, [so] we suggest the reduction of the price for licences so riders can afford it.* The centralised provision

of licenses (only obtainable in Freetown and a few major town) also made it more difficult for rural riders to obtain these.

Police check-point harassment is also a major source of complaint, and is a reason why some riders, sometimes with less than roadworthy motorcycles, tend to base themselves in remote, unpoliced rural locations. This is apparent in the substantial proportion of unlicensed motorcycles (up to 20%) in the traffic census data. Some respondents questioned if female riders would be able to cope with the constant police harassment: *They will not withstand police harassment*. However, other riders imagine that women riders would experience less police harassment, or perhaps hope that women would react against endemic roadside petty corruption: *[It will be good to have women riders since they] will have more [male] friends to fight the police and this will make the police be afraid to seize their [motorcycles]*.

## **5.4 Survey Findings**

While the traffic counts were conducted by the enumerators, they were joined at regular intervals by the research assistants who conducted short operator and passenger surveys. These surveys took on average between 10 and 15 minutes (much longer would have been highly inconvenient for the respondents). No respondent was interviewed twice: operators frequenting the surveyed road were only asked once to respond. 70 motorcycle taxi operators and 79 passengers were interviewed, of which 50 were women. In this section the survey findings of both the operator and passenger surveys in Liberia are presented. This is done in considerable detail. The findings presented provide insight in rural motorcycle taxi riding more generally: that is, not all questions were specifically related to the gender dimensions of rural riding. However, to contextualise the opportunities and obstacles for gender mainstreaming in the rural motorcycle taxi sector, a more general understanding of the sector is required.

The survey findings of Sierra Leone are presented in a shorter format to prevent replication, since findings were remarkable similar in both countries.

### **5.4.1 Liberia Passenger Survey Findings**

#### **5.4.1.1 Availability of Alternative Intermediate Modes of Transport**

Respondents were asked whether other modes of transport were available for their journey. Unsurprisingly, the location in which the highest percentage of respondents indicated that other modes were available was Doumpa, where motorcycle access has been available for many years and where four-wheeled taxis visit on a regular basis. However, surprisingly, the location in which the lowest percentage of respondents indicated that there were alternatives to motorcycle transport was in Zehplay, which is visited by four-wheeled taxis and not at Gogoin, where the new tracks commence. Due to logistical challenges on the two designated days for the research, a storm was found to have brought down a number of large trees over the track network, and so the research assistants were forced to retreat to Gogoin, rather than the specified location at the track network. As a result, it is likely that respondents indicated that other modes of transport were available from the location in which they were interviewed, and not from the villages along the track network from which their journeys originated.

Chart 1 - Availability of other modes of transport for passengers' journeys

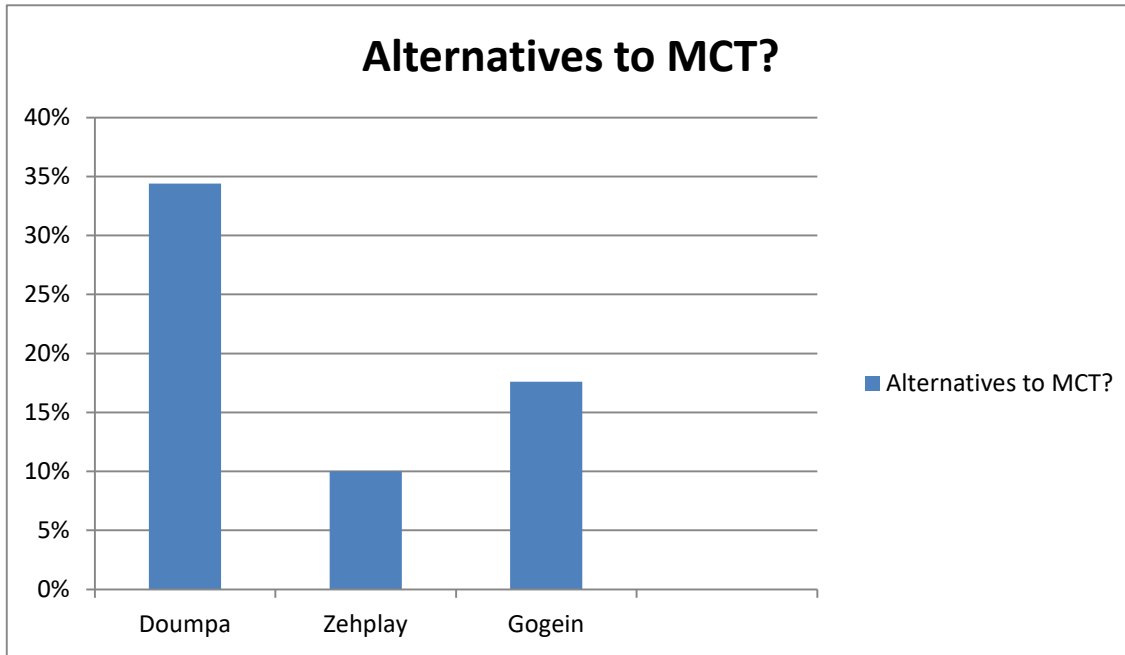
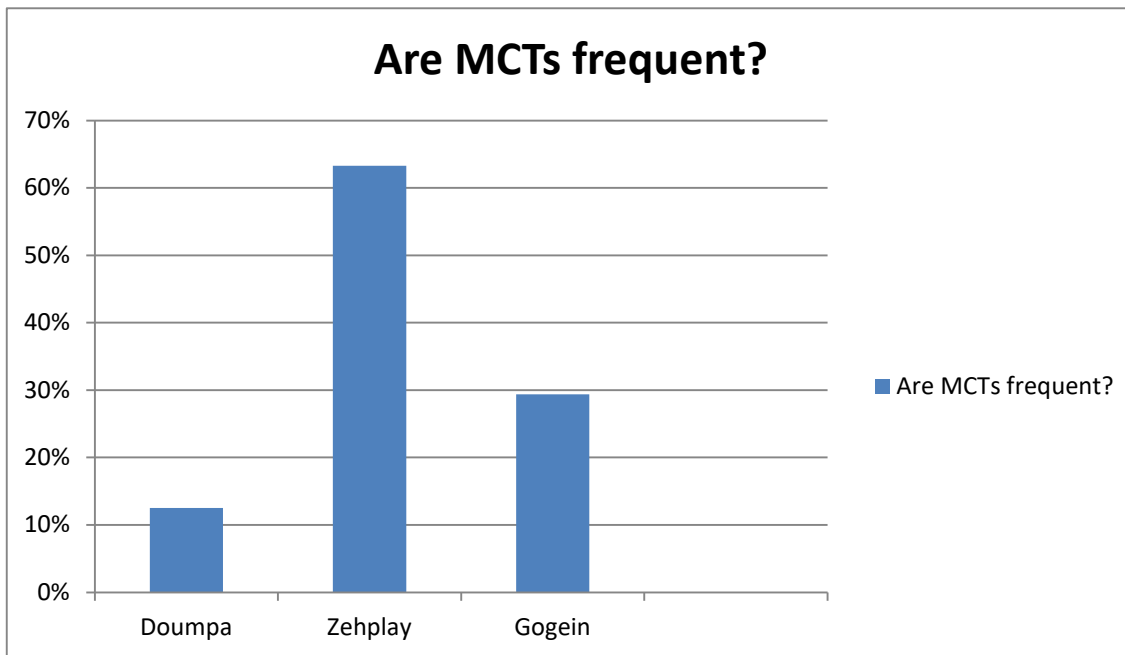


Table 3 - Reasons given for why respondents opted to use a MCT over a 4WT

	Doumpa	Zehplay	Gogein
4WT was not ready to leave	54.5%	100%	100%
MCTs are faster	45.5%	0%	0%

Of those who responded that there was an alternative to a motorcycle taxi, 100% of respondents in all three locations specified that the only alternative was a car/four-wheeled taxi (4WT). When asked why they opted to use a MCT over a 4WT, two explanations were provided. The first was because the 4WT was not ready to depart when they sought transport. This is because 4WTs typically require all seats to be taken by passengers for the journey, in order to be financially viable for the driver. As a result passengers may have to wait for a considerable amount of time until all the seats are taken. All respondents in Zehplay and Gogein indicated that this was their reason for choosing to use a MCT for their journeys. In Doumpa, this too was a major reason (54.5% of respondents), but others indicated that they chose to use a MCT simply because they are faster (45.5%). Given the bad road conditions in the area, motorcycles are able to reach a destination more quickly because they are able to navigate bad unpaved roads – which are often potholed, rutted, or, in rainy season, muddy or flooded – at higher speeds than cars.

Chart 2 - Passenger opinions on whether MCTs are frequent or not frequent

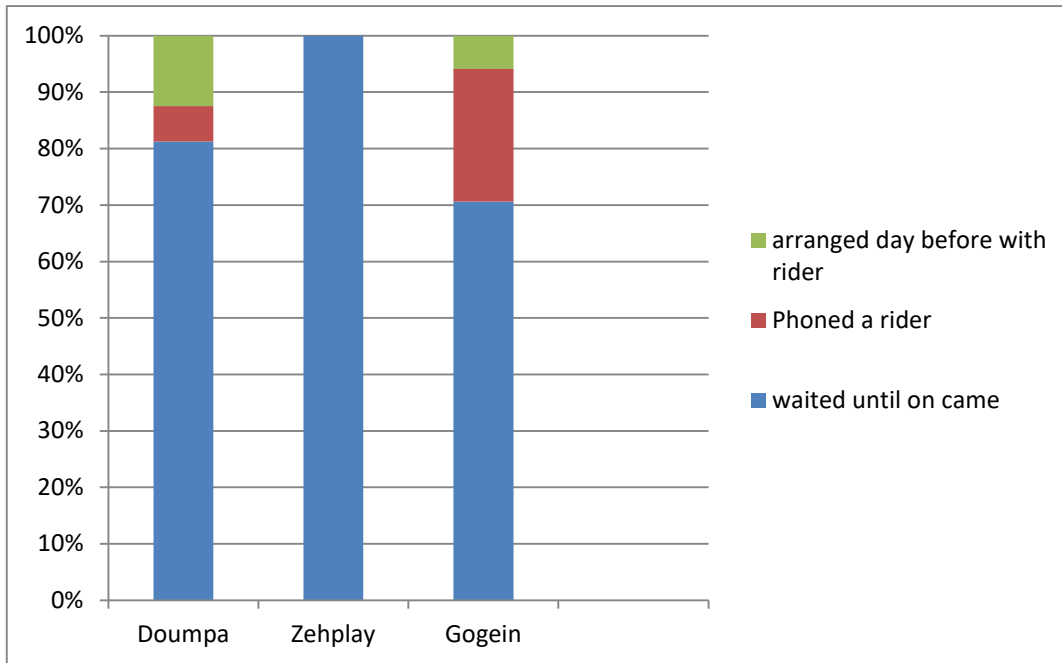


The availability of MCTs to and from the study locations was the focus of a question, which asked whether the respondent would describe the availability of MCTs as frequent or not frequent. Responses varied widely between locations. The location that was found to have the greatest availability of motorcycle taxis was Zehplay. Zehplay was followed by Gogein, while the location with the lowest availability of motorcycle taxis was found to be Doumpa. Again, these are surprising findings because Doumpa is the location which has the greatest degree of access for both MCTs and 4WTs of all three locations. It was expected that the location which would be found to have the lowest availability of MCTs would be Gogein, given that (gradual increasing) access for motorcycle taxis became possible only since track construction commenced, a few months before the responses were collected. It may be that respondents in Gogein deem the availability of MCTs to be frequent now because prior to track construction there was no availability at all. The frequent availability of MCTs in Zehplay is likely explained by its closer proximity to Saclepea, the regional hub in this part of Nimba County, where hundreds of MCT riders are based. Availability is somewhat linked to demand and in rural areas with poor (and expensive) mobility and access, rural dwellers tend to 'save up' their travel demands for the market-day day, making it look like there is little or no demand for travelling during non-market days.

In all three locations, the overwhelming majority of respondents indicated that there are days of the week on which MCTs are more frequent in their availability. Tuesday is Saclepea market day, which is the most important day of the week for rural producers in the region. As a result, most MCT riders will choose to work long hours in order to capitalise on the greater demand for transport. Many producers prepare for the market day on the previous day, so there is also a higher demand for transport and a greater availability of MCTs on Mondays. For the same reasons, there is also a greater availability of MCTs on Saturdays, which is market day in a nearby town called Zuaplay, and on Fridays as people prepare for that market. However, due to the much smaller size and lower importance of this market compared to the major one in Saclepea, the changes in availability of MCTs is not as significant as on those days when availability is increased due to Saclepea market day. In all three locations, the vast majority of respondents also indicated that there are times of the year when MCTs are less frequent in their availability. This is during the rainy season, which starts in July and ends in October. During this time of the year, roads become extremely muddy and can cause flooding, which hinders the ability of MCT riders to reach certain areas and reduces the speed at

which they can travel. As a result, their availability is much reduced at this time of the year. That said, there is a period when roads are too muddy for conventional modes of public transport, but motorcycle taxis can still operate. This will increase demand for MCTs. The rainy season, as the pre-harvest season, is sometimes referred to as the 'hungry season' and most farmers have little to spare, financially, to make journeys on motorcycle taxis.

Chart 3 - How the MCT was summoned for passengers' journeys



Most respondents indicated that they hired the MCT for their journey by simply waiting until one came by. In Zehplay, all respondents hired their MCT in this way, which is a reasonably effective strategy due to the greater availability of MCTs in this area compared to the other areas. The lower percentage of respondents hiring a MCT in this way in the Gogein location can be expected, since MCT operators are likely still adapting to the new route along the track network, and are likely not yet travelling along this new track network in the same way that they do to reach the other areas. As a result, it could be expected that residents in villages along the track network would attempt to secure the services of a MCT rider in other ways, so that they are not forced to wait for a long time for one to come to them.

In the Gogein location, 23.5% of respondents indicated that they hired the MCT for their journey by making a call to the rider. By comparison, just 6.3% of respondents in Doumpa and no respondents in Zehplay arranged a journey in this way. 12.5% of respondents in Doumpa and 5.9% of respondents in Gogein indicated that they had arranged their journey with the rider the day before. It seems that the lower the availability of MCTs, the more important it is that arrangements can be made in advance of the journey or by mobile phone. Therefore, mobile phone connection is important in areas that do not benefit from a high availability of MCTs, such as along newly constructed track networks.

#### 5.4.1.2 Motorcycle Taxis and Access to Markets and Essential Services

The passenger surveys confirmed that MCTs play a significant positive role in improving access to markets and essential services.

**Table 4 – MCTs and improved access to markets**

	<b>Doumpa</b>	<b>Zehplay</b>	<b>Gogein</b>
Improved access to markets?	93.8%	96.7%	100%

93.8% of Doumpa respondents, 96.7% of Zehplay respondents, and 100% of Gogein respondents indicated that MCTs had improved their opportunity to attend a market. This pattern could be expected, since the location with the lowest (though still very significant) percentage of respondents indicating that MCTs have improved their access to markets is the location with the greatest degree of access for other modes of transport. And vice versa, the location with the highest percentage of respondents is the location with no access for any other modes of transport. Clearly, motorcycle access is most valuable in increasing access to markets when there is less access to other modes of transport.

**Table 5 - Explanations for improved market access**

	<b>Doumpa</b>	<b>Zehplay</b>	<b>Gogein</b>
Now always use a MCT to go to market	6.7%	37.9%	29.4%
Easy to go to market when travelling alone	3.3%	0%	0%
Quicker access to market	26.7%	17.2%	11.8%
Easier access to market	16.7%	3.4%	5.9%
No longer have to walk to market	20%	6.9%	5.9%
Now attend market more frequently	20%	27.6%	29.4%
Now able to bring children to market	3.3%	0%	0%
Increased trading opportunities	3.3%	0%	0%
MCTs can go to farms to collect produce	0%	3.4%	11.8%
Can now transport more produce	0%	3.4%	5.9%

Reasons given for improved access to markets were varied, with no particular explanation taking the majority of the responses in any of the study locations. A number of respondents commented that they now always use a MCT to go to market, and that they now attend markets more frequently as a result of MCTs. Most reasons given fell into one of three categories, in declining frequency of responses:

1. Markets can be reached more quickly as a result of MCTs;
2. It is easier to reach markets as a result of MCTs; and
3. More produce can be transported to market.

**Table 6 - MCTs and improved access to healthcare**

	<b>Doumpa</b>	<b>Zehplay</b>	<b>Gogein</b>
Improved access to healthcare?	75%	93.3%	86.7%
Used MCT to solve medical emergency?	26.7%	64.7%	25%

75% of Doumpa respondents, 93.3% of Zehplay respondents, and 86.7% of Gogein respondents indicated that MCTs had improved their opportunity to attend a medical facility. Following the same pattern, 26.7% of Doumpa respondents, 64.7% of Zehplay respondents, and 25% of Gogein respondents reported having used a MCT to solve a medical emergency. Again, it would be expected that Doumpa would have the lowest percentage of respondents indicating that their access to healthcare due to the greater availability of other modes of transport in this location. However, it would also be expected that Gogein would have had the highest percentage of respondents indicating that their access to healthcare had been improved because until recently the only way to

access medical facilities was to travel on foot for at least a portion of the journey. Nevertheless, the fact that there were more respondents in Zehplay who indicated that their access to healthcare had been improved than respondents in Gogein, this is likely explained by a potential current insufficient supply of motorcycle taxi services along the track network, since access has only recently been achieved. The Gogein track network is not accessible to any other modes of transport (except to not (yet) common motor tricycles and bicycles), but even though 4WT access is possible in Zehplay, Zehplay is visited by 4WTs only very rarely. Motorcycle taxis are responsible for the overwhelming majority of transport in Zehplay, and the availability of MCTs in this location is very high, as previously explained. It is likely that it will take more time to see improvement in access to healthcare along the Gogein track network to be achieved, since operators will need to fully adapt to the new route and the new opportunities available to them. That said, not all patients can be safely transported by a motorcycle on a footpath or track and for now rely on transportation by hammock. In several African countries, locals have converted motor tricycles into rural ambulances.

**Table 7 - Explanations for improved healthcare access**

	<b>Doumpa</b>	<b>Zehplay</b>	<b>Gogein</b>
Now always use MCT to go to healthcare	59.1%	65.4%	46.2%
Quicker access to healthcare	4.5%	3.8%	15.4%
Easier access to healthcare	4.5%	3.8%	0%
Can go to healthcare at night	13.6%	0%	0%
Can go to healthcare in an emergency	18.2%	0%	0%
MCTs take children to healthcare	0%	3.8%	7.7%
Less sick people are dying	0%	7.7%	0%
Can go to any health centre	0%	11.5%	0%
Can go to healthcare when cars are not available	0%	3.8%	15.4%
Can take people to healthcare from remote areas	0%	0%	15.4%

Many respondents indicated that they now always use a MCT to travel when seeking healthcare. Explanations for MCT induced improved access to healthcare were varied, with no particular reason taking the majority of the responses in any of the study locations. Quicker and easier access offered by MCTs was again raised, while other reasons included the fact that MCTs allow healthcare to be accessed at night and in the case of emergencies; that ill people can now go to any health centre they require rather than having to access the nearest one on foot; and that healthcare can be reached when other modes of transport are not available. In confirmation of the prediction that new motorcycle access would improve access for more isolated locations, in Gogein a number of respondents replied that MCTs now allow sick people to be taken to medical facilities from remote areas.

#### **5.4.1.3 Safety**

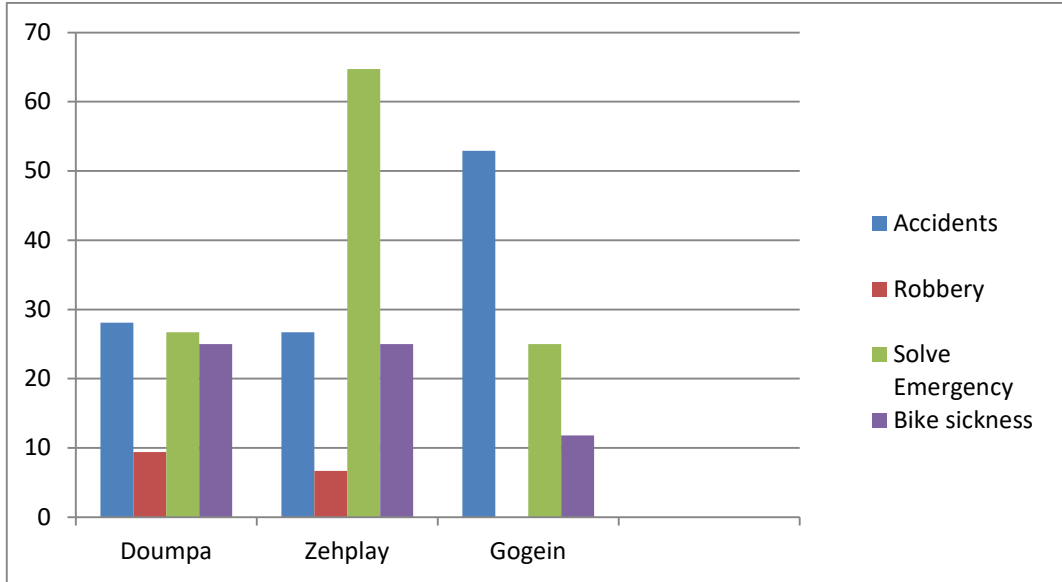
Research conducted in Tanzania into the safety of rural motorcycle transport suggests that motorcycle users are at particular risk of being involved in road traffic accidents (Jinadasa et al., 2013).

The findings show that a significant number of respondents had been involved in an accident when using a motorcycle taxi.<sup>4</sup> In Doumpa and Zehplay the level of motorcycle accidents were at similar levels. However, in Gogein, the level was much higher at 52.9%. It is possible that this higher level is accounted for by the lack of experience that riders have in navigating the track network. Even

<sup>4</sup> It is possible that some respondents have been involved in more than just one accident, so total number of accidents cannot be derived from the table's data.

though tracks are specifically designed with safety in mind, for example by ensuring that bushes and trees are cut back 2 m from the edge of the track to permit greater lines of sight, riders will have to adapt their riding practices so that they are better suited for the narrower tracks.

Chart 4 - Passenger Health and Safety Issues in percentages



Another explanation may be that the MCT operators started operating on the tracks well before they were finished, increasing the risk of accidents. However, it will be important to collect proper data for this in the future. This should include data on the severity of the accident.

Table 8 - Accident circumstances

	Doumpa	Zehplay	Gogein
Speeding	33.3%	28.6%	20%
Bad or muddy roads	22.2%	42.9%	40%
Injured in robbery	11.1%	14.3%	0%
Fell from bridge	22.2%	0%	0%
Collision	11.1%	0%	0%
Drink driving	0%	0%	20%
Foot interfered with chain	0%	0%	20%
Rider error	0%	14.3%	0%

Nevertheless, 40% of Gogein respondents who had been involved in a motorcycle accident indicated that the cause of their accident was bad road conditions. This indeed seems to suggest that they were referring to the not yet completed track network or more generally to the condition of the main road network between Gogein and Saclepea. Other causes (Table 9) included speeding, drink driving, and the passenger themselves causing the accident by allowing their foot to interfere with the motorcycle’s chain. In Doumpa and Zehplay, the main cause of accidents was said to be speeding. Other major causes were bad road conditions, bad bridge conditions, muddy roads, driver error, and being injured in robberies.

**Table 9 - Accident circumstances disaggregated by rider/passenger respondents**

	Riders	Passengers
Bad or muddy roads	37.8%	33.3%
Mechanical problems	18.9%	0%
Rider error	13.5%	4.8%
Collision	16.2%	4.8%
Speeding	8.1%	28.6%
Overloading	2.7%	0%
Fell from bridge	2.7%	9.5%
Injured in robbery	0%	4.8%
Drunk driving	0%	9.5%
Foot interfered with chain	0%	4.8%

Interestingly, rider respondents were more likely to blame accidents on their own errors than passengers were to blame accidents on rider error.

**Table 10 - Sickness circumstances**

	Doumpa	Zehplay	Gogoin
Cold	16.7%	0%	0%
Body pains	33.3%	60%	50%
Accident injuries	33.3%	20%	0%
Ill from dusty road	16.7%	0%	0%
Stomach pains	0%	20%	0%
Eye problems	0%	0%	50%

A number of respondents reported becoming ill as a result of using MCTs. 25% of Doumpa respondents, 20% of Zehplay respondents, and 11.8% of Gogoin respondents reported MCTs causing illness. When asked what sort of illness MCTs had caused (Table 10), the most common response was body pains, followed by injuries as a result of accidents. Other causes included the common cold, perhaps as a result of riding in the rain; eye and respiratory problems caused by dusty roads in the dry season, and stomach pains.

#### 5.4.1.4 The Benefits of Motorcycle Taxis over Four-Wheeled Taxis

An overwhelming majority of respondents in all three locations indicated that they would like there to be more motorcycle taxis operating in their areas, although there were fewer respondents who expressed this wish in Zehplay (see Chart 5).

It is not surprising that Doumpa, the location with the most infrequent availability of MCTs (according to responses from a previous question), had the highest percentage of respondents indicating that they would like there to be more MCTs in their area, and that the location with the most frequent availability of MCTs had the lowest percentage of respondents expressing a need for more MCTs.

Respondents were invited to give their own reasons for wanting there to be more MCTs operating in their area, rather than being asked to choose from a list of potential answers. Again, they were able to give more than one reason, so the figures in Table 11 are given as a percentage of cases.

Chart 5 - Do passengers want there to be more MCTs?

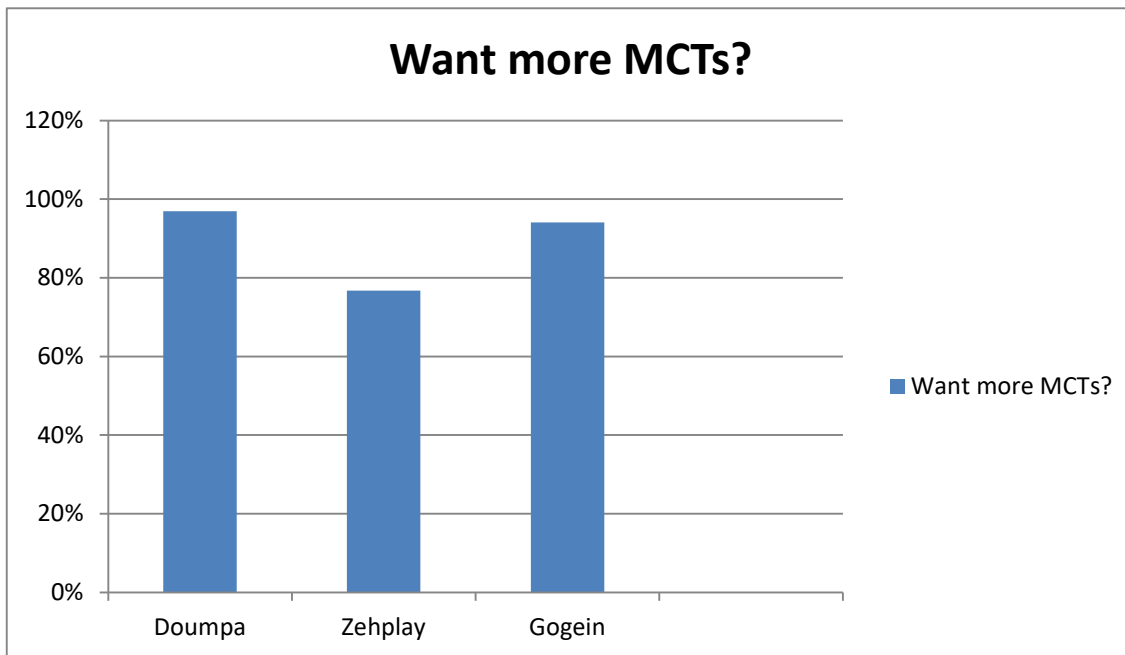


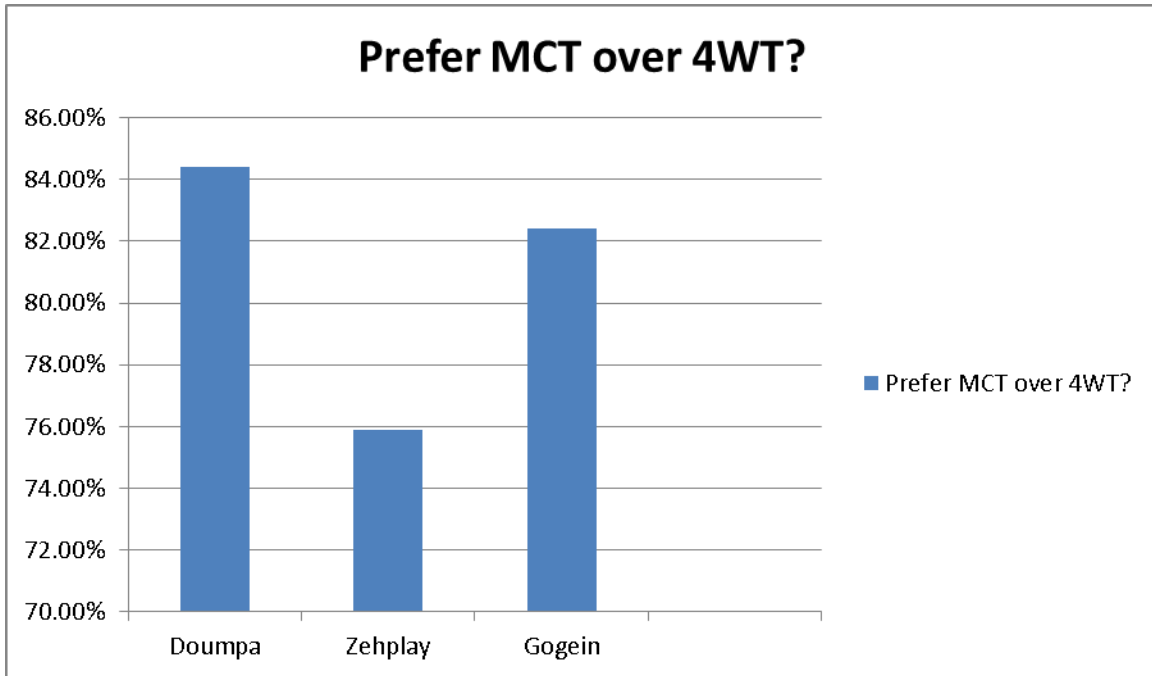
Table 31 - Reasons given for wanting more MCTs (as a % of cases)

	Doumpa	Zehplay	Gogein
More jobs	10%	26.1%	25%
More jobs for young men	40%	30.4%	12.5%
Less waiting time	10%	26.1%	18.8%
Not enough to meet demand at present	3.3%	0%	6.3%
Lower fares	16.7%	13%	18.8%
Easier to find a MCT in an emergency	3.3%	0%	0%
Population is increasing so number of MCTs should too	16.7%	13%	0%
Would help to promote business	3.3%	0%	0%
Could transport goods more often	0%	0%	6.3%
There are more farms and bigger farms now	0%	0%	12.5%

The main reason - given by 50% of Doumpa respondents, 56.5% of Zehplay respondents, and 37.5% of Gogein respondents - was that this would mean that there would be more people with jobs. More specifically, 40% of Doumpa respondents, 30.4% of Zehplay respondents and 12.5% of Gogein respondents did not just say that there would be more jobs, but that there would be more jobs *for young men*. This is indicative of the fact that the motorcycle taxi sector in rural Liberia is dominated by young men, often with low education and skill levels. This reason was followed by the prediction that more MCTs would lead to shorter waiting times, and that more MCTs would lead to lower fares. Other reasons included that the population is increasing so the number of MCTs should too, that more MCTs would help to promote business, and that it would be easier to find a MCT in an

emergency. A reason that was only given in Gogein was that there are now more farms and larger farms, so more MCTs are needed to transport produce. If there are now more farms and bigger farms, this might be as a result of behaviour change relating to choices of farm sizes following the completion of tracks in the Gogein area, as hinted in Section 5.5.

Chart 6 – Passenger transport preferences



The vast majority of respondents in all three areas indicated that they prefer MCTs over 4WTs. Interestingly, the location with the highest percentage of respondents indicating as such was Doumpa, which has the greatest degree of access for 4WTs and the lowest frequency of MCT services.

Table 42 - Reasons given for preferring MCTs over 4WTs (as a % of cases)

	Doumpa	Zehplay	Gogein
Faster	70.4%	72.7%	57.1%
Better for the road conditions	3.7%	0%	0%
Always available	3.7%	0%	0%
Used to using MCTs	14.8%	0%	21.4%
MCTs operate all year round	3.7%	0%	0%
Most effective mode of transport	3.7%	0%	0%
Prefer motorcycles	3.7%	0%	0%
MCTs can reach places that 4WTs cannot	0%	9.1%	21.4%
More frequent	0%	31.8%	7.1%
Only mode available	0%	0%	7.1%
Don't have to wait for MCT to get full before leaving	0%	0%	7.1%

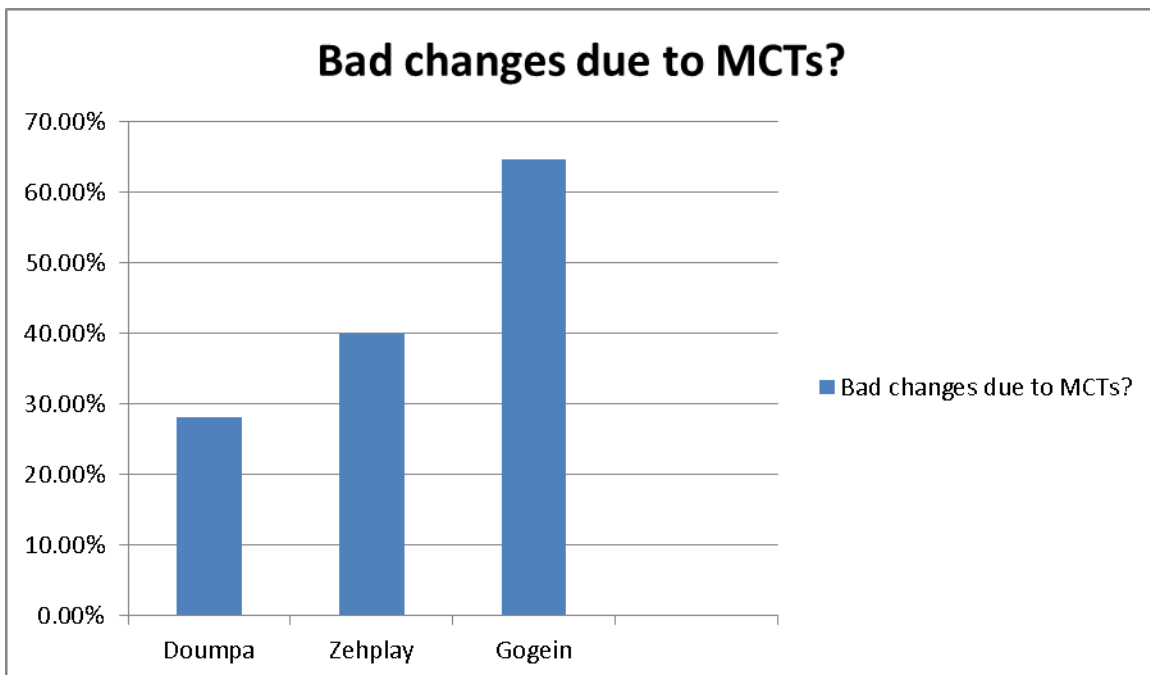
Respondents were also asked to give reasons for their preference (Table 12). Again, it should be noted that respondents were able to give more than one reason, so percentages for reasons for preferring MCTs are given as a percentage of cases. In Doumpa, the most common reason given for preferring MCTs was that they are much faster than 4WTs. Others said that they prefer them simply because they are used to using them, while other reasons included that MCTs are better suited to the bad road conditions, that they have a greater availability than 4WTs, that they operate all year round while 4WTs do not, and that they are more effective than 4WTs. The location with the second highest percentage of respondents who indicated that they prefer MCTs over 4WTs was Gogein. The most common reason given for their preference was that MCTs are much faster than 4WTs, followed by that MCTs can reach places that 4WTs cannot. Zehplay had the lowest percentage of respondents indicating that they preferred MCTs over 4WTs, but still representing threequarters of the respondents. The main reason given for respondents' preference was again MCTs being faster than 4WTs. This was followed by MCTs being available more frequently, and MCTs being able to reach areas which are not accessible by 4WTs.

The majority of respondents in all three locations prefer MCTs over 4WTs, and want there to be more MCTs operating in their areas. Clearly, the speed of travel of MCTs on the bad roads found in these areas is a key benefit that they have over 4WTs, as this was the main reason given for preferring MCTs over 4WTs in all three study locations. 4WTs not being able to access certain areas was less of a concern in Doumpa, which is an area with the greatest degree of accessibility for four-wheeled vehicles, but it did come into play in Zehplay and was a major reason given in the Gogein location, which does not have any access for four-wheeled vehicles.

#### 5.4.1.5 General Impact of the Spread of MCTs

The percentage of respondents indicating that there have been bad changes in their areas (for example increased crime rates, road crashes and school dropout), that have resulted from the spread of MCTs varied quite widely by location.

Chart 7 - Do respondents feel that there have been negative consequences of MCTs?



Interestingly, the percentage of respondents indicating that there have been negative consequences of the spread of MCTs was higher in areas with the lowest degree of access for other modes of transport. In Doumpa, which has the highest degree of access to 4WTs, relatively few respondents

felt that the spread of MCTs has had negative consequences. On the other hand, in Gogein, where there is no access to 4WTs and access to MCTs is only a recent development, a relatively high percentage of respondents felt that the spread of MCTs have had negative consequences. The fact that the effects of the spread of MCTs would be fresh in the minds of respondents is quite possibly a reason why the percentage is higher in this location.

**Table 13 - Bad changes brought about by MCTs**

	<b>Doumpa</b>	<b>Zehplay</b>	<b>Gogein</b>
Increased school dropouts	22.2%	58.3%	72.7%
Increased crime rate	11.1%	33.3%	9.1%
Increased problems in relationships	11.1%	8.3%	36.4%
Increased accidents and injuries	44.4%	25%	9.1%
Increased stealing	11.1%	16.7%	27.3%
Increased early marriage	0%	8.3%	0%
Increased early child bearing	0%	8.3%	0%

Respondents who had said that there have been negative consequences of the spread of MCTs were asked to elaborate, and gave a number of reasons for their statement. In Doumpa, the main reason given was that the spread of MCTs has increased accidents and injuries. The second highest percentage of respondents said that the spread of MCTs has increased the number of school dropouts. Qualitative interviews revealed that young men often make the decision to take up the MCT profession before finishing their schooling. Many local people are unhappy about this, but the young men themselves opt to leave school in order to begin earning the relatively good wages that the profession can offer them. Increased numbers of school dropouts was the main reason given in Zehplay (58.3%) and Gogein (72.7%). The high percentage of people in Gogein who indicated that there have been negative consequences of the spread of motorcycles, coupled with the high percentage of people who explained that their reason for their indication was the increased number of school dropouts brought about by MCTs, seems to suggest that young men are already beginning to enter the profession following the completion of the track network. While this is a good thing for improving transport services in an area which would have previously had no MCT riders living in local communities, it is obviously a concern for local people who would prefer their young men to first complete their schooling before taking up the profession.

Other reasons included increased problems with crime resulting from the spread of MCTs, as well as increased problems in relationships. Qualitative interviews, as well as the rider surveys, show that local people often suspect that MCT riders are responsible for criminal activities or are complicit in them. Furthermore, problems in relationships are often blamed on the propensity for riders to have girlfriends in different villages, which can lead to strain being placed on marriages and to riders not fully supporting their families. While early marriage and child bearing are to some extent cultural norms, they were explicitly raised by respondents as having increased when they were asked to specify bad changes that have come about as a result of the spread of MCTs. These are major concerns that have been raised in various components of this study.

#### **5.4.1.6 Women and Motorcycle Taxis**

To assess if passengers felt if it was a good idea that women should be trained as motorcycle taxi operators the sample was split to identify whether there was a difference between the responses of

males and females. It was found that 54% of females indicated that it would be a good idea to train women as MCT riders compared to 39% of males.

**Table 14 - Passenger thoughts on the training of women as MCT riders**

	<b>Doumpa (37.5% male)</b>	<b>Zehplay (36.7% male)</b>	<b>Gogein (35.4% male)</b>
Good if there are women riders?	56.3%	34.5%	58.8%

Looking at the data for the three different locations, a slight majority of respondents in Doumpa and Gogein indicated that they thought that it would be a good idea, but just 34.5% of respondents in Zehplay thought that it would be a good idea. This is interesting because the percentage of Zehplay respondents who were male was similar to the percentages of respondents who were male in both Doumpa and Gogein.

**Table 15 - Explanations for training female MCT riders, disaggregated by location and gender (as % of cases)**

	<b>Doumpa</b>		<b>Zehplay</b>		<b>Gogein</b>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
Women would be empowered	20%	16.7%	0%	14.3%	0%	28.6%
Women would contribute to society	40%	0%	0%	14.3%	0%	
Women wouldn't have to depend on men	20%	0%	0%	0%	0%	14.3%
Women are more careful	40%	0%	0%	14.3%	33.3%	42.9%
Everyone has a right to do whatever they want	0%	8.3%	100%	0%	33.3%	0%
Gender equality	0%	8.3%	0%	0%	66.7%	14.3%
There would be more jobs for women	0%	16.7%	0%	0%	0%	0%
Women can do anything a man can	0%	8.3%	0%	0%	0%	0%
It would be an alternative to farm work	0%	8.3%	0%	0%	0%	0%
There would be fewer accidents with women riders	0%	8.3%	0%	14.3%	0%	0%
Women would contribute to the home	0%	25%	0%	42.9%	0%	0%
People would prefer to ride with women riders	0%	0%	0%	14.3%	0%	0%

**Table 16 - Explanations for saying that it would be good to train female MCT riders**

	<b>Doumpa</b>	<b>Zehplay</b>	<b>Gogein</b>
More jobs for women	11.8%	0%	0%
Women would be empowered	17.6%	11.1%	20%
Women can do anything a man can	5.9%	0%	0%
Alternative to farm work	5.9%	0%	0%
Gender equality	5.9%	0%	30%
Everyone has a right to do what they want	5.9%	22.2%	10%
Women would contribute to society	11.8%	11.1%	0%
Women wouldn't have to depend on	5.9%	0%	10%

men			
Fewer accidents with women riders	5.9%	11.1%	0%
Women are more careful	11.8%	11.1%	40%
Women would contribute financially to the household	17.6%	33.3%	0%
People would prefer to ride with women	0%	11.1%	0%

Those who indicated that it would be a good idea to train women as MCT riders did so for a variety of reasons. In Gogoin, 40% said that women would be more careful, and 30% said that it would be good to train women as riders because this would contribute to gender equality. A third of respondents in Zehplay suggested that women trained in MCT riding would be able to contribute to the household financially. In Doumpa, the highest reasons for backing the idea were that women would be empowered if they were trained as riders (17.6%) and that women would contribute to the household financially (also 17.6%). Other reasons given include that there would be more jobs for women, that women can do anything a man can, that it would offer women an alternative to farm work, that everyone has a right to do what they want, that women would contribute to building society, that women would not have to depend on men financially, and that women riders would be popular with passengers. Overall, these findings echo those of the focus group discussions and seem to be quite similar across the two countries.

**Table 17 - Explanations for saying that it would be bad to train female MCT riders disaggregated by location and gender (as % of cases)**

	Doumpa		Zehplay		Gogoin	
	Men	Women	Men	Women	Men	Women
Women are not strong enough	50%	12.5%	66.7%	22.2%	33.3%	50%
Women should take care of the home	50%	50%	33.3%	55.6%	33.3%	25%
MCT riding is a man's job	0%	0%	16.7%	11.1%	0%	0%
Women should look after children	0%	25%	0%	11.1%	33.3%	0%
Girls would stop going to school	0%	12.5%	0%	0%	0%	0%
Riders would not respect their husbands	0%	12.5%	0%	0%	0%	0%
Women should do other jobs	0%	0%	0%	11.1%	0%	0%
There would be more accidents with women riders	0%	0%	0%	0%	0%	25%
It is too difficult for women	0%	0%	0%	0%	0%	25%

Those who indicated that they did not think that it would be a good idea to train women as riders were asked to give reasons why. Their reasons fall into a number of categories. Firstly, many reasons were about the physical ability of women to do the job, including doubts about women being strong enough to ride a MCT, and assertions that the job is too difficult for women. Secondly, there were reasons concerning what types of jobs women should do and what roles women should play in the home. For example, a high number of respondents said that women should take care of the home or should look after children, while others stated that riding an MCT is a 'man's job' or that women should do other jobs. For similar concerns to those raised in a previous section on the negative consequences of the spread of MCTs, a small number of respondents in Doumpa raised concerns about the effect on girls' education if the profession was opened up to them, fearing that it would

lead to an increase in the number of girls dropping out of school, as it has with boys. Furthermore, similar to those concerns about the effects of the spread of MCTs on relationships, a small number of respondents in Gogein said that female riders would not have respect for their husbands, fearing that the opening up of the profession to women would have further negative consequences for relationships.

**Table 18 - Percentage of respondents who said that women would ride more safely**

	Doumpa			Zehplay			Gogein		
	Men	Women	All <sup>5</sup>	Men	Women	All	Men	Women	All
Women safer?	58.3%	70%	65.6%	40%	73.7%	62.1%	66.7%	72.7%	70.6%

Interestingly, and as explained previously, when asked why they thought it would be a good idea to train women as MCT riders, a large number of respondents in Gogein said that women would be more careful riders than men. A follow-up question was whether respondents thought that women would be more careful riders. This was asked to all respondents, whether they indicated that they thought it would be a good idea to train women as riders or not. As can be seen in Table 18, the majority of respondents in all locations indicated that they thought that women would be more careful riders than men. When the sample was split to show differences in responses between men and women, it again showed a difference. Women were more likely to say that other women would ride more safely than men.

When respondents were asked why they thought women would ride more safely, almost all said that women are naturally more careful. The few who did not say that women are naturally more careful said that they would ride more carefully because they are not as brave as men.

**Table 19 - Explanations for saying that women would not ride more safely**

	Doumpa	Zehplay	Gogein
Women are not strong enough to handle the m/c	33.3%	100%	100%
Women are not supposed to ride m/cs	33.3%	0%	0%
Women haven't done it before	33.3%	0%	0%

When respondents were asked why they did not think that women would ride more carefully, 100% of respondents in both Zehplay and Gogein said that their reason was because women are not strong enough to handle a motorcycle in rural areas. In Doumpa, reasons were split equally between three reasons: 1) women are not strong enough to handle the motorcycle; 2) women are not supposed to ride motorcycles and 3) women have not ridden motorcycles before. The main reasons to doubt that women would ride more carefully, then, concerned the physical ability of women to ride as MCT riders.<sup>6</sup>

Respondents were then asked whether they agreed with the following statement: "Only a man is strong enough to handle a motorcycle taxi on a rough or muddy track". Again, this was asked to all respondents, regardless of their answers to previous questions.

**Table 20 - Percentages of respondents agreeing with statement**

	Doumpa			Zehplay			Gogein		
	Men	Women	All	Men	Women	All	Men	Women	All
Only men strong	91.7%	55%	68.8%	100%	66.7%	79.3%	100%	100%	100%

<sup>5</sup> This is a weighted percentage: note that more female than male passengers were interviewed.

<sup>6</sup> Note that these were not predefined options in the survey, but that respondents were able to answer in their own words and that the responses were only categorised at the input stage.

enough?									
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A majority of respondents in all three locations also agreed with the statement, however there was quite some difference in the percentages of respondents who agreed between locations. While 100% of respondents in the Gogein location agreed with the statement, 79.3% of Zehplay respondents and 68.8% of Doumpa respondents agreed. In addition, men were much more likely to agree with the statement than women were.

**Table 21 - Explanations for agreeing with statement**

	Doumpa	Zehplay	Gogein
Men are naturally stronger	94.4%	88.9%	75%
Riding takes a lot of strength	5.6%	0%	0%
Men have been riding m/cs since they came to Liberia	0%	11.1%	0%
Women are afraid	0%	0%	25%

Those who agreed did so mainly through the belief that men are naturally stronger than women, and that riding takes a lot of strength. Some respondents in Gogein explained that men are more suited to the profession because they have been riding motorcycles since they first came to the country, while some respondents in Gogein said that women would be afraid of riding. The latter reason for agreeing with the statement concerns the perceived greater mental strength of men rather than the perceived greater physical strength of men, which the majority of other respondents based their answers on.

**Table 22 - Explanations for disagreeing with statement**

	Doumpa	Zehplay	Gogein
Women can do anything a man can	16.7%	75%	N/A
Some women are as strong as men	33.3%	0%	N/A
Women could ride if properly trained	50%	0%	N/A
It is not only about strength, but skill too	0%	25%	N/A

Those who disagreed with the statement either disagreed with the notion that women are not as physically capable as men, or disagreed with the statement’s focus on physical strength, saying that women could make up for any differences in strength by being more skilful. Others said that women would be capable of becoming MCT riders provided they received proper training.

One of the values of recording and exploring different perspectives and beliefs around women as motorcycle taxi operators is that any programme aiming at gender mainstreaming in this sector should take these beliefs into account. Whether or not they are factually true does not matter: they are ‘social facts’ and can heavily impede the outcome of any such programme. However, ‘social facts’ can be challenged and changed through new information, sensitisation, awareness raising and perhaps even more powerful: real-life examples or trailblazers.

#### 5.4.1.7 Suggestions to Improve Transport Services in Rural Areas

To conclude the survey, respondents were asked whether they had any suggestions to improve motorcycle taxi services or transport services in general.

A large majority of respondents in Doumpa and Zehplay indicated that they felt that road conditions should be improved. A slight majority of respondents in Gogein also indicated that road conditions should be improved. However, they did not specify whether they were referring to the recently upgraded track network or to the main road. The fact that the track network had recently been improved may explain the lower percentage of respondents who suggested that road conditions should be improved in Gogein compared to those in Doumpa and Zehplay.

**Table 23 - Suggestions to improve MCT services or transport services in general (as a %age of cases)**

	Doumpa	Zehplay	Gogein
Road conditions should be improved	95.7%	84.6%	57.1%
There should be more MCTs	4.3%	0%	7.1%
Access to community roads should be improved	4.3%	0%	0%
Bridges should be improved	0%	7.7%	7.1%
Make a law to ensure that riders know right from wrong	0%	3.8%	0%
Give training to riders	0%	23.1%	7.1%
Riders should be licensed	0%	3.8%	0%
Continue to improve farm-to-market roads	0%	0%	7.1%
Bring 3-wheel MCTs	0%	0%	7.1%
Motorcycles should be improved	0%	0%	7.1%

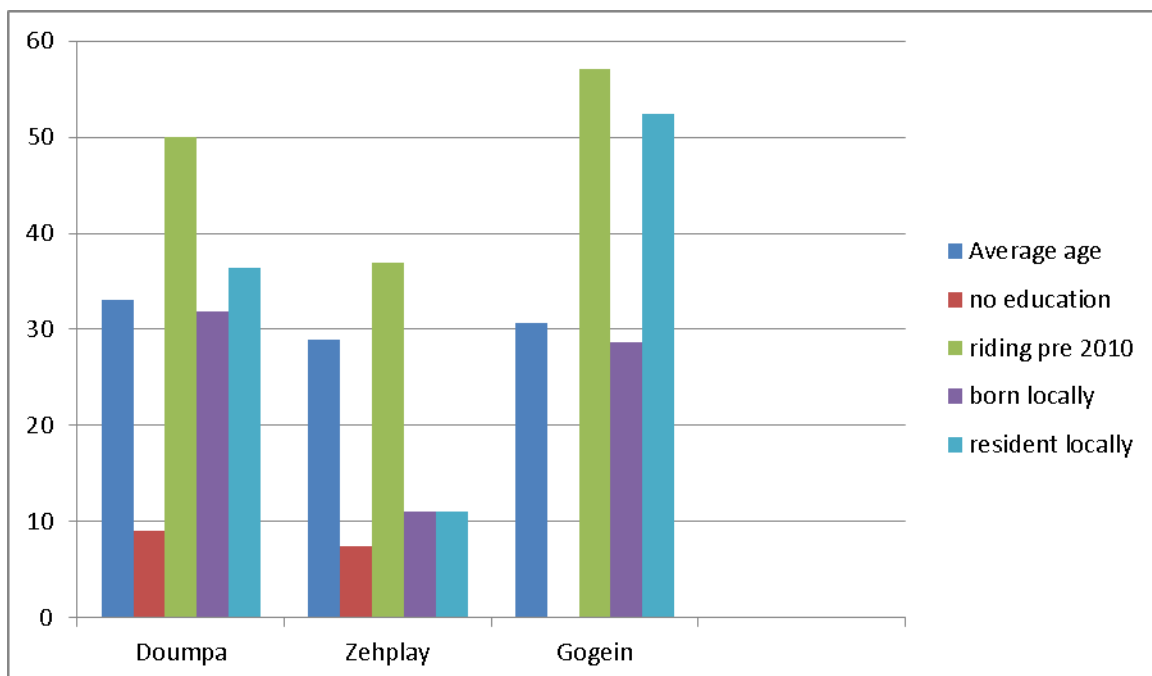
Furthermore, an interesting point to be taken from this is that a much greater percentage of respondents in communities which were accessible by 4WTs indicated that road conditions should be improved than the percentage of respondents in communities that are accessible solely by MCTs. 4WTs need better road conditions to operate, so road conditions are not as great a consideration in villages that only have access via MCTs. The responses suggest that it is a level of basic access that is most highly valued by communities and not the road condition.

### 5.4.2 Liberia Motorcycle Taxi Operator Survey Findings

#### 5.4.2.1 Who are Rural MCT Riders?

Rider surveys aimed to first ascertain who rural MCT riders are by asking a number of questions related to their backgrounds.

**Chart 8 – Backgrounds of MCT riders in %**



Rural motorcycle taxi riders are typically young men (<35 years old). Most have completed at least some education. Whether or not they have been riding for a long period of time varies by location. As shown in the table above, exactly 50 percent of surveyed riders in Doumpa had been riding since before 2010, while in Zehplay the figure was lower and in Gogein the figure was higher. In Gogein,

there were almost twice as many riders who resided locally as riders who were born locally. Zehplay’s relative proximity to Saclepea is a likely reason why it has the lowest percentage of riders who were born and reside locally.

**Table 24 - Rider ownership of motorcycles and operating agreements of non-owners**

	Doumpa	Zehplay	Gogein
Motorcycle owner	86.4%	63%	81%
“work-and-pay” (HP)	4.5%	3.7%	14.2%
“Winer” <sup>7</sup>	0%	11.1%	4.8%
Riding for an owner	9.1%	18.5%	0%
Renting for one day	0%	3.7%	0%

Zehplay has the lowest percentage of riders who own their own motorcycle. Of the sample studied, Zehplay has the greatest number of riders who have recently started out in the profession. So it is likely (and confirmed by the findings presented in Table 24) that they are at present operating the motorcycle for an owner with whom they have an operating agreement. The aim is however to eventually become “owner riders” themselves.

**Table 25 - Riders' thoughts on owner riders being more careful riders**

	Doumpa	Zehplay	Gogein
Think owners are more careful riders	95.5%	88.9%	85.7%

The overwhelming majority of riders in all three locations felt that owner riders are more careful riders than those who are operating a motorcycle for somebody else. Some riders commented that owner riders know the hardship they went through to own the motorcycle, and would therefore be more careful so that they do not damage their hard-earned motorcycle. However, those who disagreed with the statement often said that they would make sure to return the motorcycle to the owner in good condition if they had been trusted to take care of it.

If these findings could be further backed-up with ‘hard data’ it may offer a way for those concerned with road/transport safety to reduce motorcycle taxi accidents.

**Table 26 - How motorcycles were acquired by owner operators**

	Doumpa	Zehplay	Gogein
Bought themselves	21.4%	5.9%	17.6%
Bought by family member	7.1%	0%	5.9%
Susu	42.9%	5.9%	5.9%
Work and pay	14.3%	23.5%	35.3%
Bought from proceeds of farming	14.3%	58.8%	29.4%
Bought from proceeds of selling gasoline	0%	5.9%	5.9%

Riders acquire their motorcycles in various ways. In Doumpa, the most common way that riders had acquired their motorcycles was through a *susu*, which is a type of savings club in which members put in money and a recipient is randomly chosen after a set period of time. The cycle then starts again, and after another period of time, another recipient is chosen who receives all of the saved money.

<sup>7</sup> A “winer” is a rider without a motorcycle, to whom a motorcycle is rented on a casual basis.

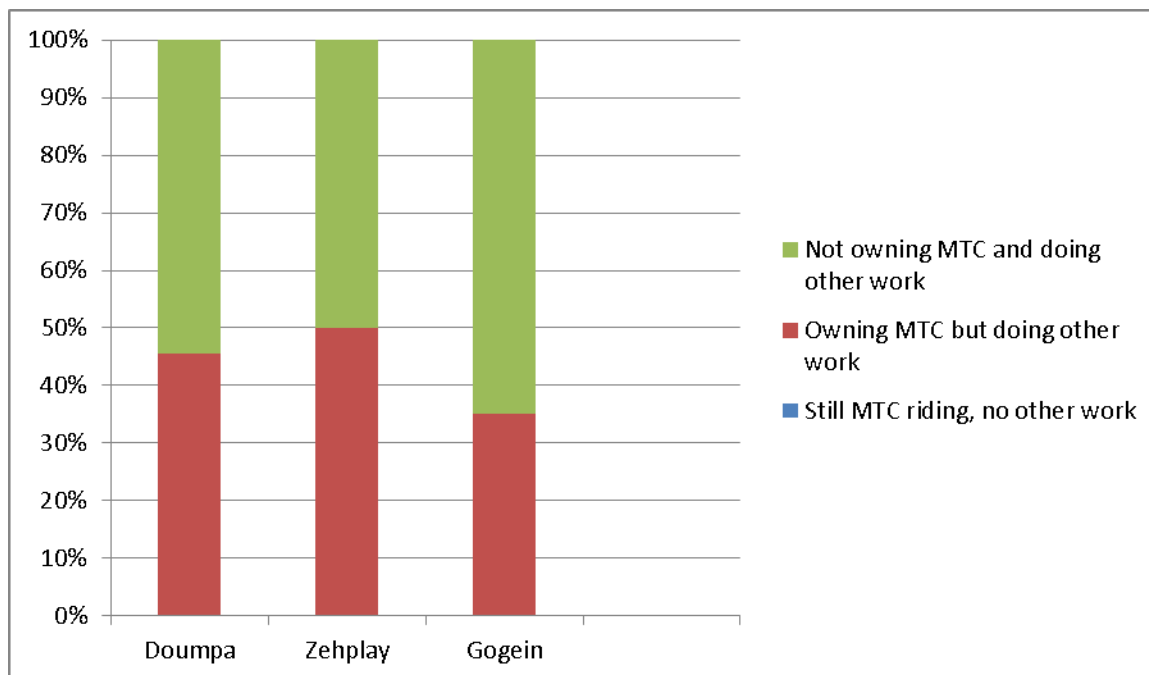
This was much less common in Zehplay, where the majority of riders had bought their motorcycles with proceeds from farming; and Gogein, where the most common way in which motorcycles were purchased was through “work and pay” agreements. These agreements are a type of hire-purchase agreement in which an aspiring rider is given a motorcycle to operate for an owner and is required to pay a daily or weekly “report”, a fee, to the owner of the motorcycle. These reports are added up, and after a rider has paid an agreed amount he takes ownership of the motorcycle. The agreed amount is usually considerably higher than the price that the owner purchased the motorcycle for, which is why businesspeople are inclined to offer these agreements. Other riders indicated that they had bought their motorcycles themselves from savings, while others had been bought a motorcycle by a family member or had bought their motorcycles with the proceeds from selling gasoline.

**Table 27 - Secondary professions of part-time operators**

	Doumpa	Zehplay	Gogein
<b>Part time riding</b>	<b>40.9%</b>	<b>29.6%</b>	<b>42.9%</b>
Student	22.2%	12.5%	0%
Farming	44.4%	62.5%	55.6%
Business	22.2%	12.5%	11.1%
Buying rubber	11.1%	12.5%	11.1%
Construction	0%	0%	11.1%
Selling gasoline	0%	0%	11.1%

While the majority of riders in all three locations rode full time, a significant number combined MCT riding with other activities (in bold in Table 27). Table 27 shows the various income generating activities the part-time riders had in addition to riding a MCT. Most part-time riders worked in farming, while others were students, rubber traders, construction workers or gasoline salesmen. The profession seems to offer a good degree of flexibility due to the nature of the work. Riders can choose to ride whenever they wish to, allowing those who do not ride full time to fit their riding around other activities.

**Chart 9 - Ten year ambitions of riders in %**



In order to gauge whether MCT riding is seen as a lifelong career or as a stepping stone to another job, riders were asked what they saw themselves doing in 10 years’ time. As Chart 9 shows, none of the surveyed riders saw themselves riding a MCT full time and not doing any other work. Evidently,

MCT riding is not something that riders want to do forever. However, Chart 8 showed that around 50% of the riders were already riding before 2010, so it may be more difficult to move on. Many respondents saw themselves owning a motorcycle but not operating it themselves. Interestingly, the most common response was that they saw themselves not owning a MCT and doing something else altogether. MCT riding is thus seen as a means to an end. Without start-up capital many unskilled young rural people will have no other choice than to become labourers in the (semi-) subsistence agricultural sector, work on rubber-plantations or in mining areas or try their luck in Monrovia or another urban setting. But with some start-up capital (provided through riding) young people can become traders or shop-owners, an occupation which is clearly preferred over being a MCT operator which exposes the rider to the natural elements, rough terrain and risk of accidents.

#### 5.4.2.2 Safety

The issue of road safety is one that has received much attention in recent years (Jinadasa et al., 2013). One aim of this study was to understand what safety risks rural riders face in their line of work by asking questions about road traffic accidents, robberies and illnesses.

**Table 28 - Riders' involvement in health and safety issues**

	Doumpa	Zehplay	Gogein
Accidents	63.6%	66.7%	81%
Robbed	9.1%	18.5%	4.8%
Sickness	72.7%	77.8%	76.2%

A majority of riders in all three locations had been involved in an accident while working. In Gogein, the level was higher, at 81%. The passenger survey also found that a higher percentage of passengers in Gogein had had an accident while using a MCT than in other areas. It is possible that this higher level is accounted for by the lack of experience that riders have in navigating the (not yet fully completed) track network. Tracks have safety measures incorporated in their design, but riders will likely have to adapt their riding practices when using the tracks. Alternatively, both operators and passengers in the Gogein location may have reflected on other journeys taken – for instance along the main road from Gogein to Saclepea.

Around three quarters of riders in all three locations said that they had become ill as a result of riding an MCT. A number of riders felt that they are susceptible to catching colds as a result of riding. Another common illness or injury that riders said they had suffered from as a result of riding was pain in the body, arms, or back. Again, this is quite likely due to the long hours spent riding on tremendously bumpy roads with often heavy loads on cheap motorcycles.

#### 5.4.2.3 Women and Motorcycle Taxis

To bolster the findings of the traffic counts, riders were asked whether they typically carry more women than men, more men than women, or men and women in equal number. The results again confirm that the majority of MCT passengers in rural Liberia are women.

**Table 29 - Gender balance of MCT passengers**

	Doumpa	Zehplay	Gogein
Carry more women than men	68.2%	14.8%	66.7%
Carry more men than women	9.1%	14.8%	9.5%
Carry men and women equally	22.7%	70.4%	23.8%

In Doumpa and Gogein, a significant majority of riders indicated that they carry more female passengers than male passengers. In no location did more than 15 percent of riders indicate that they carried more male passengers than females. However, in Zehplay over 70 percent of riders indicated that they carried both sexes equally. This is interesting, seeing as in the other two locations

there was such a significant majority of riders who indicated that they carry more females than males. It is possible that the reason for males and females being carried equally in Zehplay is a result of the much greater availability of MCTs in this area. This increased supply may lead to lower fares, which would make it more viable for men to use MCTs for (non-income generating) transport needs. Women tend to use MCT transport for (market-related) income generating purposes.

**Table 30 - Riders' views on the "special requirements" of women**

	Doumpa	Zehplay	Gogein
Women have special requirements	77.3%	63%	81%
Ride more slowly for women	77.3%	81.5%	81%

Riders were asked whether women have special requirements when riding as a MCT passenger, and if they ride more slowly when carrying a woman passenger than when carrying a man. In all three locations, a significant majority of riders indicated that they felt that women had special requirements.

**Table 31 - "Special requirements" of women passengers**

	Doumpa	Zehplay	Gogein
Women like you to ride more carefully	50%	35.3%	5.9%
You need to take time when riding women	37.5%	5.9%	23.5%
You need to protect women when riding	6.3%	5.9%	5.9%
You need to be careful because women are not as strong	6.3%	11.8%	0%
You need to make sure that women sit correctly	0%	29.4%	52.9%
You shouldn't go fast	0%	5.9%	5.9%
Women always have a problem when riding	0%	5.9%	0%
You need to tell them not to jump from the m/c if scared	0%	0%	5.9%

As the table above shows, riders identified a number of these special requirements. They fall into different categories. While some relate to women's perceived physical weaknesses, others relate to women's perceived emotionality or fearfulness.

**Table 32 - Reasons why operators ride more slowly with women**

	Doumpa	Zehplay	Gogein
Women prefer to ride slowly	12.5%	0%	0%
They are not as strong as men	18.8%	31.8%	23.5%
They might be pregnant	12.5%	4.5%	0%
Women are afraid	25%	31.8%	58.8%
You have to show them respect	12.5%	0%	0%
You have to be careful with women	18.8%	4.5%	0%
Women get sick quickly when riding	0%	4.5%	11.8%
Women complain about speeding	0%	4.5%	0%
To avoid accidents	0%	18.2%	0%
Women don't pay attention	0%	0%	5.9%

Unsurprisingly, then, a large majority of riders indicated that they ride more slowly when carrying female passengers. It is important to note that riders were asked to give their reasons in their own words, and were not given options to choose from. The provided reasons for riding more slowly fall into different categories. Some reveal a perception held by riders that women are physically or emotionally weaker than men. However, others suggested that women are not good passengers, for example because they do not sit on the motorcycle properly, or not pay attention.

**Table 33 - Riders' thoughts on whether it would be a good idea to train women as MCT riders**

	Doumpa	Zehplay	Gogein
Good to train women to ride	33.3%	22.2%	23.8%

Those riders who thought that it would be a good idea to train women how to operate as a MCT rider were in the minority. Riders were asked to give reasons for why they felt they either did think or did not think that training women as riders would be a good idea.

**Table 34 - Reasons for saying that it would be good to train women**

	Doumpa	Zehplay	Gogein
Women could contribute financially	16.7%	33.3%	40%
Equal rights	16.7%	50%	0%
Women are more careful	50%	0%	20%
Women would not have to depend on their partners for money	16.7%	0%	0%
Gender equality	0%	0%	20%
Women are capable of riding	0%	16.7%	0%
Women would be self-employed	0%	0%	20%

As the table above shows, some felt that training women as riders would help to empower women by giving them equal opportunities. Some thought that women would make good riders because they would ride more carefully, or thought that women are perfectly capable of riding so should be given the opportunity to. Others could see the benefit that enabling women to be self-employed in relatively well paid jobs would bring, as many pointed out that this would allow women to contribute to the household financially.



**Picture 7 - Female passenger negotiating a fare with a MCT rider in northern Sierra Leone.**

Those who did not think that it would be a good idea to train women to become MCT riders gave a number of reasons. Some felt that women should not ride for traditional reasons, for example that it is seen as a man's job, that there would be no respect in relationships, or that women should continue to handle a household's domestic duties. Other reasons given again fell into the category of perceived physical or emotional weaknesses of women. On the physical side, some said that women are not strong enough to ride a motorcycle commercially, with some saying that this is particularly important due to the bad roads encountered in rural areas.

**Table 35 - Reasons for saying that it would not be good to train women**

	Doumpa	Zehplay	Gogein
Women shouldn't ride	15.4%	14.3%	0%
Women are not strong enough	30.8%	0%	12.5%
Women should look after the home	23.1%	33.3%	0%
It isn't safe for women to ride	7.7%	4.8%	25%
Women won't be able to handle the bad roads	23.1%	14.3%	0%
Women are not brave enough	0%	9.5%	12.5%
Women won't take risks	0%	4.8%	0%
Women can't stand tense situations	0%	9.5%	50%
There would be no respect in relationships	0%	4.8%	0%
It is a man's job	0%	4.8%	0%

On the emotional side, some said that women are reluctant to take risks, are not able to stand tense situations, or would not be brave enough. Finally, many said that it would not be safe for women to ride, perhaps in the sense that they would be vulnerable to robbery or harassment, or would be at risk of injuring themselves. Again, these findings echo the points raised in the focus group discussions. At the same time they provide pointers to any programme striving to mainstream gender in motorcycle taxi operating.

**Table 36 - Reasons why there are no women MCT riders**

	Doumpa	Zehplay	Gogein
Why few or no women riders? (as % of cases)			
Lack strength	63.6%	63%	85.7%
No interest	36.4%	18.5%	4.8%
No support	27.3%	11.1%	9.5%

These reasons feed into the responses given by riders when they were asked why there are no females working as MCT riders in rural areas. The three main reasons according to riders, as shown above, are that women lack the necessary strength, have no interest in becoming riders, and would not have the necessary support to ride even if they were interested in riding. The focus group discussions revealed that there are in fact a number of rural women who would be interested in taking up the profession but, as the riders identify here, they lack the financial support to take up the profession. Operators' agreements such as the work and pay agreements explained earlier have allowed many low-skilled individuals to enter the profession by allowing them to pay for their motorcycle as they work. However, for reasons like the ones given by those riders who felt that it would not be a good idea to train women to become riders, businessmen do not offer the same agreements to women through concerns about their ability to ride or their susceptibility to having their motorcycle stolen from them or being involved in a serious accident. Some other reasons given by riders for there not being any female riders in rural areas include: women being discouraged by families; women being busy with domestic responsibilities; riding being too risky for women; partners not wanting women to do this type of job; and fear on the part of women.

#### 5.4.2.4 Positive and Negative Consequences of the Spread of Motorcycle Taxis

Riders were asked whether there have been any positive or negative outcomes of the spread of motorcycles.

**Table 37 - Do riders feel that there have been good and bad consequences of the spread of MCTs?**

	<b>Doumpa</b>	<b>Zehplay</b>	<b>Gogein</b>
Good changes from MCTs	100%	92.3%	100%
Bad changes from MCTs	52.4%	69.2%	76.2%

As can be seen, the riders responded almost unanimously that there have been positive outcomes of the spread. The amount of riders saying that there have been negative consequences was much lower. Riders were asked to specify what the positive or negative outcomes were. They were allowed to specify more than one, so the following tables are given as a percentage of cases.

**Table 38 - Good changes resulting from MCTs (as % of cases)**

	<b>Doumpa</b>	<b>Zehplay</b>	<b>Gogein</b>
MCTs help to take people to healthcare	25%	37.5%	19%
MCTs allow quick movement	20%	12.5%	19%
MCTs empower people	5%	12.5%	0%
MCTs create jobs	15%	0%	9.5%
People are able to transport more goods	5%	16.7%	0%
MCTs are able to bring building materials (e.g. zinc, cement)	10%	8.3%	0%
NGOs can reach communities using MCTs	5%	0%	0%
People no longer have to walk everywhere	5%	8.3%	9.5%
People can take goods to market using MCTs	15%	12.5%	38.1%
Many riders have built houses from earnings	10%	4.2%	9.5%
Allows people to be self-employed	5%	0%	0%
Decreased death rates due to access to healthcare	5%	4.2%	0%
MCTs have reduced poverty	5%	5.4%	4.8%
Different foodstuff is available locally	5%	2.7%	0%
Students can get to school using MCTs	0%	2.7%	0%
Less thieves because they are now earning money as riders	0%	0%	4.8%
Increased petty trading	0%	20.8%	0%
MCTs can reach places that cars cannot	0%	0%	14.3%

As can be seen, the benefits that MCTs have brought are numerous, according to the operators. MCTs allow easier access to markets and essential services including healthcare, which received a particularly high mention with some saying that fewer people are dying due to increased access to treatment. MCTs have created jobs and allowed people to become self-employed as riders, therefore allowing some to build homes and put down their roots in a community. They help to bring building materials and different food items to communities, allowing some local people to engage in petty trading. According to some, they have also reduced the number of thieves operating in these areas, because those who would be likely to engage in criminal activities are now earning money as riders.

**Table 39 - Bad changes resulting from MCTs (as % of cases)**

	<b>Doumpa</b>	<b>Zehplay</b>	<b>Gogein</b>
More accidents	18.2%	5.6%	18.8%
Increased school dropouts	45.5%	16.7%	50%
Increased crime rate	18.2%	38.9%	43.8%
Riders suffer from back problems	9.1%	0%	0%
Increased number of killings	9.1%	5.6%	6.3%
Broken homes and relationships due to riders having girlfriends	9.1%	0%	6.3%
Riders do not support their families due to having	0%	11.1%	12.5%

girlfriends			
Road conditions are not up to standard	0%	5.6%	0%
Increased ritualistic killings	0%	16.7%	6.3%
Women are becoming riders' girlfriends	0%	22.2%	6.3%
Lack of commitment in relationships	0%	5.6%	0%
Sexual harassment of women by riders	0%	5.6%	0%
Increased teenage pregnancy	0%	16.7%	0%
Too much dust around towns due to m/c movement	0%	5.6%	0%
Some riders run away with passengers' money	0%	5.6%	0%
Some riders blame accidents on passengers and then leave them on the road	0%	5.6%	0%

Despite the positive outcomes of the spread of MCTs, many negative outcomes were also identified. As may be expected, in the area of health and injuries, many said that there are now more accidents, with some saying that some fellow riders blame accidents on passengers and then leave them at the side of the road. A number of social consequences were raised, including increased school dropouts as young men opt to take up the MCT profession at a young age before completing their schooling, increased crime, and increased ritualistic killings. Qualitative interviews conducted in the Zehplay area reveal that many local people think that riders are themselves responsible for crime or are complicit in it. Other social issues relate to relationships, with many saying that riders' mobility allows them to take one or more "girlfriends" in other villages, which can lead to a lack of commitment in relationships, and riders choosing to stop supporting their families. Many girls and women apparently choose to become riders' girlfriends, which some say leads to increased teenage pregnancies.

#### 5.4.2.5 Suggestions to Improve MCT Services

Riders were invited to give suggestions of how MCT services could be improved in each area. Again, they were allowed to give more than one suggestion, so the following figures are given as a percentage of cases.

Table 40 - Suggestions to improve MCT services in each location (as % of cases)

	Doumpa	Zehplay	Gogoin
Give training to riders	15.8%	0%	15.8%
Improve the roads	84.2%	68.4%	36.8%
Bring other, safer modes of transport	5.3%	5.3%	0%
Bring 3-wheeled m/cs	5.3%	0%	0%
Improve the bridges	0%	36.8%	15.8%
Unions should provide benefits because members are paying fees	0%	5.3%	5.3%
Reduce transportation fares	0%	5.3%	0%
Enable cars to reach communities	0%	10.5%	15.8%
Bring more m/cs	0%	5.3%	15.8%
Talk to riders about properly supporting their families	0%	0%	5.3%
Towns should have a first aider to deal with accidents	0%	0%	5.3%
Car drivers should not take advantage of MCT riders	0%	0%	10.5%
Make a law to ensure that riders graduate from school before becoming riders	0%	0%	10.5%

The main suggestion, given by 84.2 percent of riders in the Doumpa area, was to improve the roads. However, in the Gogoin area this was lower at 36.8 percent of cases, suggesting that the majority of riders in this area deem the newly constructed track network to be adequate. Some suggested that the introduction of other, safer modes of transport including three-wheeled motor tricycles which

have seen success in Ghana in recent years would be beneficial, while others suggested that improvements should be made that would enable four-wheeled vehicles to reach communities. Others suggested that riders be trained to ride safely, that riders should be talked to about properly supporting their families, and that car taxi drivers should be told not to take advantage of MCT riders on roads by driving from one side of the road to the other in order to avoid bad sections of the road surface.

The above discussion of the passenger and rider surveys in Liberia has provided an insight in MCT riding and its role in rural livelihoods. As with most new developments or interventions the picture is nuanced, with both categories of surveyed people indicating both positive and negative consequences following the introduction of rural MCT. The findings provide many suggestions for how the positive effects can be further amplified while at the same, mitigating the negative impacts. This could be achieved through both policy and programmes. Unfortunately, these are in short supply for MCT riding in general, and for rural MCT riding more specifically. However, given the positive and transformative character of rural MCTs and their role in contributing to a number of Sustainable Development Goals – which in turn have been adopted by Liberia’s Country Development Strategy – it is worth exploring new and better suited policies and programmes/interventions in this area.

### 5.4.3 Sierra Leone Passenger Survey Findings

As mentioned, the Sierra Leone passenger and motorcycle operator survey findings will only be briefly discussed. To a considerable extent, these mirror the findings of their Liberian counterpart.

142 passengers were surveyed along the selected roads, with the majority of these being females (71.1%). 86% of respondents indicated that they were only using a MCT during their particular journey, which underscores the dominance of the motorcycle taxi in the rural public transport sector. Nearly 90% of the passengers interviewed indicated that without the presence of the motorcycle taxi (okada), they would have no other option than to walk.

Table 41 - Travelling by motorcycle taxi

<b>PASSENGERS</b>	<b>Kamajei (n = 50, male 7, 14%)</b>	<b>Small Bo (n = 61, male 18, 30%)</b>	<b>ADDAX area (n = 31, male 16, 52%)</b>	<b>All (n = 142)</b>
Average age	37.24	37.15	28.97	35.40
Journey by okada only	38 (76%)	56 (92%)	28 (90%)	122 (86%)
No alternative to motorcycle	38 (76%)	56 (92%)	29 (94%)	123 (87%)
Motorcycles frequent?	45 (90%)	31 (51%)	23 (74%)	99 (70%)

More than half of the passengers (54%) indicated that the MCT has improved their ability to access health services and 84% of the passengers surveyed felt that the motorcycle taxi had improved their ability to access markets. Comparing Kamajei and Small Bo Chiefdom responses, it becomes clear that if there is mobile phone coverage and if there are resident motorcycle operators in a village, together this is likely to result in better SOS opportunities (76% in Kamajei) and evening/night (emergency) services (90% in Kamajei) as compared to Small Bo (SOS is 62% and evening/night services is only 6%).

Nearly all passengers (92%) indicated that they would prefer to have more MCTs operating on the roads with more than half (57%) seeing a market for women operators. Asked for their preference for the gender of the operator, 23% said that they would prefer a female rider. Although it seems unlikely (and it would not be the preference of passengers) that there would be equal numbers of

male and female MCT operators, there seems to be a considerable market and demand for women riders.

**Table 42 – Improved access**

<b>PASSENGERS</b>	<b>Kamajei (n = 50, male 7, 14%)</b>	<b>Small Bo (n = 61, male 18, 30%)</b>	<b>ADDAX area (n = 31, male 16, 52%)</b>	<b>All (n = 142)</b>
How summoned?	43 (86%) Phoned	61 (100%) Waited	24 (77%) Waited	
SOS possible?	38 (76%)	38 (62%)	23 (74%)	99 (70%)
Evening/night?	45 (90%)	4 (6%)	23 (74%)	72 (51%)
Resident motorcycles?	40 (80%)	40 (66%)	28 (90%)	108 (76%)
Better access to market?	38 (76%)	56 (92%)	25 (81%)	119 (84%)
Better access to health?	21 (42%)	35 (57%)	20 (65%)	76 (54%)

A key obstacle identified by the operators for female riders is their supposed lack of strength, necessary for these often difficult to navigate roads and tracks. The key suggestion by the operators to facilitate MCT services was to improve the roads, followed by a MCT loan scheme and a reduction in or removal of police harassment. Hence, better roads may accelerate the uptake of MCTs by women.

**Table 43 – MCTs and female operators**

<b>PASSENGERS</b>	<b>Kamajei (n = 50, male 7, 14%)</b>	<b>Small Bo (n = 61, male 18, 30%)</b>	<b>ADDAX area (n = 31, male 16, 52%)</b>	<b>All (n = 142)</b>
Good if there are women riders?	38 (76%) 1 out of 7 men agreed	33 (56%) 7 out of 18 men agreed	9 (30%) 2 out of 16 men agreed	81 (57%)
Preference for gender of rider	Woman, 17 Man, 32	Woman, 11 Man, 49	Woman, 4 Man, 26	Woman, 32 (23%) Man, 109 (77%)

Above it was already shown that passengers consider the MCTs as improving their access to both markets and health facilities. But there are also a number of more negative aspects associated with motorcycle taxis, including accidents and robbery

**Table 44 – Good and bad changes as a result of MTCs**

<b>PASSENGERS</b>	<b>Kamajei (n = 50, male 7, 14%)</b>	<b>Small Bo (n = 61, male 18, 30%)</b>	<b>ADDAX area (n = 31, male 16, 52%)</b>	<b>All (n = 142)</b>
Dangerous riding?	4 (8%)	17 (28%)	15 (48%)	36 (25%)
Rude/aggressive Rider?	4 (8%)	8 (13%)	3 (10%)	15 (11%)
Refusal to carry?	2 (4%)	18 (30%)	10 (32%)	30 (21%)
Accidents?	7 (14%)	11 (18%)	7 (23%)	25 (18%)
Robbery?	1	1	0	
Motorcycle sickness?	5 (10%)	9 (15%)	6 (19%)	20 (14%)
Bad changes brought by okada	8 (16%) crime, violence	22 (36%) accidents, crime	11 (37%) theft 10, accident 3	41 (29%)
Good changes brought by okada	47 (94%) 21 mention health	46 (75%) 13 mention youth employment	29 (94%) 6 mention emergency	122 (86%)

#### 5.4.4 Sierra Leone Motorcycle Taxi Operator Survey Findings

A total of 97 motorcycle taxi operators were interviewed, more or less equally divided over the three research sites. The average age of the operators was just over 30 years, which does not support the more general perception that MCT operators are always young (see also Chart 8 showing that the average age of Liberian MCT operators is around 30 years as well). It may hint to the difficulty of moving on to better jobs, with about a third of the operators indicating that they were already riding before 2010.

**Table 45 – Characteristics of MCT operators in Sierra Leone**

<b>RIDERS (n = 97, all male)</b>	<b>Kamajei (n = 33)</b>	<b>Small Bo (n = 34)</b>	<b>ADDAX area (n = 30)</b>	<b>All answers (n = 97)</b>
Average age	30.64	32.12	30.47	31.11
No education	16	3	12	31 (32%)
Riding pre 2010	6	21	8	35 (36%)
Born locally	26	23	24	74 (75%)
Resident locally	32	26	19 (+ 8 in Makeni)	77 (79%) (+ Makeni = 87%)

That said, about 70% see themselves in some way or the other involved in the *okada* business in 10 years' time, either riding a MCT in combination with other work (27%), or owning a MCT and doing other work (43%). This is despite the perils associated with MCT riding: just over half (51%) of the riders indicated that they have been involved in at least one accident and 52% suggested that they had a 'sickness' caused by MCT riding at one point or the other. Being robbed is fortunately a much smaller problem.

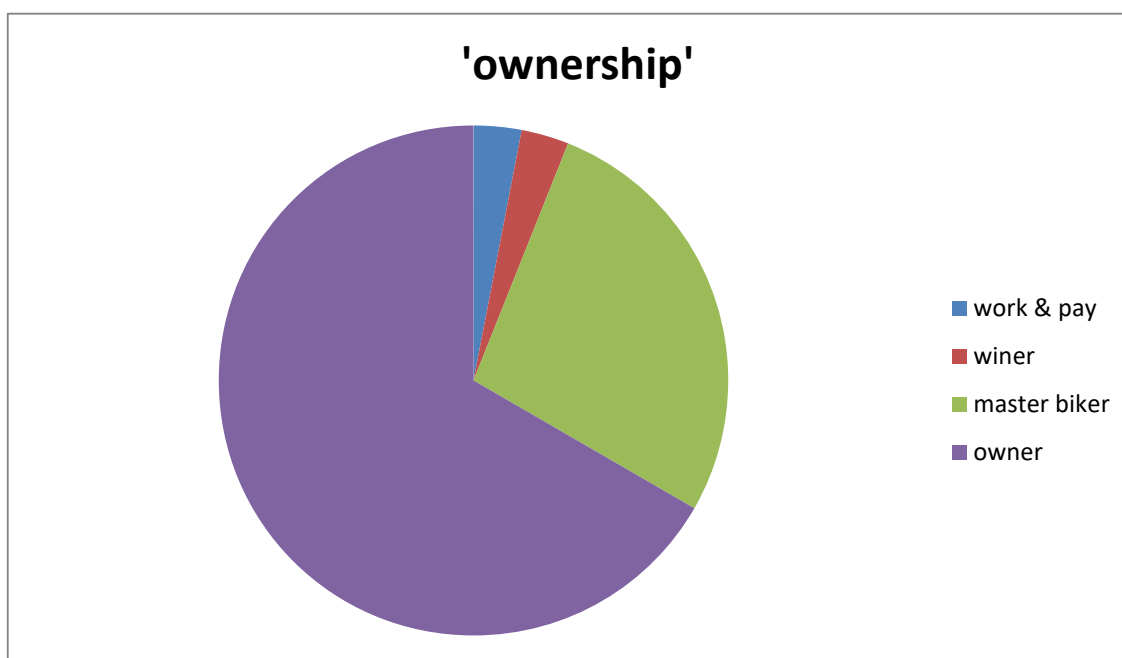
**Table 46 – Perils of MTC riding**

<b>RIDERS (n = 97, all male)</b>	<b>Kamajei (n = 33)</b>	<b>Small Bo (n = 34)</b>	<b>ADDAX area (n = 30)</b>	<b>All answers (n = 97)</b>
In 10 yrs will be:				
- ride okada, other work	5	13	8	26 (27%)
- owns okada, other work	20	5	17	42 (43%)
- no okada, other work	8	16	3	27 (28%)
Accidents	18	18	13	49 (51%)
Robbed	4	5	2	11 (11%)
Sickness	16	17	17	50 (52%)

In Chart 10, 'work & pay' refers to a hire purchase arrangement; 'winer' refers to a rider without a motorcycle, to whom a motorcycle is rented on a casual basis; a 'master-biker' rents the motorcycle from the owner for a daily or weekly payment while 'owners' obviously own their motorcycle outright. For this last category, nine motorcycle riders had bought their motorcycle through the proceeds from farming and four had bought it through the proceedings from charcoal burning. Note that these do not necessarily have to be new motorcycles; more likely these are second-hand motorcycles which can be purchased as little as a US\$100 or US\$150, depending on the condition in which it is. Within the motorcycle-owning group, five riders had owned 2 motorcycles (including the current motorcycle); four had owned 3 motorcycles, one operator had owned 4 motorcycles and one owner was currently riding his sixth motorcycle.

For the nine ‘master-bikers’, five of them rented their motorcycle from a family member while the other four rented their motorcycle from a friend. Daily rental rates varied between Le 20,000 and Le 30,000<sup>8</sup> with contracts either being five, six or seven days.

Chart 10 - nature of motorcycle ownership or rental agreement in Kamajei Chiefdom



Most of the MCT operators start working around 7 to 8am and continue to the early evening (anywhere between 16.00 and 20.00). A few operators worked till 22.00 or even 24.00. Obviously, operators who do not own their motorcycle will have to work for a number of hours just to pay off their daily or weekly rental.

Table 47 – ‘ownership’ arrangements

RIDERS (n = 97, all male)	Kamajei (n = 33)	Small Bo (n = 34)	ADDAX area (n = 30)	All answers (n = 97)
No licence plate	5	12	2	19 (20%)
Motorcycle owner	22	11	14	47 (48%)
“Work-and-pay”	1	16	1	18 (19%)
“Winer”	1	4	3	8 (8%)
Riding for owner	9	3	7	19 (20%)
Part time riding	21	5	14	40 (41%)
Ride + farm	13	3	8	24 (25%)
Union member	27	25	18	70 (72%)

Almost 80% of the MCT operators are resident in the communities along the surveyed roads. As mentioned, once communities have one or two residential operators, connectivity significantly improves. Another advantage is that the operators are more likely to contribute to maintaining roads and bridges, with 80% of the *okada* riders indicating that they have done so in the last year. For example, in the Kamajei area, 2/3 of the riders contributed to track improvement, although this figure was higher for those who owned a motorcycle and dropped to just 1/3 for those who rented a motorcycle (eg. ‘work & pay’; ‘winer’ and ‘master biker’). In the Small Bo Chiefdom area contributions to track maintenance by the MTC riders was even higher: 79% of the operators

<sup>8</sup> USD \$2.63-\$3.94 at the exchange rate at the commence of research (Le 1000 = USD \$0.13).

contributed with most of them contributing with labour although 4 out of the 34 provided materials or money.

Just over half of the MCT operators indicated that they carry more women than men. 60% of the operators felt that women passengers have special requirements and 88% indicated that they drive more slowly when they have a woman as a passenger. Perhaps surprisingly, just over 40% of these rural MCT operators felt that it would be a good idea to train women in riding *okadas* (compared to just over 25% of the MCT operators in Liberia) but they considered the presumed ‘lack of strength’ of women as the main reason why there were no female riders. ‘No interest in riding’ and ‘no support’ were mentioned as second and third reasons.

Table 48 – Women as passengers

RIDERS (n = 97, all male)	Kamajei (n = 33)	Small Bo (n = 34)	ADDAX area (n = 30)	All answers (n = 97)
Carry more women	11	23	19	53 (55%)
Carry men/women equally	19	8	8	35 (36%)
Women have special requirements	28	17	13	58 (60%)
Ride more slowly for women	31	29	25	85 (88%)

As mentioned, the Sierra Leone passenger and operator survey findings are to a large extent in line with the Liberia survey findings. Both countries have followed similar (and rather unfortunate) development trajectories: both have been in the top ten of the UN least developed countries for many years now and both have been affected by decade long civil wars with significant impact on rural development, rural road infrastructure and transport services. Furthermore, both were heavily affected by the recent Ebola crisis, which further undermined socio-economic development. But with a backlog of roads to be maintained and constructed, against a background of limited financial means to heavily invest in this, perhaps the omni-present MTC may be an opportunity to rethink rural transport, mobility and rural road construction policies and strategies, as will be explained in the next section.

### 5.5 Women and Track Construction

As mentioned at the start of this report, one of the places of our research in Liberia was at a location where a ‘footpath to motorcycle navigable track upgrading’ project took place (Jenkins & Peters, 2016). A three year-long ESRC/DfID funded study is currently looking at the impact of this intervention, with the first findings published in 2018. The NGO that took charge of the community-based track construction pilot project paid specific attention to gender equality. Community-Based Organisations (CBOs) were put in charge of coordinating the work on the ground. On the cohesive role of community-based organisations in Liberia, see Fearon et al. (2008). The CBOs were comprised of both men and women, and were ‘rolled over’ from an earlier ‘Community-led Total Sanitation’ (CLTS) project run by the NGO in the same area. The CBOs discussed the required work with the communities, and explained that the workforce would be split into different ‘teams’, including a bridge team, a gravel team, a de-stumping team, a roadside de-shading team, a swamp team, and a sawing team. They then identified those who were skilled and those who were unskilled. Skilled people were gathered and their skills were identified. Some local men had been involved in feeder road construction before, so could bring some knowledge to the process. The skilled workers were made leaders of the different groups and given high visibility jackets and helmets to denote their role as group leaders.

Prior to the construction of the tracks, focus groups were conducted with women to encourage them to work on the project. According to the female NGO representative on the project, women were encouraged to sign up: *[They were encouraged to sign up] not just on menial jobs like gravel compacting, but on bridges and in other more important areas too.* In the end, just over a quarter of the team-members were females.



Picture 8 - A footpath to track upgrade in the Gogein area

It was claimed by the NGO that it was not possible to have gender equality in the team composition because of the need to have an adequate number of skilled workers, who tended to be men. Nevertheless, the following testimony by an older female shows that it is possible to achieve higher female participation rates, even in the more skilled construction teams:

*We are all learning the skills for bridge building from a man in the community who has done this before at another place in Liberia. I have worked for 11 days on the first [track] bridge; 9 days on the second bridge and 10 days on third bridge, plus another 15 days on the track construction. I definitely know how to build and maintain these bridges in the future. You can learn all you need to know in about a week. I would really like to build on my experiences by doing other jobs in construction. This bridge construction made me understand that in any technical job, women can do as good a job as men. Yes, they tend to give these jobs to men because men are stronger, but I just kept asking and in the end they gave in [and allowed me on the bridge-team]. Some of the other women even laughed at me, wondering if I am a 'man-woman'. Really, women could build such a bridge all by themselves. That is what I believe. We can even operate a power-saw.*

She continued by explaining what she intended to do with the money she earned from working on the track construction, which shows vision and underscores the transformative impact that tracks and motorised access can have in these labour constrained environments:

*I worked for 45 days on the project now and it gives me US\$3.50 each day. I used a part of that money to pay for the school-fees; I am a widow so supporting my three children is solely my responsibility. I also used the money to hire labour to work on my farm. For the money I get from working on the project, I can hire about 3 labour days of farm work. And these are young and strong men working on my farm as a group (baku). This has allowed me to expand my farm and I know that next year it would be much easier to transport my produce to the market now that motorcycles can reach here with the new track. Before, it was just me head-loading everything, and there is not much you can take on your head. So, women love the [motorcycle taxis], because women often have loads.*

NGOs do need to pay at least the minimum wage for any work undertaken, which in Liberia at the time was US\$3.50, although this was significant above the local going wage. This allowed the woman above to hire 3 labour days for each labour day she worked on the track. Regarding what women can gain from working on the tracks, she is very clear:

*Most of the other women working on this project worked on the tracks, clearing and levelling them. You are allocated a section and are paid for that section. Some work fast, some work slow, some alone, others have friends or even children joining in. Some used it to pay for school fees or to buy extra food, but there are a few who started a business with the money, particularly if they could work on the tracks for a good number of days. Once they have a business going, they join a savings club to let the money grow further. Men do not do that. Some men just bought alcohol.*

Those women who only worked for a limited number of days on the tracks, were more likely to use their wages to buy food, small items or pay outstanding school-fees, with little of the earned money left over. However, as the interviewee indicated, the women who were able to work on the construction of the tracks for a substantial number of days, were often able to save the money and start a little business, now having the start-up capital. This is a useful observation for future projects. Furthermore, there is some evidence that in the track construction locations more women indicated that they would like to become MCT operators, as compared to the focus groups conducted in the area where no track construction was taking place. Unfortunately, at the moment of conducting this study, there was not enough evidence to state this robustly. Finally, the project promised the communities along the tracks that it would provide them with one or two cargo motor-tricycles once the tracks were constructed (originally, it was envisaged that these cargo motor-tricycles would be used for the actual track construction, but unfortunately they could not be imported in time). Handing one over to a women's CBO (and the other to a men's CBO) may be a way to overcome some of the barriers and obstacles experienced by women in becoming MCT operators. Beyond the difficulty of accessing loans or finding an entrepreneur willing to rent a motorcycle to a woman, the cargo motor tricycles do not require great strength to manoeuvre or balance. Furthermore, since they are still an uncommon sight in both countries, introducing these women now, may result in a perception that MCTs are for male operators while motor tricycles are associated with female operators.

## **6 Discussions and Conclusions**

Motorcycle taxi riding is an important factor in the major socio-economic change occurring in the Sierra Leone and Liberia countryside – a shift from an economy rooted in mercantilism to one based on petty trade and markets. Before the war, most larger villages were dominated economically by one or more “*al haji*” traders. The migrant traders lent money and rice seed to village farmers during the pre-harvest “hunger” gap, and were re-paid in kind during the harvest. These traders maintained storage facilities to hold produce, and shipped the staple, rice, into or out of the village when conditions allowed, which was generally in the dry season. Often, in off road villages, it was moved by head-loading (Richards, 1986).

After the wars, a significant number of ex-combatants of both sides in the war self-demobilised and reintegrated into their former communities through riding motorcycle taxis. The motorcycle taxi became an important means of self-employment among job-hungry male youths. A transport revolution that began in the provincial cities later led to motorcyclists moving out to resettle in their villages, and to provide a highly valued transport service. Rural residency means riders are on hand to respond to day-time and night-time medical emergencies. In allowing the sick to be transported to hospital quickly (and much more easily than if sick people are carried in hammocks, as was required previously), motorcycle taxis have greatly increased community access to essential services.

For pregnant women, this has been enormously beneficial as they are now able to reach a hospital or clinic in a timely fashion, allowing them to give birth safely in a proper environment. The rural riders often contribute to minor track repairs, for example to local bridges. Trading activities can now continue on a daily rather than seasonal basis, and farmers are no longer tied to the village money lender/produce merchant through seasonal loans. The “*al haji*” class is dwindling, while rural markets and petty trade are expanding. Women are prominent players in this rural market transformation, selling garden produce and charcoal. Participants stressed repeatedly that commerce is now easier, allowing producers to transport their produce to market more quickly, more easily, and in greater quantities. Business activity has increased greatly in the other direction too, with a far wider range of goods available to buy in communities as a result of “everybody doing their little business”, as one participant described it. An interesting finding was that women and riders form informal cooperative business units in which the rider acts as a courier for the goods that a woman wishes to sell and as short-time loan provider.

Despite the inconvenience and risks of riding, along with the relatively high fares, villagers are now dependent on motorcycle taxis as an essential vehicle for economic and social life. The speed and reach of the motorcycle means that market integration reaches most villages. Many village women, in particular, now combine household and child-care responsibilities with participation in petty trade. As a result, social attitudes are changing rapidly. The study has documented these changes, and it can be concluded that motorcycle taxis are undoubtedly important to women’s economic empowerment.

The study also considered whether there was scope for women to become part of the motorcycle taxi revolution by becoming riders as well as passengers. The focus groups and surveys confirmed that some young women are interested in following their brothers into motorcycle-taxi self-employment, and that many younger men find the idea conceivable, even if some existing male riders are worried by potential gender competition. Some (often older) villagers object to the idea of women as taxi riders on social or religious grounds, but others welcome the possibility of being able to choose between male and female riders. Speeding and showboating by young male riders are major topics of concern amongst passengers, and some male as well as female passengers think that women riders might ride more safely. Worries are expressed about the strength needed by women to handle a motorcycle on hazardous local tracks, but this is perhaps to confuse strength and skill, and has not been verified by experience.

Some women are being trained as riders by the motorcycle taxi riders’ union in Kenema (Sierra Leone), but there are strong barriers to the entry of females into the business. Male riders often become taxi riders through “work-and-pay” agreements, which are hire-purchase contracts, or through finding a sponsor, often a relative, who is willing to lease them a motorcycle. However, because there are as yet few if any women riders, it is nearly impossible for women to find a motorcycle dealer or family sponsor willing to buy them the motorcycle, and in doing so, allow them a chance to show that women could do this kind of work. Several times the suggestion was made by women informants, and by the rider unions, that the answer to this bottleneck is for a donor to fund an experiment in renting motorcycles to women riders under “work-and-pay” terms. However, whether or not this will be taken up by a donor, the motorcycle taxi revolution in Sierra Leone and Liberia has made a massive contribution to the socio-economic position of women in the rural areas of these countries. Upgrading footpaths to motorcycle accessible tracks will help to further this motorcycle revolution.

## **7 Recommendations**

The spontaneous introduction and spread of motorcycle taxis (MCTs) after the civil wars in Liberia (1989-2003) and Sierra Leone (1991-2002) has dramatically changed the public transport services

sector. The transformation they have brought to rural areas is particularly noticeable. Prior to their introduction, rural dwellers often had to walk for hours and head-load any freight. In the best case, one or two car taxis may have visited the village on a market day, if it was fortunate enough to have a motorable road. But due to their linear design and surprisingly large passenger and/or freight carrying capacity, motorcycle taxis quickly replaced these more conventional forms of transport. Lack of transport opportunities is often a significant barrier for market integration: why produce cash-crops if only small quantities can be transported to markets at one time? Moreover, head loading is traditionally a women's task, putting further strains on the often busy day of rural women. It is therefore no surprise that women have embraced the motorcycle taxi phenomenon. In both Sierra Leone and Liberia, women make up about half of the MCTs' passengers, with this number further increasing during market days. Yet with so many female passengers, why are there no female MCT operators? This study has looked into this and aimed to identify the obstacles and opportunities for gender mainstreaming in the motorcycle taxi sector in rural Sierra Leone and Liberia. Based on the research findings presented, the following observations and recommendations are made:

- The spread of motorcycle taxi (MCT) services into rural Liberia and Sierra Leone has transformed rural access and mobility opportunities for villagers. **Women are key beneficiaries of MCT services.** These have enabled a significant step-up in local market integration and are offering easy and quick access to (maternal) health facilities.
- Donors and the national governments should take a more active approach in promoting the spread of MCT services in rural areas. The provision of MCT services is **a low cost but effective means of achieving a number of Sustainable Development Goals (SDGs).**
- Other development interventions can learn from or complement the MCT phenomenon, as **affordable and accessible transport services are essential** and both are a prerequisite, as well as catalyst, for socio-economic development in rural areas.
- The use of MCT services by women and their collaboration with MCT operators for petty trade/business activities have contributed to the **empowerment of women.** This has led to deep socio-economic and cultural transformations, breaking with traditional (and sometimes oppressive) patrimonial village structures.
- As prime users of MCT services, some women have expressed an interest in **becoming MCT operators themselves.**
- In Freetown, the first female operated passenger tricycles (auto-rickshaw) appeared in 2017. The rural equivalent is the cargo motor tricycle. To promote the spread of female operated cargo motor tricycles, agencies involved in labour-based rural road rehabilitation and/or track construction can budget for these and hand these over at the end of the intervention to the male and female CBOs.
- A key obstacle in realising this is **lack of capital to purchase a motorcycle.** Business people are reluctant to rent out motorcycles to women, since there are no successful precedents. But in some Asian countries, female MCT or motor tricycle taxi operators are quite common. To replicate and kick-start this in Sub-Saharan Africa (SSA), **a credit scheme for the purchase of motorcycles by women** can be created, perhaps in the form of a public-private partnership. Driving lessons, **in collaboration with MCT unions,** are also necessary.
- To further facilitate the spontaneous spread of MCT services in rural SSA, **rural footpaths should be upgraded to motorcycle accessible tracks.** This can either be complementary to or be an alternative to the much more expensive construction of feeder roads.
- **Women should be involved** in the labour and local materials intensive track construction process. This enables them to save money to start-up businesses or expand their income-generating activities, such as cash-crop farming. In turn, these activities will benefit from the increased opportunities for access and mobility.
- **The construction of tracks should be a community owned and driven process.** This can be ensured by setting up or training existing Community Based Organisations.

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## **Annex A: Focus Group Talking Points**

- Changes since the spread of MCTs.
- How healthcare was accessed before MCTs, and how healthcare is accessed now.
- How markets were reached before MCTs, and how they are accessed now.
- How emergencies were solved before MCTs, and how they are solved now.
- Thoughts on the idea of women becoming MCT riders.
- Explanations for there being few (if any) female MCT riders.

## Annex B: Rider Survey

This is a small survey being carried out by Esther Mokuwa and colleagues from AKA Research, to assess services provided by okada taxi bikes. You are not obliged to answer these questions, but your cooperation is highly appreciated. Your name is taken only for purposes of recording the results, and will not be used in any report.

**Place of interview:**

**Date of interview:**

**Time started:**

**Time finished:**

**Name of interviewer:**

**Name of person interviewed:**

**Gender of person interviewed:**

**Age (approximate):**

**Highest level of education:**

**Year completed that level:**

**What year did you first learn to ride a bike:**

**Place of birth:**

**Village or town of permanent residence:**

*[for villages, add chieftdom]*

**Make of bike: (Circle): Victor GX, Star TVS, Star Sport, XL, CG, Others.**

**Type of registration plate (CIRCLE): Red, Black, Blue, Green, No Plate**

**Bike Number:**

### BIKE OWNERSHIP, TYPE OF RIDER

1. Bike rider-owner,
  2. Buying bike on hire-purchase,
  3. Winer<sup>9</sup>,
  4. Master Bike Rider
  5. OTHER (explain)
- [CIRCLE APPROPRIATE ANSWER]

#### 1. IF RIDER-OWNER

- a. How did you acquire this bike
- b. Is this the first bike you have owned (YES/NO)
- c. If NO, how many previous bikes have you owned?

#### 2. If HIRE-PURCHASE:

- a. name, occupation and location of the supporter
- b. How much do you pay the supporter (indicate if per day or per week)?
- c. In what way is the supporter related to you (CIRCLE ANSWER)?  
Family, Male/Female  
Friend, Male/Female  
Business Person, Male/Female  
OTHER  
If OTHER explain:

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<sup>9</sup> 'Winer' refers to a rider without a bike, to whom a bike is rented on a casual basis (e.g. by a part-time owner-rider with other activities to attend to). These winners are often taken from a group of young men referred to as 'long benchmen': they are literally sitting on a bench ready to take a turn whenever asked to do so.

**3. IF WINER1:**

- a. how many days a week do you ride?
- b. would you ride more often if you could?
- c. How much do you have to bring each day to the actual bike rider?
- d. Did you own your own bike previously? YES/NO  
If YES, why do you no longer have your own bike?
  
- e. In what way is the actual rider related to you (CIRCLE ANSWER)?  
Family, Male/Female  
Friend, Male/Female  
Business Person, Male/Female  
OTHER  
If OTHER explain:

**4. MASTER BIKE RIDER:** a. name, occupation and location of the Master

- b. how much do you pay the master per day
- c. or per week
- d. In what way is the master related to you (CIRCLE ANSWER)?  
Family, Male/Female  
Friend, Male/Female  
Business Person, Male/Female  
OTHER

**5. BIKE OPERATIONS**

- 1. Do you ride full-time or part time? FULL TIME/PART TIME (circle answer) a. If PART-TIME what other occupation(s) do you have?
- 2. What time of day do you normally begin and end work?
  - a. BEGIN:
  - b. END:
- 3. Are there any **days of the week** on which okada bikes are MORE frequent on this route? YES/NO
- 4. If YES, which days and WHY?
- 5. Are there **any times of the year** when bikes are LESS frequent on this route? YES/NO
- 6. If YES, which times of the year and WHY?
- 7. Which place do you mainly go to service or repair your bike?
- 8. Would you say servicing at that place is (Circle) GOOD, ADEQUATE, NOT GOOD  
Please explain your answer:
- 9. Do you belong to the bike riders union? YES/NO
  - a. If YES, which union (branch)?
  - b. What are the benefits of membership?
  - c. If NO, Why:
- 10. How do you see yourself in next ten years' time?
  - a. Still riding an okada
  - b. Owning okada but following another occupation i. Which occupation?:
  - c. Not owning an okada but following another occupation i. Which occupation?:
  - d. OTHER (specify)

**6. SAFETY ISSUES**

- 1. Have you ever been involved in any okada bike accident? YES/NO

- a. If YES, when was the last time, and explain the circumstances
2. Have you ever been robbed while riding the okada bike? YES/NO
  - a. If YES, when was the last time, and explain the circumstances
3. Have you ever become sick as a result of your work as an okada bike rider? YES/NO
  - a. If YES, when was the last time, and explain the circumstances
  - b. If No, what keeps you safe from being sick?
4. Consider this statement "Owner-riders ride more carefully". Say whether you AGREE, DISAGREE or DON'T KNOW
  - a. If DISAGREE explain your choice of answer:

## **7. WOMEN AND OKADA BIKES**

1. Overall, do you
  - a. Carry more women passengers than men
  - b. Carry more men passengers than women
  - c. Carry men and women in about equal number
2. Do you think women have special needs or requirements when riding as an okada passenger? YES/NO
  - a. If YES what are these needs and requirements?
3. Do you ever ride more slowly when carrying a woman passenger than when carrying a man? YES/NO
  - a. If YES, explain why do you do this:
4. Would it be a good idea if women were trained to ride okada bikes? YES/NO
  - a. Explain your answer:
5. Why do you think there are no (or only a few) women okada riders (MORE THAN ONE ANSWER CAN BE CHOSEN, BUT RANK IN ORDER):
  - a. No interest
  - b. Lack strength
  - c. No support for bike
  - d. OTHER (explain)

## **8. GENERAL IMPACT OF OKADA BIKES**

1. Are there good changes that result in this location from okada bikes? YES/NO
  - a. If YES, explain answer:
2. Are there bad changes that result in this location from okada bikes? YES/NO
  - a. If YES, explain answer:
3. Do you have any suggestions to improve okada bike services in this location?
4. Have you ever taken part in activities to improve the quality of this road or track? YES/NO
  - If YES what were these activities (CIRCLE ANSWER):
    - a. joined community work [ta yenge] on track,
    - b. joined community work on bridges
    - c. contributed money,
    - d. contributed materials, OTHER ANSWERS (specify)
  - Any comment:

## Annex C: Passenger Survey

This is a small survey being carried out by Esther Mokuwa and colleagues from AKA Research, to assess services provided by okada taxi bikes. You are not obliged to answer these questions, but your cooperation is highly appreciated. Your name is taken only for purposes of recording the results, and will not be used in any report.

**Place of interview:**

**Date of interview:**

**Time started:**

**Time finished:**

**Name of interviewer:**

**Name of person interviewed:**

**Gender of person interviewed:**

**Age (approximate):**

**Village or town of permanent residence:**

[for villages, add chiefdom]

**Main occupation of person interviewed:**

**Secondary occupation (if any):**

**Traveling to:**

**Is the full journey by bike taxi? YES/NO**

**If NO what parts are travelled by other means:**

**What are these other means:**

**Traveling from:**

**Fare paid for passenger:**

**Fare paid for load:**

**Description of load:**

**Main purpose of journey:**

[Interviewer – note if woman is pregnant, passenger is carrying a small child, and/or has a physical disability]

### QUESTIONS ON MODE OF TRANSPORT

1. What, if any, other modes of transport could you have used for this journey?
2. If there were options, why did you choose the okada?
3. How would you describe the availability of okada bikes to/from this place:
  - a. Frequent (available <30 minutes)
  - b. Not frequent (available >30 minutes)
4. How did you call the bike?
  - a. Waited until one came
  - b. Phoned a bike rider (your phone? Borrowed phone? Whose?)
  - c. Other means (SPECIFY)
5. From what time of day would you expect to be able to find an okada bike for this journey?
6. Until what time of day would you expect to be able to find an okada bike for this journey?
7. Is it possible to call a bike for this journey at night if there is an emergency? YES/NO
8. If YES, explain how this is possible:
9. Are there okada bike riders resident at this location? YES/NO
10. If YES to Q9, how many are resident?
11. If YES to Q9, how many were resident THIS TIME LAST YEAR?
12. Are there any days of the week on which okada bikes are MORE frequent on this route?
13. If YES, which days and WHY?

14. Are there any times of the year when bikes are LESS frequent on this route?
15. If YES, which times of the year and WHY?

#### **SERVICE LEVEL**

1. Are there times when bike riders do not provide a good service?
2. If YES, give examples and explanation
3. Are there times when you feel bike riders ride too fast or dangerously?
4. If YES, give examples and explanation
5. Are there times when bike riders are rude or aggressive to you?
6. If YES, give examples and explanation
7. Has there been any time when a rider refused to carry or collect you?
8. If YES, give examples and explanation
9. Have okada bikes improved your opportunity to attend a market YES/NO (explain answer)
10. Have okada bikes improved your opportunity to attend a medical facility YES/NO (explain answer)

#### **SAFETY**

1. Have you ever been involved in any okada bike accident? YES/NO
  - a. If YES, when was the last time, and explain the circumstances
2. Have you ever been robbed while traveling by okada bike? YES/NO
  - a. If YES, when was the last time, and explain the circumstances
3. Have you ever used an okada bike to solve a medical emergency? YES/NO
  - a. If YES, when was the last time, and explain the circumstances
4. Have you ever become sick as a result of using an okada bike? YES/NO
  - a. If YES, when was the last time, and explain the circumstances

#### **GENERAL IMPACT OF OKADA BIKES**

1. Would you like there to be MORE/FEWER/SAME (ring choice) number of okada bikes at this location?
  - a. Explain answer:
2. If you had the choice, would you prefer to travel by okada bike or poda poda? OKADA/PODA-PODA (ring answer)
  - a. Explain answer:
3. Are there bad changes that result in this location from okada bikes? YES/NO
  - a. If YES, explain answer:
4. Are there good changes that result in this location from okada bikes? YES/NO
  - a. If YES, explain answer:
5. Are there people at this location who cannot or will not use okada bikes?  
If YES, explain answer:
  - a. Explain answer:
  - a. Explain answer:
6. Would it be a good idea if women were trained to ride okada bikes? YES/NO
7. If a male and a female okada rider were both waiting for passengers which one would you prefer: MALE/FEMALE
8. What is your reaction to this statement: "women okada riders would ride more safely". AGREE/DISAGREE/DON'T KNOW  
[Interviewer, add further comment from interviewee, if any:]
9. What is your reaction to this statement: "only a man is strong enough to handle an okada bike on a rough or muddy track". AGREE/DISAGREE/DON'T KNOW  
[Interviewer, add further comment from interviewee:]
10. Do you have any suggestions to improve okada bike services, or to improve transport services, to this location?



