



Enhancing understanding on safe motorcycle and three-wheeler use for rural transport

Progress Report



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Contents

Abst	tract	v
Key	words	v
Acro	onyms, Units and Currencies	vi
Exec	cutive summary	vii
1	Introduction	1
2	Background	1
3	Progress on activities	2
3.1	Survey of benefits and disbenefits of motorcycles and motorised three-wheelers	2
3.2	Review of motorcycle and three-wheeler taxi-related policy and legislation	4
3.3	Ghana: Collection and re-analysis of existing data, with a rural focus	9
3.4	Kenya: A study of the health impacts of motorcycle and three-wheeler use	22
3.5	Tanzania: Improving the operations of motorcycle taxi associations	23
3.6	Uganda: Understanding barriers to motorcycle and three-wheeler taxi use	25
3.7	Additional activities	25
4	Conclusions	26
5	References	27
Ann	ex 1 Questionnaires for the Survey of Benefits and Disbenefits	28
Ride	rs' Questionnaire	
Pass	engers' Questionnaire	69
Тахі	Owners' Questionnaire	
Freig	ght Owners' Questionnaire	
Non	-Users' Questionnaire	116
Ann	ex 2 Updated Workplan	141
Ann	ex 3 Contribution to the ReCAPLogframe	142
Ann	ex 4 Updated Risk Log	146

Tables and Figures

Table 1	Submission dates and forecast receipt of ethical clearance
Table 2	Rural population by region
Table 3	Motorcycle (inc. three-wheelers) registrations per 1,000 people, by region, 2012 to 2017 (inclusive)
Table 4	Numbers and percentages of motorcyclists (including three-wheelers) KSI, by road type, 2012 to 2016 (inclusive)
Table 5	Numbers of motorcyclists (including three-wheelers) killed and seriously injured, and percentages of each of the overall total of deaths and serious injuries, by road type, 2012 to 2016 (inclusive)
Table 6	Numbers of motorcyclists (including three-wheelers) KSI on all roads, and per 100,000 of the population and per 1,000 registered motorcycles, by region, 2012 to 2016 (inclusive)
Figure 1	The four project countries1
Figure 2	Numbers of vehicles registered in Ghana, 2012 to 2017 (inclusive), by vehicle type
Figure 3	Numbers of motorcycles (inc. three-wheelers) registered per year, 2012 to 2017 (inclusive)

Figure 4	Numbers of motorcycles (inc. three-wheelers) registered by region, 2012 to 2017 (inclusive) 11
Figure 5	Motorcycles (including three-wheelers) as a percentage of total registered vehicles by region2012 to 2017 (inclusive)
Figure 6	Numbers of motorcycles and three-wheelers registered by region, June to December 2017
Figure 7	Crash data management at BRRI14
Figure 8	Numbers of motorcyclists (including three-wheelers) killed, seriously injured and slightly injured, 2007 to 2016
Figure 9	The injury pyramid (WHO, 2014)17
Figure 10	Proportion of motorcyclists (including three-wheelers) KSI as a proportion of all road users, 2007 to 2016 18
Figure 11	Numbers of motorcyclists (including three-wheelers) KSI on all roads, by region, 2012 to 2016 (inclusive) 19
Figure 12	Percentage of crash types resulting in motorcyclist (including three-wheelers) KSI, 2012 to 2016 (inclusive)
Figure 13	Percentage of collisions that resulted in motorcyclist (including three-wheelers) KSI that were 'head-on', by road type, 2012 to 2016 (inclusive)

Abstract

This Progress Report details progress during the first seven months of the project 'Enhancing understanding on safe motorcycle and three-wheeler use for rural transport and the implications for appropriate training and regulatory frameworks'.

Since finalising the project's Inception Report in January 2018, the detailed design of all research activities has been undertaken and strong progress has been made on several of the activities.

The survey of benefits and disbenefits of motorcycles and three-wheelers in rural areas has been designed. The survey will be carried out in all four project countries, to obtain data from riders, passengers, taxi owners and owners of freight, as well as members of the community who do not use motorcycle or three-wheeler taxis.

A review of motorcycle and three-wheeler taxi-related legislation and policy countries has found some interesting differences between the four countries. The implementation and enforcement of these will be further explored later in the project.

In Ghana, existing data related to motorcycles and three-wheelers has been obtained and reanalysed with a rural focus, with findings including that motorcycles (including three-wheelers) make up the vast majority of total vehicle registrations in those regions with the highest percentages of people living in rural areas.

In Tanzania, the development of an operating manual for motorcycle taxi associations is underway.

Finally, the literature review undertaken during the Inception Phase of this project is being produced as a standalone document.

Key words

Motorcycles, Motorcycle taxis, Three-Wheelers, Rural Transport, Rural Access, Safety, Training, Legislation, Policy, Africa

Research for Community Access Partnership (ReCAP)

Safe and sustainable transport for rural communities

ReCAP is a research programme, funded by UK Aid, with the aim of promoting safe and sustainable transport for rural communities in Africa and Asia. ReCAP comprises the Africa Community Access Partnership (AfCAP) and the Asia Community Access Partnership (AsCAP). These partnerships support 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 ReCAP programme is managed by Cardno Emerging Markets (UK) Ltd.

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Acronyms, Units and Currencies

AfCAP	Africa Community Access Partnership
AsCAP	Asia Community Access Partnership
BRRI	Building and Road Research Institute (Ghana)
сс	Cubic Capacity (engine size)
DFID	Department for International Development (United Kingdom)
DFR	Department of Feeder Roads (Ghana)
DVLA	Driver and Vehicle Licensing Authority (Ghana)
GBP	British Pound Sterling
GPS	Global Positioning System
KSI	Killed or Seriously Injured
MAAP	Microcomputer Accident Analysis Package
MRH	The Ministry of Roads and Highways (Ghana)
MTRD	Materials Testing and Research Department (Kenya)
MTTD	Motor Traffic and Transport Directorate (Ghana)
NRSC	National Road Safety Commission
NTSA	National Transport & Safety Authority (Kenya)
PMU	Project Management Unit (of ReCAP)
PORALG	President's Office for Regional Administration and Local Government (Tanzania)
ReCAP	Research for Community Access Partnership
SUMATRA	Surface and Marine Transport Regulatory Authority (Tanzania)
TARURA	Tanzania Rural and Urban Roads Agency
TLB	Transport Licensing Board (Uganda)
TRL	Transport Research Laboratory
UNRA	Uganda National Roads Authority
UK	United Kingdom (of Great Britain and Northern Ireland)
UKAid	United Kingdom Aid (Department for International Development, UK)
UNICEF	The United Nations Children's Fund
UNRA	Uganda National Roads Authority
VAT	Value Added Tax
WHO	World Health Organization

Executive summary

The project 'Enhancing understanding on safe motorcycle and three-wheeler use for rural transport and the implications for appropriate training and regulatory frameworks' is being carried out in Ghana, Kenya, Tanzania and Uganda.

The use of motorcycles has increased greatly in Africa in recent years. Motorcycles are often used as taxis, with riders charging a fare to carry passengers or goods. In rural areas, motorcycle taxis play a crucial role in connecting people to services and farms to markets, and in many countries motorcycles are the most commonly found vehicle on rural roads. In some countries, including Ghana, the use of motorcycles to carry fare-paying passengers is banned, although these bans are not always enforced, especially in rural areas. Motorised three-wheelers are also used in some rural areas, although their numbers are far fewer.

The overall aim of this project is to improve knowledge and understanding concerning effective ways of enabling rural people to benefit from the safe use of motorcycles and three-wheelers, with an emphasis on rural motorcycle taxis, rider training, appropriate regulatory frameworks and realistic enforcement methods.

This Progress Report details progress to date during the Research Phase, which began in January 2018 following completion of the Inception Phase and agreement by the project team on the research activities.

The survey of benefits and disbenefits of motorcycles and three-wheelers in rural areas, which will be carried out in all four countries, has been designed. The survey will involve undertaking questionnaires with different groups: riders, owners and users of motorcycle and three-wheeler taxis, and people who do not use these vehicles. The questionnaires will cover wide-ranging topics: accessibility and mobility; economics and finance; injuries and health issues; crime and personal security; and access to services and protective equipment. This survey will be carried out in four different locations of each of the project countries.

The second activity that will be carried out in all four countries is a review of policy and legislation related to motorcycle and three-wheeler taxis, and investigations into how the policy and legislation is implemented and enforced. To date, the review has been carried out, with the investigations into implementation and enforcement to be undertaken later in the project.

In Ghana, raw data on vehicle registrations, traffic counts and road traffic injuries have been obtained from the relevant government authorities, and have been reanalysed with a rural focus. For example, when official injury statistics are published, injuries defined as having been suffered in 'rural' areas include those both on highways passing through rural areas and those on rural feeder roads. Of interest to this project are those on rural feeder roads, so the raw data has been reanalysed to reveal details on these. It has also been possible to identify those regions of Ghana with the highest numbers of registrations of motorcycles, and compare this with Census data on population density.

In Tanzania, initial investigations have been carried out working with informal motorcycle taxi associations in rural areas, as the groundwork for the preparation of an operating manual that will be produced as part of this project.

Finally, it has been decided that the literature review undertaken during the project's Inception Phase will be published as a standalone document. Work is currently underway to finalise this.

1 Introduction

This research project is being undertaken by a consortium, which is led by Transaid and includes Amend and TRL (Transport Research Laboratory).

The project covers four countries: Ghana, Kenya, Tanzania and Uganda, shown in Figure 1.



Figure 1 The four project countries

In each country, the project is being supported by government through the local AfCAP partner institutions, specifically:

- The Ministry of Roads and Highways (MRH) in Ghana
- The Materials Testing and Research Department (MTRD) in Kenya
- The Tanzania Rural and Urban Roads Agency (TARURA) and the President's Office for Regional Administration and Local Government (PORALG) in Tanzania
- The Uganda National Roads Authority (UNRA) in Uganda

The project contract started on 18thSeptember 2017. Initially it was programmed to run to 31st October 2018, although a three-month extension has been agreed with the ReCAP Project Management Unit (PMU) to enable a longer period for analysis and dissemination of findings. The end date of the project is now 31st January 2019.

The total budget of the project is GBP 301,445, excluding UK VAT.

The purpose of this report is to update ReCAP and the local partner institutions on progress to date.

2 Background

The use of motorcycles has increased greatly in Africa in recent years, both in urban and rural areas. In the rural areas of many African countries, motorcycles are often the most commonly found vehicles, and journeys that were previously made by foot or bicycle are now made using a motorcycle.

Motorcycles are often used as taxis, with riders charging a fare to carry passengers or goods. In rural areas, motorcycle taxis play a crucial role in connecting people to services and farms to markets. They provide employment, largely for young men who hire the motorcycles on a temporary basis to use as taxis, generating income for themselves and the owners.

Motorcycles often fill a gap in the provision of 'conventional' transport services such as minibuses and rural taxis, by providing transport directly from people's homes to main roads, village centres and essential services such as hospitals and markets. Supported by the now widespread use of mobile phones in rural Africa, motorcycle transport is very convenient, and as such is very popular with rural populations.

However, motorcycle transport in rural areas is certainly not without risk. Previous AfCAP research has found high rates of crashes and injuries among rural motorcycle taxi riders, and while many of these crashes are relatively minor single-vehicle incidents, others have been found to cause more serious injury (Amend, 2013). A serious injury to a household's primary wage earner can push a family into poverty.

Attempts by governments to regulate the use of motorcycle taxis have largely failed to keep pace with the rapid influx of motorcycles into the continent and the high demand for their services by local populations.

The number of motorised three-wheelers in rural Africa is also increasing, although to nowhere near the same extent as motorcycles.

3 Progress on activities

Two main activities are being conducted spanning all four project countries. These activities are:

- A survey of benefits and disbenefits of motorcycles and motorised three-wheelers among riders and other users in rural areas
- A review of motorcycle and three-wheeler taxi-related policy and legislation, and of their implementation and enforcement

Also, country-specific activities are being undertaken in each individual country. These activities are:

- In Ghana, reanalysis of existing motorcycle- and three-wheeler-related data, with a rural focus
- In Kenya, a study of the health impacts of motorcycle and three-wheeler use
- In Tanzania, improving the operations of motorcycle taxi associations
- In Uganda, understanding barriers to motorcycle and three-wheeler taxi use

Also, a proposal for additional activities has been submitted to ReCAP for consideration, and the literature review undertaken during the Inception Phase of this project is being produced as a standalone document.

A summary of the progress on all activities is included here.

3.1 Survey of benefits and disbenefits of motorcycles and motorised three-wheelers

A full understanding of the benefits and disbenefits of motorcycles and three-wheelers in rural areas is required to help decision-makers develop appropriate and effective policies and legislation that can realistically be implemented and enforced.

A survey will be undertaken across all four countries to obtain information on the benefits and disbenefits. The output of this activity will give decision-makers a balanced view of the benefits and disbenefits of motorcycles and three-wheelers in rural areas, from the point of view of those people who own, ride and use them, and will also give insights into non-user perspectives. It will thus add to the overall body of knowledge on the benefits and disbenefits of motorcycles and three-wheelers for rural access.

In each of the four project countries, the survey will be carried out in a total of four different rural locations: two locations in two different districts / divisions, with those two districts / divisions being in two different agro-ecological zones.

The survey will comprise questionnaires of five different user groups:

- 1. Riders of motorcycles and three-wheelers
- 2. Passengers of motorcycle and three-wheeler taxis
- 3. Owners of motorcycle and three-wheeler taxis
- 4. Owners of freight, who use motorcycle and three-wheeler taxis to transport their goods
- 5. Non-users people who very rarely or never use motorcycle and three-wheeler taxis

Topics covered in the questionnaires will be:

- Overall opinions
- Economics and finance
- Access and mobility
- Injuries and health issues
- Crime and personal security
- Access to services and protective equipment

3.1.1 Progress to date

The design of the questionnaires is complete. They are included in Annex 1 of this report.

The design involved the full project team. A new expert – John Hine – was also drafted into the project team to provide his expertise to the sections on economics and finance. Pilots of the draft survey were carried out in each of the four different project countries. We were also able to consult briefly with Paul Starkey – former ReCAP Transport Services Advisor – and his feedback influenced the design.

Consideration was given to conducting the questionnaires using electronic tablets with mobile phone applications, but a decision has now been taken to use paper-based questionnaires.

Applications for ethical clearance in each of the project countries have been made to the relevant research bodies. These are:

- Ghana: Ghana Health Services
- Kenya: Ministry of Health, and National Council for Science, Technology and Innovation
- Tanzania: The Commission for Science and Technology
- Uganda: Makerere School of Public Health, and Uganda National Council of Science and Technology

Table 1 shows the planned date of submission of the applications for ethical clearance in each country, the length of time it is expected to take for the applications to be processed, and the forecast dates when clearance will be obtained.

Country	ntry Submission date Length of time to process application		Forecast date of receipt of clearance	
Ghana	11 th April 2018	c.6 weeks	Early June 2018	
Kenya	21 st March 2018	c.2 months	Mid-May 2018	
Tanzania	6 th April 2018	c.2 months	Mid-June 2018	
Uganda	16 th April 2018	c.6 weeks	Early June 2018	

Table 1 Submission dates and forecast receipt of ethical clearance

3.1.2 Next steps

Following submission of the applications for ethical clearance, there is a window of between around two months. During this time, the following tasks will be undertaken:

- The National Experts from each of the four countries will receive training on how to manage the implementation of the survey. This training is scheduled for 23rd and 24th April, in Entebbe, Uganda and will be an important capacity building exercise
- National Experts will recruit and train a team of Research Assistants to conduct the data collection
- The databases into which the data will be entered for analysis will be set up and tested

In each country, data collection will begin immediately upon receipt of clearance.

3.2 Review of motorcycle and three-wheeler taxi-related policy and legislation

Government policy and legislation related to motorcycle and motorised three-wheeler taxis in African countries has often failed to keep pace with the rapid growth of their use. Similarly, the implementation and enforcement of policy and legislation has also presented challenges to governments.

This activity is looking at the policy and legislation in each of the four project countries, as well as how regulations are implemented and enforced. Strengths and weaknesses from the different countries will be compared, and consideration will be given to how any identified good practice could be applied in the other project countries.

3.2.1 Progress to date

The review of government policy and legislation in each of the four countries is complete. The following key documents have been carefully reviewed:

Ghana:

- The Road Traffic Regulations, 2012 (Legislative Instrument 2180)
- The Road Traffic Act, 2004 (Act 683)

Kenya:

- The Traffic Act 39 of 1953 subsidiary (revised 2015)
- The Traffic Act Chapter 403 Revised Edition 2012 (2010)
- The Operation of Motorcycles Regulations, 2014

Tanzania:

- The Road Traffic Act CAP 168, 1973
- Road Traffic (Amendment) Act, 1996
- The Road Traffic Act CAP 168, 1973 (revised 2002)
- The Transport Licensing (Motor Cycle and Tricycles) Regulations, 2010

Uganda:

- Traffic and Road Safety Act 1998
- The Traffic and Road Safety (Motorcycles and Motorised Tricycles) Regulations, 2016

However, it must be noted that to date the implementation and enforcement of regulations have not been investigated. As such, it should not be assumed that the written policy and legislation summarised here is translated into good implementation and enforcement. Implementation and enforcement of policy and legislation will be investigated later in the project.

Some key aspects of the legislation are summarised as follows:

Use of motorcycles and three-wheelers for hire or reward

In the legislation, Ghana clearly prohibits the use of motorcycles and three-wheelers for commercial purposes, except for courier and delivery services. Specific offences include:

- The registration of a motorcycle or three-wheeler, by the licensing authority, to carry a fare-paying passenger
- The giving of permission by a person who exercises control of a motorcycle or three-wheeler for that motorcycle or three-wheeler to be used to carry a fare-paying passenger
- The use of a motorcycle or three-wheeler to carry a fare-paying passenger
- The riding of a motorcycle or three-wheeler as a fare-paying passenger

The remaining three countries permit the use of motorcycles for hire or reward when licensed by the national transport regulator: in Kenya, the National Transport & Safety Authority (NTSA); in Tanzania, the Surface and Marine Transport Regulatory Authority (SUMATRA); and in Uganda, the Transport Licensing Board (TLB).

Kenya and Tanzania permit the use of three-wheelers for hire or reward, again, when licensed by the national transport regulator. Uganda prohibits the use of three-wheelers for hire or reward.

The carriage of passengers

Motorcycles

All four countries permit the carriage of passengers on motorcycles, although in Ghana, as explained earlier, this does not include fare-paying passengers.

In Kenya, Tanzania and Uganda, the legislation is clear that the number of adult passengers is restricted to one. In Ghana, however, there appears to be a contradiction between the Road Traffic Regulations of 2012, which restricts the number of adult passengers to one, and the Road Traffic Act of 2004, which states that a motorcycle rider "... shall not carry more than one other person on a motorcycle unless it is constructed or adapted for the carriage of more than one person".

Legislation in Kenya, Tanzania and Uganda also covers the carriage of children as passengers. In Kenya, a child of less than 12 years is permitted to ride as a passenger on a motorcycle only if the child is sat between the rider and an adult passenger. In Tanzania and Uganda, the legislation refers to children who 'appear' to be under a certain age, rather than who actually are under that age. In Tanzania, a child under the *apparent* age of nine years is not permitted to ride as a passenger on a motorcycle – although there is the possibility of confusion here, as the Road Traffic Act states that a child who is under the *apparent* age of three years and who does not occupy a seat shall not be deemed to be a passenger. In Uganda, a child of the *apparent* age of 12 years or below shall not be carried on a motorcycle unless he or she is accompanied by his or her parent or an adult.

Legislation in all four countries requires that motorcycles carrying passengers must have a seat designed for that purpose. In Kenya, legislation specifies that footrests for passengers must be available, and that passengers must sit astride the motorcycle, and not side-saddle – although this does not apply to people with a disability.

Three-wheelers

Uganda prohibits the carriage of passengers on three-wheelers, although the legislation provides for one exception where "*The Minister may, by Statutory Order authorise a person to use a motorised tricycle, built with a canopy, as an ambulance in hard to reach areas*". A hard to reach area is defined as a rural area where motor vehicle ambulance services are not easily accessible.

Kenya and Tanzania permit the carriage of passengers on three-wheelers. In Kenya, the number of passengers is limited to the number of seats, seat belts must be fitted for the driver and each passenger, and the vehicle must have a covered body. In Tanzania, the number of passengers is limited to three (or the number stated on the road service licence), children under the *apparent* age of nine must be accompanied

by an adult, and the vehicle must be fitted with safety belts for all passengers and a door or barrier on both sides of the passenger compartment. In Ghana, there is no legislation covering the carriage of passengers on three-wheelers.

The carriage of goods

In Ghana, legislation states that a person shall not use a motorcycle or three-wheeler, or permit a motorcycle or three-wheeler over which that person exercises control, to be used for commercial purposes *except for courier and delivery services*.

Kenyan legislation states that on motorcycles, loads and passengers are not to be carried at the same time, but that the term 'load' excludes luggage carried by a passenger that does not exceed ten kilograms in weight and does not project more than fifteen centimetres beyond the outside end of the handle bars. Such luggage may be carried together with the passenger, provided the luggage is properly secured between the rider and the passenger. It also states that no load shall be carried on a motorcycle whose width projects more than fifteen centimetres beyond the outside end of the handle bars, whose height is more than two metres from the ground, whose weight is more than thirty kilograms (for motorcycles up to 50cc) or sixty kilograms (for motorcycles up to 400cc), and which projects to the rear of the motorcycle by more than sixty centimetres. The rear extremity of the load must be plainly indicated by a conspicuous red marker during the day and by a red light at night.

Nothing was found in Tanzanian legislation specific to the carriage of goods by motorcycles and threewheelers, beyond the general regulations applicable to all vehicle types.

In Uganda, three-wheelers are permitted to carry goods (but not passengers) and the tonnage capacity will be stated in the operator's licence. Nothing was found in Ugandan legislation specific to the carriage of goods by motorcycles and three-wheelers, beyond the general regulations applicable to all vehicle types.

Training requirements

None of the four project countries has legislation requiring riders of motorcycles or three-wheelers to undergo specific training related to motorcycles or three-wheelers.

However, Tanzania and Uganda both have training curricula specifically for motorcycle riders, and Kenya's general driver training curriculum includes a chapter on motorcycles, which specifies a requirement for 7.5 hours of theoretical training and 21.5 hours of practical training.

In Ghana, there is no curriculum covering motorcycle or three-wheeler training, but an applicant for a driving test must satisfy the examiner that they have been certified by a recognised driver training institution, including basic driver training for a period of at least forty-eight hours. This is a general requirement and while not specific to motorcycles or three-wheelers, it would still appear to apply to them.

Driving licence requirements

All four countries require a driver to have a driving licence valid for the class of vehicle they are driving, and this includes motorcycles and three-wheelers. In all four countries, to obtain the licence the applicant must have either passed a driving test or have a learners permit and be training prior to undergoing the driving test.

Ghana and Uganda require a rider to be at least 18 years of age for all types of motorcycle and threewheeler. In Kenya and Tanzania, legislation permits someone aged 16 years or over to be licensed to ride a motorcycle under 50cc and of a maximum speed of less than 50kph. For anything larger or faster than that the rider must be 18 years of age or over.

Insurance requirements

All four project countries have legislation requiring motorcycles and three-wheelers to have insurance for general use.

Kenya, Tanzania and Uganda all have legislation requiring that motorcycles and three-wheelers used to carry fare-paying passengers are covered by a minimum of third party insurance in order to obtain their operator's licence. Ghana does not have such legislation, as it does not permit the use of motorcycles and three-wheelers to carry fare-paying passengers.

Kenya requires motorcycles and three-wheelers used to carry fare-paying passengers to have special public service vehicle insurance, while insurance requirements in Tanzania and Uganda are the same as for general use.

Use of helmets and other personal protective equipment

Clear regulations in all four countries stipulate the requirement for motorcycle riders and passengers to wear a helmet. Kenyan legislation goes further to specify that a child must wear a helmet that is specially designed for children.

For motorcycle taxis, Kenya additionally requires that helmets must be yellow in colour, must have the vehicle registration number indelibly marked in letters not less than 3 inches in height on both sides, and must be properly fastened. In addition, in Kenya no motorcycle may be sold or transferred without two helmets being provided to the new owner.

In Tanzania, for commercial motorcycle use, the rider's helmet specifically must have an identification mark indicating the area of permitted operation.

No such specifications exist in legislation in Ghana or Uganda.

The only country in which legislation requires the use of helmets by riders of motorised three-wheelers is Tanzania, although the legislation says that the Minister may exempt any person from this requirement.

Use of other personal protective equipment

Other than for helmets, none of the countries have legislation requiring the use of any personal protective equipment for general use of motorcycles.

Kenya and Uganda both have legislation requiring riders of motorcycle taxis to wear reflective jackets with identifying marks printed on. In Kenya, the legislation goes further to require that passengers also wear reflective jackets, and that no motorcycle may be sold or transferred without two reflective jackets being provided to the new owner.

Tanzania does not stipulate requirements for motorcycle taxi riders or passengers to wear any personal protective equipment other than helmets, although riders are required to wear a clean and neat uniform (and also to carry an identification card). Ghana does not have such legislation, as it does not permit the use of motorcycles and three-wheelers to carry fare-paying passengers.

Use of lights

Both Kenya and Uganda require that the headlights of motorcycles are on at all times when riding, including during daylight.

No evidence was found for similar requirements in Ghana or Tanzania.

Rider behaviour and responsibilities

Kenya and Tanzania both have legislation covering the behaviour and responsibilities of motorcycle and three-wheeler taxi riders. In Kenya, as well as those already listed earlier in this chapter, requirements include:

- Keep protective equipment in a clean, dry and generally wearable condition
- Ensure that the rear number plates are visible at all times
- To overtake on the right hand side and not to overtake in the same lane occupied by the vehicle being overtaken

- To observe traffic lights
- To observe all traffic rules
- Not park in undesignated areas

In Tanzania, as well as those already listed earlier in this chapter, requirements include:

- Using hostile and or abusive language to a passenger
- Blocking or obstructing intentionally other service providers
- Driving above the maximum speed limits in competition of passenger pick up
- Terminating journey before reaching final destination
- Driving under the influence of alcohol or any other narcotic drugs of any amount
- Driving in a careless or reckless manner or in a manner contrary to the provisions of the Road Traffic Act or other laws
- Mistreating or harassing passengers and other road users

In Uganda, there is no such legislation governing taxi riders' responsibilities and behaviour. Ghana does not have such legislation, as it does not permit the use of motorcycles and three-wheelers to carry fare-paying passengers.

Area of operation

In Kenya, Tanzania and Uganda, the authorities that provide operating licences for motorcycle and threewheeler taxis coordinate with local government authorities to assign operating areas and parking locations.

Ghana does not have such legislation, as it does not permit the use of motorcycles and three-wheelers to carry fare-paying passengers.

Association membership

In Kenya and Tanzania, legislation requires every rider of motorcycle and three-wheeler taxis to be a member of a registered association. In Kenya, there is a requirement that an association has a minimum of 100 members. In Tanzania, a registered association is defined as "a voluntary grouping of licensees which is organised locally and registered by a local government authority for the purpose of operating motorcycles or motorised tricycles as public transport".

No reference has been found to association membership requirements in Uganda. Ghana does not have such legislation, as it does not permit the use of motorcycles and three-wheelers to carry fare-paying passengers.

3.2.2 Next steps

The next steps for this activity are:

- Meetings with the transport regulators and enforcement agencies at a national level in each country, to
 establish their understanding of the effectiveness of the legislation, and enforcement and compliance
 levels, in particular in rural areas
- Meetings with regulators and enforcers at the local level in rural areas in each country, to understand how legislation is applied and enforced. These meetings will be carried out in the same locations and at the same time as the survey of benefits and disbenefits
- Riders and users of motorcycle and three-wheeler taxis will be asked about the implementation and enforcement of regulations through the survey of benefits and disbenefits

After input from national and local level regulatory and enforcement officers, as well as from riders and users, has been obtained, the examples of good practice found in the four countries' policy, legislation, implementation and enforcement will be compiled. Based on these, as well as on findings from other activities of this project, specific recommendations for improvements to policy and legislation, and its

implementation and enforcement will be made. These recommendations will be discussed during the country-level workshops later in this project.

3.3 Ghana: Collection and re-analysis of existing data, with a rural focus

The Ghanaian government is currently undertaking a review of the law that bans the use of motorcycles and three-wheelers to carry fare-paying passengers, with some decision-makers recognising that the law has been ineffective in preventing their use, and so considering legalisation and regulation.

Currently, only limited data is available about motorcycles and three-wheelers in Ghana. The data that is available largely focuses on urban areas: very little data is available related to motorcycles and three-wheelers in rural areas. Without more data and a better understanding of both the positive and negative aspects of motorcycles and three-wheelers in rural areas, any decisions taken by policy-makers in considering legalisation and regulation will be inadequately informed.

However, during the Inception Phase of this project, it was identified that through reanalysing existing data held by government institutions and partners, more could be learned about the issues surrounding motorcycles and three-wheelers in rural areas.

Progress to date on this activity is described next, with data collected and reanalysed on vehicle registrations, traffic counts, and road traffic injuries.

3.3.1 Progress to date: Vehicle registrations

Data on vehicle registrations was obtained from the Driver Vehicle and Licensing Authority (DVLA). Vehicle registrations are issued by DVLA's regional branches. Data was obtained for each of Ghana's ten regions, covering the full calendar years from 2012 to 2017, inclusive.

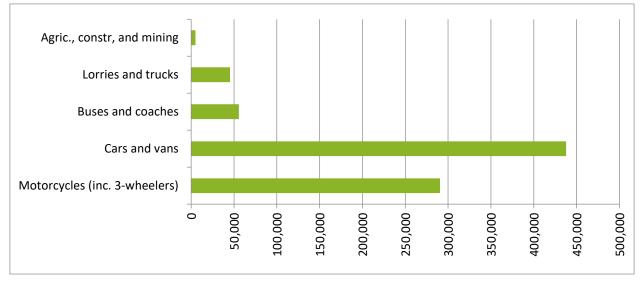
Upon registration of a vehicle, the vehicle type is recorded. Up until the end of May 2017, the vehicle type 'Motorcycles of all categories' covered both motorised two-wheelers and motorised three-wheelers. From the start of June 2017, this category was divided in two, in recognition of the increase in the numbers of three-wheelers.

As well as motorcycles and three-wheelers, there are fourteen other different vehicle types. For the sake of this analysis, the different vehicle types have been categorised as:

- Motorcycles (including three-wheelers)
- Cars and vans
- Buses and coaches
- Lorries and trucks
- Agricultural, construction and mining vehicles

Figure 2 shows the total number of each category of vehicle registered between the years 2012 to 2017 inclusive.



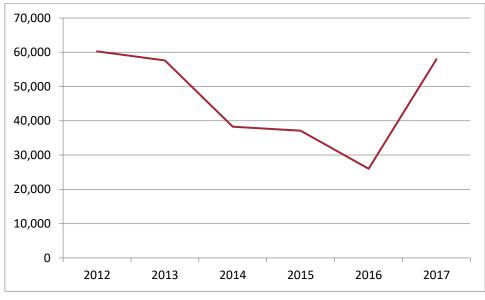


Source: DVLA, 2018

The chart shows that the numbers of motorcycles (including three-wheelers) was the second highest of all categories of vehicle, behind cars and vans.

Figure 3 shows the number of motorcycle (including three-wheelers) registrations per full calendar year from 2012 to 2017.

Figure 3 Numbers of motorcycles (inc. three-wheelers) registered per year, 2012 to 2017 (inclusive)



Source: DVLA, 2018

The chart shows that in 2012, just over 60,000 motorcycles (including three-wheelers) were registered in Ghana. This number then fell year-on-year from 2012 to 2016, to a low of around just 26,000. In 2017, however, the number of motorcycles registered returned to almost 58,000, almost reaching the levels seen in 2012. The drop in the number of registrations from 2012 may be related to the introduction of the Road Traffic Regulations, 2012 (Legislative Instrument 2180), which made it illegal to carry a fare-paying passenger on a motorcycle or three-wheeler.

From the available data, it is not possible to distinguish whether motorcycles and three-wheelers are used as taxis or exclusively for private use.

Ghana is divided into ten different regions. The 2010 Census details the breakdown of the country's population by region, and further, by the proportion of the population living in urban and rural areas. The total population of each region, and the percentage living in rural areas, is shown in Table 2.

Region	Total population Rural population		Percent of population living in rural areas
Ashanti	4,780,380	1,883,090	39.4%
Brong Ahafo	2,310,983	1,282,510	55.5%
Central	2,201,863	1,163,985	52.9%
Eastern	2,633,154	1,489,236	56.6%
Greater Accra	4,010,054	379,009	9.5%
Northern	2,479,461	1,728,749	69.7%
Upper East	1,046,545	826,899	79.0%
Upper West	702,110	587,457	83.7%
Volta	2,118,252	1,404,517	66.3%
Western	2,376,021	1,368,052	57.6%
Total 24,658,823		12,113,594 49.1%	

Table 2Rural population by region

Source: Ghana Statistical Service, 2012

Table 2 shows that just under half of Ghana's population lives in rural areas. It also shows that there is a big difference from region to region in the proportion of the population living in rural areas. In Greater Accra, less than 10% of all people live in rural areas, while in Upper West, almost 84% of people live in rural areas. The three regions with the highest percentage of people living in rural areas are Upper West, Upper East and Northern.

Figure 4 shows motorcycle (including three-wheeler) registrations by region for the total period from 2012 to 2017 inclusive. It should be noted that after being registered in one region, motorcycles and three-wheelers may be ridden or otherwise taken to other regions. However, as motorcycles and three-wheelers are commonly used for local trips, it is assumed that a large proportion of the numbers registered in any one region have remained there.

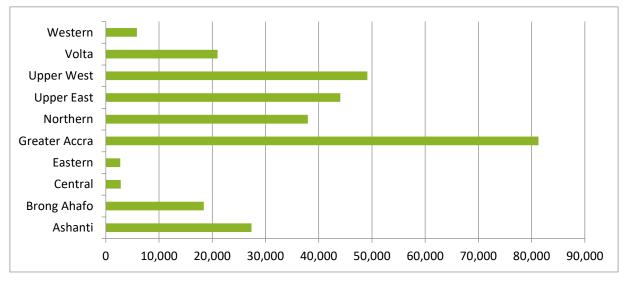


Figure 4 Numbers of motorcycles (inc. three-wheelers) registered by region, 2012 to 2017 (inclusive)

Source: DVLA, 2018

The chart shows that Greater Accra had by far the highest number of registrations during that period, totalling 1,296.

Following Greater Accra, the next three regions with the highest number of registrations were Upper West, Upper East and Northern. Referring back to Table 2, it can be seen that these are the three regions with the highest percentages of people living in rural areas.

By comparing Table 2 and the information in Figure 4, it is possible to calculate the number of motorcycle registrations per 1,000 of the population, per region.

Region	Total population	Total populationMotorcycles registered, 2012 to 2017 (inclusive)	
Ashanti	4,780,380	27,364	5.72
Brong Ahafo	2,310,983	18,420	7.97
Central	2,201,863	2,812	1.28
Eastern	2,633,154	2,726	1.04
Greater Accra	4,010,054	81,296	20.27
Northern	2,479,461	37,967	15.31
Upper East	1,046,545	44,068	42.11
Upper West	702,110	49,129	69.97
Volta	2,118,252	20,981	9.90
Western	2,376,021	5,839	2.46
Total	24,658,823	290,602	11.78

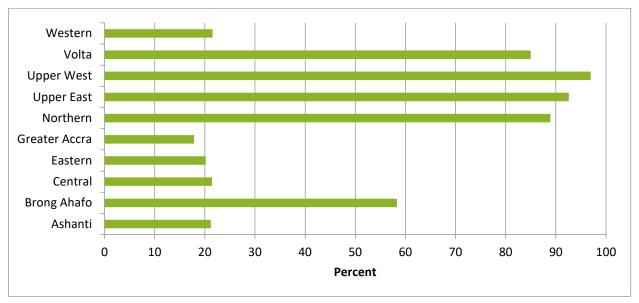
 Table 3
 Motorcycle (inc. three-wheelers) registrations per 1,000 people, by region, 2012 to 2017 (inclusive)

Source: Ghana Statistical Service, 2012 and DVLA, 2018

Table 3 shows that Upper West and Upper East – which are the two regions with the highest percentage of population living in rural areas – have by far the highest number of motorcycle (including three-wheeler) registrations per 1,000 of the population.

Figure 5 shows the percentage of the total number of registered vehicles that is comprised of motorcycles (including three-wheelers) in each region.

Figure 5 Motorcycles (including three-wheelers) as a percentage of total registered vehicles by region2012 to 2017 (inclusive)



Source: DVLA, 2018

The chart shows that motorcycles (including three-wheelers) made up the vast majority of total vehicle registrations in Northern, Upper East, Upper West and Volta regions. Referring back to Table 2, it can be seen that these are the four regions with the highest percentages of people living in rural areas.

From June 2017, DVLA began distinguishing between motorcycles and motorised three-wheelers. Figure 6shows this data broken down by region.

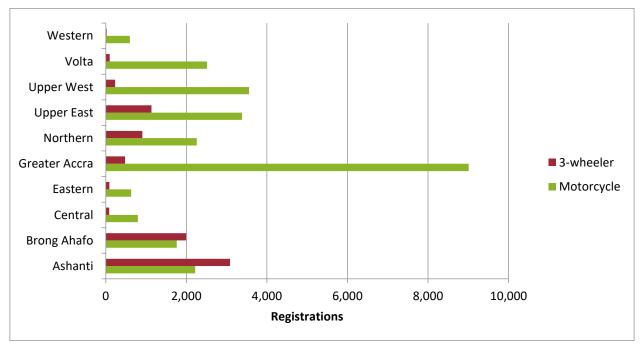


Figure 6 Numbers of motorcycles and three-wheelers registered by region, June to December 2017

The chart shows that in two regions – Ashanti and Brong Ahafo – the numbers of three-wheelers registered was greater than the number of two-wheeler motorcycles. In both Upper East and Northern regions, the number of three-wheelers registered was approximately one-third of the number of motorcycles. In all other regions, the number of three-wheelers registered was small in comparison to the number of motorcycles.

Source: DVLA, 2018

3.3.2 Progress to date: Traffic data

Traffic data was sought from the Department of Feeder Roads within the Ministry of Roads and Highways. However, very limited data on traffic flows on rural feeder roads was available. The only data that could be obtained were one-day, thirteen-hour (05:00-18:00) multimodal traffic counts undertaken in two districts (Asunafo District and Tano District) of Brong Ahafo region in 2017.

In both districts, the results of the traffic counts were similar, including:

- Non-motorised vehicles, including bicycles and animal carts, were the most common form of transport, comprising 35% of all vehicles
- Motorcycles and three-wheelers were the most common form of motorised transport, making up over 25% of all vehicles, and almost 40% of motorised vehicles
- Cars, light trucks and pick-up trucks were the next most common modes of transport

3.3.3 Progress to date: Road traffic injury data

In Ghana, the collection of primary data on road traffic crashes is the responsibility of the Motor Traffic and Transport Directorate (MTTD) of the Ghana Police Service. All traffic crashes, including both those in which an injury is sustained and those that cause damage only, are required by law to be reported to and investigated by the MTTD.

At the crash scene, information is recorded by a police officer using a paper-based, hand-written report form. Information collected includes the date, time, weather, location, road characteristics, and details on the vehicles and people involved, including any injuries, and information from eye witnesses. Once the report forms have been completed by the investigating officer, dockets are prepared mainly for prosecution purposes.

Analysis of the road traffic crash data is undertaken by the Building and Road Research Institute (BRRI). Once per year, officials from BRRI visit all police stations in the country to transfer the crash information from the dockets onto a standard accident reporting form. From the form, the information is coded, entered into a computerised crash database and analysed.

BRRI carries out detailed analysis with the help of MAAP (the Microcomputer Accident Analysis Package, Windows version 5). Results are reported in the form of annual accident statistics for the National Road Safety Commission (NRSC). The raw data is further used for research by the BRRI, academia and private consulting firms. The road agencies use the data to identify hazardous crash locations and for road safety auditing.

Figure 7 shows the process of crash data management at BRRI.

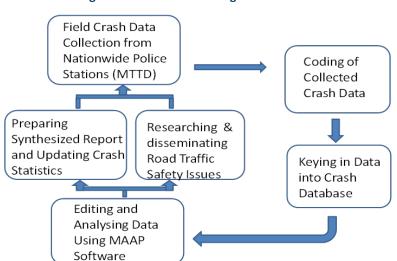


Figure 7 Crash data management at BRRI

The management and use of crash data in Ghana is often highlighted as an example of best practice in Africa. However, it does have a number of recognised limitations, including:

- The location is recorded as a description only. No GPS (Global Positioning System) coordinates are recorded
- When the information from the dockets is coded for entry into MAAP, the location is classified only as either 'urban' or 'rural'. The rural category includes both highways passing through rural areas and rural feeder roads
- It is thought that there is significant under-reporting of crashes (Afukaar *et al*, 2017). The figures do not follow the normal 'injury pyramid' (WHO, 2014)

As a result of these limitations, the World Health Organization (WHO) classifies Ghana as a 'Country without eligible death registration data' (WHO, 2015). The WHO uses its own model to calculate an estimate of the number of fatalities. In 2012, the BRRI / NRSC official statistics reported 2,240 fatalities, while the WHO estimated the number to be 6,789.

Motorcycle crashes in Ghana

The BRRI data breaks down crashes by road user class and by injury severity. The data is categorised into eight different road user classes:

- Pedestrian
- Car Occupants
- Goods Vehicle Occupants
- Bus Occupants
- Motorcyclists
- Pickup Occupants
- Cyclists
- Others

In these classifications, 'Motorcyclists' includes both riders and passengers of both motorcycles and motorised three-wheelers. It should be noted that the data on motorcyclist injuries does not include, for example, pedestrians or cyclists who were injured in a crash involving a motorcycle.

The data is categorised by three different levels of injury severity:

- Killed
- Seriously injured
- Slightly injured

'Killed' is defined as someone who dies within 30 days of the crash. A 'Serious injury' is one that requires the crash victim to be hospitalised for more than 24 hours. A 'Slight injury' is one that requires the crash victim to be given first-aid only.

Figure 8 shows the numbers of motorcyclists killed, seriously injured and slightly injured in Ghana as a whole, each year from 2007 to 2016 (the most recent year for which data is available).

15

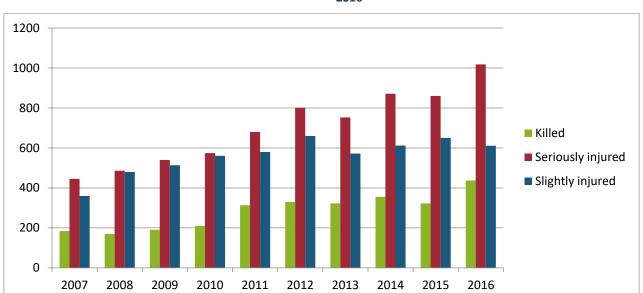


Figure 8 Numbers of motorcyclists (including three-wheelers) killed, seriously injured and slightly injured, 2007 to 2016

Source: BRRI, 2018

Figure 8 shows that the numbers of motorcyclists killed and injured have shown a general increase from 2007 to 2016. The number of deaths was reasonably steady from 2007 to 2010, then increased in 2011 and remained reasonably steady to 2015, increasing again in 2016. The number of serious injuries rose steadily from 2007 to 2012, then somewhat stabilised to 2015, before increasing again in 2016. The number of slight injuries rose steadily from 2007 to a peak in 2012, then fell in 2013 and remained reasonably steady to 2016.

The pattern of the severities of injuries – with the numbers of slight injuries being less than the numbers of serious injuries – is inconsistent with the 'injury pyramid', shown in Figure 9. The WHO (2014) explains that the relative numbers of fatal and non-fatal injuries are often depicted in the form of a pyramid, with the most severe injuries (those resulting in death) at the top of the pyramid as they occur in the lowest numbers, and the least severe (those not requiring any treatment) at the base of the pyramid as they occur in the greatest numbers.

16

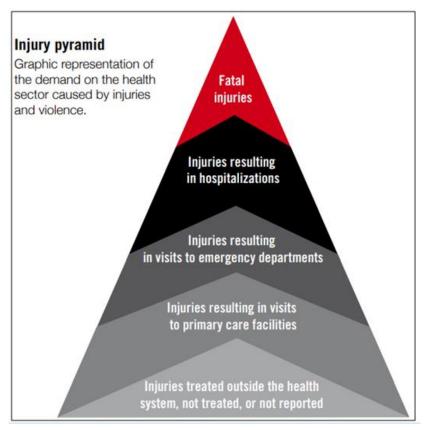


Figure 9 The injury pyramid (WHO, 2014)

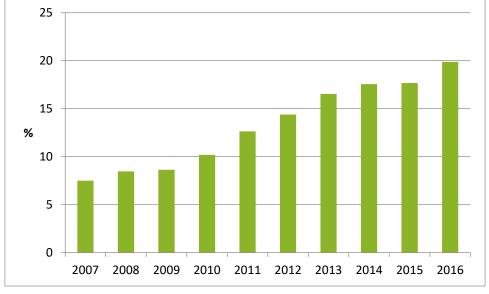
Source: WHO, 2014

In the case of injuries to motorcyclists in Ghana, it can be assumed that a high proportion of slight injuries go unreported.

Figure 9 shows that the number of motorcyclists killed and injured remained reasonably stable from 2012 to 2015. This coincides with the introduction of the Road Traffic Regulations, 2012 (Legislative Instrument 2180), which made it illegal to carry a fare-paying passenger on a motorcycle or three-wheeler, and with the subsequent drop in the numbers of motorcycles being registered each year.

Figure 10 shows the proportion of motorcyclists killed and seriously injured (KSI) as a percentage of the total number of road users killed and injured in Ghana as a whole, each year from 2007 to 2016, inclusive. Slight injuries have not been included in this analysis, as it has been identified that these are probably under-reported.

Figure 10 Proportion of motorcyclists (including three-wheelers) KSI as a proportion of all road users, 2007 to 2016



Source: BRRI, 2018

Figure 10 shows that the proportion of motorcyclists killed and seriously injured, as a percentage of the total number of road users killed and seriously injured, has risen year-on-year from 2007 to 2016.

Reanalysis of crash data with a rural focus

For this study, the raw data that BRRI obtains from MTTD prior to coding was requested from BRRI. Data was provided by BRRI for the years 2012 to 2016 inclusive.

As this study is specifically interested in issues related to motorcycles and motorised three-wheeler in rural areas, and in particular on rural feeder roads, the raw data was re-coded, to differentiate between crashes that had occurred on rural feeder roads and rural highways.

Table 4 shows the numbers and percentages of motorcyclists killed and seriously injured on the different classifications of road: urban roads; rural highways; and rural feeder roads, for the full five-year period from 2012 to 2016. Slight injuries have not been included in this analysis, as it has been identified that these are probably under-reported.

Table 4Numbers and percentages of motorcyclists (including three-wheelers) KSI, by road type, 2012 to 2016
(inclusive)

Road classification	Number of motorcyclists KSI	Percentage of all motorcyclists KSI
Urban roads	3,060	50.4%
Rural highways	2,197	36.2%
Rural feeder roads	815	13.4%

Source: BRRI, 2018

Table 4 shows that more than half (50.4%) of all motorcyclist deaths and serious injuries are caused in an incident on urban roads. More than one-third (36.2%) are caused in an incident on rural highways. Only 13.4% of motorcyclist deaths and serious injuries are caused in an incident on rural feeder roads.

Table 5 shows the number of motorcyclist deaths and serious injuries on the different classifications of road, as well as the percentage of each of the overall total of motorcyclists killed and injured, for the full five-year period from 2012 to 2016 inclusive.

Table 5Numbers of motorcyclists (including three-wheelers) killed and seriously injured, and percentages of each
of the overall total of deaths and serious injuries, by road type, 2012 to 2016 (inclusive)

Road classification	Motorcyclists killed		Motorcyclists seriously injured	
	Number Percent of total		Number	Percent of total
Urban roads	684	22.4%	2,376	77.6%
Rural highways	801	36.5%	1,396	63.5%
Rural feeder roads	284	34.8%	531	65.2%

Source: BRRI, 2018

Table 5 shows that serious injuries sustained on rural highways and rural feeder roads are more likely to result in the death of the motorcyclist, than serious injuries sustained on urban roads.

Figure 11 shows the numbers of motorcyclists killed and seriously injured on all roads in each of Ghana's ten different districts, for the full five-year period from 2012 to 2016 inclusive.

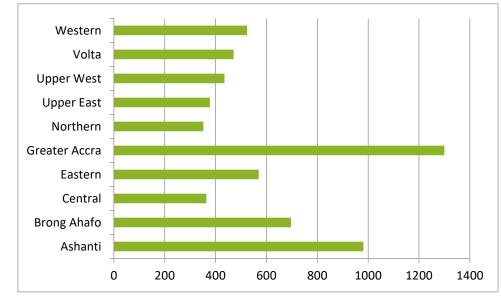


Figure 11 Numbers of motorcyclists (including three-wheelers) KSI on all roads, by region, 2012 to 2016 (inclusive)

Figure 11 shows that Greater Accra has by far the highest number of motorcyclist deaths and injuries, followed by Ashanti region. Looking back to Table 2 in the previous section on vehicle registrations, it can be seen that these are the two regions with the lowest percentage of the population living in rural areas.

Three of the four regions with the lowest numbers of motorcyclists killed and seriously injured – Northern, Upper East and Upper West – are the three regions with the highest percentage of the population living in rural areas.

However, perhaps more interesting are the number of motorcyclists killed and seriously injured on all roads per the population and per the number of registered motorcycles, taking numbers from the previous section of this report on vehicle registrations. These numbers are shown in Table 6.

Source: BRRI, 2018

Table 6Numbers of motorcyclists (including three-wheelers) KSI on all roads, and per 100,000 of the population
and per 1,000 registered motorcycles, by region, 2012 to 2016 (inclusive)

Region	Number of motorcyclists KSI, all roads	Total population (2010)	KSI per 100,000 of the population	Motorcycles registered, 2012 to 2016 (inclusive)*	KSI per 1,000 registered motorcycles
Ashanti	981	4,780,380	20.5	18,194	53.9
Brong Ahafo	697	2,310,983	30.2	12,309	56.6
Central	364	2,201,863	16.5	1,721	211.5
Eastern	570	2,633,154	21.6	1,614	353.2
Greater Accra	1,300	4,010,054	32.4	65,967	19.7
Northern	352	2,479,461	14.2	31,776	11.1
Upper East	378	1,046,545	36.1	37,366	10.1
Upper West	435	702,110	62.0	41,889	10.4
Volta	471	2,118,252	22.2	16,990	27.7
Western	524	2,376,021	22.1	4,829	53.9

Source: BRRI, 2018 / Ghana Statistical Service, 2012

*Note that the number of motorcycles registered as shown in this table is for the period from 2012 to 2016 (inclusive) only. Thus the figures are different from those in Table 3, as these covered the period from 2012 to 2017 (inclusive).

Table 6 shows that Upper West region has by far the highest number of motorcyclist deaths and serious injuries per 100,000 of the population. However, this appears to be because it has a low population and a very high number of registered motorcycles.

Looking at the three regions with the highest proportions of the population living in rural areas – Upper West, Upper East and Northern – these all have high numbers of registered motorcycles and low numbers of deaths and serious injuries per 1,000 registered motorcycles.

Central and Eastern regions have very low numbers of registered motorcycles, but very high numbers of deaths and serious injuries per 1,000 registered motorcycles.

The raw data from BRRI classifies ten different collision types:

- Head-on
- Hit animal
- Hit object off road
- Hit parked vehicle
- Hit pedestrian
- Ran off road
- Rear end
- Right angle
- Side swipe
- Other

For the sake of this analysis, these have been grouped into the following categories:

- Involving another moving vehicle, including:
 - $\circ \quad \text{Head-on} \quad$
 - $\circ \quad \text{Ran off road} \quad$
 - o Rear end
 - $\circ \quad \text{Right angle} \\$
 - $\circ \quad \text{Side swipe} \quad$

- Involving a pedestrian or animal
 - o Hit pedestrian
 - Hit animal
- Involving no moving third party
 - o Ran off road
 - Hit parked vehicle
 - $\circ \quad \text{Hit object off road} \\$
 - Hit object on road
- Other

Figure 12 shows the percentages of these different categories of crash types, for crashes that resulted in a motorcyclist death or serious injury, comparing rural feeder roads with urban roads and rural highways, for the period from 2012 to 2016 inclusive.

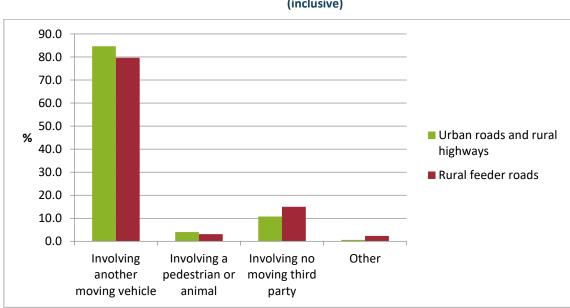


Figure 12 Percentage of crash types resulting in motorcyclist (including three-wheelers) KSI, 2012 to 2016 (inclusive)

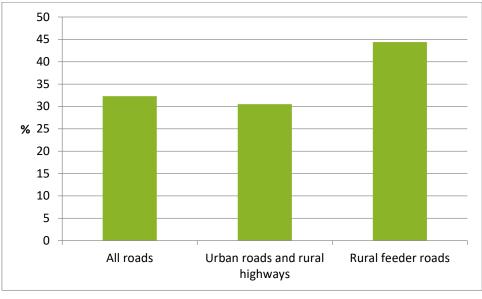
Source: BRRI, 2018

Figure 12 shows that the vast majority of crashes that resulted in the death or serious injury of a motorcyclist involved another moving vehicle, although the percentage of such crashes was slightly lower on rural feeder roads than on urban roads and rural highways. It also shows that the percentage of crashes involving no other moving third party was higher on rural feeder roads than on urban roads and rural highways.

For crashes in which a motorcyclist was killed or seriously injured on all road types, 'Head-on' is the most common collision type. Figure 13 shows the percentage of all crashes that caused death or serious injury to a motorcyclist that were head-on.

21

Figure 13 Percentage of collisions that resulted in motorcyclist (including three-wheelers) KSI that were 'head-on', by road type, 2012 to 2016 (inclusive)



Source: BRRI, 2018

On all road types, head-on collisions accounted for almost one-third (32.3%) of motorcyclist deaths and serious injuries. However, on rural feeder roads, this number increases to 44.4%, showing that head-on crashes are more likely to be the cause of motorcyclist deaths and serious injuries than on urban roads and rural highways.

3.3.4 Next steps

The reanalysis of the data on vehicle registrations and road traffic injuries will be further discussed among the project team, with a focus on the implications of the findings for policy, legislation and training. These will be kept in mind during the implementation and analysis of the survey of benefits and disbenefits, and updated sections on these vehicle registrations and road traffic injuries will be included in the draft Ghana Country Report.

Given that little existing data on traffic flows is available, efforts will be made (depending on available budget) to undertake multimodal traffic counts in the four locations where the survey of benefits and disbenefits will be carried out.

3.4 Kenya: A study of the health impacts of motorcycle and three-wheeler use

3.4.1 Progress to date

Quantitative data on health and injuries will be collected through the four-country survey of benefits and disbenefits. In Kenya, this topic will be explored further by gathering qualitative information through key informant interviews and focus groups with riders and passengers. Information will also be sought from rural health facilities. Topics for discussion and information to be obtained will include:

- The importance of motorcycles and three-wheelers for rural communities to access health facilities, including in emergencies
- The burden of motorcycle- and three-wheeler-related injuries and health issues on rural health provision
- The impact that health issues have on rider behaviour and safety

Now that the design of the questionnaires of the survey of benefits and disbenefits has been finalised, development of the qualitative data collection exercise is currently underway.

3.4.2 Next steps

This activity will be carried out in coordination with the survey of benefits and disbenefits, at the same time and in the same geographical locations.

The information obtained through this activity will help decision-makers to understand the health impacts – both positive and negative – of motorcycle and three-wheeler use in rural areas. It will also add to the body of knowledge on the health impacts of motorcycle use in Africa.

3.5 Tanzania: Improving the operations of motorcycle taxi associations

Motorcycle taxi associations are common in Tanzania. The government has attempted to regulate the motorcycle taxi industry by requiring riders to belong to a registered association. In rural areas, enforcement of this has been largely ineffective, and while some rural associations do exist, and provide important social services to members, most are unregistered and their potential is not being maximised.

Previous AfCAP research has looked at the role of transport operators' associations and the potential of motorcycle taxi associations to improve road safety (Transaid, 2014; and Amend, 2015). As part of this project, investigations are being carried out to understand associations' broader potential, and to develop a form of 'operating manual' for rural motorcycle taxi associations in Tanzania.

To date, the following progress has been achieved.

3.5.1 Progress to date: Support from government stakeholders

Support for the work to improve operations of motorcycle taxi associations has been obtained from the Surface and Marine Transport Regulatory Authority(SUMATRA), which regulates the use of motorcycles to carry fare-paying passengers, and from the Tanzania Police Force. Overall support for the project has also been obtained from the President's Office for Regional Administration and Local Government (PORALG), to enable the project team to work in rural areas.

3.5.2 Progress to date:Structure of Operating Manual

Based on input from government stakeholders, and consulting with project team members who have experience of working with 'bodaboda' (the Swahili name for motorcycle taxis) associations in Tanzania, the first draft of the structure of the Operating Manual was developed. The draft structure is as follows:

Section 1: Introduction

Section 2: Motorcycle and Three-Wheeler Maintenance

- Inspecting the motorcycle and three-wheeler
- Changing oil and other fluids
- Component replacement and adjustment of mechanisms
- Sourcing of parts

Section 3: Personal protective equipment (PPE)

- Helmets
- Reflective jackets
- Other equipment

Section 4: Operating costs

Section 5: Customer Care

- Benefits of customer care
- The Ten Principles of customer care

Section 6: Self-regulation of associations

- Management structure
- Election process

- Grievance procedures
- Financial structure and management
- Rider behaviour charter

Section 7: Motorcycle and three-wheeler legislation

Section 8: Training of riders

- Mentoring of riders
- Safe riding
- Road signs & markings
- Highway Code

Section 9: Acquisition of driving licence

Section 10: Acquisition of business licence

Section 11: Insurance Requirements

Section 12: Entrepreneurship

Section 13: Health & hygiene

Section 14: Personal security

3.5.3 Progress to date: Initial input from riders

A short questionnaire was designed to gather initial input from bodaboda riders in rural areas, to establish their interest in the manual and to help identify specific areas of content. A total of seven riders were interviewed, in rural areas of Bagamoyo and Ubungo districts. Those interviewed included the chairmen of existing informal bodaboda associations, members of existing informal bodaboda associations, and riders who were not members of associations but who were interested in joining or forming associations.

Through these questionnaires, it was identified that the topics of most interest to bodaboda riders are:

- How to successfully manage a bodaboda association
- How to obtain a driving licence
- How to maximise the lifespan of personal protective equipment
- Road safety education, including on rules and regulations and the meanings of signs and markings
- Financial management, including how to obtain money to purchase a motorcycle

3.5.4 Next steps

The development of the Operating Manual is ongoing.

Content is being developed through the review of other motorcycle and three-wheeler user manuals and handbooks, as well as through consultation with stakeholders such as:

- Established bodaboda associations, to identify best practice within Tanzania
- SUMATRA and local government authorities in relation to business licences
- The police and revenue authority in relation to driver testing and driving licences
- Insurance companies
- Driving schools

Focus group discussions and key informant interviews will be carried out in the rural areas where the survey of benefits and disbenefits is carried out, to understand the applicability of the content developed to that point.

A draft of the Operating Manual will be presented at the four-country and the Tanzania-specific workshops during the uptake and embedment phase of the project.

3.6 Uganda: Understanding barriers to motorcycle and three-wheeler taxi use

3.6.1 Progress to date

Quantitative data will be collected from people who do not use motorcycle and/or three-wheeler taxis through the four-country survey of benefits and disbenefits. In Uganda, this topic will be explored further by gathering qualitative information through key informant interviews and focus groups. Topics for discussion and information to be obtained will include:

- Detailed understanding of the reasons why people do not use motorcycle and/or three-wheeler taxis
- The impact that the fact they do not use motorcycle and/or three-wheeler taxis has on their lives both positive and negative
- Any changes that could be made to related policy or practice that would improve the safety of motorcycle and/or three-wheeler taxis, and so reduce the number of people deterred from using them due to safety risks

Now that the design of the questionnaires of the survey of benefits and disbenefits has been finalised, development of the qualitative data collection exercise is currently underway.

3.6.2 Next steps

This activity will be carried out in coordination with the survey of benefits and disbenefits, at the same time and in the same geographical locations.

The information obtained through this activity will help decision-makers to understand how they can help improve the mobility of the most-disadvantaged people in rural communities, as well as adding to the overall body of knowledge on this subject.

3.7 Additional activities

A proposal has been submitted to the ReCAP Project Management Unit (PMU) to extend the research project to incorporate additional activities. These additional activities are:

- Investigations into the potential of smartphone 'apps' and other technology to improve safe use of motorcycles and three-wheelers for rural transport
- Engagement with Tanzania's transport regulatory authority (SUMATRA) to review uptake of a motorcycle and three-wheeler training curriculum and to investigate the potential of a mobile licensing service

The intention is for the activities of this extension to be integrated into the wider project, feeding into the discussion papers, workshops and final report.

Upon confirmation of the extension, the AfCAP partner institutions and other stakeholders in each country will be informed, to update them of the widened scope of the overall research project, and to allow them to contribute any initial thoughts. Stakeholders will continue to be involved through the project's international and national workshops.

4 Conclusions

The research to date has yielded some very interesting findings. For example:

- Through the review of policy and legislation, some examples of what may be good practice have been identified, such as:
 - Requiring the use of motorcycle headlights during daylight hours as well as at night in Kenya and Uganda
 - Permitting flexibility in the use of vehicles, as in Uganda where while passengers are generally prohibited from riding in three-wheelers – three-wheelers are permitted to be used as ambulances in rural areas where there may be limited alternative transport services
- Through the reanalysis of the vehicle registration data, it has been identified that:
 - The numbers of motorcycles and three-wheelers being registered annually fell year-on-year from 2012, when legislation prohibiting the carriage of fare-paying passengers was introduced, to 2016, but then increased greatly in 2017
 - Other than Greater Accra, the three regions with the highest numbers of motorcycle (including three-wheeler) registrations are the three regions with the greatest proportion of the population living in rural areas
 - The two regions with the highest percentage of the population living in rural areas have by far the highest numbers of motorcycle (including three-wheeler) registrations per 1,000 of the population
 - The four regions where motorcycles (including three-wheelers) make up the highest proportion of the total registered vehicles are the regions with the highest proportion of the population living in rural areas
- Through the reanalysis of the road traffic injury data, it has been identified that:
 - There appears to be a high degree of under-reporting of slight injuries suffered by motorcyclists
 - Data on motorcycle-related deaths and injuries only includes 'motorcyclists' riders and passengers. They do not include any other road users, such as cyclists or pedestrians, injured in an incident involving a motorcycle
 - The three regions with the highest proportions of the population living in rural areas all have high numbers of registered motorcycles and low numbers of deaths and serious injuries per 1,000 registered motorcycles
 - The percentage of 'head-on' collisions that resulted in death or serious injury of a motorcyclist was higher on rural feeder roads than on other types of roads

However, at this stage of the project, it is too early to draw any firm conclusions. Rather, all of the information and findings that have been documented in this report will be shared with the project team and kept in mind during the subsequent activities, and will inform the preparation of the country reports.

Finally, it should be noted that this research project is generating interest from third parties, despite being in the early stages. The following people have expressed interest in the project:

- A consultant working for the World Bank in Ghana
- The Sierra Leone Secondary Education Improvement Programme a DFID-funded project to support the Ministry of Education, Science and Technology
- The African Development Bank
- UNICEF in Tanzania

This is important as it helps demonstrate the wider interest in rural motorcycle and three-wheeler use in Africa. Early engagement with development banks and the donor community may also help with policy change, uptake and embedment, especially if resources can be mobilised to support the recommendations of the country reports and priorities of local partners.

5 References

en/

- Afukaar, F K, Agyemang, W and Opoku-Agyemang, K, 2017. Identification of hazardous sites and recommendation of remedial measures on selected rural roads. Final report. ReCAP Project Ref. No: GHA2076A. Available at: <u>http://www.research4cap.org/Library/Afukaar-BRRI-2017-HazardousSpotsGhana-IRIM2017-171122.pdf</u>
- Bishop, T and Amos, P, 2015. Opportunities to improve road safety through 'boda-boda' associations in Tanzania. Amend. Final Report.ReCAP Project Ref. TAN2015G / SC14069. Available at: <u>http://www.research4cap.org/Library/BishopAmos-Amend-Tanzania-2015-</u> BodaAssocs+Final+Report-AFCAPTAN2015G-v150616.pdf
- Building and Road Research Institute, 2018. Data on road traffic injuries, 2007 to 2016. Obtained directly from BRRI
- Department of Feeder Roads, 2018. Traffic data for Tano and Asunafo Districts, Brong Ahafo Region, 2017. Obtained directly from DFR
- Driver and Vehicle Licensing Authority, 2018. Data on vehicle registrations, 2012 to 2017. Obtained directly from DVLA
- Ghana Statistical Service, 2012.Population by Region, District, Locality of Residence, Age Groups and Sex, 2010. Ghana Housing and Population Census. Available at: <u>http://www.statsghana.gov.gh/docfiles/population_by_region_district_locality_of_residence_age_groups_and_sex,_2010.pdf</u>
- Transaid, 2014.An investigation into the role of transport operator associations in shaping Transport Services in Africa's rural areas. AFCAP Project Ref. AFCAP/GEN/127/A. Available at: <u>http://www.transaid.org/wp-content/uploads/2015/09/AFCAP-Transport-Operator-Associations-and-Rural-Access.pdf</u>
- WHO, 2014. Violence and Injury Prevention: The Facts. World Health Organization, Geneva, Switzerland. Available at: <u>http://www.who.int/violence_injury_prevention/media/news/2015/Injury_violence_facts_2014/</u>
- WHO, 2015. Global Status Report on Road Safety, 2015. World Health Organization, Geneva, Switzerland. Available at: <u>http://www.who.int/violence_injury_prevention/road_safety_status/2015/en/</u>

27

Annex 1 Questionnaires for the Survey of Benefits and Disbenefits

Riders' Questionnaire

SURVEY ON THE BENEFITS AND DISBENEFITS OF MOTORCYCLES AND MOTORISED THREE-WHEELERS

Questionnaire Ref. No.

RIDERS' QUESTIONNAIRE

Completion Status:

- Complete ----- 1 - Partially complete ---- 2

28

Introduction and Eligibility

Identify a possible respondent with a vehicle (either motorcycle or motorised three-wheeler).

Ask "Do you ride this motorcycle / motorised three-wheeler?", gesturing to the vehicle.

If No, thank them and continue to identify others. If Yes, proceed with the questionnaire.

If yes, explain...

My name is..... and I am working for Transaid and Amend, NGOs working to improve transport services. We are interviewing people here in **[NAME OF VILLAGE OR DISTRICT/DIVISION]**.....in order to find out about motorcycles and motorised threewheelers.

Confidentiality and consent: I am going to ask you some questions. Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me.

We would greatly appreciate your help in responding to this survey.

Ask the respondent the Uncoerced Verbal Consent questions:

- 1. Have you had the information about this study explained in a manner that you understand to your satisfaction?
- 2. Do you understand that your participation is entirely voluntary?
- 3. Do you know enough about the purpose and methods of the research study to judge if you would like to take part in it?
- 4. Do you understand that you may freely stop being part of this study at any time?
- 5. Have we addressed all your questions to your satisfaction? If not, may we at this time?
- 6. Do you agree to participate in this study?

If answers to all are 'Yes', proceed with the questionnaire.

Tell them...

If you are unhappy about the questions, you can tell me at any time and we will stop. If you need any further information, we are staying at while we are here. My supervisor's name isand telephone number is

Interview and Interviewer's Information

No.	Questions and filters	Coding categories				Skip
1101	Interviewer's name (Enter details)	Name:				
II102	Date of interview (Enter details)	Date:				
II103	Country (Select one)	Ghana 1 Kenya 2 Tanzania 3 Uganda 4				
1104	Location (Enter details)	GH	KE	TZ	UG	
II105	Vehicle type (Enter details)	Motorcycle 1 Motorised three-wheeler designed for passengers 2 Motorised three-wheeler designed for freight 3				2
II106	Start time (Enter details)	Time:				
II107	End time (Enter details)	Time:				
II108	Interviewer's signature (Enter details)	Signature:				
11109	Interviewer's notes, if any <i>(Enter details)</i>					

Important Note: Where questions in this questionnaire refer to 'motorcycle and/or three-wheeler', you should refer to the vehicle type selected above.

Section 1: Background Information

Observations

No.	Questions and filters	Coding categories		Skip
BI101	Gender <i>(Enter details)</i>	Male 1 Female 2		
BI102	Any apparent disability? (Enter details)	Yes 1 No 2		lf NO, skipto BI104
BI103	 If yes, what kind of disability? (Select all that apply) 	Walking 1Sight 2Deaf / dumb 3Mental disability 4Albino 5Difficulty using arms/hands 6Dwarfism 7Other (specify)	8	
BI104	Observed level of personal wealth as judged by appearance (Select one)	Above average personal wealth 1 Average personal wealth 2 Below average personal wealth 3		

Questions

Questions							
No.	Questions and filters	Coding categories	Skip				
BI105	How old are you?						
	(Enter details)	Age in completed years					
		Don't know8888					
BI106	What is the highest level of	Never attended school 1					
	school that you completed?	Did not complete primary school 2					
	(Select one)	Primary school completed 3					
		Secondary school completed 4					
		Tertiary school/University degree completed 5					
BI107	What is your marital status?	Married (including customary union) 1					
	(Select one)	Single 2					
		Widowed/Separated/Divorced 3					
BI108	What is your primary	Taking care of home and/or children1					
	occupation?	Farmer 2					
	(Select one)	Motorcycle taxi rider 3					
		Three-wheeler taxi rider 4					
		Teacher 5					
		Shopkeeper / shop-worker 6					
		Builder / labourer 7					
		Government official 8					
		Business-person 9					
		Worker in bar / restaurant / hotel 10					
		Student / pupil 11					
		Other (specify) 12					
BI109	What is your secondary	Taking care of home and/or children1					
	occupation (if any)?	Farmer 2					
	(Select one)	Motorcycle taxi rider 3					
	, ,	Three-wheeler taxi rider 4					
		Teacher 5					
		Shopkeeper / shop-worker 6					
		Builder / labourer 7					
		Government official 8					
		Business-person 9					
		Worker in bar / restaurant / hotel 10					

		Other (s	Student / pupil 11 Other (specify)				
BI110	How many people live in			Number			
	your household, including	BI110a	Adult males				
	you? (Eating from the same	BI110b	Adult females				
	cooking pot)	BI110c	Child males				
		BI110d	Child females				

Section 2: Overall Opinions on Motorcycles / Motorised Three-Wheelers*

No.	Questions and filters	Coding c	ategories						Skip
00101	On a scale of 1 to 5, 1 being very bad and 5 being excellent,	OO101a	Suitability for rural passenger transport	1	2	~~~	34	5	
	how would you rate your opinion of each of these aspects of motorcycles /	00101b	Suitability for rural	1	2	3	3 4	5	
			freight transport						
		00101c	Road safety	1	2	3	3 4	5	
	motorised three-wheelers?	00101d	Personal safety	1	2		34	5	
		00101e	Overall opinion	1	2	3	34	5	
00102	What is the best thing about motorcycles / motorised three- wheelers? (Probe fully and select one)	Means of doing business / earning money 1 Generate employment 2 Convenient / easy mode of transport 3 Provide access where other vehicles cannot 4 Limited other transport options 5 Fast mode of transport 6 Cheaper than other options 6 Cheaper than other options 7 Transport to health care in case of an emergency 8 Access to medical facilities in non-emergency cases 9 Provides transport to take children to school 10 Other (specify)					- 2 3 4 5 - 6 7 8 9		
00103	What is the worst thing about motorcycles / motorised three- wheelers? (Probe fully and select one)	Risk to saf Risk of rid Used to co Expensive Lack of re wheelers Lack of re wheelers Encourage motorcycl Other	fety of riders and passenge fety of other road users er or passenger being a vi- ommit crimes	torc torc torc axi -	of yclo yclo	crii es / es / 	me - '' thr '' thr	ee-	- 2 - 3 - 4 - 5 - 6 - 7 - 8
		10							—

Section 3: Access & Mobility

No.	Questions and filters	Coding categories	Skip
AM101	Have you ever transported a	Yes 1	If NO, skip
	passenger to a health facility	No 2	to AM109
	in an <u>emergency</u> while		
	working as a motorcycle or		
	motorised three-wheeler		
	taxi rider in a rural area?		
	(Select one)		
AM102	- If yes, on how many	Number of occasions:	
	different occasions		
	have you ever		_
	transported		
	someone to a health		
	facility in an		
	emergency?		
	(Enter details)		
AM103	 If yes, in the last one 	Number of occasions:	
	month, on how		
	many different		_
	occasions have you		
	transported		
	someone to a health		
	facility in an		
	emergency?		
	(Enter details)		
AM104	- If yes, when was the	Within the last one month 1	
	most recent time	Between one and three months ago 2	
	that you transported	Between three and six months ago 3	
	someone to a health	Between six and twelve months ago 4	
	facility in an	More than one year ago5	
	emergency?		
	(Select one)		
AM105	 If yes, what is your 	Years:	
	estimate of the age		
	of the person who		
	needed emergency		
	health care?		
	(Enter details)		
AM106	- If yes, what was the	Male 1	
	gender of the person	Female 2	
	who needed		
	emergency health		
	care?		
	(Select one)		

AM107	 If yes, the most recent time that you transported someone during an <u>emergency</u> what was the reason they were seeking health care? (Select one) 	To have a baby at a health facility (normal delivery) 11Complications during pregnancy2Other pregnancy-related emergency3Pneumonia	
AM108	- What was the outcome? (Select one)	Unknown 1 Passenger survived 2 Passenger died on the way 3 Passenger died at the health facility 4 Other 5	
AM109	Do you think that you have ever saved a life in providing transport in an emergency? (Select one)	Yes 1 No 2 Don't know 3	
AM110	Do you ever transport people to health facilities or pharmacies for non - emergency cases? <i>(Select one)</i>	Yes 1 No 2 Don't know 3	If no skip to Section 4 Economics and Finance
AM111	 If yes, how many people per month do you transport to health facilities or pharmacies for non- emergency cases? (Enter details) 	Number of occasions	

AM112: Provide a description of the emergency, how the patient was transported and the outcome

¹ In a rural content in the project's focus countries normal delivery has been classed as emergency due to the high levels of risk involved

Section 4: Economics & Finance

No.	Questions and filters	Coding categories	Skip
EF101	Do you operate the motorcycle / motorised three-wheeler as a taxi, charging a fare to carry passengers or freight? (Select one)	Yes 1 No 2	If NO, skip to section on Injuries & Health
EF102	What is the make of the motorcycle or motorised three- wheeler? (Select one)	SANLG 1 Haujue 2 Haojin 3 Fekon 4 Bajaji Boxer 5 Bajaji (other) 6 Kinglion 7 Honda 8 Toyo 9 T-Better 9 T-Better 10 Yamaha 11 Other (specify):	
EF103	What is the engine size of the	1: Less than 100cc 1	2
EFIUS	motorcycle or motorised three- wheeler? (Select one)	100cc 2 125cc 3 150cc 4 More than 150cc 5	
EF104	What is the year of manufacture of the motorcycle or motorised three-wheeler? <i>(Enter details)</i>	Year: Don't know 888	
EF105	When was the motorcycle or motorised three-wheeler first registered in this country? (Enter details)	Year:	
EF106	When was it purchased by the current owner? (Enter details)	Don't know 888 Year: 	
		Don't know 888	
EF107	Who owns the motorcycle / motorised three-wheeler that you ride? (Select one)	You	If NOT YOU, skip to EF114
EF108	 <i>If you</i>, what was the total cost of the motorcycle? <i>(Enter details)</i> 	Amount: Currency:	

EF109	 <i>If you</i>, how did you make the payment? <i>(Select one)</i> 	Over time v the seller Other (specify)	lump-sum pay with several p	ayments,	in an ag	reeme	ent with 2	
EF110	 <i>If you</i>, how did you obtain the money to acquire the motorcycle? <i>(Select all that apply)</i> 	Own mone Money bor bank Money bor Other (specify)	y rowed from fa rowed from a rowed from a	amily and I bank, inc I taxi asso	friends luding n	nicro-f	1 2 inance 3 4	
EF111	 If you <i>borrowed money</i>, how much did you borrow? (Enter details) 							
EF112	 If you <i>borrowed money</i>, what are / were the details of the repayments? <i>(Enter details)</i> 	EF112a EF112b EF112c	Amount Currency (i Payment p month) Duration (in	eriod (ie p				
EF113	 <i>If you</i>, for how long do you expect to be able to use the motorcycle /motorised three-wheeler as a taxi? <i>(Enter details)</i> 	Months: Years: 	months)					
EF114	 If not you, what are the gender and age of the owner? (Enter details) 	EF114a EF114b	Gender Age	M Years:	1	F	2	
EF115	 If not you, do you pay to use the motorcycle or motorised three-wheeler that you ride? (Select one) 	No Other		2			3	
EF116	 If you pay, how much do you pay to hire the motorcycle or motorised three-wheeler? (Enter details) 	EF116a EF116b	Amount Currency (id Payment pe per day)	-				
EF117	For how long have you been operating a motorcycle / motorised three-wheeler as a taxi?	Years: Months:		and	d			

	(Enter details)				
From he	re, questions are specifically about t	heir opero	ations as a taxi		
EF118	Out of the last seven days, how many days did you work? <i>(Enter details)</i>	Number			
EF119	Yesterday, or on the last full day that you worked, how many paying trips did you make? (Enter details)	Number			
EF120	Yesterday, or on the last full day that you worked, what was the total distance that you rode between starting work and finishing work? (Enter details)	Total dist	ance:		
EF121	Yesterday, or on the last full day that you worked, what was the total fare revenue, adding together the fares of all your trips? (Enter details)				
EF122	How does the amount you made yesterday, or on the last full day that you worked, compare to what you normally expect to make per day? (Select one)	Normal -	ormal 1 2 ormal 3		
EF123	On your most recent trip, what	EF123a	Origin		
	was the: <i>(Enter details)</i>	EF123b	Destination		
		EF123c	Distance (for paid portion of trip)	Less than 2km 1 2 to 4.9km 2 5 to 9.9km 3 10 to 19.9km 4 20km or more 5	
		EF123d	Journey time(for paid portion of trip)	Less than 10 mins 1 10 to 29 mins 2 30 to 59 mins 3 60 mins or more 4	
		EF123e	Total fare	Amount: Currency: 	
		EF123f	Weight of cargo	Less than 10kg 1 11 to 19.9kg 2 20 to 40.9kg 3 50kg or more 4	

		-				
		EF123g	# Adult male pa	ssengers		
		EF123h	# Adult female p	bassengers		
		EF123i	# Child male pas	ssengers		
		EF123j	# Child female p	assengers		
EF124	Is the cost of a trip by motorcycle / motorised three-wheeler taxi at night different from during the day? (Select one)	Yes, it's c	nore expensive at heaper at night rice is the same d	:	2	If NO, skip to EF126
EF125	 If Yes, give an example of the price difference for a common trip that you make (Enter details) 		price: e price:			
EF126	Is the cost of a trip by motorcycle / motorised three-wheeler taxi when it is raining different from when it is dry? (Select one)	Yes, it's n Yes, it's c	nore expensive wheaper it is raining rice is the same w	g	2	If NO, skip to EF128
EF127	 If Yes, give an example of the price difference for a common trip that you make (Enter details) 	Price whe	en raining: en dry:			
EF128	Who pays for fuel? (Select one)	You The owne				
EF129	How often do you refuel? <i>(Enter details)</i>	Every	da	ays		
EF130	When is the last time you refuelled? <i>(Enter details)</i>		days ago 0, Yesterday = 1, I	Day before yest	erday = 2,	
EF131	The last time you refuelled, how many litres did you put? (Enter details)	,				
EF132	The last time you refuelled, how much did you pay? (Enter details)		:			
EF133	For maintenance, repairs and repla pays for the following items: <i>(Enter details below)</i>	l acement, l	now much is spe	nt, how often	, and who	
EF134	- General service	EF134a	Currency	Amount		
		EF134b	Frequency (weeks)	Varia	1	
		EF134c	Who?	YOU	1	

					Owner (if yo	nu are not	
						2	,
					Other		
					(specify)		
					(op o on <i>) /</i>		3
EF135	- Oil	EF135a	Currency		Amount		
		EF135b	Frequency				_
			(weeks)				
		EF135c	Who?				1
					Owner (if yo	ou are not 2	
					Other		2
					(specify)		
					(opcony)		- 3
EF136	- Tyres	EF135a	Currency		Amount		-
		EF135b	Frequency				
			(weeks)				
		EF135c	Who?				1
					Owner (if yo		_
						2	2
					Other (specify)		
					(specify)		
EF137	- Other repairs and	EF135a	Currency		Amount		
	maintenance (total)	EF135b	Frequency				
		EF1330	(weeks)				
		EF135c	Who?		You		1
					Owner (if yo		
						2	2
					Other		
					(specify)		-
EF138	How much have you spent on						5
	maintenance, repairs and	Amount:					
	replacement in the last one						
	month, if any?	Currency					
	(Enter details)	Nothing -					
		Don't kno	ow8	8888			
EF139	How much has the owner spent on maintenance, repairs and	Amount:					
	replacement in the last one						
	month, if any?	Currency					
	(Enter details)	Nothing -					
		Don't kn	ow	2000			
			Jvv a	000Ö			
EF140	Do you have any form of official						If NO, skip
	paperwork that allows you to	No		2			to EF144
	operate as a taxi, ie a business						
	licence?						
	(Select one)						

EF141	- If yes, what does it cost? (Enter details)	Amount: (Currency:)	
EF142	 If yes, how often does it have to be renewed? (Enter details) 	Years:	
EF143	 If yes, what is the total of any other expenses (ie travel) you incur each time you renew it? (Enter details) 	Amount: (Currency:)	
EF144	Do you have a driving licence? (Select one)	Yes 1 No 2	If NO, skip to EF148
EF145	 If yes, what was the fee for obtaining it? (Enter details) 	Amount: (Currency:)	
EF146	 If yes, how often does it have to be renewed? (Enter details) 	Years:	
EF147	 If yes, what is the total of any other expenses (ie travel) you incur each time you renew the licence? (Enter details) 	Amount: (Currency:)	
EF148	Are you a member of a motorcycle or motorised three- wheeler taxi association (an association with a leadership structure)? (Enter details)	Yes 1 No 2	If NO, skip to EF151
EF149	 <i>If yes</i>, in which year did you first join? <i>(Enter details)</i> 	Year:	
EF150	 <i>If yes</i>, what was the one-off cost of membership (if any)? <i>(Enter details)</i> 	Amount: Currency:	-
		None 888	
EF151	- If yes, what are the recurring costs of membership (if	EF151a Amount Currency (ie GHS)	
	any)? (Enter details)	EF151b Payment period (ieper month)	
		None 888	
EF152	Do you pay a fee to use a motorcycle or motorised three- wheeler taxi stand?	Yes 1 No 2	If NO, skip to EF154

EF153	- If yes, what is the cost?	EF153a	Amount			
	(Enter details)		Currency (ie GHS)			
		EF153b	Payment period (ieper month)			
EF154	In the last seven days, how much have you paid in official fines related to riding your motorcycles or motorised three- wheeler? (<i>Enter details</i>)	Amount: (Currency:)			_)	If NO, skip to EF156
EF155	 If an amount has been paid, to whom? (Select one) 	Local gove Stand / st Other (specify)	ernment officialage officials / 'Bookme	2 n' 3		
EF156	In the last seven days, how much have you paid in unofficial bribes or dashes related to riding your motorcycles or motorised three- wheeler? <i>(Enter details)</i>	4 Amount: (Currency:		_)	If NO, skip to EF158
EF157	 If an amount has been paid, to whom? (Select one) 	Local gove Soldiers Vigilantes Stand / st Other	ernment official	2 3 4 n' 5		
EF158	In the last seven days, how much profit did you make (after paying all expenses related to operating the motorcycle or motorised three-wheeler)? (Enter details)	6 Amount: (Currency:		_)	
EF159	What job did you have before becoming and motorcycle taxi rider/three-wheeler driver (Enter details)	Farmer Motorcyc Three-wh Teacher Shopkeep Builder / I Governme Business- Worker in Student / Other (spe	re of home and/or child le taxi rider eeler taxi rider er / shop-worker abourer abourer ent official bar / restaurant / hote pupil ecify)	2	2 3 4 5 6 7 8 9 10 11 12 12	
EF160	Is your average income now more or less or the same?	More Less The same	1 2			If NO, skip to section 5

			<u>– Injuries</u> and Health
EF161	How much more or less per	More: - 0-19% 1	
	month?	- 20-39% 2	
		- 40-59% 3	
		- 60-79% 4	
		- 80-99% 5	
		- 100% or more 6	
		Less: - 0-19%7	
		- 0-19% 7	
		- 40-59% 9	
		- 60-79% 10	
		- 80-99% 11	
		- 100% or more 12	

Section 5: Injuries and Health

Part 5.1: Injuries

*Remember – refer only to the vehicle type that you found the respondent with

Magn	itude		
No.	Questions and filters	Coding categories	Skip
IH101	Have you ever suffered an injury that has resulted in you losing money, requiring medical attention or has affected your family life, while riding a motorcycle or motorised three-wheeler in a rural area?	Yes 1 No 2	If NO, skip to sub-Part 5.2 on Health Issues
IH102	(Select one)	Number of occasions:	
	On how many different occasions have you ever suffered an injury that has resulted in you losing money, requiring medical attention or has affected your family life, while riding a motorcycle or motorised three-wheeler in a rural area? (Enter details)		
IH103	In the last one month, on how many different occasions have you suffered an injury that has resulted in you losing money, requiring medical attention or has affected your family life, while riding a motorcycle or	Number of occasions:	

motorised three-wheeler in a rural area? <i>(Enter details)</i>	
---	--

Crash and Injury Characteristics

*Collect information on the <u>most serious injury</u> suffered while the respondent was riding a <u>motorcycle or</u> motorised three-wheeler in a rural area (not in a city or town or on a highway) in the last three years

No.	Questions and filters	Coding categories	Skip
IH104	When did the incident that caused the injury occur? <i>(Enter details)</i>	Within the last 1 month1Between 1 and 3 months ago2Between 3 and 6 months ago3Between 6 and 12 months ago4Between 1 year and 3 years ago5	
IH105	Were you riding the motorcycle or motorised three-wheeler on a paid trip (including return leg) at the time of the incident that caused the injury? (Enter details)	Yes 1 No 2	
IH106	Was it daylight, dawn, dusk or night when the incident occurred? (Select one)	Daylight 1 Dawn 2 Dusk 3 Night4	
IH107	Describe the location of the incident that caused the injury (Select one)	Village centre 1 Village outskirts 2 Rural area, far from a village 3	
IH108	Describe the road type where the incident occurred (Select one)	Engineered road 1 Informal path or track 2	
IH109	Describe the surface at the location of the incident that caused the injury (Select one)	Unsealed 1 Sealed (tarmac, concrete, etc 2	
IH110	Describe the incident that caused the injury (Select one)	Single vehicle crash / fall 1 Single vehicle collision with stationary object 2 Collision with another motorcycle or motorised three- wheeler 3 Collision with another type of motorised vehicle 4 Collision with a non-motorised vehicle (ie bicycle or cart) 5 Collision with a pedestrian 6 Collision with an animal 7	
		Other (specify)	
IH111	What is your estimate of your speed immediately at or immediately prior to the	Estimated speed:	

	incident that caused the injury? (Enter details)	Don't know 888	
IH112	What was the main factor that caused the incident? (Probe fully and select one)	Rider error (self) 1 Passenger action 2 Other road user action 3 Roadway condition / damage / obstacle 4 Animal 5 Vehicle failure 6 Weight-shifting of load 7 Environmental conditions (weather) 9 Other 9 Other (specify)	
IH113	Did any secondary factor contribute to cause the incident? (Probe fully and select one)	10 Rider error (self) 1 Passenger action 2 Other road user action 3 Roadway condition / damage / obstacle 4 Animal 5 Vehicle failure 6 Weight-shifting of load 7 Environmental conditions (weather) 8 Vehicle defect 9 Other (specify)	
IH114	Were you carrying a passenger or passengers at the time of the incident that caused the injury? (Select one)	None 11 Yes 1 No 2	If NO, skip to IH116
IH115	- If yes, how many passengers were you carrying? (Enter details)	Number of passengers:	
IH116	Was anyone else injured in the incident? (Select one)	Yes 1 No 2	If NO, skip to IH118
IH117	- If yes, who? (Select one)	Passenger I was carrying1Rider of another motorcycle or three-wheeler2Passenger of another motorcycle or three-wheeler3Driver of another motorised vehicle4Passenger of another motorised vehicle5Cyclist6Pedestrian7	
IH118	Were you carrying a load at the time of the incident that caused the injury? (Select one)	Yes 1 No 2	If NO, skip to IH120

IH119	 If yes, what is the estimated weight of the load? (Select one) 	Less than 10kg 1 11 to 19.9kg 2 20 to 40.9kg 3 50kg or more 4	
IH120	Which part of your body was most seriously injured in the incident? (Select one)	Head 1 Face 2 Neck 3 Chest 4 Abdomen / internal organs 5 Back 6 Collar bone 7 Arms, hands, shoulders 8 Legs, feet, pelvis 9 General body pain 10	
IH121	What type of injury did you suffer to the part of your body that was most seriously injured? (Select one)	Cut / scrape / scratch 1 Sprain / strain 2 Bruise / internal bleeding (skin unbroken) 2 Broken bone 2 Broken bone 3 Broken bone 4 Dislocation (separation of bone joints) 5 Requiring amputation 7 Concussion 7 Concussion 8 General pain 9 Other (specify) 10	-
IH122	How would you describe the severity of the injury that you suffered? (Select one)	Minor 1 Moderate2 Severe 3	
IH123	Were you wearing a helmet at the time of the incident? (Select one)	Yes 1 No 2	
IH124	Did you report the incident to the police? <i>(Select one)</i>	Yes 1 No 2	If NO, skip to sub-Part 5.2 on Health Issues
IH125	 If yes, were you happy with the police's handling of the incident? (Select one) 	Yes 1 No 2	

IH126: Provide a description of the crash and injury

Crash and Injury Impact

*Continue to collect information on the above injury

No.	Questions and filters	Coding categories	Skip
IH127	Did you seek medical treatment for the injury? (Select one)	Yes 1 No 2	If NO, skip to IH130
IH128	 If yes, who paid for the treatment? (Select all that apply) 	Me 1 Insurance 2 Motorcycle taxi association 3 Someone else 4	
IH129	 If yes, how much money was spent on medical treatment? (Enter details) 	Amount: (Currency:)	
IH130	Was your motorcycle or motorised three-wheeler damaged? (Select one)	Yes 1 No 2	If NO, skip to IH134
IH131	 If yes, was the motorcycle or motorised three-wheeler repaired after the incident? (Select one) 	Yes 1 No 2	
IH132	 If yes, who paid for the repairs? (Select one) 	Me 1 Insurance 2 Motorcycle taxi association 3 Someone else 4	
IH133	 If yes, how much was spent on the repairs? (Enter details) 	Amount: (Currency:)	
IH134	Did you miss any days of normal activity as a result of the injury? (Select one)	Yes 1 No 2	If NO, skip to IH136

IH135	 If yes, how many? (Enter details) 	Number	of days:				
IH136	Did anyone else need to miss any days of normal activity to care for you? (Select one)	Yes 1 No 2					If NO, skip to IH139
IH137	- If yes, what is their gender, age and primary	IH137a	Gend er	Male 1 Female – 2			
	occupation? (Enter details)	IH137b	Age	Years			
		IH137c	Prima ry occup ation	Taking care of home and 	er	1 2 3 4 5 6 7 8 7 8 9 :el 10 11	
IH138	 If yes, how many days did they miss? (Enter details) 	Number	of days:			_	
IH139	Do you still suffer from any physical impacts from the injury? (Select one)			1 2			If NO, skip to IH141
IH140	- If yes, what ongoing		Impact		Yes	No	
	physical impacts are you	IH140a	Permar	nent disability	1	2	
	suffering from? (Provide answer (1 or 2)	IH140b	Chronic	c pain	1	2	
	for each option)	IH140c	Mild pa	in	1	2	
		IH140d	Other (specify):	1	2	
IH141	Do you still suffer from any economic impacts from the injury? (Select one)	Yes 1 No 2				If NO, skip to IH143	
IH142	- If yes, what ongoing	Impact Yes No					
	economic impacts are you suffering from?	IH142a	Inabilit	y to earn	1	2	
		IH142b		d earnings	1	2	1

	(Provide answer (1 or 2) for each option)	IH142c	Ongoing medical expenses	1	2	
	,	IH142d Other (specify):		1	2	
IH143	Do you still suffer from any social or psychological impacts from the injury? (Select one)		1 2			If NO, skip to IH145
IH144	- If yes, what ongoing		Impact	Yes	No	
	social or psychological impacts are you	IH144a	Inability to provide for self or family	1	2	
	suffering from? (Provide answer (1 or 2)	IH144b	Fear of riding a motorcycle / motorised three-wheeler	1	2	
	for each option)	IH144c	Other (specify):	1	2	

IH145: Provide a description of the impact of the crash and injury

Part 5.2: Health Issues (non-injury)

*Remember – refer only to the vehicle type that you found the respondent with

Magnitude

No.	Questions and filters	Coding categories	Skip
IH146	Have you ever suffered from	Yes 1	If NO, skip
	a health issue, which you	No 2	to section
	attribute to riding a		on Crime &
	motorcycle- or motorised		Personal
			Security

	three-wheeler in a rural area? (Select one)		
IH147	 If yes, which of the following types of health issues have you suffered from, which you attribute to riding a motorcycle- or motorised three- wheeler in a rural area? (Select all that apply) 	Inability to move / painful to move 1 Breathing difficulties 2 Eye problems 3 General pain 4 Other (specify)	
IH148	 If yes, which parts of your body have been affected by the health issues? (Select all that apply) 	Head1 Face2 Neck2 Neck2 Abdomen / internal organs 3 Chest4 Abdomen / internal organs 5 Back6 Collar bone6 Collar bone6 Collar bone7 Arms, hands, shoulders8 Legs, feet, pelvis9 General body pain10 Ears / nose / throat11 Eyes12 Other (specify)	
IH149	 If yes, what are the causes of the health issue? (Select all that apply) 	Dust 1 Cold 12 Wind 2 Wind 2 Sun	

Health Issue Characteristics

*Collect information on the <u>most serious health issue</u> that the respondent attributes to riding a <u>motorcycle</u> <u>or motorised three-wheeler</u> in a <u>rural area</u> (not in a city or town or on a highway) in the <u>last three years</u>

No.	Questions and filters	Coding categories	Skip
IH150	How long ago did the health issue start? <i>(Enter details)</i>	Within the last 1 month 1Between 1 and 3 months ago 2Between 3 and 6 months ago 3Between 6 and 12 months ago 4Between 1 year and 3 years ago5	
IH151	For how long did the health issue continue? <i>(Enter details)</i>	Hours	

		Weeks	
IH152	Do you still suffer from this health issue? (Select one)	Yes 1 No 2	lf NO, skip to IH154
IH153	- If yes, how often do you suffer from this health issue?	All the time 1 At least once per day but not all the time 2 More than once per week but less than once per day – 3 More than once per month but less than once per week 4 Less than once per month 5	
IH154	Was your primary use of the motorcycle or motorised three-wheeler for paid trips at the time that you suffered the health issue? (Select one)	Yes 1 No 2	
IH155	What type of health issue did you suffer to the part of your body that was most seriously affected? (Select one)	Inability to move / painful to move 1 Breathing difficulties 2 Eye problems 3 General pain 4 Other (specify)	
IH156	Which part of your body was most seriously affected by the health issue? (Select one)	5 Head 1 Face 2 Neck 3 Chest 4 Abdomen / internal organs 5 Back 6 Collar bone 7 Arms, hands, shoulders 9 General body pain 10 Ears / nose / throat 11 Eyes 12	
IH157	Were any other parts of your body affected? If yes, which part? (Select one)	Head 1 Face 2 Neck 3 Chest 4 Abdomen / internal organs 5 Back 6 Collar bone 7 Arms, hands, shoulders 8 Legs, feet, pelvis 9 General body pain 10 Ears / nose / throat 11 Eyes 12 None	

IH158	What was the main cause of the health issue? <i>(Select one)</i>	Dust 1 Cold 2 Wind 3 Rain 4 Sun 5 Bumpy roads 6 Other (specify)	
IH159	Was there any other cause of the health issue? <i>(Select one)</i>	Dust 1 Cold 2 Wind 3 Rain	
IH160	How would you describe the severity of the health issue that you suffered? (Select one)	Minor 1 Moderate2 Severe 3	

IH161: Provide a description of the health issue

Health Issue Impact

*Continue to collect information on the above health issue

No.	Questions and filters	Coding	categori	es		Skip
IH162	Did you seek medical			1		If NO, skip
	treatment for the health	No		2		to IH165
	issue?					
	(Select one)			4		
IH163	- If yes, who paid for the			1 2		
treatment?				ssociation 3		
	(Select all that apply)	-		4		
IH164	- If yes, how much money	Amount	(Currenc	:y:)	
	was spent on medical					
	treatment?					
	(Enter details)					
IH165	Did you miss any days of			1		If NO, skip
	normal activity as a result of	No		2		to IH167
	the health issue?					
	(Select one)					
IH166	- If yes, how many?	Number	:			
	(Enter details)					
IH167	Did anyong also nood to miss	Voc		1		If NO aldin
11101	Did anyone else need to miss any days of normal activity			2		If NO, skip to IH170
	to care for you?			-		
	(Select one)					
IH168	- If yes, what is their	IH168a	Gend er	Male 1 Female – 2		
	gender, age and primary occupation?	IH168b	Age	Years		-
	(Enter details)	IH168c	Prima	 Taking care of home and	/or childron	
		ILIDOC	ry			
			occup	Farmer	_	
			ation	Motorcycle taxi rider	3	
				Three-wheeler taxi rider		
				Teacher		
				Shopkeeper / shop-work Builder / labourer		
				Government official		
				Business-person		
				Worker in bar / restaura		
				 Student / pupil		
				Other (specify)	11	
IH169	- If yes, how many days?	Number	of days:		12	
11103	(Enter details)	Ramber	or days.			
IH170	Do you still suffer from any			1 2		If NO, skip
	physical impacts from the health issue?	110		ζ		to IH172
	(Select one)					

IH171	- If yes, what ongoing	IH171a	Permanent disability	1	2	
/ _	physical impacts are you	IH171b	Chronic pain	1	2	-
	suffering from?	IH171c	Mild pain	1	2	
	(Provide answer (1 or 2)	IH171d	Other (specify):	1	2	
	for each option)					
IH172	Do you still suffer from any	Yes	1			If NO, skip
	economic impacts from the	No	2			to IH174
	health issue?					
	(Select one)					
IH173	- If yes, what ongoing		Impact	Yes	No	
	economic impacts are	IH173a	Inability to earn	1	2	
	you suffering from?	IH173b	Reduced earnings	1	2	
	(Provide answer (1 or 2)	IH173c	Ongoing medical expenses	1	2	
	for each option)	IH173d	Other (specify):	1	2	
	,,,,,					
IH174	Do you still suffer from any	Yes	1			If NO, skip
	social or psychological	No	2			to IH176
	impacts from the health					
	issue?					
	(Select one)					
IH175	- If yes, what ongoing		Impact	Yes	No	
	social or psychological	IH175a	Inability to provide for self or	1	2	
	impacts are you		family			_
	suffering from?	IH175b	Fear of riding motorcycle /	1	2	
	(Provide answer (1 or 2)		motorised three-wheeler			-
	for each option)	IH175c	Other (specify):	1	2	

IH176: Provide a description of the impact of the health issue

Section 6: Crime & Personal Security

Magnitude

*Remember – refer only to the vehicle type that you found the respondent with

No.	Questions and filters	Coding	categories		Skip
CP101	Have you ever been a victim		1		lf NO, skip
	of crime, including verbal	No	2		to section
	abuse and threats, while				on Access
	working as amotorcycle or				to Services
	motorised three-wheelertaxi				&
	rider in a rural area?				Protective
	(Select one)				Equipment
CP102	- If yes, which of the		buse and threats1 natching2		
	following types of crime		(using force) 3		
	have you been victim		without taking property) 4		
	of?		5		
	(Select all that apply)	Other (sp	pecify)		
				6	
CP103	- If yes, on how many		Crime	Number of	
	different occasions have			occasions	-
	you ever been a victim	CP103a	Verbal abuse and threats		-
	of the following crimeswhile working as amotorcycle or motorised three- wheeler taxi rider in a	CP103b	Theft / snatching		
		CP103c	Robbery (using force)		
		CP103d	Assault (without taking		
			property)		
	rural area? (Enter details)	CP103e	Sexual		
		CP103f	Other (specify)	_	
				_	
CP104	 If yes, on how many different occasions have 		Crime	Number of occasions	
	you been a victim of the following crimesin the	CP104a	Verbal abuse and threats		
	last one month while	CP104a	Theft / snatching		
	working as amotorcycle or motorised three-	CP104b	Robbery (using force)		
	wheeler taxi rider in a	CP104c	Assault (without taking		
	rural area? (Enter details)	CP104d	property) Sexual		-
		CP104e	Other (specify)		
				-	
				_	

Crime Characteristics

*Collect information on the <u>most serious crime, including verbal abuse and threats</u>, that the respondent was victim of while <u>working as a motorcycle or motorised three-wheeler taxi rider</u> in a <u>rural area</u> (not in a city or town or on a highway) in the <u>last three years</u>

No.	Questions and filters	Coding	categories		Skip
CP105	Were you the owner of the	Yes	1		
	motorcycle or motorised	No	2		
	three-wheeler you were				
	using at the time that you				
	suffered the crime?				
	(Select one)				
CP106	Were you riding the	Yes	1		
	motorcycle or motorised	No	2		
	three-wheeler on a paid trip				
	(including return leg) at the				
	time that you suffered the				
	crime?				
	(Select one)				
CP107	What type of crime was it?	Verbal al	ouse and threats1		
	(Select one)		natching2		
		-	(using force) 3		
			without taking property) 4		
			5		
		Other (sp	Jeuryj		
				6	
CP108	When did the crime occur?	Within th	ne last 1 month 1		
		Between	1 and 3 months ago 2		
			3 and 6 months ago 3		
			6 and 12 months ago 4		
			1 year and 3 years ago5		
CP109	Where did the crime occur?		ck-up point 1		
	(Select one)		xi stand/stage 2 al road 3		
			al track 4		
			op-off point 5		
		Other (sp			
CD110		Deulisht	1	6	
CP110	Was it daylight, dawn, dusk	, 0	1		
	or night when the crime occurred?		2		
		Night	4		
CP111	(Select one) How many perpetrators	Number:			
	were there?	Number.			
	(Enter details)				
CP112	Who were the perpetrators		Perpetrator	Number	
	of the crime?	CP112a	Passenger of my motorcycle /		
	(Enter details)		three-wheeler	ļ	
		CP112b	Rider of another motorcycle /		
		60442	three-wheeler		
		CP112c	Passenger of another		
		CD112-	motorcycle / three-wheeler	┨────┤	
		CP112d	Driver of another type of motorised vehicle		
		CP112e	Passenger of another type of	+	
		C. 1120	motorised vehicles		
		CP112f	Pedestrian / passerby	1 1	

		CP112g	Bicyclist		
		CP112h	Other (specify)		-
CP113	Of the perpetrators, how many were known to you? (Enter details)	Number:			
CP114	How many of the following weapons did you see being	CP114a	Weapon Gun	Number	
	used by the perpetrators? (Enter details)	CP114b CP114c	Small knife (less than 20cm) Large knife (more than 20cm)		-
		CP114d	Stick / club		
		CP114e	Other (specify) 		
CP115	Were you carrying any passengers when the crime occurred? (Select one)		1 2		If NO, skip to CP117
CP116	 If yes, how many passengers were you carrying? (Enter details) 	Number:			
CP117	Did you suffer any losses as a result of the crime? (Select one)		1 2		lf NO, skip to CP119
CP118	 If yes, what did you lose? (Select all that apply) 	Mobile p Bag (mix Agricultu	1 hone 2 ed contents) 3 iral produce 4 cle 5 pecify)		
CP119	Did anyone else suffer any losses as a result of the crime? (Select one)		1 2	6	If NO, skip to CP122
CP120	- If yes, who? (Select all that apply)	Rider of a Passenge	er of my motorcycle / three-wheel another motorcycle / three-wheel er of another motorcycle / three-v f the motorcycle I was riding pecify)	ler 2 vheeler 3	
CP121	 If yes, what did they lose? (Select all that apply) 	Mobile p Bag (unk Agricultu	1 hone 2 nown contents) 3 iral produce 4 cle 5	5	

		Other (specify)	
		6	
CP122	Did you report the crime to	Yes 1	If NO, skip
	the police?	No 2	to CP125
	(Select one)		
CP123	 If yes, were you happy with the police's handling of the incident? (Select one) 	Yes 1 No 2	

CP124: Provide a description of the crime

Crime Impact

*Continue to collect information on the above crime

No.	Questions and filters	Coding categories	Skip
CP125	Did you seek medical treatment as a result of the crime? (Select one)	Yes 1 No 2	If NO, skip to CP128
CP126	 If yes, who paid for the treatment? (Select one) 	Me 1 Insurance 2 Motorcycle taxi association 3 Someone else 4	
CP127	 If yes, how much money was spent on medical treatment? (Enter details) 	Amount: (Currency:)	

CP128	Did you miss any days of normal activity as a result of the crime? (Select one)			1 2			If NO, skip to CP130
CP129	- If yes, how many?	Number:					
CP130	Did anyone else need to miss any days of normal activity to care for you? <i>(Select one)</i>			1 2			If NO, skip to CP132
CP131	- If yes, what is their gender, age and primary occupation?	CP131a CP131b	Gend er Age	Male 1 Female – 2 Years			-
	(Enter details)	CP131c	Prima ry occup ation	Taking care of home and 	ser	1 2 3 4 5 6 7 8 7 8 9 tel 10 11	
CP132	Do you still suffer from any physical impacts from the crime? (Select one)			1 2			lf NO, skip to CP134
CP133	 If yes, what ongoing physical impacts are you suffering from? (Provide answer (1 or 2)for each option) 	CP133a CP133b CP133c CP133c CP133d	Chronic Mild pa	nent disability : pain	Yes 1 1 1 1 1	No 2 2 2 2 2 2	
CP134	Do you still suffer from any economic impacts from the crime? (Select one)			1 2	1	1	If NO, skip to CP136
CP135	- If yes, what ongoing economic impacts are you suffering from?	CP135a CP135b		y to earn d earnings	Yes 1 1	No 2 2	-
	(Provide answer (1 or 2) for each option)	CP135c		g medical expenses	1	2	

		CP135d	Other (specify):	1	2	
CP136	Do you still suffer from any social or psychological impacts from the crime? (Select one)	100	1 2	•		If NO, skip to CP138
CP137	- If yes, what ongoing		Impact	Yes	No	
	social or psychological impacts are you	CP137a	Inability to provide for self or family	1	2	
suffering from? (Provide answer (1 or 2	CP137b	Fear of riding motorcycle / motorised three-wheeler	1	2		
	for each option)	CP137c	Other (specify):	1	2	

CP138: Provide a description of the impacts of the crime

Section 7: Access to Services & Protective Equipment, and Compliance

*Remember – remind the respondent that you are not from a government authority, and you will not report to anyone whether they have a licence, insurance, etc. The questionnaire is anonymous

Part 7.1: Services (inc. Compliance)

Training

No.	Questions and filters	Coding	categories			Skip
AP101	In which year did you first learn to ride a motorcycle / motorised three-wheeler? (Enter details)	Year: 				
AP102	How did you first learn to			Yes	No	
	ride a motorcycle or motorised three-wheeler?	AP102a	Self-taught	1	2	-
	(Provide answer (1 or 2) for each option)	AP102b	Taught by a friend or relative who had a driving licence	1	2	
		AP102c	Taught by a friend or relative who did not have a driving licence	1	2	
		AP102d	Taught by a police officer	1	2	
		AP102e	Attended a training course at a driving school	1	2	
AP103	Have you ever received formal motorcycle / motorised three-wheeler driver training, for which you have been awarded a certificate? (Select one)		1 2			If NO, skip to AP109
AP104	 If yes, in what year did you receive the training? (Enter details) 	Year:				
AP105	 If yes, where did you receive the training? (Enter details) 	Name of	town/city:			
AP106	 If yes, who was the training provider? (Select one) 		plice 1 riving school 2			
AP107	 If yes, did you pay for the training? (Select one) 		1 2			
AP108	 How much did you pay for the training? (Enter details) 	Amount:	(Currency:)		
AP109	 If no, what is the main reason you have never had formal training? (Select one) 	Training	ng available in the area 1 is too expensive 2 need training 3 pecify)			
					4	
AP110	 If no, are you aware of the nearest place where training is available? (Select one) 		1 2			

AP111	 If yes, where? (town, city) (Enter details) 	Name of town/city:
AP112	 If no, are you aware of the cost of training? (Select one) 	Yes 1 No 2
AP113	 If yes, how much is it? (Enter details) 	Amount: (Currency:)

Driving Licence / Permit

No.	Questions and filters	Coding categories	Skip
AP114	Do you have an official licence or permit to ride a motorcycle / motorised three-wheeler?	Yes 1 No 2	If NO, skip to AP123
AP115	 (Select one) If yes, when did you obtain your driving licence? (Enter details) 	Year:	
AP116	 If yes, where did you obtain your driving licence? (Enter details) 	Name of town/city:	
AP117	If yes, how did you obtain your driving licence? (Select one)	After completing a formal training course 1 After taking a driving test (with no formal training course) 2 Without either completing formal training or taking a test 3	
AP118	 If no, what is the main reason you do not have a driving licence? (Select one) 	No training available in the area 1 Training is too expensive 2 Nowhere to obtain licence locally 3 Licence is too expensive 4 I do not need a licence 5 I could not pass the test 6 Other (specify)	
AP119	 If no, are you aware of the nearest place where licences are available? (Select one) 	7 Yes 1 No 2	
AP120	 If yes, where? (town, city) (Enter details) 	Name of town/city:	
AP121	 If no, are you aware of the cost of a licence? (Select one) 	Yes 1 No 2	

AP122	 If yes, how much is it? (Enter details) 	Amount: (Currency:)	
AP123	In your experience, how strongly do the authorities enforce the requirement to have a driving licence? (Select one)	Strongly – they often ask to see my licence 1 Moderately – they sometimes ask to see my licence 2 Weakly – they very rarely or never ask to see my licence 3	
AP124	The last time, if ever, you were unable to show your driving licence when asked to do so by the authorities, what happened? (Select one)	I have never been asked to show my driving licence 1 No action was taken 2 I was given an official warning 3 I paid a bribe or dash (unofficial) 4 I paid an official fine 5 The motorcycle was seized 6 Other (specify)	

Business Licence / Permit (applicable only in KE, TZ and UG. Not applicable in GH) *Remember – refer only to the vehicle type that you found the respondent with

No.	Questions and filters	Coding categories	Skip
AP125	Do you have a business licence or permit to operate commercially as a motorcycle / motorised three-wheeler taxi? (Select one)	Yes 1 No 2	If NO, skip to AP128
AP126	 If yes, when did you obtain your business licence? (Enter details) 	Year:	
AP127	 If yes, where did you obtain your business licence? (Enter details) 	Name of town/city:	
AP128	 If no, what is the main reason you do not have a business licence? (Select one) 	Nowhere to obtain licence locally 1 Licence is too expensive 2 I do not need a licence 3 I did not know how to fill the form 4 Other (specify)	
AP129	 If no, are you aware of the nearest place where licences are available? (Select one) 	Yes 1 No 2	
AP130	 If yes, where? (town, city) (Enter details) 	Name of town/city:	

AP131	 If no, are you aware of the cost of a licence? (Select one) 	Yes 1 No 2	
AP132	 If yes, how much is it? (Enter details) 	Amount: (Currency:)	
AP133	In your experience, how strongly do the authorities enforce the requirement to have a business licence? (Select one)	Strongly – they often ask to see my licence 1 Moderately – they sometimes ask to see my licence 2 Weakly – they very rarely or never ask to see my licence 3	
AP134	The last time, if ever, you were unable to show your business licence when asked to do so by the authorities, what happened? (Select one)	I have never been asked to show my business licence - 1 No action was taken 2 I was given an official warning 3 I paid a bribe or dash (unofficial) 4 I paid an official fine 5 The motorcycle was seized 6 Other (specify)	

Insurance

*Remember – refer only to the vehicle type that you found the respondent with

No.	Questions and filters	Coding categories	Skip
AP135	Do you have insurance for your motorcycle / motorised three-wheeler? (Select one)	Yes 1 No 2	If NO, skip to AP146
AP136	- If yes, what kind of insurance do you have? (Select one)	Fully comprehensive 1 Third party 2	
AP137	 If yes, does your insurance cover you to operate commercially as a motorcycle / motorised three- wheeler taxi? (Select one) 	Yes 1 No 2	
AP138	 If yes, for how long have you continuously held insurance for your motorcycle / motorised three-wheeler taxi? (Enter details) 	Number of years:	
AP139	- If yes, where did you obtain your insurance? (Enter details)	Name of town/city:	
AP140	 If yes, how much does it cost? (Enter details) 	Amount: (Currency:)	

AP141	- If yes, have you ever	Yes 1
	made a claim using your	No 2
	insurance?	
	(Select one)	
AP142	 If yes, when was the 	Month
	most recent pay-	
	out?	Year
	(Enter details)	
AP143	If yes, what was the	Amount: (Currency:)
	amount of the most	, , ,,
	recent pay-out?	
	(Enter details)	
AP144		Percentage:
AF 144	 If yes, what % of the 	
	cost of repairs did	
	the payout cover?	
	(Enter details)	
AP145	 If yes, how long did 	Number of months:
	it take to receive the	
	most recent pay-out	
	from submitting the	
	claim?	
	(Enter details)	
AP146	- If no, what is the main	Nowhere to obtain insurance locally 1
	reason why your	Insurance is too expensive 2
	motorcycle / motorised	I do not need insurance 3
	three-wheeler does not	I did not know how to fill the form 4
	have insurance?	Other (specify)
	(Select one)	
		5
AP147	 If no, are you aware of 	Yes 1
	the nearest place where	No 2
	insurance can be	
	obtained?	
	(Select one)	
AP148	 If yes, where? (town, 	Name of town/city:
	city)	
	(Enter details)	
	(Enter details)	
AP149	- If no, are you aware of	Yes 1
	the cost of insurance?	No 2
	(Select one)	
AP150	• If yes, how much is	Amount: (Currency:)
	it?	
	(Enter details)	
AP151	In your experience, how	Strongly – they often ask to see my insurance 1
	In your experience, how	Moderately – they sometimes ask to see my insurance
	strongly do the authorities	
	enforce the requirement to	Weakly – they very rarely or never ask to see my
	have insurance?	insurance 3
	(Select one)	
AP152	The last time, if ever, you	I have never been asked to show my insurance 1
	were unable to show your	No action was taken 2
	insurance when asked to do	I was given an official warning 3
		I paid a bribe or dash (unofficial)4 I paid an official fine5
	1	Linaud an otticial tino

The motorcycle was seized6 Other (specify)	
7	

Part 7.2: Protective Equipment (inc. Compliance)

Helmets

No.	Questions and filters	Coding categories	Skip
AP153	How often do you wear a helmet while riding a motorcycle / motorised three-wheeler? (Select one)	Never 1 Sometimes 2 Most of the time 3 Always 4	If NEVER, skip to AP159
AP154	 If other than never, do you own the helmet that you wear? (Select one) 	Yes 1 No 2	
AP155	 If no, who owns the helmet? (Select one) 	The owner of the motorcycle or three-wheeler	
AP156	 If yes, where was the helmet obtained? (Enter details) 	Name of town/city	
AP157	 If yes, how much did you spend on the helmet? (Enter details) 	Amount: (Currency:)	
AP158	 If not always, what is the main reason you do not wear a helmet? (Select one) 	Riders do not have helmets 1 Helmets are too expensive to buy 2 I do not need a helmet 3 A helmet restricts my vision or hearing 4 Helmets are uncomfortable or hot 5 Helmets are dirty 6 The helmet will mess up my hair 7 Other (specify)	
AP159	- If never, are you aware of the nearest place a helmet can be bought? (Select one)	Yes 1 No 2	
AP160	 If yes, where? (town, city) (Enter details) 	Name of town/city:	
AP161	 If never, are you aware of the cost of helmets? (Select one) 	Yes 1 No 2	

AP162	 If yes, how much is it? (Enter details) 	Amount: (Currency:)	
AP163	Do you provide helmets for your passengers? (Select one)	Yes 1 No 2	
AP164	How often do your passengers ask for a helmet? <i>(Select one)</i>	Never 1 Sometimes 2 Most of the time 3 Always 4	
AP165	In your experience, how strongly do the authorities enforce the requirement for the rider to wear a helmet? (Select one)	Strongly – they often stop me if I am not wearing a helmet 1 Moderately – they sometimes stop me if I am not wearing a helmet 2 Weakly – they very rarely or never stop me if I am not wearing a helmet 3	
AP166	The last time, if ever, you were stopped by the authorities not wearing a helmet, what happened? <i>(Select one)</i>	I have never been stopped not wearing a helmet 1 No action was taken 2 I was given an official warning 3 I paid a bribe or dash (unofficial) 4 I paid an official fine 5 The motorcycle was seized 6 Other (specify) 7	
AP167	In your experience, how strongly do the authorities enforce the requirement for passengers to wear a helmet? (Select one)	Strongly – they often stop me if my passenger is not wearing a helmet 1 Moderately – they sometimes stop me if my passenger is not wearing a helmet 2 Weakly – they very rarely or never stop me if my passenger is not wearing a helmet 3	
AP168	The last time, if ever, you were stopped by the authorities carrying a passenger who was not wearing a helmet, what happened? (Select one)	I have never been stopped carrying a passenger who was not wearing a helmet 1 No action was taken 2 I was given an official warning 3 I paid a bribe or dash (unofficial) 4 I paid an official fine	

Reflective Jackets (applicable only in KE. Not applicable in GH, TZ or UG) *Remember – refer only to the vehicle type that you found the respondent with

No.	Questions and filters	Coding categories	Skip
AP169	Do you wear a reflective jacket while riding the	Yes 1 No 2	If NO, skip to AP173
	motorcycle / motorised three-wheeler?		
	(Select one)		
AP170	 If yes, does the reflective jacket have your registration number on it in 3-inch- high letters? 	Yes 1 No 2	

	(Select one)	
AP171	 If yes, how often do you wear the reflective jacket while riding a motorcycle / motorised three-wheeler? (Select one) 	Never 1 Sometimes 2 Most of the time 3 Always 4
AP172	 If yes, where was the reflective jacket obtained? (Select one) 	I borrow it from the owner of the motorcycle / three- wheeler 1 I am the owner of the motorcycle / three-wheeler, and I was given the reflective jacket when I bought it 2 Other (specify)
AP173	 If no, what is the main reason you do not wear a reflective jacket? (Select one) 	Reflective jackets are not available in the area 1 Reflective jackets are too expensive I do not need a reflective jacket
AP174	 If no, are you aware of the nearest place a reflective jacket can be bought? (Select one) 	6 Yes 1 No 2
AP175	If yes, where? (town, city) (Enter details)	Name of town/city:
AP176	 If no, are you aware of the cost of reflective jackets? (Select one) 	Yes 1 No 2
AP177	 If yes, how much is it? (Enter details) 	Amount: (Currency:)
AP178	Do you provide reflective jackets for your passengers? (Select one)	Yes 1 No 2
AP179	How often do your passengers ask for a reflective jacket? (Select one)	Never 1 Sometimes 2 Most of the time 3 Always 4
AP180	In your experience, how strongly do the authorities enforce the requirement for the rider to wear a reflective jacket? (Select one)	Strongly – they often stop me if I am not wearing a reflective jacket 1 Moderately – they sometimes stop me if I am not wearing a reflective jacket 2 Weakly – they very rarely or never stop me if I am not wearing a reflective jacket 3

AP181	The last time, if ever, you were stopped by the authorities not wearing a reflective jacket, what happened? (Select one)	I have never been stopped not wearing a reflective jacket	
AP182	In your experience, how strongly do the authorities enforce the requirement for passengers to wear a reflective jacket? (Select one)	Strongly – they often stop me if my passenger is not wearing a reflective jacket 1 Moderately – they sometimes stop me if my passenger is not wearing a reflective jacket 2 Weakly – they very rarely or never stop me if my passenger is not wearing a reflective jacket 3	
AP183	The last time, if ever, you were stopped by the authorities carrying a passenger who was not wearing a reflective jacket, what happened? (Select one)	I have never been stopped carrying a passenger who was not wearing a reflective jacket 1 No action was taken 2 I was given an official warning 3 I paid a bribe or dash (unofficial) 4 I paid an official fine	

Other Protective Equipment

*Remember – refer only to the vehicle type that you found the respondent with

No.	Questions and filters	Coding ca	Coding categories						
AP184	Do you use any other type of protective equipment while riding a motorcycle / motorised three-wheeler? (Select one)	Yes No	If NO, skip to AP186						
AP185	- If yes, what?		ltem	Yes	No				
	(Provide answer (1 or 2)	AP185a	Gloves	1	2	-			
	for each option)	AP185b	Eye protection	1	2	_			
		AP185c	Strong shoes	1	2				
		AP185d	Coat	1	2				
		AP185e	Long trousers	1	2				
		AP185f	Reflective vest	1	2				
		AP185g	Other (specify)	1	2				
AP186	Do you carry a weapon for protection? <i>(Select one)</i>		1 2		<u> </u>				
AP187	- If yes, what kind?		Weapon	Yes	No				

(Provide answer (1 or 2) for each option)	AP187a	Gun	1	2	
jor each option	AP187b	Small knife (less than 20cm)	1	2	
	AP187c	Large knife (more than 20cm)	1	2	
	AP187d	Stick / club	1	2	
	AP187e	Other (specify)	1	2	

Part 7.3: Other Compliance

Motorcycle Passengers

*Remember – refer only to the vehicle type that you found the respondent with

No.	Questions and filters	Coding categories	Skip
AP188	In your experience, how strongly do the authorities enforce the law limiting the number of adult passengers to one? (Select one)	Strongly – they often stop me if I am carrying two or more adult passengers 1 Moderately – they sometimes stop me if I am carrying two or more adult passengers 2 Weakly – they very rarely or never stop me if I am carrying two or more adult passengers 3	
AP189	The last time, if ever, you were stopped by the authorities carrying two or more adult passengers, what happened? (Select one)	I have never been stopped carrying two or more adult passengers 1 No action was taken 2 I was given an official warning 3 I paid a bribe or dash (unofficial) 4 I paid an official fine 5 The motorcycle was seized 6 Other (specify)	
	TZ only (not relevant to GH, KE	7	
AP190	In your experience, how strongly do the authorities enforce the law of not carrying a child under 9 years old? (Select one)	Strongly – they often stop me if I am carrying a child under 9 years old 1 Moderately – they sometimes stop me if I am carrying a child under 9 years old 2 Weakly – they very rarely or never stop me if I am carrying a child under 9 years old 3	
AP191	The last time, if ever, you were stopped by the authorities carrying a child under 9 years old, what happened? (Select one)	I have never been stopped carrying a child under 9 years old 1 No action was taken 2 I was given an official warning 3 I paid a bribe or dash (unofficial) 4 I paid an official fine 5 The motorcycle was seized 6 Other (specify) 7	

SURVEY ON THE BENEFITS AND DISBENEFITS OF MOTORCYCLES AND

Questionnaire Ref. No.

PASSENGERS' QUESTIONNAIRE

Completion Status:

- Complete ----- 1 - Partially complete ---- 2

Introduction and Eligibility

Ask the head of the household "Does anyone in this household regularly ride as a passenger on either motorcycles or motorised three-wheelers?"

If 'No', thank them and continue to identify others. If Yes, ask to speak to the person.

(If the possible respondent is under the age of 18 years, first speak to his/her parent or guardian.)

Ask the person "Do you regularly ride as a passenger on either motorcycles or motorised three-wheelers in the local area or other rural areas?"

If yes, explain...

My na	me is	and I am wor	king for Tran	said and A	mend, N	GOs working	to improv	ve transport se	rvices.
We	are	interviewing	people	here	in	[NAME	OF	VILLAGE	OR
DISTRICT/DIVISION]					to find a	out about mot	orcycles o	and motorised	three-
wheele	ers.								

Confidentiality and consent: I am going to ask you some questions. Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me.

We would greatly appreciate your help in responding to this survey.

Ask the respondent the Uncoerced Verbal Consent questions:

- 1. Have you had the information about this study explained in a manner that you understand to your satisfaction?
- 2. Do you understand that your participation is entirely voluntary?
- 3. Do you know enough about the purpose and methods of the research study to judge if you would like to take part in it?
- 4. Do you understand that you may freely stop being part of this study at any time?
- 5. Have we addressed all your questions to your satisfaction? If not, may we at this time?
- 6. Do you agree to participate in this study?

If answers to all are 'Yes', proceed with the questionnaire.

Tell them...

If you are unhappy about the questions, you can tell me at any time and we will stop. If you need any further information, we are staying at while we are here. My supervisor's name is and telephone number is

Ask them "Are you a regular passenger on motorcycles or motorised three-wheelers or both?"

Administer the survey in line with the answer they give. If they answer 'Both', ask questions about motorised three-wheelers (because the number of three-wheeler passengers that we identify is likely to be less than the number of motorcycle passengers).

Where questions in this questionnaire refer to 'motorcycle and/or three-wheeler', you should refer to the vehicle type they regularly use as a passenger.

No. **Questions and filters Coding categories** Skip 1101 Interviewer's name Name: (Enter details) II102 Date of interview Date: (Enter details) 1103 Ghana ----- 1 Country Kenya ----- 2 (Select one) Tanzania ----- 3 Uganda ----- 4 11104 UG KE ΤZ GH Location (Enter details) II105 Vehicle type Motorcycle ----- 1 Motorised three-wheeler designed for passengers ----- 2 (Enter details, as selected in Motorised three-wheeler designed for freight ------ 3 the Eligibility section above) II106 Time: Start time (Enter details) 11107 End time Time: (Enter details) 11108 Interviewer's signature Signature: (Enter details) 1109 Interviewer's notes, if any (Enter details)

Interview and Interviewer's Information

1		

Important Note:Where questions in this questionnaire refer to 'motorcycle and/or three-wheeler', you should refer to the vehicle type selected above.

Section 1: Background Information

Observations

No.	Questions and filters	Coding categories		Skip
BI101	Gender	Male 1 Female 2		
	(Enter details)			
BI102	Any apparent disability?	Yes 1		If NO, skipto
	(Enter details)	No 2		BI104
BI103	- If yes, what kind of	Walking 1		
	disability?	Sight 2		
	(Select all that	Deaf / dumb 3		
	apply)	Mental disability 4		
	<i>«pp.y</i> /	Albino5		
		Difficulty using arms/hands 6		
		Dwarfism 7		
		Other (specify)	8	
BI104	Observed level of personal	Above average personal wealth 1		
	wealth as judged by	Average personal wealth 2		
	appearance, in comparison	Below average personal wealth 3		
	to others in the same			
	household			
	(Select one)			

Questions

No.	Questions and filters	Coding categories	Skip
BI101	How old are you? (Enter details)	Age in completed years Don't know8888	
BI102	What is the highest level of school that you completed? (Select one)	Never attended school 1Did not complete primary school 2Primary school completed 3Secondary school completed 4Tertiary school/University degree completed 5	
BI103	What is your marital status? (Select one)	Married (including customary union) 1 Single 2 Widowed/Separated/Divorced 3	
BI104	What is your primary occupation? <i>(Select one)</i>	Taking care of home and/or children 1Farmer 2Motorcycle taxi rider 3Three-wheeler taxi rider 4Teacher 5Shopkeeper / shop-worker 6Builder / labourer 7	

		Governm	nent official	8
		Business	9	
			I 10	
			/ pupil	
		Other (sp	pecify)	12
BI105	What is your secondary	Taking ca	are of home and/or child	ren 1
	occupation (if any)?	Farmer -		2
	(Select one)	Motorcy	cle taxi rider	3
			neeler taxi rider	
		Shopkee	6	
		Builder /	labourer	7
		Governm	nent official	8
		Business	-person	9
		Worker i	I 10	
		Student ,	11	
		Other (sp	12	
		None	888	
BI106	How many people live in			Number
	your household, including	BI106a	Adult males	
	you? (Eating from the same	BI106b	Adult females	
	cooking pot)	BI106c	Child males	
		BI106d	Child females	

Section 2: Overall Opinions on Motorcycles / Motorised Three-Wheelers*

No.	Questions and filters	Coding ca	ategories						Skip
00101	On a scale of 1 to 5, 1 being very bad and 5 being excellent,	00101a	Suitability for rural passenger transport	1	2	3	4	5	
	how would you rate your opinion of each of these	00101b	Suitability for rural freight transport	1	2	3	4	5	
	aspects of motorcycles /	00101c	Road safety	1	2	3	4	5	1
	motorised three-wheelers?	00101d	Personal safety	1	2	3	4	5	
		00101e	Overall opinion	1	2	3	4	5	-
00102	What is the best thing about motorcycles / motorised three- wheelers? (Probe fully and select one)	Generate Convenier Provide ad Limited ot Fast mode Cheaper t Transport Access to Provides t	doing business / earning m employment	t can n er nerg o sc	not	gen cy c	icy -	2 3 4 5 6 7 8 5 9	

OO103	What is the worst thing about motorcycles / motorised three- wheelers? (Probe fully and select one)	Risk to safety of riders and passengers 1 Risk to safety of other road users 2 Risk of rider or passenger being a victim of crime 3 Used to commit crimes 4 Expensive mode of transport 5 Expensive to buy 6 Lack of respect / recognition for motorcycles / three- wheelers by other drivers 7 Lack of respect / recognition for motorcycles / three- wheelers by authorities 8 Encourages people to drop out of school to ride a motorcycle or three-wheelers as a taxi 9 Other (specify)	
-------	--	---	--

Section 3: Access and Mobility

No.	Questions and filters	Coding categories	Skip
AM101	What types of transport are available in your household (private)? (Read out and select all that apply)	Bicycle 1 Motorcycle 2 Motorised three-wheeler 3 Animal and cart 4 Car 5 Pick-up truck 6 None 7 Other (specify)	
AM102	What types of public transport are available in your village and the surrounding area? (Read out and select all that apply)		
		onsider specific trips, for example to market, shops, f work, place of worship, local government office, riends or family	

AM103	In the last week, which of the following modes of transport have you used for such trips? (Read out and selectall that apply)	Walking1Private bicycle2Bicycle taxi	
		15	
AM104	In the last week, which of the following modes of transport have you used <i>most frequently</i> for such trips? (Read out and selectone)	Walking 1 Private bicycle 2 Bicycle taxi 3 Private motorcycle 4 Motorcycle taxi 5 Private motorised three-wheeler - 6 6 Motorised three-wheeler taxi 7 Private animal and cart 8 Animal and cart taxi 9 Private car 10 Shared car / taxi 11 Private pick-up truck 12 Shared pick-up truck 13 Bus / minibus 14 Other (specify)	
AM105	In the last week, how many times have you used this mode of transport? (Select one)	1 to 5 times 1 6 to 10 times 2 11 or more times 3	
AM106	When choosing a mode of transport, which of the following is most important to you? (Read out, probe fully and selectone)	Cost 1 Road safety 2 Personal safety / security 2 Personal safety / security 2 Speed (short journey time) 3 Convenience 4 Speed (short journey time) 5 Ability to carry freight 6 Other (specify)	

AM107	In the last week, what has been the most common purpose for you to travel?	Travel to market / shops 1 Travel to school 2 Travel to health centre, hospital or pharmacy 3 Travel to place of work (including farm) 4	
	(Probe fully and selectone)	Travel to visit friends of family5 Travel to place of worship6 Travel to local government office7 Travel to community event (wedding, funeral, etc) 8 Other (specify)	
		9	
AM108	In the last week, how many times have you used a motorcycle / motorised three-wheeler taxi? (Select one)	1 to 5 times 1 6 to 10 times 2 11 or more times 3	
AM109	In the last week, what has been the most common purpose for you to travel by motorcycle / motorised three-wheeler taxi? (Probe fully and select one)	Travel to market / shops 1Travel to school 2Travel to health centre, hospital or pharmacy 3Travel to place of work (including farm) 4Travel to visit friends of family 5Travel to place of worship 6Travel to local government office 7Travel to community event (wedding, funeral, etc) 8Other(specify)	
AM110	In the last week, for what other purposes have you used motorcycle / motorised three-wheeler taxis? (Select all that apply)	9 Travel to market / shops 1 Travel to school 2 Travel to health centre, hospital or pharmacy 3 Travel to place of work (including farm) 4 Travel to visit friends of family 5 Travel to place of worship 6 Travel to local government office 7 Travel to community event (wedding, funeral, etc) 8 Other (specify)	
AM111	Have you ever used a motorcycle/three wheeler to travel to a health facility for <u>non-emergency</u> health care for yourself? (Select one)	Yes 1 No 2	If no skip to AM114
AM112	 If yes, how many times in the past one month have you used a motorcycle/three- wheeler to travel to a health facility for 	Once 1 Twice 2 Three times 3 Four times 4 Five times 5 More than five times 6 None 888	

	<u>non-emergency</u> health care for yourself? (Select one)				
AM113	 If yes, for what <u>non-emergency</u> health care services have you ever used a motorcycle /three-wheeler to travel to a health facility? (Select all that apply) 	Postnatal ca Vaccination Contraceptio Uncomplica Fever Headache Diarrhoea - Infection Cold/flu Malaria	are visit re visit on ted malaria	2 3 4 5 6 7 8 9 10 11	
AM114	Have you, or a member of your household, ever travelled on a motorcycle/ for <u>emergency</u> transport? (Select one)	Yes 1 No 2			
AM115	If yes, and if not you, what were the age and gender of the person? <i>(Enter details)</i>	AM115a AM115b	Gender Age	Male 1 Female – 2 Years	
AM116	 If yes, when was the most recent time that either you, or a member of your household, ever travelled on a motorcycle/ for <u>emergency</u> transport? (Select one) 	Between on Between thr Between six	e and three n ree and six mo and twelve n	n 1 nonths ago 2 onths ago 3 nonths ago 4 5	
AM117	 If yes, the last time that you, or a member of your household, used a motorcycle/three wheeler during an <u>emergency</u>what was the reason for seeking health care? (Select one) 	Complicatio Other pregn Pneumonia Severe diarr Malaria Other (or ur Injury – victi Injury – othe	ns during pre- lancy-related hoea hknown) sickn im of motorcy er (or unknow	n facility (normal delivery) 1 ² gnancy 2 emergency 3 4 5 6 ess / disease 7 rcle-related crash 8 rn) cause 10	

² In a rural content in the project's focus countries normal delivery has been classed as emergency due to the high levels of risk involved

AM119	In the last week, what has been the most common way in which you have arranged your trips by motorcycle / motorised three-wheeler taxi? (Select one)	Go to the nearest taxi stand / stage 1 Stop the motorcycle/ motorised three-wheeler at the side of the road 2 Call the rider using a mobile phone 3 Other (specify)	
AM120	Generally, how easy is it for you to find a motorcycle / motorised three-wheeler when you want to take a trip? (Select one)	Very easy – I can always find a motorcycle / motorised three-wheeler quickly 1 Quite easy – I can usually find a motorcycle / motorised three-wheeler quickly 2 Quite difficult - it sometimes takes a long time find a motorcycle / motorised three-wheeler 3 Very difficult – it usually takes a long time find a motorcycle / motorised three-wheeler 4	
AM121	When choosing a rider for your trip by motorcycle / motorised three-wheeler taxi, which of the following is most important to you? (Read out, probe fully and selectone)	Someone who you know personally and trust 1 Someone who offers a cheap price 2 Someone who rides slowly / carefully 3 Someone who rides fast 4 Someone who has a helmet for you to wear 5 Someone whose vehicle is in good condition 6 Someone who carries two or more passengers 7 Someone who looks respectable and sober 8 Someone older (as opposed to someone young) 9 Other (specify)	
AM122	True or False: 'I am happy to travel by motorcycle / motorised three-wheeler taxi at night'? (Select one)	True 1 False 2	
AM123	True or False: 'Motorcycle / motorised three-wheeler taxis are too expensive if I have to pay the full fare myself. I only use them if I	True 1 False 2	

	can split the cost with another passenger'? (Select one)		
AM124	True or False: 'It is improper for a female passenger to ride on a motorcycle behind a male rider'? (Select one)	True 1 False 2	
AM125	True or False: 'It is okay for a female to ride as a passenger on a motorcycle with a male rider only if she sits side- saddle'? (Select one)	True 1 False 2	
AM126	True or False: 'I often find it difficult to keep my balance on a motorcycle taxi'? (Select one)	True 1 False 2	

Section 4: Economics & Finance

No.	Questions and filters	Coding o	ategories		Skip
	As previous section on most frequ	uently-use	d mode of tra	nsport	
EF101	In the last week, how much did you spend on motorcycle / motorised three-wheeler taxis?				
EF102	(Enter details)				
you spend on other for paid transport? <i>(Enter details)</i>	paid transport?				
EF103	On your most recent trip as a passenger on a motorcycle / motorised three-wheeler taxi,	EF103a	Origin		
		EF103b	Destination		_
what was the: <i>(Enter details)</i>		EF103c	Distance (for paid portion of trip)	Less than 2km 1 2 to 4.9km 2 5 to 9.9km 3 10 to 19.9km 4 20km or more 5	
		EF103d	Journey time (for paid portion of trip)	Less than 10 mins 1 10 to 29 mins 2 30 to 59 mins 3 60 mins or more 4	
		EF103e	Total fare	Amount:	

		Currency:	
EF104	Is the cost of a trip by motorcycle / motorised three- wheeler taxi at night different from during the day? (Select one)	Yes, it's more expensive at night 1 Yes, it's cheaper at night 2 No, the price is the same day and night 3	If NO, skip to EF106
EF105	 If Yes, give an example of the price difference for a common trip that you make (Enter details) 	Day time price: Night time price: Currency:	
EF106	Is the cost of a trip by motorcycle / motorised three- wheeler taxi when it is raining different from when it is dry? (Select one)	Yes, it's more expensive when it is raining 1 Yes, it's cheaper it is raining 2 No, the price is the same whether it's raining or dry 3	If NO, skip to section on Injuries & Health
EF107	 If Yes, give an example of the price difference for a common trip that you make (Enter details) 	Price when raining: Price when dry: Currency:	

Section 5: Injuries and Health

Part 5.1: Injuries

*Remember – refer only to the vehicle type that the respondent uses regularly as a passenger, as selected in the Eligibility section above

Magnitude

No.	Questions and filters	Coding categories	Skip
IH101	Have you ever suffered an injury that has resulted in you losing money, requiring medical attention or has affected your family life, while riding as a passenger on a motorcycle or motorised three-wheeler in a rural area? (Select one)	Yes 1 No 2	If NO, skip to sub- section on Health Issues
IH102	On how many different occasions have you ever suffered an injury that has resulted in you losing money, requiring medical attention or has affected your family life, while riding as a passenger on a	Number of occasions:	

	motorcycleor motorised three-wheeler in a rural area? (Enter details)		
IH103	In the last one month, on how many different occasions have you suffered an injury that has resulted in you losing money, requiring medical attention or has affected your life, while riding as a passenger on a motorcycleor motorised three-wheeler in a rural area? (Enter details)	Number of occasions:	

Crash and Injury Characteristics

*Collect information on the <u>most serious injury</u> suffered while the respondent was riding as a passenger on a <u>motorcycle or motorised three-wheeler in a rural area</u> (not in a city or town or on a highway) in the <u>last</u> three years

No.	Questions and filters	Coding categories	Skip
IH104	When did the incident that	Within the last 1 month 1	
	caused the injury occur?	Between 1 and 3 months ago 2	
	(Enter details)	Between 3 and 6 months ago 3	
	, ,	Between 6 and 12 months ago 4	
		Between 1 year and 3 years ago5	
IH105	Was it daylight, dawn, dusk	Daylight 1	
	or night when the incident	Dawn 2	
	occurred?	Dusk 3	
	(Select one)	Night 4	
IH106	Describe the location of the	Village centre 1	
	incident that caused the	Village outskirts 2	
	injury	Rural area, far from a village 3	
	(Select one)		
IH107	Describe the road type	Engineered road 1	
	where the incident occurred	Informal path or track 2	
	(Select one)		
IH108	Describe the surface at the	Unsealed 1	
	location of the incident that	Sealed (tarmac, concrete, etc 2	
	caused the injury		
	(Select one)		
IH109	Describe the incident that	Single vehicle crash / fall 1	
	caused the injury	Single vehicle collision with stationary object2	
	(Select one)	Collision with another motorcycle or motorised three-	
		wheeler 3	
		Collision with another type of motorised vehicle 4	
		Collision with a non-motorised vehicle (ie bicycle or cart)	
		5 Collision with a pedestrian6	
		Collision with an animal 7	
		Other	
		(specify)	
			1

		8	
H110	What is your estimate of	Estimated speed:	
	your speed immediately at		
	or immediately prior to the		
	incident that caused the	Don't know 888	
	injury?	DON 1 KNOW 888	
	(Enter details)		
H111	What was the main factor	Rider error 1	
	that caused the incident?	Passenger action (self)2	
	(Probe fully and select one)	Passenger action (other) 3	
		Other road user action4	
		Roadway condition / damage / obstacle 5 Animal 6	
		Vehicle failure 7	
		Weight-shifting of load 8	
		Environmental conditions (weather)9	
		Vehicle defect 10	
		Other	
		(specify)	
		11	
H112	Did any secondary factor	Rider error 1	
	contribute to cause the	Passenger action (self)2	
	incident?	Passenger action (other) 3	
	(Probe fully and select one)	Other road user action 4	
		Roadway condition / damage / obstacle 5	
		Animal 6	
		Vehicle failure7 Weight-shifting of load8	
		Environmental conditions (weather)9	
		Vehicle defect 10	
		Other	
		(specify)	
		11	
11442		None 12	
H113	Were you riding together	Yes 1 No 2	If NO, skip to IH115
	with any other passengers at the time of the incident that	Z	10 11113
	caused the injury?		
H114	(Select one)	Number of pascongers:	
11114	- If yes, how many other	Number of passengers:	
	passengers were you		
	riding together with? (Enter details)		
H115	Was anyone else injured in	Yes 1	If NO, skip
	the incident?	No 2	to IH117
	(Select one)		
H116	- If yes, who?	Rider of the motorcycle or three-wheeler I was on 1	
	(Select one)	Other passenger on the same motorcycle / three-	
		wheeler as me2	
		Rider of another motorcycle or three-wheeler 3	

IH117	Which part of your body was most seriously injured in the incident? (Select one)	Passenger of another motorcycle or three-wheeler 4Driver of another motorised vehicle 5Passenger of another motorised vehicle 6Cyclist 7Pedestrian / passerby 1Face 2Neck 3Chest 4Abdomen / internal organs 5Back 6Collar bone 7Arms, hands, shoulders 8Legs, feet, pelvis 9General body pain 10	
IH118	What type of injury did you suffer to the part of your body that was most seriously injured? (Select one)	Cut / scrape / scratch 1 Sprain / strain 2 Bruise / internal bleeding (skin unbroken) 3 Broken bone 4 Dislocation (separation of bone joints) 5 Requiring amputation 6 Burn 7 Concussion 8 General pain 9 Other (specify) 10	
IH119	How would you describe the severity of the injury that you suffered? (Select one)	Minor 1 Moderate2 Severe 3	
IH120	Were you wearing a helmet at the time of the incident? (Select one)	Yes 1 No 2	
IH121	Did you report the incident to the police? (Select one)	Yes 1 No 2	lf NO, skip to IH123
IH122	 If yes, were you happy with the police'shandling of the incident? (Select one) 	Yes 1 No 2	

IH123: Provide a description of the crash and injury

82

Crash and Injury Impact

*Continue to collect information on the above injury

No.	Questions and filters	Coding	categori	es	Skip
IH124	Did you seek medical treatment for the injury? (Select one)			1 2	If NO, skip to IH127
IH125	 If yes, who paid for the treatment? (Select all that apply) 	Insurance Rider of t	e he moto:	1 2 rcycle or three-wheeler I was on 3 4	
IH126	 If yes, how much money was spent on medical treatment? (Enter details) 			y:)	
IH127	Did you miss any days of normal activity as a result of the injury? (Select one)			1 2	If NO, skip to IH132
IH128	- If yes, how many? (Enter details)	Number	of days:		
IH129	 Did anyone else need to miss any days of normal activity to care for you? (Select one) 			1 2	
IH130	 If yes, what is their gender, age and primary occupation? (Enter details) 	IH130a IH130b IH130c	Gend er Age Prima ry occup ation	Male 1 Female – 2 Years Taking care of home and/or children 1 Farmer 2 Motorcycle taxi rider 3 Three-wheeler taxi rider 4 Teacher 5 Shopkeeper / shop-worker 6	

IH131	 If yes, how many days did they miss? (Enter details) 	Number	Government official Business-person Worker in bar / restauran 	nt / hot	9 tel 10	
IH132	Do you still suffer from any physical impacts from the injury? (Select one)		1 2			lf NO, skip to IH134
IH133	- If yes, what ongoing		Impact	Yes	No	-
	physical impacts are you suffering from?	IH133a	Permanent disability	1	2	
0	(Provide answer (1 or 2)	IH133b	Chronic pain	1	2	
	for each option)	IH133c	Mild pain	1	2	2
		IH133d	Other (specify):	1	2	
IH134	Do you still suffer from any economic impacts from the injury? (Select one)		1 2			lf NO, skip to IH136
IH135	- If yes, what ongoing		Impact	Yes	No	-
	economic impacts are you suffering from?	IH135a	Inability to earn	1	2	_
	(Provide answer (1 or 2) for each option)	IH135b	Reduced earnings	1	2	
		IH135c	Ongoing medical expenses	1	2	
		IH135d	Other (specify):	1	2	
IH136	Do you still suffer from any	Vos	1			If NO, skip
11130	social or psychological impacts from the injury? (Select one)		2			to IH138
IH137	- If yes, what ongoing		Impact	Yes	No	
	social or psychological impacts are you	IH137a	Inability to provide for self or family	1	2	
	suffering from? (Provide answer (1 or 2)	IH137b	Fear of riding as a passenger on motorcycles / motorised three- wheelers	1	2	
	for each option)	IH137c	Other (specify):	1	2]

IH138: Provide a description of the impact of the crash and injury

Part 5.2: Health Issues (non-injury)

Magnitude

No.	Questions and filters	Coding categories	Skip
IH139	Have you ever suffered from a health issue which you attribute to riding as a passenger on motorcycle- or motorised three-wheeler in a rural area? (Select one)	Yes 1 No 2	If NO, skip to section on Crime & Personal Security
IH140	 If yes, which of the following types of health issues have you suffered from, which you attribute to riding as a passenger on a motorcycle- or motorised three- wheeler in a rural area? (Select all that apply) 	Inability to move / painful to move 1 Breathing difficulties 2 Eye problems 3 General pain 4 Other (specify)	
IH141	 If yes, which parts of your body have been affected by the health issues? (Select all that apply) 	Head 1 Face 2 Neck 3 Chest 4 Abdomen / internal organs 5 Back 6 Collar bone 7 Arms, hands, shoulders 8	

		Legs, feet, pelvis 9 General body pain 10 Ears / nose / throat 11 Eyes 12 Other (specify)	
IH142	 If yes, what are the causes of the health issue? (Select all that apply) 	Dust 1 Cold 2 Wind 3 Rain 4 Sun 5 Bumpy roads 6 Other (specify)	

Health Issue Characteristics

*Collect information on the <u>most serious health issue</u> that the respondent attributes to riding as a passenger on a <u>motorcycle or motorised three-wheeler</u> in a <u>rural area</u> (not in a city or town or on a highway) in the <u>last</u> <u>three years</u>

No.	Questions and filters	Coding categories	Skip
IH143	How long ago did the health	Within the last 1 month 1	
	issue start?	Between 1 and 3 months ago 2	
	(Enter details)	Between 3 and 6 months ago 3	
		Between 6 and 12 months ago 4	
		Between 1 year and 3 years ago5	
IH144	For how long did the health		
	issue continue?	Hours	
	(Enter details)		
		Days	
		Weeks	
IH145	Do you still suffer from this	Yes 1	If NO, skip
	health issue?	No 2	to IH147
	(Select one)		
IH146	- If yes, how often do you	All the time 1	
	suffer from this health	At least once per day but not all the time 2	
	issue?	More than once per week but less than once per day -3	
	13500:	More than once per month but less than once per week	
		4	
		Less than once per month5	
IH147	What type of health issue	Inability to move / painful to move 1	
	did you suffer to the part of	Breathing difficulties 2	
	your body that was most	Eye problems 3	
	seriously affected?	General pain 4	
	(Select one)	Other (specify)	
		5	

IH148	Which part of your body was most seriously affected by the health issue? (Select one)	Head 1 Face 2 Neck 3 Chest 4 Abdomen / internal organs 4 Abdomen / internal organs 6 Collar bone 7 Arms, hands, shoulders 8 Legs, feet, pelvis 9 General body pain 10 Ears / nose / throat 11 Eyes 12
IH149	Were any other parts of your body affected? If yes, which part? (Select one)	Head 1 Face 2 Neck 3 Chest 4 Abdomen / internal organs 5 Back 6 Collar bone 7 Arms, hands, shoulders 9 General body pain 10 Ears / nose / throat 11 Eyes 12 None 13
IH150	What was the main cause of the health issue? (Select one)	Dust 1 Cold 2 Wind 3 Rain 4 Sun 5 Bumpy roads 6 Other 6 (specify)
IH151	Was there any other cause of the health issue? (Select one)	Dust
IH152	How would you describe the severity of the health issue that you suffered? (Select one)	Minor 1 Moderate2 Severe 3

IH153: Provide a description of the health issue

Health Issue Impact

*Continue to collect information on the above health issue

No.	Questions and filters	Coding categories	Skip
IH154	Did you seek medical treatment for the health issue? (Select one)	Yes 1 No 2	If NO, skip to IH157
IH155	 If yes, who paid for the treatment? (Select all that apply) 	Me 1 Insurance 2 Someone else 3	
IH156	 If yes, how much money was spent on medical treatment? (Enter details) 	Amount: (Currency:)	
IH157	Did you miss any days of normal activity as a result of the health issue? (Select one)	Yes 1 No 2	If NO, skip to IH162
IH158	- If yes, how many? (Enter details)	Number:	
IH159	 Did anyone else need to miss any days of normal activity to care for you? (Select one) 	Yes 1 No 2	
IH160	 If yes, what is their gender, age and primary occupation? 	IH160aGendMale 1erFemale - 2IH160bAgeYears	

	(Enter details)	IH160c	Prima ry occup ation	Taking care of home and, Farmer	er	1 2 3 4 5 6 7 8 9 :el 10	
IH161	 If yes, how many days? (Enter details) 	Number	of days:			-	
IH162	Do you still suffer from any physical impacts from the health issue? (Select one)	100		1 2			If NO, skip to IH164
IH163	 If yes, what ongoing physical impacts are you suffering from? (Provide answer (1 or 2) for each option) 	IH163a IH163b IH163c IH163d	Chronic Mild pa	ent disability pain	Yes 1 1 1 1	No 2 2 2 2 2	
IH164	Do you still suffer from any economic impacts from the health issue? (Select one)			1 2	1	1	If NO, skip to IH166
IH165	 If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2) for each option) 	IH165a IH165b IH165c IH165d	Reduce Ongoin	y to earn d earnings g medical expenses specify):	Yes 1 1 1 1	No 2 2 2 2 2	
IH166	Do you still suffer from any social or psychological impacts from the health issue? (Select one)			1 2	<u>I</u>	1	If NO, skip to IH168
IH167	 If yes, what ongoing social or psychological impacts are you suffering from? 	IH167a IH167b	family	y to provide for self or riding as a passenger on	Yes 1 1	No 2 2	-

for each option)			
joi cuch optionj			

IH168: Provide a description of the impact of the health issue

Section 6: Crime & Personal Security

Magnitude

No.	Questions and filters	Coding categories	Skip
CP101	Have you ever been a victim of crime, including verbal abuse and threats, while riding as a passenger on a motorcycle or motorised three-wheeler taxi in a rural area? (Select one)	Yes 1 No 2	If NO, skip to section on Access to Services & Protective Equipment
CP102	 If yes, which of the following types of crime have you been victim of? (Select all that apply) 	Verbal abuse and threats 1 Theft / snatching2 Robbery (using force) 3 Assault (without taking property) 4 Sexual 5 Other (specify) 6	

CP103	 If yes, on how many different occasions have you ever been a victim of the following crimes while riding as a passenger on a motorcycle or motorised three-wheeler taxi in a rural area? <i>(Enter details)</i> 	IH103a IH103b IH103c IH103d IH103d IH103f	Crime Verbal abuse and threats Theft / snatching Robbery (using force) Assault (without taking property) Sexual Other (specify)	Number of occasions
CP104	 If yes, on how many different occasions have 		 Crime	- Number of occasions
	you been a victim of the	IH104a	Verbal abuse and threats	
	following crimes in the last one month while riding as a passenger on a motorcycle or motorised three- wheeler taxi in a rural area? <i>(Enter details)</i>	IH104b	Theft / snatching	
		IH104c	Robbery (using force)	
		IH104d	Assault (without taking property)	
		IH104e	Sexual	
		IH104f	Other (specify)	-

Crime Characteristics

*Collect information on the <u>most serious crime, including verbal abuse and threats</u>, that the respondent was victim of while riding as a <u>passenger on a motorcycle or motorised three-wheeler taxi</u> in a <u>rural area</u> (not in a city or town or on a highway) in the last three years

No.	Questions and filters	Coding categories	Skip
CP105	What type of crime was it? (Select one)	Verbal abuse and threats 1 Theft / snatching2 Robbery (using force) 3 Assault (without taking property) 4 Sexual 5 Other (specify)	6
CP106	When did the crime occur?	Within the last 1 month 1Between 1 and 3 months ago 2Between 3 and 6 months ago 3Between 6 and 12 months ago 4Between 1 year and 3 years ago5	
CP107	Where did the crime occur? (Select one)	At the pick-up point 1 At the taxi stand/stage 2 While riding on a rural road 3 While riding on a rural track 4 At the drop-off point 5 Other (specify)	6

91

	(Select all that apply)	Bag (mix	ed contents) 3 Iral produce 4		
CP116	- If yes, what did you lose?		1 hone 2		
	result of the crime? (Select one)	No	2		to CP117
CP115	(Enter details) Did you suffer any losses as a	Yes	1		If NO, skip
	you? (Enter details)				
	passengers were with				
CP114	- If yes, how many other	Number:	:		
	when the crime occurred? (Select one)				
	with any other passengers	No	2		to CP115
CP113	Were you riding together		1		If NO, skip
		CP112f	Other (specify)		1
		CP112C	Stick / club		-
	(Enter details)	CP112b CP112c	Small knife (less than 20cm) Large knife (more than 20cm)		-
	weapons did you see being used by the perpetrators?	CP112a	Gun		4
CP112	How many of the following		Weapon	Number	4
	many were known to you? (Enter details)				
CP111	Of the perpetrators, how	Number:			
		CP110i	Other (specify)		
		CP110h	Bicyclist		4
		CP110g	Pedestrian / passerby]
		CLIT01	motorised vehicles		
		CP110f	motorised vehicle Passenger of another type of		-
		CP110e	Driver of another type of		
			motorcycle / three-wheeler		_
		CP110d	Passenger of another		1
		CP110c	Rider of another motorcycle / three-wheeler		
			was on		_
		CI 1100	motorcycle / three-wheeler I		
	(Enter details)	CP110b	three-wheeler I was on Another passenger of the		_
	of the crime?	CP110a	Rider of the motorcycle /		
CP110	Who were the perpetrators		Perpetrator	Number	
	were there? <i>(Enter details)</i>				
CP109	How many perpetrators	Number:			
	(Select one)	Night	4		
	occurred?	-	3		
	Was it daylight, dawn, dusk or night when the crime	Daylight Dawn			

		Other (specify)	
CP117	Did anyone else suffer any losses as a result of the crime? (Select one)		If NO, skip to CP120
CP118	- If yes, who? (Select all that apply)	Rider of my motorcycle / three-wheeler 1 Other passenger on the same motorcycle / three- wheeler as me 2 Rider of another motorcycle / three-wheeler 3 Passenger of another motorcycle / three-wheeler 4 Other (specify)	
CP119	 If yes, what did they lose? (Select all that apply) 	Money 1 Mobile phone 2 Bag (unknown contents) 3 Agricultural produce 4 Motorcycle 5 Other (specify) 6	
CP120	Did you report the crime to the police? (Select one)	Yes 1 No 2	If NO, skip to CP122
CP121	 If yes, were you happy with the police's handling of the incident? (Select one) 	Yes 1 No 2	

CP122: Provide a description of the crime

Crime Impact

*Continue to collect information on the above crime

No.	Questions and filters	Coding	categori	es	Skip
CP123	Did you seek medical treatment as a result of the crime? (Select one)	Yes 1 No 2			If NO, skip to CP126
CP124	 If yes, who paid for the treatment? (Select one) 	Me 1 Insurance 2 Rider of the motorcycle or three-wheeler I was on 3 Someone else 4			
CP125	 If yes, how much money was spent on medical treatment? (Enter details) 	Amount: (Currency:)			
CP126	Did you miss any days of normal activity as a result of the crime? (Select one)	Yes No	If NO, skip to CP128		
CP127	- If yes, how many?	Number:			
CP128	Did anyone else need to miss any days of normal activity to care for you? (Select one)			1 2	If NO, skip to CP130
CP129	 If yes, what is their gender, age and primary occupation? (Enter details) 	IH129a IH129b IH129c	Gend er Age Prima ry occup ation	Male 1 Female – 2 Years Taking care of home and/or children 1 Farmer 2 Motorcycle taxi rider 3 Three-wheeler taxi rider 3 Three-wheeler taxi rider 4 Teacher 5 Shopkeeper / shop-worker 6 Builder / labourer 6 Builder / labourer 7 Government official 8 Business-person 9 Worker in bar / restaurant / hotel 10 Student / pupil 11 Other (specify)	
CP130	Do you still suffer from any physical impacts from the crime? (Select one)			1 2	lf NO, skip to CP132

CP131	- If yes, what ongoing	CP131a	Permanent disability	1	2	
0.101	physical impacts are you		-			-
	suffering from?	CP131b	Chronic pain	1	2	
	(Provide answer (1 or 2) for each option)	CP131c	Mild pain	1	2	
	jor cuch option,	CP131d	Other (specify):	1	2	
CP132	Do you still suffer from any economic impacts from the crime? (Select one)		1 2	1	1	If NO, skip to CP134
CP133	- If yes, what ongoing		Impact	Yes	No	
	economic impacts are	CP133a	Inability to earn	1	2	
	you suffering from? (Provide answer (1 or 2)	CP133b	Reduced earnings	1	2	
	for each option)	CP133c	Ongoing medical expenses	1	2	
		CP133d	Other (specify):	1	2	
CP134	Do you still suffer from any social or psychological impacts from the crime? (Select one)		1 2			If NO, skip to CP136
CP135	- If yes, what ongoing		Impact	Yes	No	
	social or psychological impacts are you	CP135a	Inability to provide for self or family	1	2	
	suffering from? (Provide answer (1 or 2) for each option)	CP135b	Fear of riding as a passenger on a motorcycle / motorised three- wheeler	1	2	
		CP135c	Other (specify):	1	2	

CP136: Provide a description of the impacts of the crime

Section 7: Access to Services & Protective Equipment, and Compliance

*Remember – remind the respondent that you are not from a government authority, and you will not report to anyone whether they have licence, insurance, etc. The questionnaire is anonymous

Part 7.1: Services (inc. Compliance)

No.	Questions and filters	Coding categories				Skip
AP101	Do you request to see any of			Yes	No	
	the following when selecting your motorcycle / motorised	AP101a	Insurance	1	2	-
	three-wheeler rider? (Select one)	AP101b	Driving licence	1	2	

Part 7.2: Protective Equipment (inc. Compliance)

Helmets

No.	Questions and filters	Coding categories	Skip
AP102	How often do you wear a helmet while riding as a passenger on a motorcycle / motorised three-wheeler? (Select one)	Never 1 Sometimes 2 Most of the time 3 Always 4	If OTHER THAN NEVER, skip to AP106
AP103	 If other than never, do you own the helmet that you wear? (Select one) 	Yes 1 No 2	
AP104	 If no, who owns the helmet? (Select one) 	The rider of the motorcycle or three-wheeler 1 Other (specify) 2	
AP105	 If not always, what is the main reason you do not wear a helmet? (Select one) 	Riders do not have helmets 1 Helmets are too expensive to buy 2 I do not need a helmet 3 A helmet restricts my vision or hearing 4 Helmets are uncomfortable or hot 5 Helmets are dirty 6 The helmet will mess up my hair 7 Other (specify)	
		8	

AP106	In your experience, how strongly do the authorities enforce the requirement for the passenger to wear a helmet? (Select one)	Strongly – they often stop my rider if I am not wearing a helmet 1 Moderately – they sometimes stop my rider if I am not wearing a helmet 2 Weakly – they very rarely or never stop my rider if I am not wearing a helmet 3	
AP107	The last time, if ever, you were stopped by the authorities not wearing a helmet, what happened? (Select one)	I have never been stopped not wearing a helmet 1 No action was taken 2 I was given an official warning 3 I paid a bribe or dash (unofficial) 4 I paid an official fine 5 Other (specify)	

Part 7.2: Other Compliance

Motorcycle Passengers

No.	Questions and filters	Coding categories	Skip
AP108	In your experience, how strongly do the authorities enforce the law limiting the number of adult passengers to one? (Select one)	Strongly – they often stop me if I am riding together with other adult passengers 1 Moderately – they sometimes stop me if I am riding together with other adult passengers 2 Weakly – they very rarely or never stop me if I am riding together with other adult passengers 3	
AP109	The last time, if ever, you were stopped by the authorities riding together with other adult passengers, what happened? <i>(Select one)</i>	I have never been stopped riding together with other adult passengers adult passengers 1 No action was taken 2 I was given an official warning 3 I paid a bribe or dash (unofficial) 4 I paid an official fine 5 Other (specify)	

Taxi Owners' Questionnaire

SURVEY ON THE BENEFITS AND DISBENEFITS OF MOTORCYCLES AND MOTORISED THREE-WHEELERS

Questionnaire Ref. No.

TAXI OWNERS' QUESTIONNAIRE

Completion Status:

- Complete ----- 1 - Partially complete ---- 2

Introduction and Eligibility

Ask the head of the household "Does anyone in this household own either a motorcycle or motorised three-wheeler that they use to do business as a taxi?"

If 'No', thank them and continue to identify others. If Yes, ask to speak to the person.

Ask the person "Do you own a either a motorcycle or motorised three-wheeler that they use to do business as a taxi, either riding it yourself and charging a fare to carry passengers or freight, or allowing someone else to ride it?"

If yes, ask the person "Most commonly during the last month, have you ridden the motorcycle / motorised three-wheeler taxi yourself or have you allowed someone else to use it?"

If 'Ridden it his or her self', complete the Riders' Questionnaire, not the Taxi Owners' Questionnaire. If 'Allowed someone else to use it', continue with this questionnaire.

Explain...

My name is..... and I am working for Transaid and Amend, NGOs working to improve transport services. We are interviewing people here in [NAME OF VILLAGE OR DISTRICT/DIVISION].....in order to find out about motorcycles and motorised threewheelers.

Confidentiality and consent: I am going to ask you some questions. Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me.

We would greatly appreciate your help in responding to this survey.

Ask the respondent the Uncoerced Verbal Consent questions:

- 1. Have you had the information about this study explained in a manner that you understand to your satisfaction?
- 2. Do you understand that your participation is entirely voluntary?
- 3. Do you know enough about the purpose and methods of the research study to judge if you would like to take part in it?
- 4. Do you understand that you may freely stop being part of this study at any time?
- 5. Have we addressed all your questions to your satisfaction? If not, may we at this time?
- 6. Do you agree to participate in this study?

If answers to all are 'Yes', proceed with the questionnaire.

Tell them...

Ask them "Do you own a motorcycle(s) or a motorised three-wheeler(s)?"

If 'Both', ask questions about motorised three-wheelers (because the number of three-wheeler owners that we identify is likely to be less than the number of motorcycle owners).

Where questions in this questionnaire refer to 'motorcycle and/or three-wheeler', you should refer to the vehicle type they own.

No.	Questions and filters	Coding ca	ategories			Skip
1101	Interviewer's name (Enter details)	Name:				
II102	Date of interview (Enter details)	Date:				
II103	Country (Select one)	Ghana Kenya Tanzania - Uganda	2 3			
1104	Location <i>(Enter details)</i>	GH	KE	TZ	UG	
li105	Vehicle type (Enter details, as selected in the Eligibility section above)	Motorised	l three-wheel	er designed for	passengers	2
II106	Start time (Enter details)	Time:				
II107	End time (Enter details)	Time:				
1108	Interviewer's signature (Enter details)	Signature:				
II109	Interviewer's notes, if any <i>(Enter details)</i>					

Interview and Interviewer's Information

Important Note: Where questions in this questionnaire refer to 'motorcycle and/or three-wheeler', you should refer to the vehicle type selected above.

Section 1: Background Information

Observations

No.	Questions and filters	Coding categories		Skip
BI101	Gender <i>(Enter details)</i>	Male 1 Female 2		
BI102	Any apparent disability? (Enter details)	Yes 1 No 2		lf NO, skip to Bl104
BI103	 If yes, what kind of disability? (Select all that apply) 	Walking 1 Sight 2 Deaf / dumb 3 Mental disability 4 Albino 5 Difficulty using arms/hands 6 Dwarfism 7 Other (specify)	8	
BI104	Observed level of personal wealth as judged by appearance, in comparison to others in the same household (Select one)	Above average personal wealth 1 Average personal wealth 2 Below average personal wealth 3		

Questions

No.	Questions and filters	Coding categories	Skip
BI105	How old are you? <i>(Enter details)</i>	Age in completed years Don't know8888	
BI106	What is the highest level of school that you completed? <i>(Select one)</i>	Never attended school 1 Did not complete primary school 2 Primary school completed 3 Secondary school completed 4 Tertiary school/University degree completed 5	
BI107	What is your marital status? (Select one)	Married (including customary union) 1 Single 2 Widowed/Separated/Divorced 3	

BI108	What is your primary	Taking ca	re of home and/or childro	en 1	
2.200	occupation?				
	(Select one)		3		
	(Select one)	,	neeler taxi rider		
			5		
			6		
			labourer		
			ent official		
			-person		
			n bar / restaurant / hotel		
			/ pupil		
		Other (sp		12	
BI109	What is your secondary	Taking ca			
	occupation (if any)?	Farmer -		2	
	(Select one)	Motorcy	cle taxi rider	3	
		Three-wl	neeler taxi rider	4	
		Teacher	5		
			per / shop-worker		
		Builder /	7		
			8		
		Business	9		
		Worker i	10		
		Student	/ pupil	11	
		Other (sp	12		
		None		888	
BI110	How many people live in			Number	
	your household, including	BI110a	Adult males		
	you? (Eating from the same	BI110b	Adult females		
	cooking pot)	BI110c	Child males		
	01	BI110d	Child females		

Section 2: Overall Opinions on Motorcycles / Motorised Three-Wheelers*

*Remember – refer only to the vehicle type that the respondent owns, as selected in the Eligibility section above

No.	Questions and filters	Coding	categories						Skip
00101	On a scale of 1 to 5, 1 being very bad and 5 being excellent,	00101 a	Suitability for rural passenger transport	1	2	3	4	5	
how would	how would you rate your opinion of each of these	00101 b	Suitability for rural freight transport	1	2	3	4	5	
	aspects of motorcycles?	00101 c	Road safety	1	2	3	4	5	
		00101 d	Personal safety	1	2	3	4	5	
		00101 e	Overall opinion	1	2	3	4	5	
00102	What is the best thing about motorcycles / motorised three- wheelers? (Probe fully and select one)	Means of doing business / earning money 1Generate employment 2Convenient / easy mode of transport 3Provide access where other vehicles cannot 4Limited other transport options 5Fast mode of transport 6Cheaper than other options 7Transport to health care in case of an emergency 8Access to medical facilities in non-emergency cases 9Provides transport to take children to school 10							

		Other (specify)	
00103	What is the worst thing about motorcycles / motorised three- wheelers? (Probe fully and select one)	Risk to safety of riders and passengers	

Section 3: Economics & Finance

*Remember – refer only to the vehicle type that the respondent owns, as selected in the Eligibility section above

No.	Questions and filters	Coding categories	Skip
EF101	How many motorcycles and motorised three-wheeler taxis	Motorcycles:	
	do you own and use as taxis? (Ask about both. Enter details)	Motorised three-wheelers:	
EF102	For how long have you been operating motorcycles or motorised three-wheelers as taxis? (Enter details)	Years: and Months:	
	the Eligibility section above	hicle type that the respondent owns, as selected in otorised three-wheeler that you bought most	
EF103	What is the make of the motorcycle / motorised three- wheeler? (Select one)	SANLG 1 Haujue 2 Haojin 3 Fekon 4 Bajaji Boxer 5 Bajaji (other) 6 Kinglion 7 Honda 8 Toyo 9 T-Better 10 Yamaha 11	

		Other (specify)):		
				12	
				I2	
EF104	What is the engine size of the motorcycle / motorised three- wheeler? (Select one)	Less than 100c 100cc 125cc 150cc More than 150	2 3 4		
EF105	What is the year of manufacture of the motorcycle or motorised three-wheeler? <i>(Enter details)</i>	Year: Don't know	888		
EF106	When was the motorcycle or motorised three-wheeler first registered in this country? <i>(Enter details)</i>	Year:	888		
		Don t know	888		
EF107	When did you buythe motorcycle /motorised three- wheeler?	Year:			
	(Enter details)	Don't know	888		
EF108	What was the total cost of the motorcycle /motorised three- wheeler? <i>(Enter details)</i>				
EF109	How did you make the payment? (Select one)	Over time with the seller Other	p-sum payment n several payments, in a	n agreement with 2	
		3			
EF110	How did you obtain the money to acquire the motorcycle / motorised three-wheeler? (Select all that apply)	Money borrow Money borrow bank Money borrow Other	ved from family and frie ved from a bank, includi ved from a taxi associati	nds 2 ng micro-finance 3 on 4	
EF111	If you borrowed money , how much did you borrow? (Enter details)	Amount:			
		Currency:			
EF112		-	Amount Currency		

EF113	If you borrowed money , what are / were the details of the repayments? (Enter details) For how long do you expect to	EF112b EF112c Months:	Payment period (ie p month) Duration (ie number months)		-
-	be able to use the motorcycle / motorised three-wheeler as a taxi? (Enter details)	Years:	Years:		
EF114	Do you charge a fee to the person to whom you give the motorcycle / motorised three- wheeler to operate as a taxi? (Select one)	Yes, I charge a fixed amount 1 Yes, I charge an amount dependent on the rider's income 2 No – I let the person use it for free 3 Other (specify)			If NO, skip to EF117
				4	
EF115	- If 'Yes, a fixed amount',	EF115a	Amount		
	how much do you charge and for what		Currency		
	time period? (Enter details)	EF115b	Payment period (ie per month)		
EF116	 If 'Yes, dependent on rider's income', how do you do the calculations? (Enter details) 	Calculation	n: 		
EF117	Who pays for fuel? (Select one)	You The rider -			If THE RIDER, skip to EF120
EF118	 If you, how often do you refuel? (Enter details) 	Every	days		
EF119	 If you, when is the last time you refuelled? (Enter details) 		days ago		
	(Liner details)	(Today = 0	, Yesterday = 1, Day bef	ore yesterday = 2, etc)	
EF120	The last time you refuelled, how many litres did you put? <i>(Enter details)</i>	Litres:			
EF121	The last time you refuelled, how much did you pay? (Enter details)				
EF122	Who pays for maintenance repairs and replacement of parts? (Select one)	The rider -	ween you and the rider	2	
EF123	How much have you spent on maintenance, repairs and replacement in the last one month, if any? (Enter details)				

104

		Don't know 8888	
EF124	How much has the owner spent on maintenance, repairs and replacement in the last one month, if any? <i>(Enter details)</i>	Amount: Currency: Nothing 88	
EF125	Who pays for insurance for the motorcycle or motorised three-wheeler? (Select one)	Don't know 8888 You 1 The rider 2 No-one – the vehicle does not have insurance 3	If THE RIDER or NO-ONE, skip to EF127
EF126	- If you, what is the cost? (Enter details)	EF126a Amount Currency EF126b Payment period (ie per year)	
EF127	Do you have any form of official paperwork that allows you to operate as a taxi, ie a business licence? (Select one)	Yes 1 No 2	If NO, skip to EF131
EF128	 If yes, what does it cost? (Enter details) 	Amount: (Currency:)	
EF129	 If yes, how often does it have to be renewed? (Enter details) 	Years:	
EF130	 If yes, what is the total of any other expenses (ie travel) you incur each time you renew it? (Enter details) 	Amount: (Currency:)	
EF131	In the last seven days, how much profit did you make (after paying all expenses related to operating the motorcycle or motorised three-wheeler)? <i>(Enter details)</i>	Amount: (Currency:)	

Section 4: Access to Services & Protective Equipment, and Compliance

*Remember – refer only to the vehicle type that the respondent owns, as selected in the Eligibility section above

*Remember – remind the respondent that you are not from a government authority, and you will not report to anyone whether they have a licence, insurance, etc. The questionnaire is anonymous

Part 7.1: Services (inc. Compliance)

Business Permit

No.	Questions and filters	Coding categories	Skip
	No need to repeat question	Yes 1	If NO, skip
	- take answer from previous	No 2	to EF103
	section		
	Do you have any form of		
	official paperwork that		
	allows you to operate as a		
	taxi, ie a business licence?		
	(Select one)		
AP101	 If yes, when did you obtain your [business licence]? 	Year:	
AP102	(Enter details)	Norse of town (site :	
AP102	 If yes, where did you obtain your [business licence]? 	Name of town/city:	
	(Enter details)		
AP103	- If no, what is the main	Nowhere to obtain [licence] locally 1	If YES
	reason you do not have	[Licence] is too expensive 2	above, skip
	a [business licence]?	I do not need a [licence] 3	to AP108
	(Select one)	I did not know how to fill the form 4	
		Other (specify)	
		5	
AP104	- If no, are you aware of	Yes 1 No 2	
	the nearest place where	NO 2	
	[licences] are available? (Select one)		
AP105	 If yes, where? (town, city) 	Name of town/city:	
	(Enter details)		
AP106	- If no, are you aware of	Yes 1	
	the cost of a [licence]?	No 2	
	(Select one)		
AP107	• If yes, how much is	Amount: (Currency:)	
	it?		
	(Enter details)		
AP108	In your experience, how	Strongly – they often ask to see my licence 1	
	strongly do the authorities	Moderately – they sometimes ask to see my licence 2	
	enforce the requirement to	Weakly – they very rarely or never ask to see my licence	
	have a [business licence]?	3	
	(Select one)		
AP109	The last time, if ever, you	I have never been asked to show my business licence - 1	
	were unable to show your	No action was taken 2	
	[business licence] when	I was given an official warning 3	
	asked to do so by the	I paid a bribe or dash (unofficial) 4	
	authorities, what happened?	I paid an official fine5	
	(Select one)	The motorcycle was seized 6	
		Other (specify)	
		7	

No.	Questions and filters	Coding categories	Skip
	No need to repeat question – take answer from previous section	Yes 1 No 2	If NO, skip to AP120
	Do you have insurance for your motorcycle / motorised three-wheeler? <i>(Select one)</i>		
AP110	 If yes, what kind of insurance do you have? (Select one) 	Fully comprehensive 1 Third party 2	
AP111	 If yes, does your insurance cover you to operate commercially as a motorcycle / motorised three- wheeler taxi? (Select one) 	Yes 1 No 2	
AP112	 If yes, for how long have you continuously held insurance for your motorcycle / motorised three-wheeler taxi? (Enter details) 	Number of years:	
AP113	- If yes, where did you obtain your insurance? (Enter details)	Name of town/city:	
AP114	 If yes, how much does it cost? (Enter details) 	Amount: (Currency:)	
AP115	 If yes, have you ever made a claim using your insurance? (Select one) 	Yes 1 No 2	
AP116	If yes, when was the most recent pay- out? (Enter details)	Month Year	
AP117	 If yes, what was the amount of the most recent pay-out? (Enter details) 	Amount: (Currency:)	
AP118	 If yes, what % of the cost of repairs did the payout cover? (Enter details) 	Percentage:	
AP119	 If yes, how long did it take to receive the most recent pay-out 	Number of months:	

	from submitting the claim? (Enter details)		
AP120	 If no, what is the main reason why your motorcycle / motorised three-wheeler does not have insurance? (Select one) 	Nowhere to obtain insurance locally 1 Insurance is too expensive 2 I do not need insurance 3 I did not know how to fill the form 4 Other (specify)	IF YES above, skip to AP125
AP121	 If no, are you aware of the nearest place where insurance can be obtained? (Select one) 	Yes 1 No 2	
AP122	 If yes, where? (town, city) (Enter details) 	Name of town/city:	
AP123	 If no, are you aware of the cost of insurance? (Select one) 	Yes 1 No 2	
AP124	 If yes, how much is it? (Enter details) 	Amount: (Currency:)	
AP125	In your experience, how strongly do the authorities enforce the requirement to	Strongly – they often ask to see my insurance 1 Moderately – they sometimes ask to see my insurance 2 Weakly – they very rarely or never ask to see my	
	have insurance? (Select one)	insurance 3	
AP126	The last time, if ever, you were unable to show your insurance when asked to do so by the authorities, what happened? (Select one)	I have never been asked to show my insurance 1 No action was taken 2 I was given an official warning 3 I paid a bribe or dash (unofficial) 4 I paid an official fine 5 The motorcycle was seized 6 Other (specify)	
		7	

Part 7.2: Protective Equipment (inc. Compliance)

Helmets

*Remember – refer only to the vehicle type that the respondent owns, as selected in the Eligibility section above

No.	Questions and filters	Coding categories	Skip
AP127	How many helmets do you provide to the person who rides your motorcycle / motorised three-wheeler? (Select one)	None 1 One 2 Two 3	
		Item	Yes No

AP128	Do you provide any of the	AP128a	Gloves	1	2	
	other following types of protective equipment to the	AP128b	Eye protection	1	2	
	rider of your motorcycle /	AP128c	Strong shoes	1	2	
	motorised three-wheeler? (Select one)	AP128d	Coat	1	2	
	(,	AP128e	Long trousers	1	2	
		AP128f	Reflective vest	1	2	
		AP128g	Other (specify)	1	2	

Freight Owners' Questionnaire

SURVEY ON THE BENEFITS AND DISBENEFITS OF MOTORCYCLES AND MOTORISED THREE-WHEELERS

Questionnaire Ref. No.

FREIGHT OWNERS' QUESTIONNAIRE

Completion Status:

- Complete ----- 1

- Partially complete ---- 2

Introduction and Eligibility

Ask the head of the household "Does anyone in this household regularly transport freight using either motorcycle or motorised three-wheeler taxis?"

If 'No', thank them and continue to identify others. If Yes, ask to speak to the person.

Ask the person "Do you regularly transport freight – weighing 10kg or greater – using either motorcycle or motorised three-wheeler taxis?"

If 'Yes', explain...

My name is..... and I am working for Transaid and Amend, NGOs working to improve transport services. We are interviewing people here in [NAME OF VILLAGE OR DISTRICT/DIVISION].....in order to find out about motorcycles and motorised threewheelers.

Confidentiality and consent: I am going to ask you some questions. Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me.

We would greatly appreciate your help in responding to this survey.

Ask the respondent the Uncoerced Verbal Consent questions:

1. Have you had the information about this study explained in a manner that you understand to your satisfaction?

- 2. Do you understand that your participation is entirely voluntary?
- 3. Do you know enough about the purpose and methods of the research study to judge if you would like to take part in it?
- 4. Do you understand that you may freely stop being part of this study at any time?
- 5. Have we addressed all your questions to your satisfaction? If not, may we at this time?
- 6. Do you agree to participate in this study?

If answers to all are 'Yes', proceed with the questionnaire.

Tell them...

Ask them "Do you regularly use motorcycles or motorised three-wheelers, or both, to transport freight?"

Administer the survey in line with the answer they give. If they answer 'Both', ask questions about motorised three-wheelers (because the number of three-wheeler passengers that we identify is likely to be less than the number of motorcycle passengers).

Where questions in this questionnaire refer to 'motorcycle and/or three-wheeler', you should refer to the vehicle type they regularly use to transport freight.

No.	Questions and filters	Coding c	Skip			
1101	Interviewer's name (Enter details)	Name:				
II102	Date of interview (Enter details)	Date:				
II103	Country (Select one)	Ghana Kenya Tanzania Uganda	2 3			
ll104	Location (Enter details)	GH	KE	TZ	UG	
II105	Vehicle type	Motorise	d three-wheel	er designed for	 passengers freight	2
II106	Start time (Enter details)	Time: 				
II107	End time (Enter details)	Time:				

II108	Interviewer's signature (Enter details)	Signature:	
1109	Interviewer's notes, if any (Enter details)		

Important Note: Where questions in this questionnaire refer to 'motorcycle and/or three-wheeler', you should refer to the vehicle type selected above.

Section 1: Background Information

Observations

No.	Questions and filters	Coding categories		Skip
BI101	Gender <i>(Enter details)</i>	Male 1 Female 2		
BI102	Any apparent disability? (Enter details)	Yes 1 No 2		lf NO, skip to Bl104
BI103	 If yes, what kind of disability? (Select all that apply) 	Walking1Sight2Deaf / dumb3Mental disability4Albino5Difficulty using arms/hands6Dwarfism7Other (specify)	8	
BI104	Observed level of personal wealth as judged by appearance, in comparison to others in the same household (Select one)	Above average personal wealth 1 Average personal wealth 2 Below average personal wealth 3		

Questions

No.	Questions and filters	Coding categories	Skip
BI105	How old are you? (Enter details)	Age in completed years Don't know8888	

BI106	What is the highest level of school that you completed? (Select one)	Never attended school 1 Did not complete primary school 2 Primary school completed 3 Secondary school completed 4 Tertiary school/University degree completed 5	
BI107	What is your marital status? (Select one)	Married (including customary union) 1 Single 2 Widowed/Separated/Divorced 3	
BI108	What is your primary occupation? <i>(Select one)</i>	Taking care of home and/or children	
BI109	What is your secondary occupation (if any)? <i>(Select one)</i>	Taking care of home and/or children1 Farmer	
BI110	How many people live in your household, including you? (Eating from the same cooking pot)	Number BI110a Adult males BI110b Adult females BI110c Child males BI110d Child females	

Section 2: Overall Opinions on Motorcycles / Motorised Three-Wheelers

No.	Questions and filters	Coding ca	ategories						Skip
00101	On a scale of 1 to 5, 1 being very bad and 5 being excellent,	OO101a	Suitability for rural passenger transport	1	2	3	4	5	
	how would you rate your opinion of each of these	00101b	Suitability for rural freight transport	1	2	3	4	5	
	aspects of motorcycles?	00101c	Road safety	1	2	3	4	5	
		00101d	Personal safety	1	2	3	4	5	
		00101e	Overall opinion	1	2	3	4	5	
00102	What is the best thing about motorcycles / motorised three- wheelers? (Probe fully and select one)	Generate Convenier Provide ac	doing business / earning m employment nt / easy mode of transport ccess where other vehicles her transport options	 canı	not			2 3 4	

		Fast mode of transport 6 Cheaper than other options 7 Transport to health care in case of an emergency 8 Access to medical facilities in non-emergency cases 9 Provides transport to take children to school 10 Other (specify)	
OO103	What is the worst thing about motorcycles / motorised three- wheelers? (Probe fully and select one)	Risk to safety of riders and passengers 1 Risk to safety of other road users 2 Risk of rider or passenger being a victim of crime 3 Used to commit crimes 4 Expensive mode of transport 4 Expensive to buy 6 Lack of respect / recognition for motorcycles / three- wheelers by other drivers 7 Lack of respect / recognition for motorcycles / three- wheelers by authorities 8 Encourages people to drop out of school to ride a motorcycle or three-wheelers as a taxi 9 Other (specify)	

Section 3: Access & Mobility

*Remember – refer only to the vehicle type that the respondent uses regularly as a passenger, as selected in the Eligibility section above

No.	Questions and filters	Coding categories	Skip
AM101	Generally, what is the most common way in which you arrange your trips by motorcycle / motorised three-wheeler taxi? (Select one)	Go to the nearest taxi stand / stage 1 Stop the motorcycle/ motorised three-wheeler at the side of the road 2 Call the rider using a mobile phone 3 Other (specify)	
AM102	Generally, how easy is it for you to find a motorcycle / motorised three-wheeler when you want to take a trip? (Select one)	4 Very easy – I can always find a motorcycle / motorised three-wheeler quickly 1 Quite easy – I can usually find a motorcycle / motorised three-wheeler quickly 2 Quite difficult - it sometimes takes a long time find a motorcycle / motorised three-wheeler 3 Very difficult – it usually takes a long time find a motorcycle / motorised three-wheeler 4	

Section 4: Economics & Finance

EF101		Coding c	-
	Is there a particular time of year when you most commonly transport freight using motorcycle / motorised three- wheeler taxis? If yes, during which months? (Select one)	Yes Month(s) No):
EF102	What one type of freight do you most commonly transport? (Select one)	Cooking s Animal pr Live anim Items for Other iter Building r	Iral produce 1 source (charcoal, firewood, etc) 2 roducts (meat, milk, eggs, etc) 3 nals 4 r sale in a shop 5 oms for personal use at home 6 materials 8 becify):
EF103	For this one type of freight that you most commonly transport, do you transport it for personal use or commercial use? (Select one)		
EF104	What other types of freight do you commonly transport? (Select all that apply)	Cooking s Animal pr Live anim Items for Other iter Building r	Iral produce 1 source (charcoal, firewood, etc) 2 roducts (meat, milk, eggs, etc) 3 nals 4 · sale in a shop 5 erms for personal use at home 6 materials 8 pecify):
EF105	In the last week, on how many occasions have you used a motorcycle or motorised three- wheeler to transport freight? (Enter details)	Occasions	
EF106	In the last week, how much did you spend on transporting freight by motorcycle or motorised three-wheeler? (Ask about both. Enter details)	Amount: Currency:	·:
EF107	On your most recent trip when you transported freight, what was the: (Enter details)	EF107a EF107b EF107c	Origin Destination Distance Less than 2km1

	EF107d	portion of trip) Journey time (for paid portion of trip)	5 to 9.9km 3 10 to 19.9km 4 20km or more 5 Less than 10 mins 1 10 to 29 mins 2 30 to 59 mins 3 60 mins or more 4	
	EF107e	Total fare	Amount: Currency:	
	EF107f	Weight of cargo	Less than 10kg 1 11 to 19.9kg 2 20 to 40.9kg 3 50kg or more 4	
	EF107g	Use of the freight that you transporte d	Personal use 1 Commercial use 2	
How long ago was the last time that your freight has been damaged when being transported by a motorcycle / motorised three-wheeler? (Select one)	Between o Between t More thar	one and three hree and six m n six months ag	th 1 months ago 2 nonth ago 3 go 4 ever been damaged 5	
On the last occasion that your freight was damaged while being transported, what happened? (Select one)	The rider The dama You paid t The produ	paid a partial v ged freight wa o replace the o oct was insured	ue of the damaged freight 1 alue of the damaged freight 2 s lost, with no replacement 3 damaged freight 4 and was successfully claimed 5	

SURVEY ON THE BENEFITS AND DISBENEFITS OF MOTORCYCLES AND

Questionnaire Ref. No.

NON-USERS' QUESTIONNAIRE

Completion Status:

- Complete ----- 1 - Partially complete ---- 2

Introduction and Eligibility

Ask the head of the household "Is there anyone in this house who only rarely or never travels as a passenger on motorcycle taxis or motorised three-wheeler taxis?"

If 'No', thank them and continue to identify others. If Yes, ask to speak to the person.

(If the possible respondent is under the age of 18 years, first speak to his/her parent or guardian.)

If yes, ask the person "Do you rarely or never travel as a passenger on a motorcycle taxi?"

If yes, ask the person "How many times have you travelled as a passenger on a motorcycle taxi in the last one month?"

If zero, explain that you will ask them questions about why they do not use motorcycle taxis.

But before asking those questions, ask them "Are motorised three-wheeler taxis available in the local area?"

If yes, ask the person "How many times have you travelled as a passenger on a motorised three-wheeler in the last one month?"

If zero, explain that you will ask them questions about why they do not use motorised three-wheeler taxis.

Explain...

My name is..... and I am working for Transaid and Amend, NGOs working to improve transport services. We are interviewing people here in [NAME OF VILLAGE OR DISTRICT/DIVISION].....in order to find out about motorcycles and motorised three-wheelers.

Confidentiality and consent: I am going to ask you some questions. Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me.

We would greatly appreciate your help in responding to this survey.

Ask the respondent the Uncoerced Verbal Consent questions:

1. Have you had the information about this study explained in a manner that you understand to your satisfaction?

- 2. Do you understand that your participation is entirely voluntary?
- 3. Do you know enough about the purpose and methods of the research study to judge if you would like to take part in it?
- 4. Do you understand that you may freely stop being part of this study at any time?
- 5. Have we addressed all your questions to your satisfaction? If not, may we at this time?
- 6. Do you agree to participate in this study?

If answers to all are 'Yes', proceed with the questionnaire.

Tell them...

If you are unhappy about the questions, you can tell me at any time and we will stop. If you need any further information, we are staying at while we are here. My supervisor's name isand telephone number is

Interview and Interviewer's Information

No.	Questions and filters	Coding o	ategories			Skip
1101	Interviewer's name (Enter details)	Name:				-
1102	Date of interview (Enter details)	Date:				-
1103	Country (Select one)	Ghana Kenya Tanzania Uganda -	2 3			
1104	Location (Enter details)	GH	KE	TZ	UG	
II105	Vehicle type	Not appli	cable on this q	uestionnaire		
11106	Start time (Enter details)	Time:				-
1107	End time (Enter details)	Time:				-
1108	Interviewer's signature (Enter details)	Signature	2:			_
IH109	Interviewer's notes, if any <i>(Enter details)</i>					

Section 1: Background Information

Observations

No.	Questions and filters	Coding categories		Skip
BI101	Gender <i>(Enter details)</i>	Male 1 Female 2		
BI102	Any apparent disability? (Enter details)	Yes 1 No 2		If NO, skip to BI104
BI103	 If yes, what kind of disability? (Select all that apply) 	Walking 1 Sight 2 Deaf / dumb 3 Mental disability 4 Albino 5 Difficulty using arms/hands 6 Dwarfism 7 Other (specify)	8	
BI104	Observed level of personal wealth as judged by appearance, in comparison to others in the same household (Select one)	Above average personal wealth 1 Average personal wealth 2 Below average personal wealth 3		

Questions

No.	Questions and filters	Coding categories	Skip
BI105	How old are you? (Enter details)	Age in completed years Don't know8888	
BI106	What is the highest level of school that you completed? <i>(Select one)</i>	Never attended school 1 Did not complete primary school 2 Primary school completed 3 Secondary school completed 4 Tertiary school/University degree completed 5	
BI107	What is your marital status? (Select one)	Married (including customary union) 1 Single 2 Widowed/Separated/Divorced 3	
BI108	What is your primary occupation? <i>(Select one)</i>	Taking care of home and/or children 1Farmer 2Motorcycle taxi rider 3Three-wheeler taxi rider 4Teacher 5Shopkeeper / shop-worker 6Builder / labourer 7Government official 8Business-person 9	

		Worker i	n bar / restaurant / hotel	10		
		Student /	[/] pupil	11		
		Other (sp	ecify)	12		
BI109	What is your secondary	Taking ca	re of home and/or childr	en 1		
	occupation (if any)?	Farmer		2		
	(Select one)	Motorcy	Motorcycle taxi rider 3			
	(0000000)	Three-wh	Three-wheeler taxi rider 4			
		Teacher -	5			
			6			
		Builder /	7			
		Governm				
		Business	-person	9		
		Worker i	n bar / restaurant / hotel	10		
		Student /	′ pupil	11		
		Other (sp	ecify)	12		
		None		888		
BI110	How many people live in			Number		
	your household, including	BI110a	Adult males]	
	you? (Eating from the same	BI110b	Adult females			
	cooking pot)	BI110c	Child males		1	
		BI110d	Child females		1	

Section 2a: Overall Opinions on Motorcycles

No.	Questions and filters	Coding ca	ategories						Skip
00101	On a scale of 1 to 5, 1 being very bad and 5 being excellent,	00101a	Suitability for rural passenger transport	1	2	3	4	5	
	how would you rate your opinion of each of these	00101b	OO101b Suitability for rural 1 2 3 4 5 freight transport						
	aspects of motorcycles?	00101c	Road safety	1	2	3	4	5	
		00101d	Personal safety	1	2	3	4	5	
		00101e	Overall opinion	1	2	3	4	5	
00102	What is the best thing aboutmotorcycles? (Probe fully and select one)	Convenier Provide ac Limited ot Fast mode Cheaper t Transport Access to Provides t Other (spe	Generate employment 2 Convenient / easy mode of transport 3 Provide access where other vehicles cannot 4 Limited other transport options 5 Fast mode of transport 6 Cheaper than other options 7 Transport to health care in case of an emergency 8 Access to medical facilities in non-emergency cases 9 Provides transport to take children to school 10 Other (specify)						
00103	What is the worst thing aboutmotorcycles? (Probe fully and select one)	Risk to saf Risk of rid Used to co Expensive	ety of riders and passenge ety of other road users er or passenger being a vio ommit crimes mode of transport to buy	ctim	of c	rim	ie	2 3 4 5	

	Lack of respect / recognition for motorcycles / three- wheelers by other drivers7 Lack of respect / recognition for motorcycles / three- wheelers by authorities	
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Section 2b: Overall Opinions on Motorised Three-Wheelers

motorised three-wheelers? Generation (Probe fully and select one) Convert Provi Limit Fast n Cheat Trans Accest Provi Provi OO106 What is the worst thing aboutmotorised three- Risk t wheelers? Risk t (Probe fully and select one) Used Expendent Expendent	passenger transport.04bSuitability for rural freight transport12345.04cRoad safety12345.04dPersonal safety12345
how would you rate your opinion of each of these aspects of motorised three- wheelers?001000105What is the best thing about motorised three-wheelers? (Probe fully and select one)Mear Gene Conv Provi Limit Fast of Chea Trans Acces Provi Othe00106What is the worst thing aboutmotorised three- wheelers? (Probe fully and select one)Risk t Risk t Risk t Risk t Risk t Risk t	04bSuitability for rural freight transport12345.04cRoad safety12345.04dPersonal safety12345.04dPersonal safety12345.04eOverall opinion12345.04eOverall opinion12345.04eOverall opinion12345.04eOverall opinion12345.04eOverall opinion12345.04eOverall opinion12345.04eOverall opinion12345.04eOverall opinion12345.04eOverall opinion12345.05e.05e.05e.05e.05e.05e.04e.05e <t< th=""></t<>
aspects of motorised three-wheelers? 0010 00105 What is the best thing about motorised three-wheelers? Mear Gene Convert (Probe fully and select one) Convert Provi Limit Fast of Chea Trans Accest Provi 00106 What is the worst thing about motorised three-wheelers? 00106 What is the worst thing about motorised three-wheelers? 00106 What is the worst thing aboutmotorised three-wheelers? 00106 What is the worst thing aboutmotorised three-wheelers? (Probe fully and select one) Risk to the worst thing aboutmotorised three-wheelers? (Probe fully and select one) Used Expendence	04cRoad safety12345.04dPersonal safety12345.04eOverall opinion12345.04eOverall opinion12345.04eeasy mode of transport
00105 What is the best thing about motorised three-wheelers? Mear Gene Conv (Probe fully and select one) Provi Limit Fast n Chea Trans Acces Provi Othe 00106 What is the worst thing about motorised three-wheelers? 00106 What is the worst thing aboutmotorised three-wheelers? (Probe fully and select one) Risk term	OdeOverall opinion12345Ins of doing business / earning money1 erate employment2 venient / easy mode of transport2 venient / easy mode of transport
OO105 What is the best thing about motorised three-wheelers? Mear Generic	ans of doing business / earning money 1 erate employment 2 venient / easy mode of transport 3 vide access where other vehicles cannot 4 ted other transport options 5 mode of transport 6 aper than other options 7 isport to health care in case of an emergency 8 ess to medical facilities in non-emergency cases 9 vides transport to take children to school 10 er (specify)
motorised three-wheelers? Generation (Probe fully and select one) Convert Provi Limit Fast n Cheat Trans Accest Provi Other 00106 What is the worst thing aboutmotorised three-wheelers? Risk term (Probe fully and select one) Used Expendent	erate employment 2 venient / easy mode of transport 3 vide access where other vehicles cannot 4 ted other transport options 5 mode of transport 6 aper than other options 7 isport to health care in case of an emergency 8 ess to medical facilities in non-emergency cases 9 vides transport to take children to school 10 er (specify)
aboutmotorised three- wheelers? Risk t (Probe fully and select one) Expension	
Lack whee Lack whee Enco moto Othe	to safety of riders and passengers 1 to safety of other road users 2 of rider or passenger being a victim of crime 3 d to commit crimes 4 ensive mode of transport 5 ensive to buy 6 a of respect / recognition for motorcycles / three- elers by other drivers 7 a of respect / recognition for motorcycles / three- elers by authorities 8 burages people to drop out of school to ride a orcycle or three-wheelers as a taxi 9 er cify)

Section 3: Access & Mobility

No.	Questions and filters	Coding categories	Skip
AM101	What types of transport are available in your household (private)? (Read out and select all that apply)	Bicycle 1 Motorcycle 2 Motorised three-wheeler 3 Animal and cart 4 Car 5 Pick-up truck 6 None 7 Other (specify)	-
AM102	What types of public transport are available in your village and the surrounding area? (Read out and select all that apply)	8 Bicycle taxi 1 Motorcycle taxi 2 Motorised three-wheeler taxi 3 Animal and cart 4 Shared car / taxi 5 Bus / minibus 5 Shared pick-up truck 6 Shared pick-up truck 7 None 8 Other (specify)	-
AM103	When is the last time you used a motorcycle taxi, if ever? (If applicable (if motorcycle taxis are available in the area), select one)	9 Between 1 and 3 months ago 1 Between 3 and 6 months ago 2 Between 6 and 12 months ago 3 More than 12 months ago 4 I have never used a motorcycle taxi 5	
AM104	When is the last time you used a motorised three- wheeler taxi, if ever? (If applicable (if motorised three-wheeler taxis are available in the area), select one)	Between 1 and 3 months ago1Between 3 and 6 months ago2Between 6 and 12 months ago3More than 12 months ago4I have never used a motorised three-wheeler taxi5	
AM105	When choosing a mode of transport, which of the following is most important to you? (Read out, probe fully and select one)	Cost 1 Road safety 2 Personal safety / security 2 Personal safety / security 3 Convenience 4 Speed (short journey time) 5 Ability to carry freight 6 Other (specify) 7	_
AM106	What is your primary reason for not using motorcycle taxis?	I have my own private transport 1 They are too expensive 2 I am afraid of crashing 1 I am afraid for my personal safety / security 4	3

	(If applicable (if motorcycle taxis are available in the area), probe fully and select one)	It is not acceptable in my culture5 I am physically unable to use them6 Other (specify)	
	Is there a specific motorcycle-related incident that led to you now not using motorcycle taxis? (Select one)	Yes – something happened to me 1 Yes – something happened to someone I know 2 No 3	If NO, skip to AM110
M108	 If 'Yes – something happened to me', what type of incident was it? (Select one) 	A crash or injury 1 A health issue 2 Abuse or a crime 3	Depending on the answer, complete relevant section below
M109	 If 'Yes – something happened to someone I know', what type of incident was it? (Select one) 	A crash or injury 1 A health issue 2 Abuse or a crime 3	
	What is your primary reason for not using motorised three-wheelers? (If applicable (if motorised three-wheeler taxis are available in the area), probe fully and select one)	I have my own private transport 1 They are too expensive 2 I am afraid of crashing 3 I am afraid for my personal safety / security 4 It is not acceptable in my culture 5 I am physically unable to use them 6 Other (specify)	
	Is there a specific motorised three-wheeler-related incident that led to you now not using motorised three- wheeler taxis?		If NO, skip to AM114
M112	(Select one) - If 'Yes – something happened to me', what type of incident was it? (Select one)	A crash or injury 1 A health issue 2 Abuse or a crime 3	Depending on the answer, complete relevant section below
M113	 If 'Yes – something happened to someone I know', what type of incident was it? (Select one) 	A crash or injury 1 A health issue 2 Abuse or a crime 3	
	(Select one) For the following questions, c	onsider specific trips, for example to market, shops, f work, place of worship, local government office, riends or family	,

AM114	In the last week, which of the following modes of transport have you used for such trips? (Read out and select all that apply)	Walking1Private bicycle2Bicycle taxi3Private motorcycle4Motorcycle taxi5Private motorised three-wheeler - 66Motorised three-wheeler taxi7Private animal and cart8Animal and cart taxi9	
		Private car	
AM115	In the last week, which of the following modes of transport have you used <i>most frequently</i> for such trips? <i>(Read out and select one)</i>		
AM116	In the last week, how many times have you used this mode of transport? (Select one)	15 1 to 5 times 1 6 to 10 times 2 11 or more times 3	
AM117	In the last week, what has been the most common purpose for you to travel? (Probe fully and select one)	Travel to market / shops 1 Travel to school 2 Travel to health centre, hospital or pharmacy 3 Travel to place of work (including farm) 4 Travel to visit friends of family 5 Travel to place of worship 6 Travel to local government office 7 Travel to community event (wedding, funeral, etc) 8 Other (specify) 9	
AM118	Do other people living in the same household as you use motorcycle taxis?	Yes 9 No 2	

	(If applicable (if motorcycle	
	taxis are available in the	
	area), select one)	
AM119	Do other people living in the	Yes 1
	same household as you use	No 2
	motorised three-wheeler	
	taxis?	
	(If applicable (if motorised	
	three-wheeler taxis are	
	available in the area), select	
	one)	
AM120	True or False: 'Motorcycle /	True 1
	motorised three-wheeler	False 2
	taxis are too expensive if I	
	have to pay the full fare	
	myself. I only use them if I	
	can split the cost with	
	another passenger'?	
41424	(Select one)	True 1
AM121	True or False: 'It is improper	False 2
	for a female passenger to	
	ride on a motorcycle behind a male rider'?	
AM122	(Select one) True or False: 'It is okay for a	True 1
AIVI122	female to ride as a passenger	False 2
	on a motorcycle with a male	
	rider only if she sits side-	
	saddle'?	
	(Select one)	
AM123	True or False: 'I often find it	True 1
	difficult to keep my balance	False 2
	on a motorcycle taxi'?	
	(Select one)	
AM124	True or False: 'Normally I do	True 1
	not use motorcycle taxis, but	False 2
	I am willing to use them in	
	an emergency'?	
	(Select one)	
AM125	True or False: 'Normally I do	True 1
	not use motorcycle taxis, but	False 2
	I am willing to pay more than	
	the regular fare to use them	
	in an emergency'?	
	(Select one)	

Section 4: Economics & Finance

No.	Questions and filters	Coding categories	Skip
	As previous section on most frequ	As previous section on most frequently-used mode of transport	

EF101	In the last week, how much have you spent using your most frequently-used mode of transport?		·		
EF102	(Select one) In the last week, how much did you spend on other forms of paid transport? (Enter details)				
EF103	On your most recent trip, what	EF103a	Origin		
	was the: (Enter details)	EF103b	Destination		-
	()	EF103c	Distance (for paid portion of trip)	Less than 2km 1 2 to 4.9km 2 5 to 9.9km 3 10 to 19.9km 4 20km or more 5	
		EF103d	Journey time (for paid portion of trip)	Less than 10 mins 1 10 to 29 mins 2 30 to 59 mins 3 60 mins or more 4	
		EF103e	Total fare	Amount:	
				Currency:	
EF104	If you had used a motorcycle taxi for this trip, what would have been the: (If applicable (if motorcycle taxis are available in the area),	EF104a	Distance (for paid portion of trip)	Less than 2km 1 2 to 4.9km 2 5 to 9.9km 3 10 to 19.9km 4 20km or more 5 Don't know 888	
	enter details)	EF104b	Journey time (for paid portion of trip)	Less than 10 mins 1 10 to 29 mins 2 30 to 59 mins 3 60 mins or more 4 Don't know 888	
		EF104c	Total fare	Amount: Currency:	
				Den't know 200	
EF105	If you had used a motorised three-wheeler taxi for this trip, what would have been the: (If applicable (if motorised three-wheeler taxis are	EF105a	Distance (for paid portion of trip)	Don't know 888 Less than 2km 1 2 to 4.9km 2 5 to 9.9km 3 10 to 19.9km 4 20km or more 5 Don't know 888	
	available in the area), enter details)	EF105b	Journey time (for paid portion of trip)	Less than 10 mins 1 10 to 29 mins 2 30 to 59 mins 3 60 mins or more 4 Don't know 888	

	EF105c	Total fare	Amount:	
			Currency:	
			Don't know 888	

Section 5: Injuries and Health

Part 5.1: Injuries

(To be completed if the Non-User said that a motorcycle-related or motorised three-wheeler-related crash or injury led to them now not using motorcycle taxis)

Crash and Injury Characteristics

*Collect information on the crash or injury that led to the respondent now not using motorcycle or motorised three-wheeler taxis

No.	Questions and filters	Coding categories	Skip
IH101	Type of vehicle to which	Motorcycle 1	
	incident was related	Motorised three-wheeler 2	
IH102	When did the incident that	Within the last 1 month 1	
	caused the injury occur?	Between 1 and 3 months ago 2	
	(Enter details)	Between 3 and 6 months ago 3	
		Between 6 and 12 months ago 4	
		Between 1 year and 3 years ago5	
IH103	Was it daylight, dawn, dusk	Daylight 1	
	or night when the incident	Dawn 2	
	occurred?	Dusk 3	
	(Select one)	Night 4	
IH104	Describe the location of the	Village centre 1	
	incident that caused the	Village outskirts 2	
	injury	Rural area, far from a village 3	
	(Select one)	Town or city 4	
	(,	Highway5	
IH105	Describe the road type	Engineered road1	
	where the incident occurred	Informal path or track 2	
	(Select one)		
IH106	Describe the surface at the	Unsealed 1	
	location of the incident that	Sealed (tarmac, concrete, etc 2	
	caused the injury		
	(Select one)		
IH107	Describe the incident that	Single vehicle crash / fall 1	
	caused the injury	Single vehicle collision with stationary object 2	
	(Select one)	Collision with another motorcycle or motorised three-	
		wheeler 3	
		Collision with another type of motorised vehicle 4	
		Collision with a non-motorised vehicle (ie bicycle or cart)	
		Collision with a pedestrian 6	
		Collision with an animal7	

		Other (specify)	
IH108	What is your estimate of	8 Estimated speed:	
11108	your speed immediately at or immediately prior to the		
	incident that caused the injury? <i>(Enter details)</i>	Don't know 888	
IH109	What was the main factor	Rider error 1 Passenger action (self)2	
	that caused the incident?	Passenger action (sen)2 Passenger action (other)3	
	(Probe fully and select one)	Other road user action 4	
		Roadway condition / damage / obstacle 5	
		Animal 6	
		Vehicle failure7	
		Weight-shifting of load 8	
		Environmental conditions (weather)9	
		Vehicle defect 10	
		Other	
		(specify)	
H110	Did any secondary factor	11 Rider error 1	
	contribute to cause the	Passenger action (self)2	
	incident?	Passenger action (other) 3	
	(Probe fully and select one)	Other road user action 4	
	(Froze juny and select one)	Roadway condition / damage / obstacle 5	
		Animal 6	
		Vehicle failure 7	
		Weight-shifting of load 8	
		Environmental conditions (weather) 9	
		Vehicle defect 10 Other (specify)	
		11	
H111	Were you riding together	Yes 1	If NO, skip
	with any other passengers at	No 2	to IH113
	the time of the incident that		
	caused the injury?		
	(Select one)		
H112	- If yes, how many other	Number of passengers:	
	passengers were you		
	riding together with?		
	(Enter details)		
H113	Was anyone else injured in	Yes 1	lf NO, skip
	the incident?	No 2	to IH115
	(Select one)		
H114	- If yes, who?	Rider of the motorcycle or three-wheeler I was on 1	
	(Select one)	Other passenger on the same motorcycle / three-	
	. ,	wheeler as me 2	
		Rider of another motorcycle or three-wheeler 3	

IH115	Which part of your body was most seriously injured in the incident? (Select one)	Passenger of another motorcycle or three-wheeler 4Driver of another motorised vehicle	
IH116	What type of injury did you suffer to the part of your body that was most seriously injured? (Select one)	Cut / scrape / scratch 1 Sprain / strain 2 Bruise / internal bleeding (skin unbroken) 3 Broken bone 4 Dislocation (separation of bone joints) 5 Requiring amputation 6 Burn 7 Concussion 8 General pain 9 Other (specify) 10	
IH117	How would you describe the severity of the injury that you suffered? (Select one)	Minor 1 Moderate 2 Severe 3	
IH118	Were you wearing a helmet at the time of the incident? (Select one)	Yes 1 No 2	
IH119	Did you report the incident to the police? <i>(Select one)</i>	Yes 1 No 2	If NO, skip to IH121
IH120	 If yes, were you happy with the police's handling of the incident? (Select one) 	Yes 1 No 2	

IH121: Provide a description of the crash and injury

Crash and Injury Impact

*Continue to collect information on the above injury

No.	Questions and filters	Coding	categori	es	Skip
IH122	Did you seek medical treatment for the injury? (Select one)		Yes 1 No 2		
IH123	 If yes, who paid for the treatment? (Select all that apply) 	Insurance Rider of t	e the moto	1 2 rcycle or three-wheeler I was on 3 4	
IH124	 If yes, how much money was spent on medical treatment? (Enter details) 	Amount:	(Currenc	y:)	
IH125	Did you miss any days of normal activity as a result of the injury? (Select one)			1 2	If NO, skip to IH127
IH126	- If yes, how many? (Enter details)	Number	of days:		
IH127	Did anyone else need to miss any days of normal activity to care for you? (Select one)			1 2	If NO, skip to IH130
IH128	- If yes, what is their gender, age and primary occupation?	IH128a IH128b	Gend er Age	Male 1 Female – 2 Years	-
	(Enter details)	IH128c	Prima ry occup ation	Taking care of home and/or children1Farmer2Motorcycle taxi rider2Motorcycle taxi rider2Three-wheeler taxi rider	

			Worker in bar / restaura			
			Student / pupil Other (specify) 		11	
IH129	 If yes, how many days did they miss? (Enter details) 	Number	of days:		12 _	
IH130	Do you still suffer from any physical impacts from the injury? (Select one)		1 2			If NO, skip to IH132
IH131	- If yes, what ongoing	IH131a	Impact Permanent disability	Yes 1	No 2	-
	physical impacts are you suffering from? (Provide answer (1 or 2)	IH131a	Chronic pain	1	2	-
-	for each option)	IH131c	Mild pain	1	2	-
		IH131d	Other (specify):	1	2	
IH132	Do you still suffer from any economic impacts from the injury? (Select one)		1 2			If NO, skip to IH134
IH133	- If yes, what ongoing		Impact	Yes	No	-
	economic impacts are you suffering from?	IH133a IH133b	Inability to earn Reduced earnings	1	2	-
	(Provide answer (1 or 2) for each option)	IH1330	Ongoing medical expenses	1	2	-
	je: e.e. epotenj	IH133d	Other (specify):	1	2	
IH134	Do you still suffer from any social or psychological impacts from the injury? (Select one)		1 2			lf NO, skip to IH136
IH135	- If yes, what ongoing		Impact	Yes	No	
	social or psychological impacts are you	IH135a	Inability to provide for self or family	1	2	
	suffering from? (Provide answer (1 or 2)	IH135b	Fear of riding as a passenger on motorcycles / motorised three- wheelers	1	2	
	for each option)	IH135c	Other (specify):	1	2	
		IH135c	Other (specify):	1		2

IH136: Provide a description of the impact of the crash and injury

Part 5.2: Health Issues (non-injury)

(To be completed if the Non-User said that a motorcycle-related or motorised three-wheeler-related health issue led to them now not using motorcycle taxis)

Health Issue Characteristics

*Collect information on the health issue that led to the respondent now not using motorcycle or motorised three-wheeler taxis

No.	Questions and filters	Coding categories	Skip
IH137	Type of vehicle to which issue was related	Motorcycle 1 Motorised three-wheeler 2	
IH138	How long ago did the health issue start? <i>(Enter details)</i>	Within the last 1 month 1Between 1 and 3 months ago 2Between 3 and 6 months ago 3Between 6 and 12 months ago 4Between 1 year and 3 years ago5	
IH139	For how long did the health issue continue? <i>(Enter details)</i>	Hours Days Weeks	
IH140	Do you still suffer from this health issue? (Select one)	Yes 1 No 2	If NO, skip to IH142
!H141	- If yes, how often do you suffer from this health issue?	All the time 1 At least once per day but not all the time 2 More than once per week but less than once per day – 3 More than once per month but less than once per week 4 Less than once per month 5	

IH142	What type of health issue did you suffer to the part of your body that was most seriously affected? (Select one)	Inability to move / painful to move 1 Breathing difficulties 2 Eye problems 3 General pain 4 Other (specify) 5	
IH143	Which part of your body was most seriously affected by the health issue? (Select one)	Head 1 Face 2 Neck 3 Chest 4 Abdomen / internal organs 5 Back 6 Collar bone 7 Arms, hands, shoulders 9 General body pain 10 Ears / nose / throat 11 Eyes 12	
IH144	Were any other parts of your body affected? If yes, which part? (Select one)	Head 1 Face 2 Neck 2 Neck 3 Chest 4 Abdomen / internal organs 5 Back 6 Collar bone 7 Arms, hands, shoulders 8 Legs, feet, pelvis 9 General body pain 10 Ears / nose / throat 11 Eyes 12 None 13	
IH145	What was the main cause of the health issue? (Select one)	Dust 1 Cold 2 Wind 3 Rain 4 Sun 5 Bumpy roads 6 Other (specify)	
IH146	Was there any other cause of the health issue? (Select one)	Dust 1 Cold 2 Wind 3 Rain 4 Sun 5 Bumpy roads 6 Other (specify)	

IH147	How would you describe the severity of the health issue that you suffered?	Minor 1 Moderate2 Severe 3	
	(Select one)		

IH148: Provide a description of the health issue

Health Issue Impact

*Continue to collect information on the above health issue

No.	Questions and filters	Coding categories	Skip
IH149	Did you seek medical treatment for the health issue? (Select one)	Yes 1 No 2	If NO, skip to IH152
IH150	 If yes, who paid for the treatment? (Select all that apply) 	Me 1 Insurance 2 Someone else 3	
IH151	 If yes, how much money was spent on medical treatment? (Enter details) 	Amount: (Currency:)	_
IH152	Did you miss any days of normal activity as a result of the health issue? (Select one)	Yes 1 No 2	If NO, skip to IH154

- If yes, how many? (Enter details)	Number:				_	
Did anyone else need to miss any days of normal activity to care for you? (Select one)						If NO, skip to IH157
- If yes, what is their gender, age and primary	IH155a	Gend er	Male 1 Female – 2			
occupation? (Enter details)	IH155b	Age	Years			
	IH155C	ry occup ation	Farmer Farmer Motorcycle taxi rider Three-wheeler taxi ride Teacher Shopkeeper / shop-wor Builder / labourer Government official Business-person Worker in bar / restaur	r rker ant / ho	1 2 3 4 5 5 7 8 9 tel 10	
- If yes, how many days? (Enter details)	Number	of days:				
Do you still suffer from any physical impacts from the health issue? (Select one)			=			If NO, skip to IH159
- If yes, what ongoing		Impact		Yes	No	
physical impacts are you	IH158a	1		1	2	_
suffering from?	IH158b		•	1	2	_
(Provide answer (1 or 2) for each option)	IH158c IH158d	-		1	2 2	
Do you still suffer from any economic impacts from the health issue? (Select one)						If NO, skip to IH161
- If yes, what ongoing		Impact		Yes	No	
economic impacts are	IH160a	Inability	y to earn	1	2	
you suffering from?	IH160b	Reduce	d earnings	1	2	
, .	IH160c	Ongoin	g medical expenses	1	2	
(Provide answer (1 or 2)	IH160d		specify):	1	2	
	 (Enter details) Did anyone else need to miss any days of normal activity to care for you? (Select one) If yes, what is their gender, age and primary occupation? (Enter details) Forter details) If yes, how many days? (Enter details) Do you still suffer from any physical impacts from the health issue? (Select one) If yes, what ongoing physical impacts are you suffering from? (Provide answer (1 or 2) for each option) Do you still suffer from any economic impacts from the health issue? If yes, what ongoing physical impacts are you suffering from? If yes, what ongoing physical impacts are you suffering from any economic impacts from the health issue? Select one) If yes, what ongoing economic impacts are 	(Enter details)Did anyone else need to miss any days of normal activity to care for you? (Select one)Yes No No IH155a-If yes, what is their gender, age and primary occupation? (Enter details)IH155a-If yes, what is their gender, age and primary occupation? (Enter details)IH155a-If yes, what is their gender, age and primary occupation? (Enter details)IH155c-If yes, how many days? (Enter details)Number-If yes, how many days? (Enter details)NumberDo you still suffer from any physical impacts from the health issue? (Select one)Yes NoIf yes, what ongoing physical impacts are you suffering from? (Provide answer (1 or 2)) for each option)IH158a IH158dDo you still suffer from any economic impacts from the health issue? (Select one)Yes NoDo you still suffer from any economic impacts from the health issue? (Select one)IH158a IH158dDo you still suffer from any economic impacts from the health issue? (Select one)Yes NoIf yes, what ongoing economic impacts are impacts areIH160a	(Enter details)	(Enter details)	(Enter details) Did anyone else need to miss any days of normal activity to care for you? (Select one) Yes 1 - If yes, what is their gender, age and primary occupation? (Enter details) IH155a Gend er Male 1 IH155b Age Years IH155b Age Years (Enter details) IH155c Prima ation Taking care of home and/or chi rarmer Farmer IH155c Prima ation Taking care of home and/or chi rarmer Farmer Motorcycle taxi rider Obsoute Student / pupil Student / pupil Student / pupil Student / pupil Ob you still suffer from any physical impacts from the health issue? Number of days: Yes 1 (Select one) IH158a Permanent disability 1 IH158b Chonic pain 1 IH158b Chonic pain 1 IH158b Permanent disability 1 IH158b Other (specify): 1 IH158b Other (specify): 1 Ob you still suffer from any economic impacts from the health issue? Yes 1 IH158a Permanent disability 1	(Enter details) Did anyone else need to miss any days of normal activity to care for you? (Select one) Yes

IH161	Do you still suffer from any social or psychological impacts from the health issue? (Select one)	Yes 1 No 2				If NO, skip to IH163
IH162	 If yes, what ongoing social or psychological impacts are you suffering from? (Provide answer (1 or 2) for each option) 	IH162a IH162b	Impact Inability to provide for self or family Fear of riding as a passenger on	Yes 1 1	No 2 2	
			a motorcycle / motorised three- wheeler			
		IH162c	Other (specify): 	1	2	

IH163: Provide a description of the impact of the health issue

Section 6: Crime & Personal Security

(To be completed if the Non-User said that a motorcycle-related crime or personal security incident led to them not using motorcycle or motorised three-wheeler taxis)

Crime Characteristics

*Collect information on the incident that led to the respondent now not using motorcycle or motorised three-wheeler taxis

No.	Questions and filters	Coding	categories		Skip
CP101	Type of vehicle to which		cle 1		
	incident related	Motorise	Motorised three-wheeler 2		
CP102	What type of crime was it?	Verbal al	buse and threats 1		
	(Select one)	Theft / si	natching2		
		Robbery	(using force) 3		
			without taking property) 4		
			5		
		Other (sp	pecify)		
				6	
CP103	When did the crime occur?	Within th	ne last 1 month 1		
			1 and 3 months ago 2		
			3 and 6 months ago		
			6 and 12 months ago 4		
CP104	Where did the crime occur?		1 year and 3 years ago5 ck-up point1		
CP104			ск-up point 1 xi stand/stage 2		
	(Select one)		ling on a rural road 3		
			ling on a rural track 4		
			op-off point 5		
		Other (sp			
CP105	Was it daylight, dawn, dusk				
CI 105	or night when the crime	Daying Int			
	occurred?	Dusk			
	(Select one)	Night			
CP106	How many perpetrators	Number:			
	were there?				
	(Enter details)				
CD107			Downstrator	Number	
CP107	Who were the perpetrators of the crime?	CP107a	Perpetrator Rider of the motorcycle /	Number	
	(Enter details)	CF 107a	three-wheeler I was on		
	(Enter details)	CP107b	Another passenger of the		-
			motorcycle / three-wheeler I		
			was on		
		CP107c	Rider of another motorcycle /		
			three-wheeler		
		CP107d	Passenger of another		
		CD107-	motorcycle / three-wheeler		
		CP107e	Driver of another type of motorised vehicle		
		CP107f	Passenger of another type of		
			motorised vehicles		
		CP107g	Pedestrian / passerby		1
		CP107h	Bicyclist	1	1
		CP107i	Other (specify)		1
<u>CD109</u>	Of the perpetrators have	Number			
CP108	Of the perpetrators, how	Number:			
CP108	Of the perpetrators, how many were known to you? (Enter details)	Number:			

CP109	How many of the following		Weapon	Number	
	weapons did you see being	CP109a	Gun		
	used by the perpetrators?	CP109b	Small knife (less than 20cm)		
	(Enter details)	CP109c	Large knife (more than 20cm)		
		CP109d	Stick / club		
		CP109e	Other (specify)		
CP110	Were you riding together	Yes	1		If NO, skip
	with any other passengers	No	2		to CP112
	when the crime occurred?				
	(Select one)				
CP111	- If yes, how many other	Number:			
	passengers were with				
	you?				
	(Enter details)				
CP112	Did you suffer any losses as a	Yes	1		If NO, skip
	result of the crime?	No	2		to CP114
	(Select one)				
CP113	- If yes, what did you	Money			
	lose?	Mobile phone 2 Bag (mixed contents) 3			
	(Select all that apply)				
		Agricultu Other (sp			
		Other (sp	Jechy)		
				5	
CP114	Did anyone else suffer any		1		If NO, skip
	losses as a result of the	No 2			to CP117
	crime?				
	(Select one)				
CP115	- If yes, who?		my motorcycle / three-wheeler		
	(Select all that apply)	Other passenger on the same motorcycle / three- wheeler as me 2			
			another motorcycle / three-whee		
			er of another motorcycle / three-whee		
		Other (sp	•		
				5	
CP116	- If yes, what did they		1		
	lose?		hone 2		
	(Select all that apply)		nown contents) 3 ral produce 4		
		-	cle 5		
		Other (sp			
				6	
CP117	Did you report the crime to		1		If NO, skip
	the police?	NO	2		to CP119
	(Select one)				
CP118	- If yes, were you happy		1		
	with the police's	INO	2		
	handling of the				
	incident?				
	(Select one)				

Crime Impact

*Continue to collect information on the above crime

No.	Questions and filters	Coding categories	Skip
CP120	Did you seek medical treatment as a result of the crime? (Select one)	Yes 1 No 2	If NO, skip to CP123
CP121	 If yes, who paid for the treatment? (Select one) 	Me 1 Insurance 2 Rider of the motorcycle or three-wheeler I was on 3 Someone else 4	
CP122	 If yes, how much money was spent on medical treatment? (Enter details) 	Amount: (Currency:)	
CP123	Did you miss any days of normal activity as a result of the crime? (Select one)	Yes 1 No 2	If NO, skip to CP126
CP125	- If yes, how many?	Number:	
CP126	Did anyone else need to miss any days of normal activity to care for you? (Select one)	Yes 1 No 2	If NO, skip to CP128

CP127	- If yes, what is their	IH127a	Gend	Male 1			
	gender, age and primary occupation?	IH127b	er Age	Female – 2 Years			-
	(Enter details)						
		IH127c	Prima	Taking care of home and			
			ry occup	 Farmer		-	
			ation	Motorcycle taxi rider			
				, Three-wheeler taxi rider			
				Teacher			
				Shopkeeper / shop-work			
				Builder / labourer			
				Government official Business-person			
				Worker in bar / restaura			
				Student / pupil		11	
				Other (specify)			
						12	
CP128	Do you still suffer from any			1			If NO, skip
	physical impacts from the	NO		2			to CP1xx
	crime?						
CP129	(Select one)		Impact		Yes	No	
CF 129	 If yes, what ongoing physical impacts are you 	CP129a	Impact Permar	nent disability	1	No 2	-
	suffering from?	CI 1250	i cimai		-	2	
	(Provide answer (1 or 2)	CP129b	Chronic	c pain	1	2	
	for each option)	CP129c	Mild pa	in	1	2	-
		CP129d	Other (specify):	1	2	-
		0. 220 0.	other (-	-	
CP130	Do you still suffer from any	Yes		1			If NO, skip
CI 150	economic impacts from the						-
		100		2			
	-	NO		2			to CP1xx
	crime?	NO		2			to CP1XX
CP131	crime? (Select one)	NO	Impact		Yes	No	
CP131	crime? (Select one) - If yes, what ongoing	CP131a	Impact		Yes 1	No 2	
CP131	crime? (Select one)	CP131a	Impact Inability	y to earn	1	2	
CP131	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2)		Impact Inability		-		
CP131	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from?	CP131a	Impact Inability Reduce	y to earn	1	2	
CP131	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2)	CP131a CP131b	Impact Inability Reduce Ongoin	y to earn d earnings	1	2 2	
CP131	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2)	CP131a CP131b CP131c	Impact Inability Reduce Ongoin	y to earn d earnings g medical expenses	1 1 1	2 2 2	
CP131	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2)	CP131a CP131b CP131c CP131d	Impact Inability Reduce Ongoin Other (y to earn d earnings g medical expenses specify):	1 1 1	2 2 2	
CP131 CP132	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2) for each option) Do you still suffer from any	CP131a CP131b CP131c CP131d CP131d	Impact Inability Reduce Ongoin Other (y to earn d earnings g medical expenses specify):	1 1 1	2 2 2	If NO, skip
	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2) for each option) Do you still suffer from any social or psychological	CP131a CP131b CP131c CP131d CP131d	Impact Inability Reduce Ongoin Other (y to earn d earnings g medical expenses specify):	1 1 1	2 2 2	-
	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2) for each option) Do you still suffer from any social or psychological impacts from the crime?	CP131a CP131b CP131c CP131d CP131d	Impact Inability Reduce Ongoin Other (y to earn d earnings g medical expenses specify):	1 1 1	2 2 2	If NO, skip
	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2) for each option) Do you still suffer from any social or psychological	CP131a CP131b CP131c CP131d CP131d	Impact Inability Reduce Ongoin Other (y to earn d earnings g medical expenses specify):	1 1 1	2 2 2	If NO, skip
CP132	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2) for each option) Do you still suffer from any social or psychological impacts from the crime? (Select one)	CP131a CP131b CP131c CP131d CP131d	Impact Inability Reduce Ongoin Other (y to earn d earnings g medical expenses specify): 1 2	1 1 1 1	2 2 2 2	If NO, skip
	crime? (Select one) - If yes, what ongoing economic impacts are you suffering from? (Provide answer (1 or 2) for each option) Do you still suffer from any social or psychological impacts from the crime?	CP131a CP131b CP131c CP131d CP131d	Impact Inability Reduce Ongoin Other (y to earn d earnings g medical expenses specify): 1 2	1 1 1	2 2 2	If NO, skip

impacts are you suffering from? (Provide answer (1 or 2)	CP133b	Fear of riding as a passenger on a motorcycle / motorised three- wheeler	1	2	
for each option)	CP133c	Other (specify): 	1	2	

CP134: Provide a description of the impacts of the crime

Annex 2 Updated Workplan

The updated workplan is presented here.

			2018	3							
	Task	Sub-Task	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Phase 2:	Preparation for up-country data collection	Submission for ethical clearance									
Research		Recruitment and training of data collection teams									
		Anticipated receipt of ethical clearance									
	Up-country data collection and analysis	Data collection									
		Data analysis									
	2.2: Progress Report		\mathbf{x}								
	2.3: Preparation of Draft Discussion Papers						\mathbf{x}	<u></u>			
Phase 3:	3.1: Four-Day Team Workshop										
Uptake &	3.2: Revision of Draft Discussion Papers										
Embedment	3.3: One-Day Country Workshops										
	3.4: Draft Final Report and Draft Country Reports								$\overrightarrow{\mathbf{x}}$		
	3.5: Final Report and Final Country Reports									\rightarrow	
	3.6: Dissemination of Study Findings and Recommendation	15									\mathbf{x}

Deliverables and Milestones 🛛 📩

Notes:

- The timeframes for the Research Phase depend greatly on the applications for ethical clearance. The timeframes presented here are based on the information obtained from the institutions to which clearance applications are being submitted, and on the experience of the team's National Experts. Should obtaining clearance take longer than anticipated, this will impact the timeframes.
- The dates of the four-day team workshop and one-day country workshops will be set only after research clearance has been granted.
- The workplan presented here does not include the additional activities for which a proposal is currently being discussed with the ReCAP PMU.

Annex 3 Contribution to the ReCAPLogframe

The project's contribution to the ReCAP Log Frame is shown in the following table.

It should be noted that as key outputs will be delivered towards the end of the project, changes to policy, regulation and practice, citations, presentations at conferences are expected beyond the end of the project contract. To demonstrate this, targets for achievements with one year and within two years of the end of the project have been added.

Intervention Logic	Indicator	Source of Verification	Baseline: Start of Project, Sep 2017	Target: End of Project, Jan 2019	Target: Within One Year of End of Project, Jan 2020	Target: Within Two Years of End of Project, Jan 2021	Assumptions
Outcome: Sustained increase in evidence base for more cost effective and reliable low volume rural road and transport services, promoted and influencing policy and practice in Africa and Asia	1. SUSTAINABILITY: Partner Government and other financiers co- funding research with ReCAP. Contributions in kind (K) and Core Contributions (C)	In kind support will be fully documented in line with the AFCAP guidelines					It is anticipated that in kind (K) contributions will be leveraged during the life of the project. This may take the form of additional Amend/Transaid staff time (beyond the contractual days) or securing funding in-country from government or private sector to support certain activities such as training, workshops or piloting an initiative. UK private sector support will also be investigated through Transaid's corporate partners.
	2. Concrete examples of change (applied or formally adopted), influenced by ReCAP research that will be applied to #km of road in focus countries.	N/A	N/A	N/A	N/A	N/A	N/A

	3. Number of citations in academic articles of ReCAP peer reviewed articles and/or working papers, conference papers, etc.	Conference proceedings Google Scholar and similar sources	0		3	5	Within one year of the end of the project, it is expected that this research will be cited in conference papers. Within two years, it is expected that this research will be cited in other research papers.
Output 1: RESEARCH and UPTAKE: Generation, validation and updating of evidence for effective policies and practices to achieve safe, all-season, climate-	1.1 LVRR: Number of peer reviewed papers generated from ReCAP supported or related LVRR research projects made available in open access format.	N/A	N/A	N/A	N/A	N/A	N/A
resilient, equitable and affordable LVRR and transport services in African and Asian countries. (Low Volume Rural Roads : LVRR / TS – Transport Services)	1.2. TS: Number of peer reviewed papers generated from ReCAP supported or related TS research projects made available in open access format.	Two academically – orientated research papers produced	0	A minimum of two academically- orientated research papers submitted for consideration.	A minimum of two academically- orientated research papers published.		These will be submitted for consideration before the end of the project. They are expected to be published within one year of the end of the project.
	1.3 Engineering Research: National policies, manuals, guidelines and/or research outputs that have been fully incorporated into Government/Ministerial requirements, specifications and recommended good practice as a result of ReCAP engineering	N/A	N/A	N/A	N/A	N/A	N/A

research (including climate change adaptation and AfCAPand SEACAP adaptations). To include introduction of new policies and modification to existing policies.						
1.4 TRANSPORT SERVICES Research: National policies, regulations and/or practices for rural transport services modified or introduced as a result of ReCAP research (including road safety and gender and AFCAP and SEACAP research) To include introduction	New policies and practices will be fully documented in line with the AFCAP guidelines	0	0	4 (uptaken)	4 (embedded)	Within one year of the end of the project, it is expected that one concrete example of change will be adopted in each of the four project countries. Within two years, it is expected that those concrete examples of change will be embedded within policy or practice.
of new policies and modification to existing policies. 1.6. LVRR and TS	ReCAP PMU	0	Final Report			
information generated for dissemination, and disseminated, that is not peer reviewed. Total to include research papers, final research reports, workshop reports, manuals and guidelines.			and four Final Country Reports accepted. A minimum of two international			

				policy briefs published.			
Output 2: CAPACITY BUILDING: The building of sustainable capacity to carry out research on low volume rural roads, and rural	2.1. African / Asian experts or institutions taking lead roles in ReCAP Research Projects.	Final Report / ReCAP PMU	0	5			National Experts from each of the four countries, and the Ghana Rural Transport Advisor, are expected to successfully complete the project.
transport services in African and Asian countries.	2.3. Research projects with female researcher inputs at senior technical level.	Final Report / ReCAP PMU	0	5			The Chair of QUAG, Gender and Social Inclusion Expert, and Ghana, Kenya and Uganda National Experts are all expected to successfully complete the project.
Output 3: KNOWLEDGE: Generated evidence base of LVRR and transport services knowledge is widely disseminated and easily accessible by policy makers and practitioners (including education and training institutions).	3.2. ReCAP generated knowledge presented and discussed at high level international development debates and conferences	Proceedings of high level international development debates and conferences		2	1	2	The Kenya National Expert is expecting to present at the iTRARR conference in Mombasa in June 2018. The Ghana National Expert is expecting to present at the PIARC/SARF conference in Durban in October 2018. It is also expected that members of the project team will present the results of the project at least once per year during the two years following the end of the project.
	3.3.ReCAP generated knowledge disseminated through significant workshops and dedicated training, virtually or physically, that are rated by participants as effective.	Reports of Four-Day Team Workshop and One-Day Country Workshops	0	All workshops rated by a minimum of 90% of participants as 'effective'			

Annex 4 Updated Risk Log

Programme Risk Assessme	ent and Mitigati	on Matrix	Ve	ery High	High	Medium	Low			
Potential Risk	Risk Gr	-	Description of risk	Proposed Management and mitigation actions						
	Probability	Impact								
			A. Risks identified in project	proposal						
A1:A lack of crash data means that disaggregation of rural/urban data is not possible	VH	L	From our past experience, and looking at what we have been able to obtain so far, it seems that crash data in some of the project countries may not be reliable. This will hinder our ability to understand in-depth the location of crashes.	so far, it reanalysis was undertaken in coordination with reanalysis of data o registrations. This exercise has yielded very interesting findings, in understanding of crashes in rural areas.						
A2: Challenges in gathering information from stakeholders in the short timeframe	м	L	We have experienced such challenges in both Kenya in Tanzania in the first twelve weeks of the project. In Kenya, the cause was political instability, which resulted in difficulties arranging stakeholder meetings. In Tanzania, the cause was the transition of the AFCAP partner institution from PORALG to TARURA, which has resulted in delays in being able to officially introduce the project to stakeholders.	The start of the Research Phase was moved to January 2018, giving more for stakeholder engagement and gathering information on the e- situation. The Progress Report will be shared with the AFCAP partner institutions in country, to update them on the project's progress.						
A3: Strong general opposition towards motorcycles and motorcycle taxis	М	м	Decision-makers tend to live in urban areas and so have a stronger understanding of urban issues than of rural issues. In urban areas in many African countries, motorcycles are commonly associated with crashes, injuries and crime.	based on data, thereby aiming to enable decision-makers to make po on fact rather than on their personal perceptions.						

³**Probability** = the likelihood of this risk occurring despite the management and mitigation activities being in place. **Impact:** = the effect on the ability of the programme to achieve its objectives without major revision or review.

Programme Risk Assessme	ent and Mitigati	on Matrix	V	/ery High	High		Medium	Lo	ow	
Potential Risk	Risk Gı	ading ³	Description of risk		Proposed Ma	nagemen	t and mitigatio	n actions	5	
	Probability	Impact								
				facilities, and the economic benefits of motorcycles and three-wheel riders and users.						elers to
A4: Assignment consolidates existing data and does not contribute 'new research and evidence'	М	L	The Terms of Reference imply a large dependency on secondary data.	A significant amount of primary data will be collected through the sur benefits and disbenefits. As such, the project will constitute new learn						-
			B. Risks identified since project co	ommencement						
B1: Delays due to in- country instability	м	М	During the Inception Phase, we saw how political instability related to the general election in Kenya forced the postponement of the Team Planning Meeting and made stakeholder meetings difficult. We are also aware that the World Health Organization has put in place precautionary measures in Kenya and Tanzania related to the outbreak of plague in Madagascar at the end of 2017.	countries, usi as well as our We will warn	nuing to monitor ing the UK Foreig r network of in-co our team memb ne to perform an	gn and Co ountry co pers of an	mmonwealth C ontacts. y risks that cou	Office and Id affect	d WHO w them and	vebsites

Programme Risk Assessme	ent and Mitigati	on Matrix	V	'ery High	High		Medium		Low	
Potential Risk	Risk Grading ³ Probability Impact		Description of risk	Proposed Management and mitigation actions						
B2: Risks associated with working in rural areas	М	L	There are numerous potential risks associated with working in rural areas in Africa. These include risk of road traffic crashes, security risks, health risks and more.	 We will not ask any members of the team to travel to areas that an high risk by the project team. We will ensure that all team members required to work in rural arreasonable precautions including, for example: Using only vehicles hired from reputable companies with professional drivers, and vehicles in excellent condition Staying in accommodation with adequate security Staying in groups of no less than two at all times Maintaining regular communication Only drinking bottled water We also require consultants to adhere to Transaid's code of conducteam members have signed. Careful planning of the critical path and all dependencies 					that are de ural areas t es with lition	ing in eemed ake all
B3: There is a risk that the survey will not be completed in the scheduled timeframes	М	н	To undertake the survey of benefits and disbenefits, ethical clearance is required from an appropriate research body in each of the four countries. Should the obtaining of ethical clearance cause a delay to the start of data collection, this could have knock-on effects for other activities, including data analysis and preparation of the draft Country Reports.	- Earl mor Based on the ethical cleara possible to m end of Noven However, in c	y submission for oths for ethical a information reco nce, and on the eet the schedule	ethical a pproval t eived from experience ed timefra rs, an exte	pproval – it cou to be granted. m the research ce of the projec ames, to compl ension has been	bodie bodie ct tear ete th	e up to thre s that provi n, it should e project by ested and	de be / the

Programme Risk Assessme	/ery High	High		Medium		Low				
Potential Risk	Risk Grading ³		Description of risk	Proposed Management and mitigation actions						
	Probability	Impact								
B4: Team availability	Н	L	During the end of the Inception Phase and start of the Research Phase, some issues arose about team availability.	project team unable to con divided betw Also, John Hi	Suzy Charman, the Road Safety and Data Collection Expert, is no longer on the project team, as a change in her personal circumstances meant that she was unable to commit the time required from January 2018. Her days have been divided between Gina Porter, Francis Afukaar and Darren Divall. Also, John Hine has been brought into the team to bring expertise to the Economics & Finance section of the survey of benefits and disbenefits.					
B5: Client expectations	L	M-H	There is a need to ensure the core focus is on the ToRs and that other research is 'nice to have' once the ToRs and what has been agreed in the Inception Report is all approved by the client.	The ReCAP Plactivities.	MU has been clos	een closely engaged in the design of the research				ſ