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Webinar: Motorcycle-taxis in the Rural Context in Sub-Saharan Africa and South Asia

transaid

Motorcycle-taxi webinar, 6 April 2017

Motorcycle taxis and Tanzania

Leo Ngowi
Surface and Marine Transport Regulatory Authority

Agenda

- Overview of motorcycle taxis in Tanzania
- Initiatives SUMATRA has been involved in
- What still needs to be done in Tanzania?
- Advice to other counties seeing an influx of boda bodas

Motorcycle Taxis & Tanzania

- The Government of Tanzania authorised motorcycles to be used as public transport for hire, 2009.

- The Surface and Marine Transport Regulatory Authority (SUMATRA) prepared “The Transport Licensing (Motor Cycles and Tricycles) Regulations, 2010”

- Motorcycles were intended to be used in rural areas, and urban areas where other transport services were not available

The Trend of Motorcycles in Tanzania

- Up to December 2009 TRA had registered 207,465 Motorcycles

- Up to March 2016:
  - Total of 1,300,000 motorcycles were registered.
  - This being the increase of 1,092,535.
  - The average of 216,000 of motorcycles per year.

- Implications include:
  - More crashes involving boda boda
  - Untrained/unlicensed riders

Highs and Lows…

- The highs
  - Provides flexible, convenient and often affordable means of transport
  - Provides jobs and economic opportunity

- The lows
  - Hospital wing in Dar es Salaam dedicated to boda boda crash victims
  - A recent Amend study found that over 70% of all injuries suffered on rural roads [in Tanzania] involve a motorcycle and that as a result of their work, boda boda drivers have a 69% chance of being injured in any given year. To put this figure in perspective, that injury probability is more than 37 times higher than that of a motorcyclist in the UK'**
  - Poor riding skills and limited knowledge of road traffic act, regulations etc.

**Amend, 'Fact Sheet: Road Traffic Injury in Tanzania: Two Population-Based Studies' (v. 1.1, 29 May 2013)

Challenges...

- Difficult for the government to regulate the informal boda boda industry
- Overloading motorcycles with passengers/cargo
- Lack of quality training
- SUMATRA is considering making it mandatory for boda boda riders/operators to join associations and undergo training

What have we done in Tanzania?

- Training was not available for most boda boda riders
- No common standard and a significant variance from institution to institution
- 2015 - developed a standard curriculum for motorcycles and three wheelers (supported by AFCAP)
- Worked with the boda boda associations, passengers and other key stakeholders
- Found there is a desire for training but it needs to be available and affordable
- 2016 - SUMATRA translated the curriculum into
- Swahili and has been championing adoption
- National launch event 1st March 2016

Expected curriculum outcomes

On completion of the training (as set out in curriculum), trainees should be able to:

- Ride the motorcycle safely and responsibly
- Carry passengers safely
- Ensure the motorcycle is in a roadworthy condition
- Comply with Road Traffic Acts and other road safety regulations,
- Comply with all road signs, signals & markings,
- Deliver good Customer Care

Other initiatives…

- Construction of parking shade (modal) in ten regions (Kilimanjaro, DSM -3, Mbeya, Mwanza, Kagera, Ruvuma, Arusha, Manyara). The construction project on-going

- Regulation Review

- Spearhead Helmet campaigns

Advice to other countries seeing an influx of boda bodas

The number of motorcycles in Africa is rising at an astonishing rate and there is a need to plan ahead…

- Remember that boda bodas fill an important gap in the market – be careful not to over regulate
- CONSULT with the public, associations, training schools and other stakeholders to find 'win-win' positions
- Think about quality training - who can do it and where?
- Can you mandate training and work with associations to make this enforceable?
- Laws around helmets
- How do you reach rural areas?

Helmet use - Myanmar motorcycle riders

Felix Wilhelm Siebert
Technical University of Berlin

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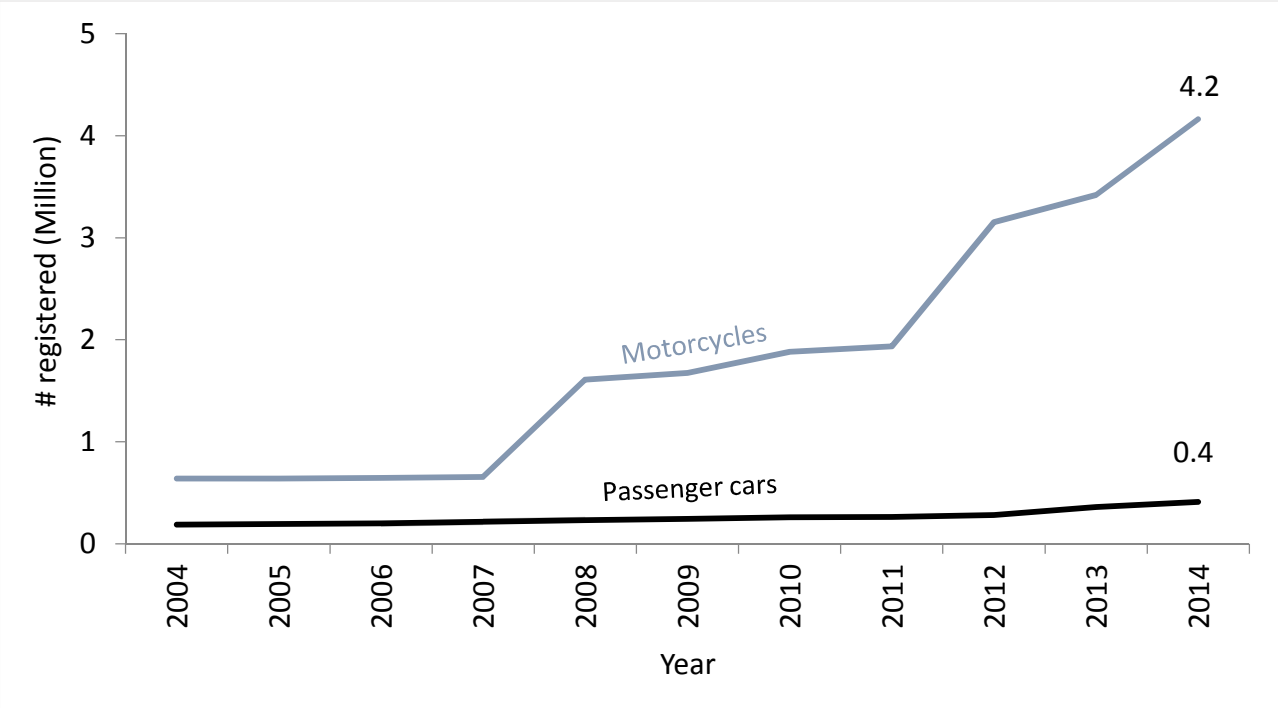
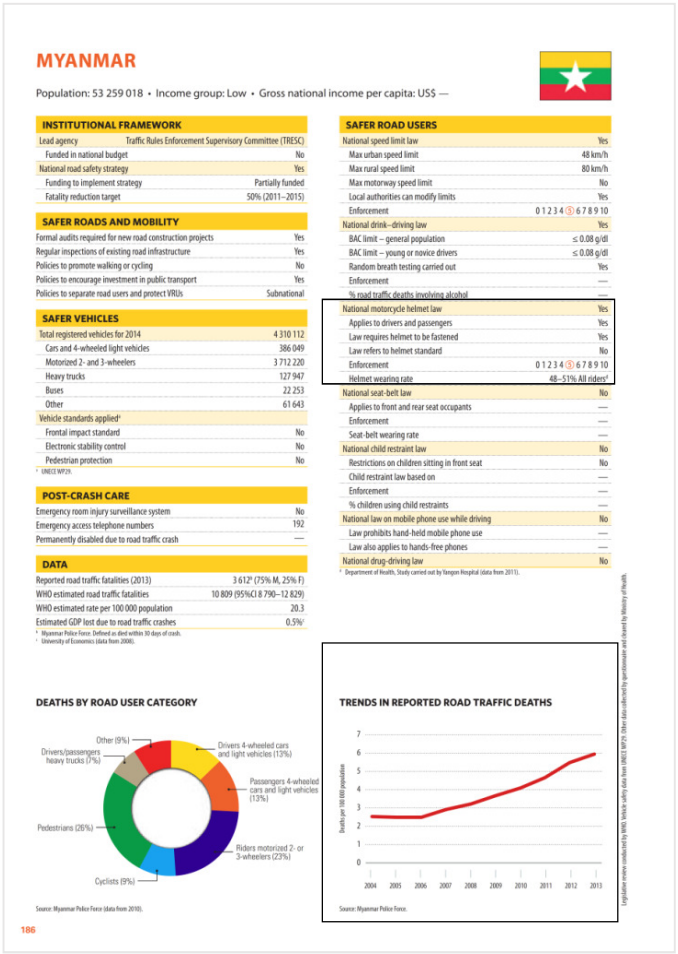
Myanmar has seen a rapid increase in motorcycle traffic



Road Transport Administration Department Myanmar (http://www.myanmarrtad.com/)

The number of reported fatal traffic accidents has more than doubled



MYANMAR

Population: 53 259 018 • Income group: Low • Gross national income per capita: US$ —

INSTITUTIONAL FRAMEWORK

Lead agency	Traffic Rules Enforcement Supervisory Committee (TRESC)
Funded in national budget	No
National road safety strategy	Yes
Funding to implement strategy	Partially funded
Fatality reduction target	50% (2011–2015)

SAFER ROADS AND MOBILITY

Formal audits required for new road construction projects	Yes
Regular inspections of existing road infrastructure	Yes
Policies to promote walking or cycling	No
Policies to encourage investment in public transport	Yes
Policies to separate road users and protect VRUs	Subnational

SAFER VEHICLES

Total registered vehicles for 2014	4 310 112
Cars and 4-wheeled light vehicles	386 049
Motorized 2- and 3-wheelers	3 712 220
Heavy trucks	127 947
Buses	22 253
Other	61 643
Vehicle standards applied[a]	
Frontal impact standard	No
Electronic stability control	No
Pedestrian protection	No

[a] UNECE WP.29.

POST-CRASH CARE

Emergency room injury surveillance system	No
Emergency access telephone numbers	192
Permanently disabled due to road traffic crash	—

DATA

Reported road traffic fatalities (2013)	3 612[a] (75% M, 25% F)
WHO estimated road traffic fatalities	10 809 (95%CI 8 790–12 829)
WHO estimated rate per 100 000 population	20.3
Estimated GDP lost due to road traffic crashes	0.5%[c]

[a] Myanmar Police Force. Defined as died within 30 days of crash.
[c] University of Economics (data from 2008).

SAFER ROAD USERS

National speed limit law	Yes
Max urban speed limit	48 km/h
Max rural speed limit	80 km/h
Max motorway speed limit	No
Local authorities can modify limits	Yes
Enforcement	0 1 2 3 4 ⑤ 6 7 8 9 10
National drink–driving law	Yes
BAC limit – general population	≤ 0.08 g/dl
BAC limit – young or novice drivers	≤ 0.08 g/dl
Random breath testing carried out	Yes
Enforcement	—
% road traffic deaths involving alcohol	—
National motorcycle helmet law	Yes
Applies to drivers and passengers	Yes
Law requires helmet to be fastened	Yes
Law refers to helmet standard	No
Enforcement	0 1 2 3 4 ⑤ 6 7 8 9 10
Helmet wearing rate	48–51% All riders[d]
National seat-belt law	No
Applies to front and rear seat occupants	—
Enforcement	—
Seat-belt wearing rate	—
National child restraint law	No
Restrictions on children sitting in front seat	No
Child restraint law based on	—
Enforcement	—
% children using child restraints	—
National law on mobile phone use while driving	No
Law prohibits hand-held mobile phone use	—
Law also applies to hands-free phones	—
National drug-driving law	No

[d] Department of Health, Study carried out by Yangon Hospital (data from 2011).

DEATHS BY ROAD USER CATEGORY

Source: Myanmar Police Force (data from 2010).

TRENDS IN REPORTED ROAD TRAFFIC DEATHS

Source: Myanmar Police Force.

186

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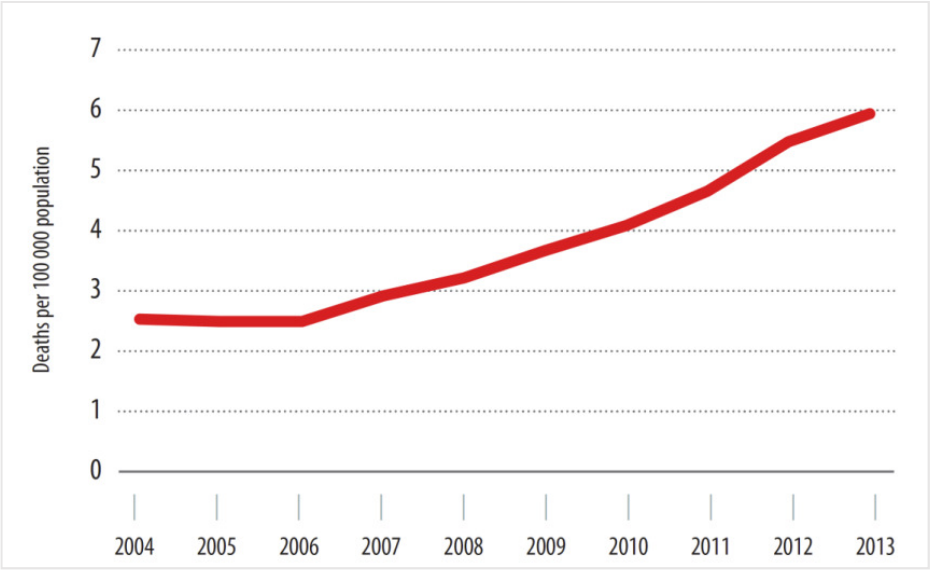

WHO (2015) Global Status Report on Road Safety

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- No information on:
  - different regions
  - driver vs. passenger
  - rural vs. urban helmet use
- Collect detailed data
- But with a small team!

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- Video based observation study
  - Inexpensive equipment
  - coding can be done afterwards
  - repeated coding is possible
- Variables:
  - helmet use
  - position on the motorcycle
  - time of day
  - rural vs. urban
  - …

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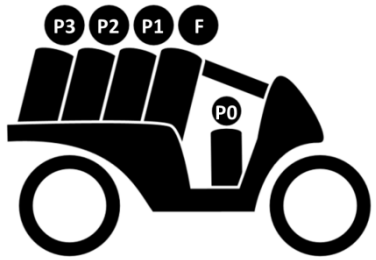
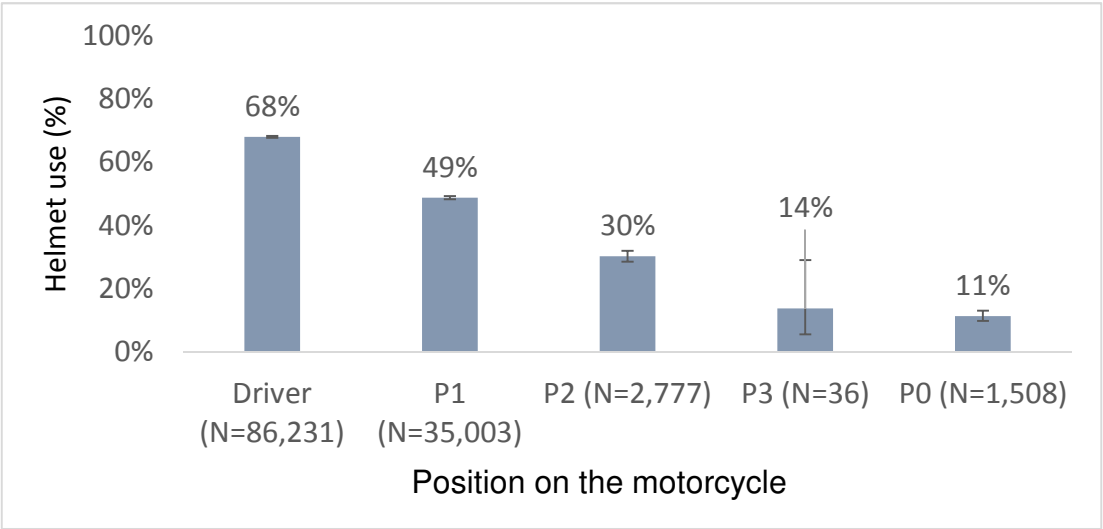
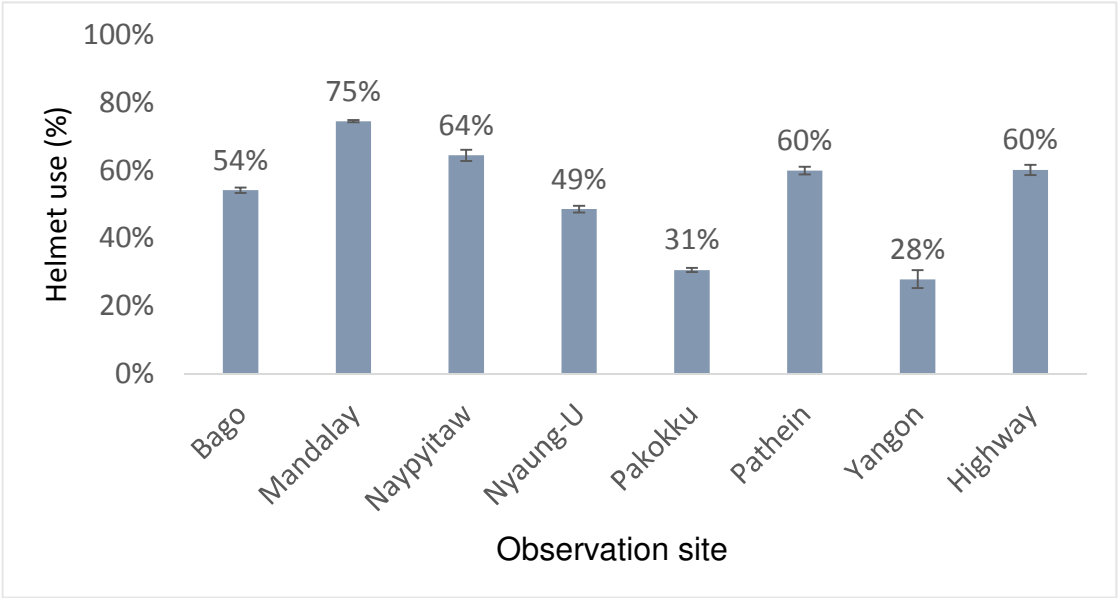
Position on the motorcycle





Observation site



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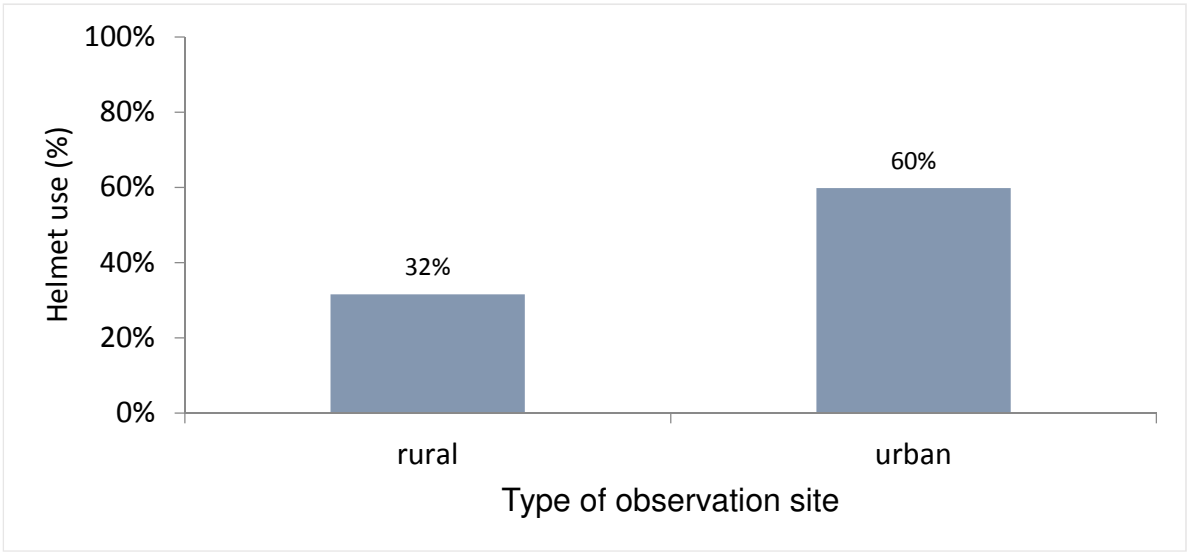
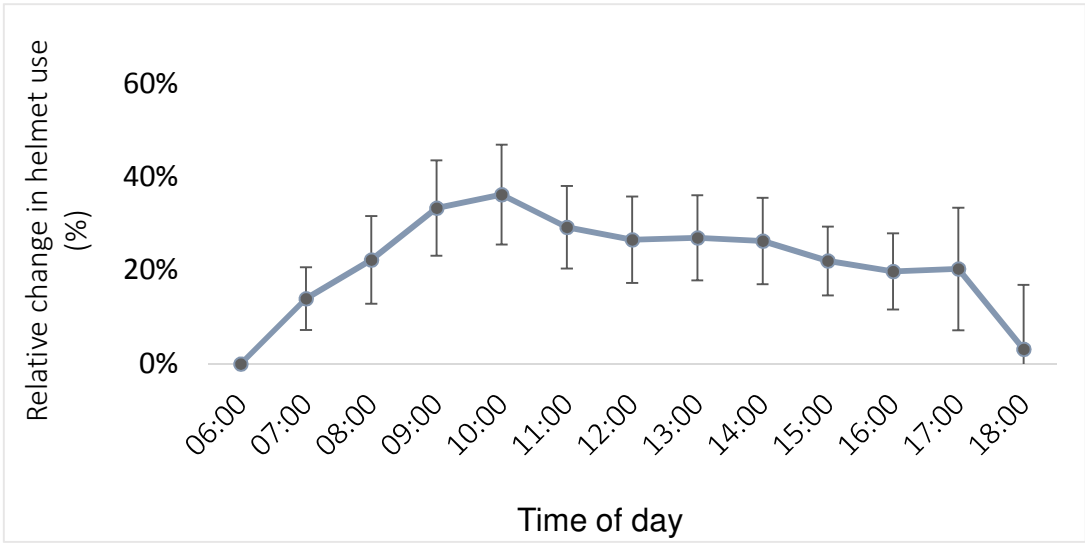
Rural vs. urban



Time of day



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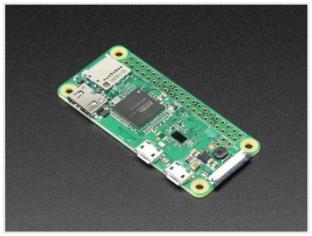
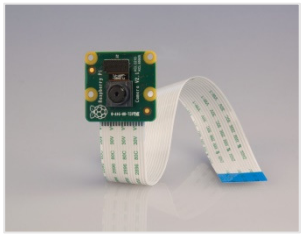



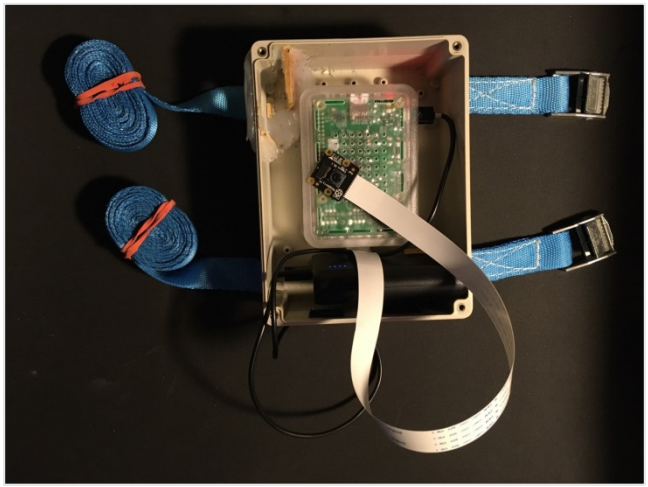

- Do it yourself helmet use study:
  - Camera
    - Raspberry Pi Zero W
    - Raspberry Pi Camera
    - Powerbank (> 10,000 mAh)
    - Plastic case
  - Freeware coding software “BORIS”
    - http://www.boris.unito.it/
  - Lots of time for coding (we only coded 15 minutes of every hour)

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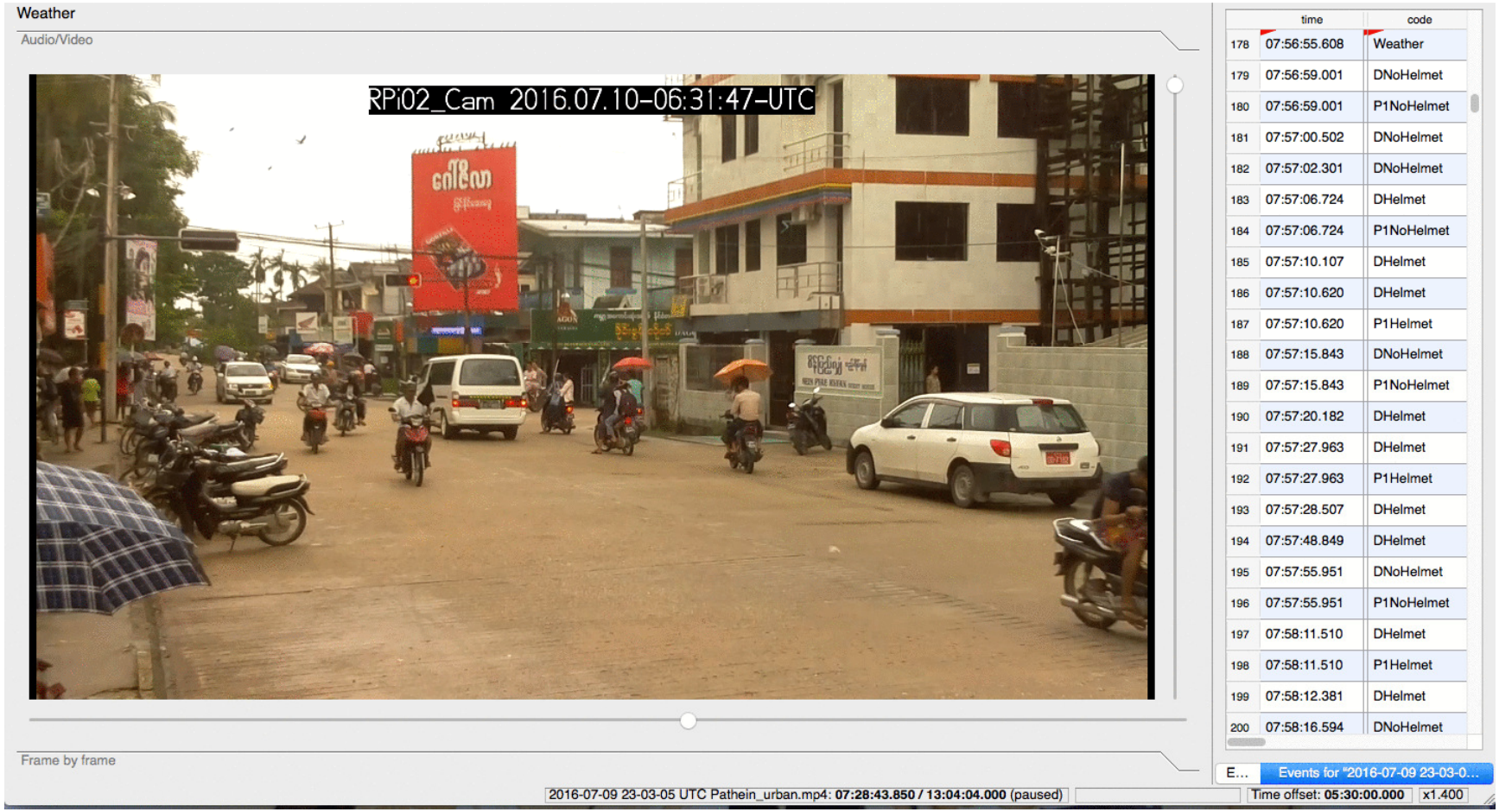


Improving access to transport services using Boda Bodas.
Lessons from Eastern Uganda

Elizabeth Ekirapa Kiracho
Makerere University School of Public Health

Outline

- Introduction and background
- Brief experiences from 3 different transport programmes
- Summary of lessons learned
- Implications for programmes working with Boda Bodas

Intro & background

- Access to essential transport to ensure women reach service points on time
- On average 72% reside within 5 km of a health facility, but some women reside further
- Transportation issues often left to households to deal with – affordability and availability are often a problem
- Delays in receiving appropriate care

Main questions for today…

- How did we engage the communities and transporters in providing transport services across the three different projects?
- What lessons did we learn?
- What are the implications of our work?

Introduction to Safe deliveries: MANEST and MANIFEST

Safe deliveries (Kibuku, kamuli, Pallisa) -2 yrs	MANEST (Buyende, Luuka,Iganga) – 3 yrs	MANIFEST (Kamuli, Pallisa, Kibuku) – 3ys
No CHWS	CHWS	CHWS
HSS – Training,, SS, equipment	HSS – Training, SS	HSS – training, SS, mentorship, equipment
Transport vouchers	**Transport vouchers**	**Saving groups & transporters**
Service vouchers – Financial resources for health workers, drugs and supplies	Performance bonus for health workers	no financial incentives

Description of transport initiatives

	Safe deliveries - SDS	MANEST	MANIFEST
Type of programme	Transport vouchers	One way transport vouchers	Pre – arranged transport & oop payment
Sensitization of community	Radio, community meetings	CHW home visits	Radio, community meetings, CHW home visits
Sensitization of transporters	Meetings with transporters	Meetings with transporters	Meetings with transporters
Management of programme	Project managed	Project + Community	Community managed
Payment of transporters	Project paid transporters	Project & community paid	Community paid transporters

Processes in working with transporters

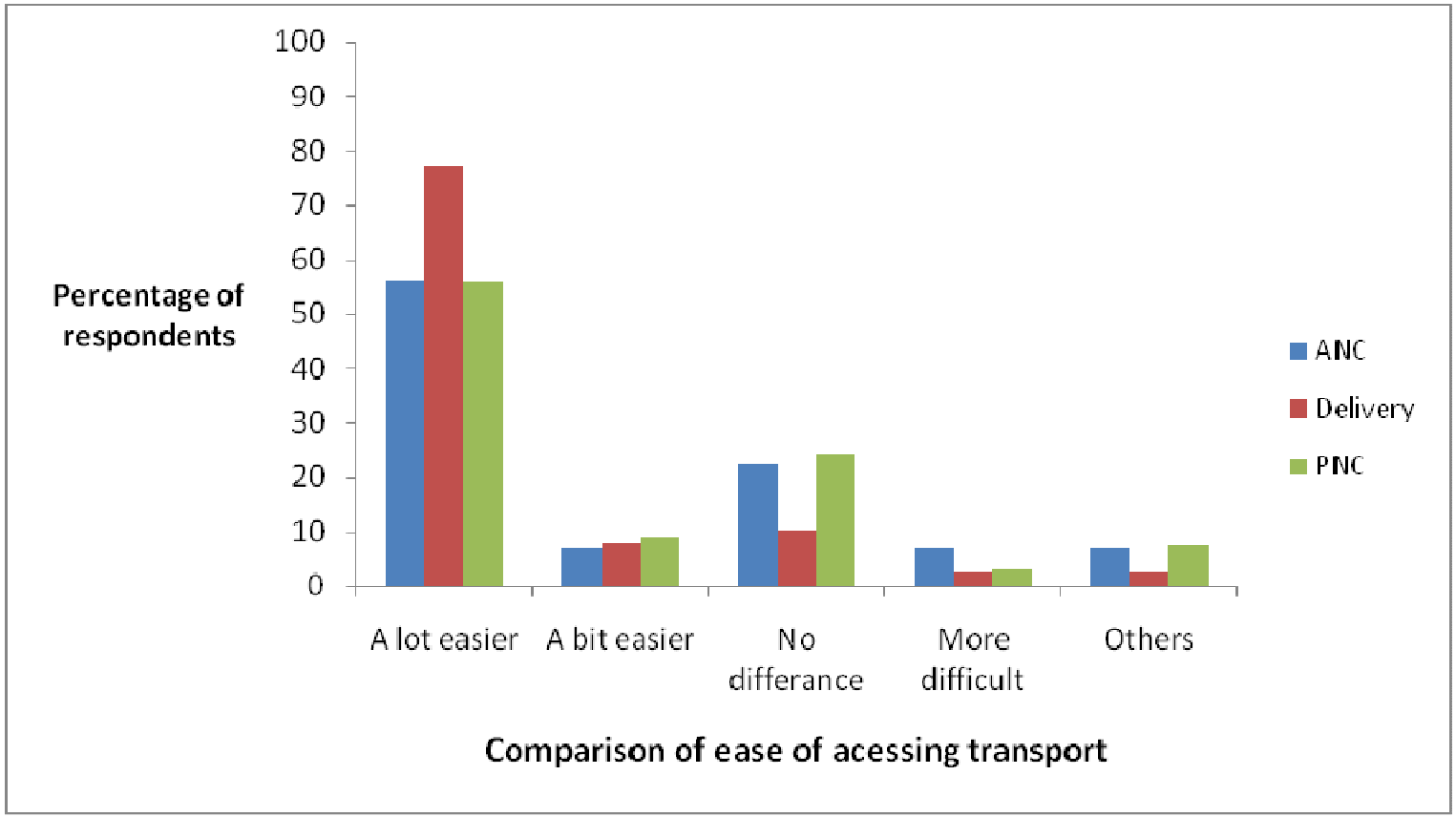
- **Involved transport** leaders through stage managers (small groups of transporters)

- **Made MoUs and agreements** with transport providers and health facilities

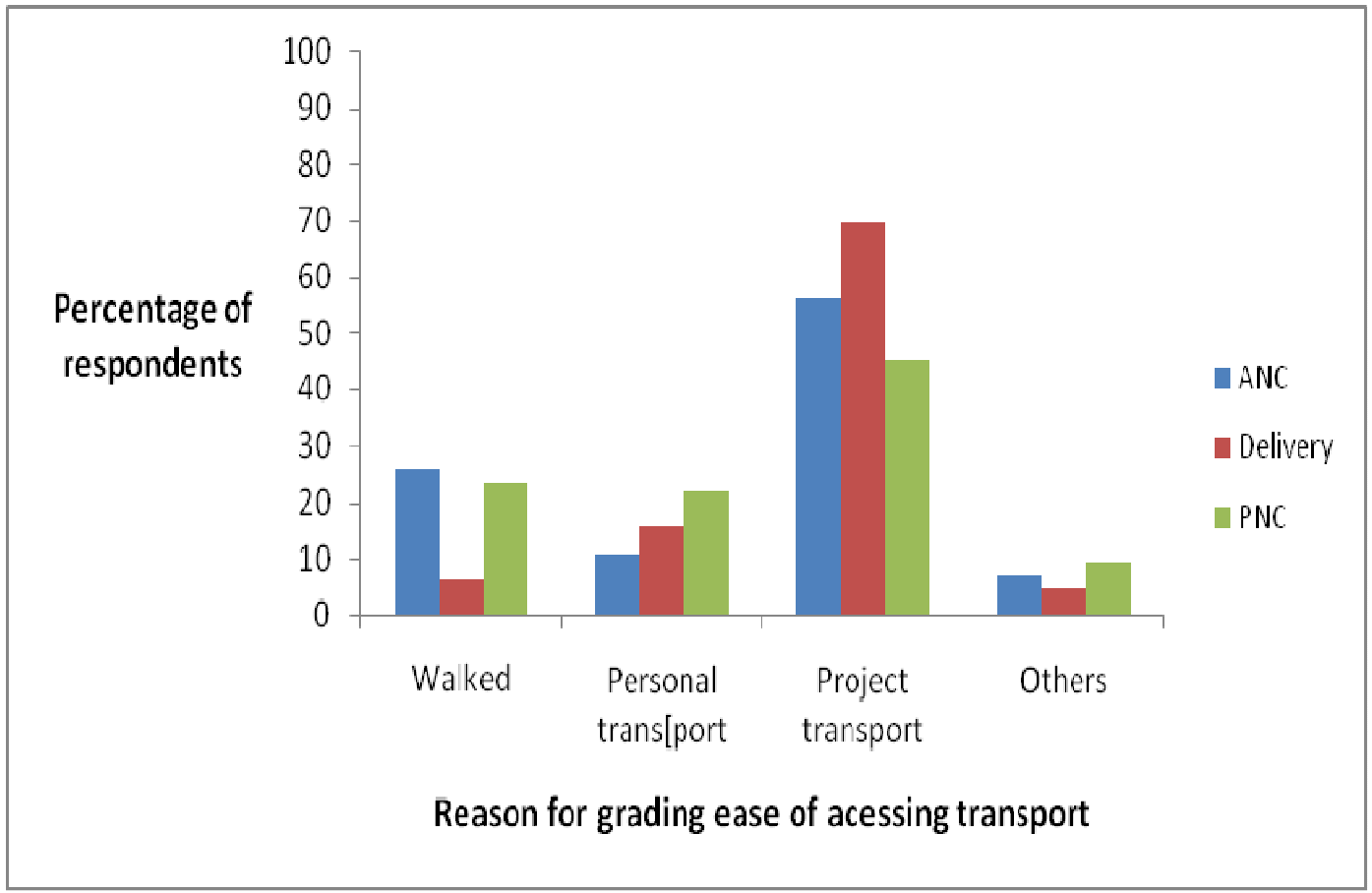
➢ Useful for spelling out expectations and holding them responsible

- Ensured that there were **means of giving them feedback** e.g. if payment was delayed

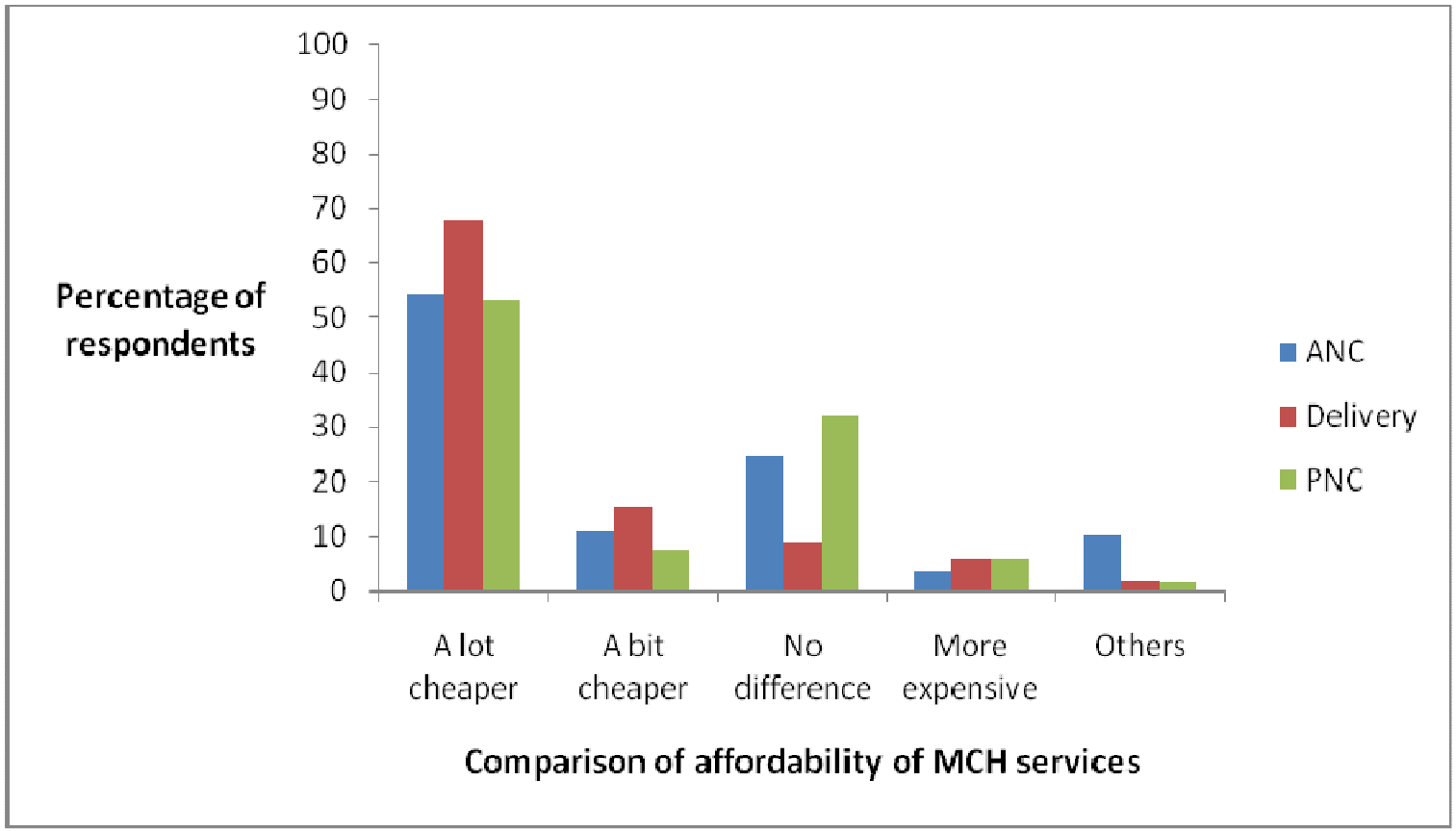
Changes in availability of transport services: SDS



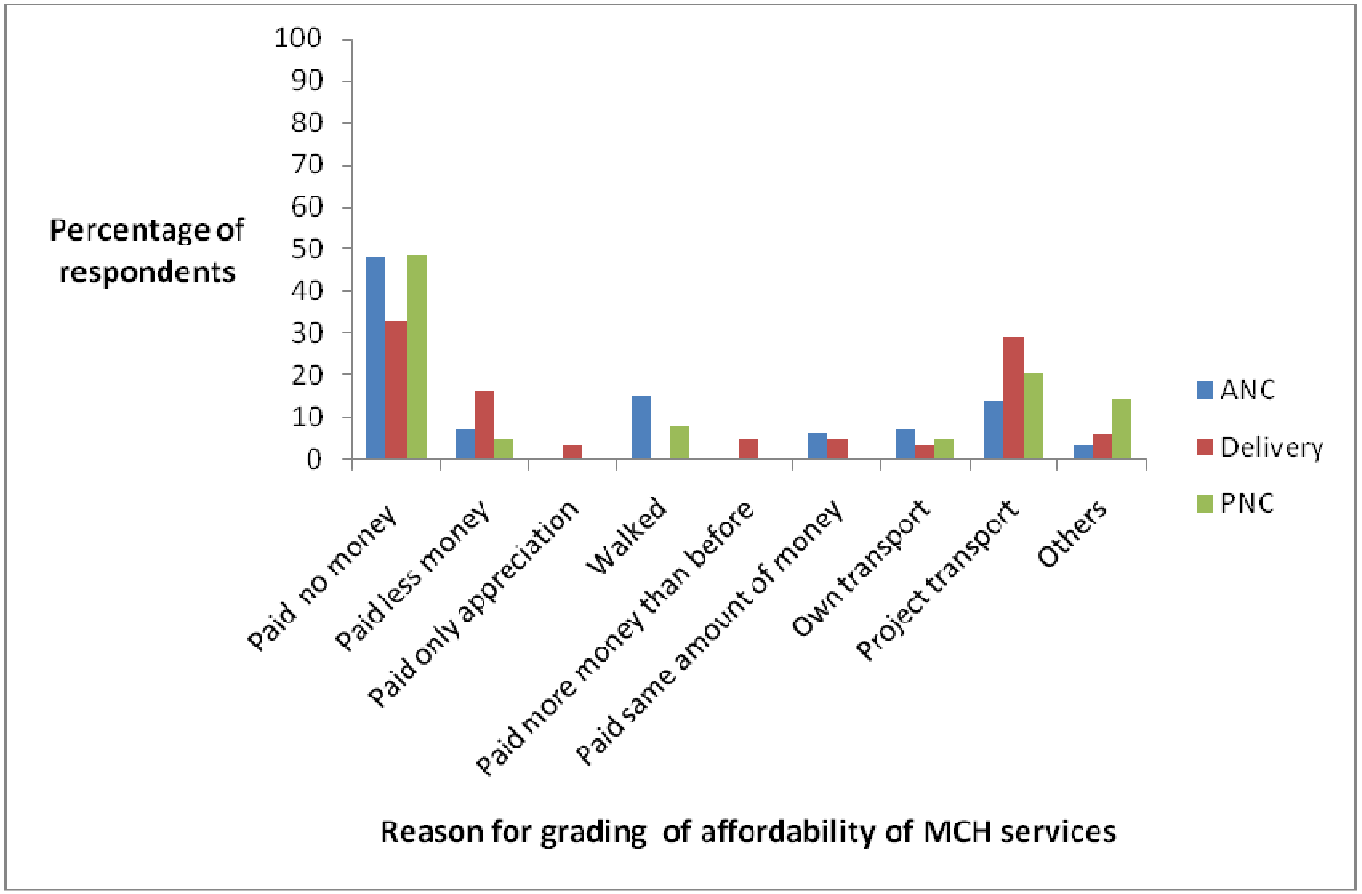
Reasons for grading the change in availability of transport services: SDS



Changes in affordability of MHS Costs: SDS



Reasons for grading changes in affordability of services: SDS



Results - MANEST

Heard about Voucher	445 (52 %)
Received pink referral form	166
Used voucher for transport	60 (36 %)
Reasons for not using voucher	
Phone off	46
Labour progressed first	37
Forgot about voucher	18
Boda far, husband took, program ended	13,13,13

Challenges

- It was **easier** to engage transporters when **financial benefits were high**
- Some villages had **few transporters**
- **Negotiating payment rates** which keep changing
- **Issues of fraud** likely to crop up if no checks and balances
- **Developing database** for transport system to allow deeper analysis of key issues was difficult

Challenges cont.

- **Poor record keeping** at some health facilities so verifying payment was difficult
- **Poor saving culture**, **poverty and dependence** on government made it difficult for communities to contribute
- **Sustainability of vouchers** was a challenge because of donor funding and external management
- Inability to link **Boda transport with motorised ambulances**

Lessons learned

- Transporters **very active mobilisers** can be useful advocates for maternal health

- Transporters – engaging them is easy **if they benefit and have organized leadership**

- **Prompt payment** is very important to the transporters, in the event of failure – **regular communication** about problem

- **Review of payment rates** whenever there are local changes e.g. fuel prices

- **Multiple payment** methods may be required

Lessons learned cont.

- **Creating awareness in the community** about different types of transport arrangements is important and **needs to be planned**
- Important to **build trust between implementer** and **transporters,** transporters and the **community**
- **Social networks** are important for providing support for mothers to enable them access transport during delivery e.g. Bodas

Implications for Boda transport programmes

- Community needs to **benefit** from services that they are trying to seek **– health providers need to be engaged**

- Community needs to be sensitized about their role in **contributing to transport costs** and ensuring Bodas' transport is safe – **helmets, safe riding**

- **Ensuring vulnerable people benefit**– Boda Boda men need to be sensitized about their social responsibility

Implications for Boda transport programmes cont.

- **Boda Transport** needs to link up with motorcycle ambulances and **motorized** vehicles
- **A functional referral system** needs to be planned for transport, communication facilities and emergency facility responses
- **Could increase accidents** if traffic regulations not obeyed – licenses, helmets

- Comic Relief
- DFID
- FHS partners
- MAKSPH staff
- District health team staff and political leaders from Kamuli, Iganga, Pallissa, Kibuku and Luuka

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Questions for our Speakers – Moderator led

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Technology/Innovation in Motorcycle transport in Kenya

Grace Muhia

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- Kenya has seen some great innovations around the motorcycle transport system.

- According to Safaricom, Kenya has 67% smartphone penetration attributed to “a growing middle class that has increased the uptake of these types of phones”.

- According to the Motorcycle Assembly Association of Kenya, boda bodas are an economic pillar with the sector generating 400 million a day. The sectors directly employs up to 100,000 people and 14 million Kenyans ride boda bodas daily.

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- This has in turn seen the upsurge of hail a boda boda apps in Kenya. These mobile apps have become very popular, i.e. Mondo, Little Rides and Safe Boda.

- This has transformed the boda boda transport system as now the means of transport is a call away from your pick up point.

- The sector has been termed as a chaotic transport system by many as it has been highly responsible for many road accidents due to inadequate regulations.

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- Two brothers Joseph Muchene 27, and Charles Muchene founders of clad light have innovated wireless wearable technology for safer transportation to curb this “menace”.

- The ‘Smart jacket’ for motorcycle riders has an inbuilt modified reflector.

- The jackets are equipped with light-emitting diode indicators that will provide alerts to fellow motorists on directions e.g when they are about to take a turn and when they brake as well.

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- The indicators also have an independent source of power that is controlled wirelessly and integrated into the motorcycle's indication system with corresponding LED bars on the back of the jacket that light up, the riders are in a position to indicate unlike the usual hand use that risks the motorist's stability.

- For added functionality, the jacket is fitted with a GPS tracker that allows companies to keep track of riders.

- The brothers have big dreams for their smart jacket, especially in a country where over 100 000 motorcycles ferry thousands of passengers every day.

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Currently the smart jacket comes in two variations: one that uses its own power source using batteries, and another that draws power from the motorcycle.

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MODERATED Q & A SESSION – PLEASE JOIN THE DISCUSSION

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- CHAT function (type your message and send to organisers) or

- Raise your HAND (Click on the Hand symbol)

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