Sub Saharan African Transport Policy Programme

Republic of Uganda

CONSULTANCY SERVICES FOR INVESTIGATING THE IMPACT OF MOTOR CYCLES GROWTH IN AFRICA: CASE STUDY OF A FEW SELECTED CITIES

Uganda Case Study

DRAFT FINAL REPORT

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ABBREVIATIONS

IPT……Intermediate Public Transport

KTS ……..….Kampala Trauma Score

KUBOKA……..…...Kampala Union of Boda boda Cyclists Association

KUTIP……...Kampala Urban Traffic Improvement Plan

MDG ……Millennium Development Goals

MOWT……..……Ministry of Works and Transport

MOWHC……Ministry of Works, Housing and Communications

NEMA ……..National Environment Management Authority

NRM……..National Resistance Movement

O-D……Origin –Destination Survey

PSV…….Public Service Vehicle

TLB…….……Transport Licensing Board

UTODA…….….Uganda Taxi Operators and Driver Association

DEFINITIONS

Terms	*Definitions*
Motorcycle	Traffic and Road Safety Act 1998, means a vehicle with less than four wheels, unladen weight of which does not exceed four hundred kilograms.
Public Transport	It comprises all transport system in which the passengers pay for their fare. Motorcycles are part of public transport mode in Uganda
Boda boda	It applies to both motorcycles and bicycles which are used to carry passengers for financial gains. It derived this name from Busia where bicycle taxi evolved as a means of travel to the Kenyan border.
Safety	Wikipedia Encyclopaedia(2006) defines safety as the condition of being protected against physical, financial, political, emotional, occupational, psychological or other types of consequences of failure, damage, error, accidents, harm or any other events.
Road Traffic Accident (RTA)/ Injury (RTI)	World Health Organisation (WHO, 2003) defines accidents as 'an event or sequence of events that results or could result in injury".
Operators	These are motorcycle taxi riders.
Users	Refer to pillion or users of services provided by the riders. They are the passengers
Fatal Accidents	Road Traffic Accidents (RTA) involving loss of lives
Serious Accidents	Accidents not involving loss of lives but with major property damage and / or injuries.
Minor Accidents	RTA not involving loss of lives and serious injury or vehicle damage.

EXECUTIVE SUMMARY

Introduction

The emergency of motorcycle taxi services is ascribed from the collapse of the public transport companies in the 1990s and the inefficiencies within the public transport system. It emerged as a response to mobility needs. Motorcycles have gained relevance and traffic significance and provide a low capacity transport mode for the urban and rural people especially the poor.

This study has been carried out with the aim of understanding the operations of motorcycle taxis in Uganda, specifically the study investigates Kampala city and selected towns of Kabale, Buwenge, Mbale, Lira and Itendero.

The specific aims of the study have been to;

a. Examine supply and demand characteristics of the motorcycle taxis;
b. Examine service characteristics;
c. Help governments consider and evaluate options for managing the growth of motorcycle taxis;
d. Examine growth scenarios in the motorcycle population and the main factors that could encourage or restrict that growth, and;
e. Investigate road safety and environmental aspects of motor cycles and identify possible measures that would improve safety and mitigate adverse environmental impact

The key findings

The study confirmed that there is a high growth rate of motorcycles in Uganda. The study shows that the growth rate of motorcycle importation is 19 % per year. The motorcycle importation has grown from 12,564 in 2000 to 42,816 in 2007. In regard to value of motorcycles the value rose from $ 5,317,074 in 2000 to $ 15,413,175 in 2007 which signifies a growth rate of 16 % per year.

In regard to Kampala, motorcycle taxi growth is 58.7% per annum. Upcountry the growth has been registered with Kabale having the highest growth of 304%. Other towns surveyed showed growth as follows; in Buwenge town 78 %. Lira town of 13 %, Mbale 14 % growth rate and Itendero had 26%. Unless there are factors that will restrict growth in the future, the motorcycles are likely to grow at the above rates and by 2014; there will be 405,124 from the current 15,979 motorcycles in Kampala city.

The factors that have favoured the growth have been; poor public transport services, liberalisation, direct government promotion of motorcycle taxi, availability of cheap new and used motorcycles from Asia, credit facilities from private lenders and banks, poor road infrastructure and waiving of local government tax on motorcycle taxis.

The growth has had a number of positive and negative impacts; the following are the positive impacts; The motorcycle taxi has filled the gap of public transport demand of 332,203 trips for Kampala, employment creation and source of revenue for Government in form of fuel, import and customs taxes.

The negative factors of the growth were found to be; congestion of the city, inadequate infrastructure, decline of demand for special hire (car) taxi business, road safety challenges, crime related to the use of motorcycle taxis, health related challenges of motorcyclists and environmental challenges

The study further revealed key issues in regard to motorcycle characteristics in Kampala and other selected towns. Key issues investigated included; ownership, supply of motorcycles, operating times, average passengers carried, average distances for users and financing of motorcycles. Governance of motorcycle taxi was investigated and it was revealed that it is based on stage as the typical basis for boda boda operations.

The institutional framework for regulating motorcycles in Uganda was investigated. Transport Licensing Board has only been able to register only 2,890 motorcycles since October 2006. This represents only 18.3% of the total motorcycle fleet in Kampala of over 15,979 motorcycle taxis. The main challenge affecting the operations of TLB is political interference in implementing and enforcing the regulation.

Impact of political influence in the motorcycle taxi business in Uganda was examined and was found to be impacting on the management of the motorcycle taxi industry negatively. For instance, it has led to an annual loss of up to 1,895,640,000/- ($1,115,082.4) due to suspension of fees by politicians. Cross cutting issues were examined including Road safety, Gender, Environment and HIV/Aids in relation to the use of motorcycle taxis.

Recommendations

The following are the recommendations in regard to the themes of infrastructure, regulations, road safety, environment, financing, gender and HIV/Aids prevention.

1. Infrastructure:

- Planners should consider banning motorcycles from the Central Business District of Kampala city.
- Compensate land owners and secure space for dedicated motorcycle lanes in peri urban areas of the city and along National roads.
- Policy makers and technical personnel should be sensitised about motorcycle friendly infrastructure provision.
- Plan and gazette the parking places in the city centres outside the Central Business District.

2. Regulations

- Strict implementation of regulations already in place i.e. regulation on permits, helmets, reflective wear. The regulations should be enforced.
- Designate bodabodas to specific areas/ routes especially outside the city centre.
- Reduce the cars in the CBD so as to reduce traffic conflicts (Consider mass transit system)
- All riders need to be registered and certified before being allowed to operate.
- There is need to implement the enforcement of helmet law.
- There is need to increase access to helmets by exploring cost cutting measures such as tax reductions.

3. Road safety

- There is need for massive education of riders and passengers about road safety issues
- There is need to review and enforce appropriate standards for helmets that are appropriate to the Ugandan climate.
- There is need for regular studies to monitor the trend of helmet use by the commercial riders and passengers.
- The capacity of local government to cater for the motorcycle taxi infrastructure needs to be made.

4. Environment

- Government needs to enforce the law that will gradually phase out two stroke engines in favour of the four strokes which are less pollutant.
- Government should put in place incentives to ensure that four stroke engines are affordable to operators though fiscal means.
- There is need to enforce the pollution standards developed by NEMA
- Operators should be encouraged to use newer four stroke motorcycles
- Sensitisation of operators about environmental awareness programmes.

5. Financing

- Government should reintroduce the local government fees as a way to control growth of motorcycles in Kampala.
- There is need for Government to promote credit schemes that encourage operators to purchase newer motorcycles that are efficient.
- Government programme of Prosperity for all should be rolled out especially for urban and rural areas where the cycles are not yet congested.

6. Governance

- Motorcycle taxi management should be de politicised. The political leadership at all levels ought to leave the management of motorcycle taxi to the local authority (KCC) and the local boda boda associations. This will raise revenue for the Council and also use the resources to plan for the cyclists.
- Motorcycle taxi associations need to be strengthened and their capacity built. This could be a channel for efficient management and control of motorcycle taxi operations. In addition, capacity building programmes like those of road safety should be organised and managed through such a framework.

7.0 Gender

- Government should make efforts to encourage women to operate boda bodas as a poverty eradication plan.

8.0 HIV/Aids

- HIV/Aids preventive measures within the operators needs to be intensified.

1.0 INTRODUCTION

1.1. The Background

After the NRM government came to power in 1986, it embarked on the development of the public transportation system to cater for both the rural and urban poor by providing services at an affordable cost. Government recapitalised the public bus companies namely Uganda Transport Company (UTC) and People's Transport Company (PTC).

With rapid urbanisation, the demand for public transport service in Kampala city has continued to grow over time. This led to a high demand for public transport which the public companies could not effectively meet. The companies provided poor quality and inefficient services due to dismal operating performance. Consequently, the two government companies collapsed in the 1990s.

Government disengaged itself from the provision of transport services and as a policy dedicated its efforts to the provision of infrastructure services and left the provision of transport services in the hands of the private sector.

The collapse of the public transport companies led to the emergence of the Para transport system developed by the private sector. The main city mode of transport shifted from the high capacity buses to minibuses. This led to the creation of the minibus association called Uganda Taxi Operators and Drivers Association (UTODA). Today the association is the main and dominant provider of public transport for both the city and upcountry.

Despite the investment by the private sector, the public transport system has failed to improve; instead, it has progressively become more and more inefficient. For instance, with the rising congestion in Kampala has increased delays suffered by commuters. As a result, there exists a wide gap between demand and supply in public transport services especially at peak hours. There are also questions in regard to the goal of private sector in provision of public transport, the sector is more concerned in maximising profits rather than provision of an efficient service and currently lacks the capacity to develop the industry into an efficient service.

The motorcycle taxi has evolved as public transport mode that is responding to mobility needs. Motorcycles have gained relevance and traffic significance due to the problems related with inefficient public transport system and the failure of the private sector to immediately fill the gap left by absence of government buses to provide public transportation.

In addition to the liberalisation policy, motorcycle growth in the country has been facilitated by government's programme of using motorcycle taxi as a development tool to fight poverty and unemployment. Motorcycle taxi promotion is in line with Government's *"Prosperity for All"* programme to address unemployment and mass poverty amongst youths in the country.

Unfortunately, Government's promotion of use of motorcycles has not been complemented with provision of improved infrastructure services for the motorcycle use especially in urban areas. Infrastructure for motorcycle taxis is lacking and there is currently no effort being undertaken to provide the same, despite several infrastructure developments in the city and in the country. As a result, motorcycles have led to congestion especially in the city centres. Some planners have a view of banning the motorcycles yet motorcycles are helpful in covering up the demand.

The motorcycle growth has developed without adhering to safety prescriptions as contained in the traffic laws of the country. The distribution of motorcycles has been carried out without ensuring proper training and licensing of operators. The safety standards have therefore been compromised and the city roads and highways have become increasingly unsafe, due to the recklessness and

actions of some motorcyclists who are neither cautious nor knowledgeable about traffic rules and regulations. Motorcycle growth has in addition to safety brought some undesired effects like crime, health and environmental problems.

1.2 Operations of Boda boda

A stage is the typical basis for boda boda operations. The stage is the station provides the basis for management of the boda boda operations. A stage is organised in such a way that there is an elaborate leadership structure. At each stage, there is an executive committee composed of Chairman, Secretary and Treasurer who manage other operators. Most of the leaders are elected (65.5%) and 34.5% are nominated. Usually at the stages the committee manages a disciplinary function and also restricts entry into the business until a new rider pays a fee for entry. The entry fees vary from 50,000 ($29.4) to 300,000/- ($176.4) depending on the strategic location and demand of the business. Upcountry the entry fee is far less with Lira being 15,000/- ($8.8) and Mbale 30,000/- ($17.6). In Kampala, there are stages that operate only during day (near offices) and those that work at night (night clubs) There is collection of money at the stage level usually for their own welfare and this money is usually a source of conflict as it is usually not well utilised. Some stages are powerful and discipline its members though some do not.

Stages usually subscribe to bodaboda association in search for their protection and identity. They require protection from local authority who extort money from them. This is because the business is seen as profitable. Operators are sceptical of these associations as they lead to turning into cartels and would get money from the members usually through coercive means.

1.2.1 History of Motorcycle management

In 1993, it was the Uganda Association of Motorcycle and Bicycle Operators (UAMBO) that was dominant and played a crucial role in formalising boda boda in Kampala. It became acknowledged by the Kampala City Council and was given the role of collecting revenue on behalf of the council amongst the boda boda. Howe reports that at one time UAMBO had 70,000 members.

However, the boda boda business has been inherently unstable in regard to management. UAMBO disintegrated and the *Real bodaboda* Association became another important association. Like UAMBO, the association split and now the dominant one is National Federation for Boda boda Operators (NAFEBO). Though the claim to be national, they are usually small and is composed of a few stages unlike the Minibus association like UTODA that controls and regulates public minibuses in Kampala.

The National Federation of Bodaboda Organizations Ltd is the umbrella body under which all the various bodaboda organizations fall. Its influence however, even in the whole of Kampala is not felt, and some public officers in Kampala are not aware of it. The various executive offices are elected by general assembly of members. It acts as a channel of communication with public institutions in government, catering for the welfare of members and recommend members for loans.

1.2.2 Upcountry governance of motorcycles.

1.2.2.1 Mbale Municipal Council

In Mbale, the third largest town Uganda, motorcycles are managed by Mbale Motorcycle and Riders Association (MMOPA). The association is headed by a committee of nine members. All the members on this association must have been riders. They oversee 17 stages with 600 operators yet motorcycles are only 300. This reveals that there is disguised unemployment within this motorcycle business. For entry into the business you pay in the Association 30,000/-. Other requirements include the letter of recommendation form local councils.

1.2.2.2 Lira Municipal Council

The motorcycle leadership in the area is managed by Lira Motorcycle Investment Association. The association manages 4 motorcycle stages. Due to its flatness, the motorcycle operators have strong competition from bicycle taxis. It is in this regard that there are only 50 motorcycles yet have 70 operators. To be allowed on the stage as a new rider one pays Ushs 15,000/-

1.2.2.3 Kabale Municipal Council

There are 330 motorcycle taxis supervised by Kigezi Boda boda Association. A number member pays 20,000/- for entry and registration fees. Though it is a mountainous area, bicycle taxis competes with motorcycles.

1.2.2.4 Itendero Trading Centre

Itendero trading centre has 5 stages with 330 motorcycles with 420 operators. The area has a viable enterprising banana business that allows operators to use profitably

1.2.2.5. Buwenge Town Council

Buwenge Agali Awamu Boda boda Association manages the motorcycle business. The town has five motorcycle stages compared to eight stages for bicycles. This creates high competition between motorcycle operators and bicycle operators in this boda boda business. Bicycle taxi service provides a cheaper service.

1.3 Aim and objectives of the study

The principal aim of this study is to assess the growth of motorcycles in public transportation in the country. The purpose of the assignment is to:

1 Examine supply and demand characteristics of the motorcycle taxis;
2 Examine service characteristics (including impact on road congestion, traffic management, road safety, environment) of the m/cycle taxis;
3 Help governments consider and evaluate options for managing the growth of m/cycle taxis, including regulation of m/cycle and their riders;
4 Examine growth scenarios in the motorcycle population and the main factors that could encourage or restrict that growth
5 Investigate road safety and environmental aspects of motor cycles and identify possible measures that would improve safety and mitigate adverse environmental impact

1.4 Scope of Work

The consultant was requested to investigate:

a) Supply and Demand characteristics

Collect data on a range of indicators relevant for understanding supply and demand characteristics of m/cycle use in the cities/countries. This might include but is not limited to:

1. Data on car, bicycle and motorcycle ownership rates, consumer prices and taxation rates for different countries.
2. Data on per capita income levels and urbanization.
3. Growth rate over the past decade, ownership rates
4. Nature of demand
5. Data on structure and organization of motor-cycle taxis including: (a) organizational structure; (b) vehicle ownership and management; (c) vehicle purchase, finance and insurance; (d) facilities and equipment; (e) financial environment
6. Evaluate fare regime for motor-cycles and provide a comparison with fare charged by other competing modes

b) Service Characteristics

1. Visit urban and rural areas to make a brief survey on how people use motorcycles. What trips are made, what passengers and loads are carried and what distances are travelled and what costs are incurred.
2. Typical O-D patterns of m/cycle use
3. Nature of impact on road congestion, traffic management aspects

c) Regulatory Framework for future growth

1. Collect information on the licensing and regulation of motorcycles and their drivers. Review market conditions set up by various government agencies, including market entry rules; vehicle, driver and route licensing; fare and fare change mechanism; presence of unions and union regulations; taxation and other incentives/constraints, if any.

2. Meet with city and road engineers to consider what physical provision is made on and off roads for motorcycles and what implications there might be for infrastructure provision and traffic engineering measures to cater for a substantial growth in motorcycle use.

3. Provide set of guidelines to indicate the main policy implications from a possible substantial growth in motorcycle vehicle population

d) Growth scenarios in the motorcycle population

1. Conduct a general review on motorcycles and make contact with motorcycle manufacturers to determine trends.
2. Undertake a brief review of vehicle forecasting to identify the key characteristics.

e) Road Safety and Environmental Aspects

1. Data on motorcycle accident rates and safety issues.
2. Consider the road safety implications of motorcycle growth.
3. Impact on air quality, energy consumption

f) Social Aspects

1. Use and acceptability of m/cycles by gender, age, ethnicity and income
2. Profile of m/cycle drivers

1.5 Limitation of study

It should be noted that in addition to motorcycle taxis, there is also growth of motorcycle used for non- taxi work. Of particular type are those used by individuals, government and non governmental organisations and private companies' this study has been designed to look at motorcycle taxis and has not covered this area.

1.6 Methodology

The study methodology was both qualitative and quantitative in nature. It relied heavily on field study and complimented by desk research. The study had three components: operator, traffic counts, stakeholder interviews and user based components.

1.6.1 Literature review

A literature review of documents was carried out. The review looked at both the international and the local documents. The purpose was to understand the general understanding of the main issues in public transport in developing countries particularly in Asia and Africa. Local literature provided knowledge and lessons on examples of public transport interventions in place.

1.6.2 Operator component

A structured interview was conducted to investigate several issues in regard to the operators. The five divisions of Kampala were sampled for each division. The divisions were as follows: Central Division 100; Kawempe Division 90; Makindye 100; Nakawa 100 and; Rubaga 100. The operators were randomly selected: a sampling frame comprising of consecutive stages that are within the division. In the survey we used a uniform sample size of 100 operators in each Division apart from Kawempe were only 90 operators were randomly selected for interview due to the fact that most

stages are concentrated in a relatively small area of Kalerwe and Bwaise. The methodology of sampling was evenly distributed to allow proper representation of all the divisions. The questions in the questionnaires are attached as Annex 3.

1.6.3 Operator leader component

A structured interview conducted to investigate several issues in regard to the operators' leaders. Boda boda leadership is managed on stage basis which has a leadership structure headed by a chairperson. When developing the sample size, we took a uniform number of 18 leaders in each of the 5 divisions who were randomly selected. The questions in the questionnaires are attached as Annex 4.

1.6.4 Observation: Traffic Counts

The major source of observation was through traffic counts. Traffic counts on six road links were conducted in all divisions. There are three categories of roads; urban, peri urban and national. Two roads on each of the above three categories of roads were selected. The traffic count were conducted over a period of seven days. The exact locations of the traffic counts are shown below.

Link		Exact location	Type of road
Kampala	Mityana	Busega Tr. centre	National Roads
Kampala	Hoima	Nansana Tr. Centre	
Shoprite	Steers	Hussein Place	Urban
Oldpark	Bakuli	Nakivubo stadium gate	
Kyebando	Kisalosalo	Nsooba Tr. Centre	Peri urban
Kisaasi	Kyanja	Odesa Tr. Centre	

1.6.5 Stakeholders' interviews.

Decision makers were interviewed in regard to the motorcycle work. This involved both public and private sector leadership. In regard to the public sector, focus was on leaders in Ministry of Works, Kampala City Council, and National Environment Management Authority among others. In the private sector, the interviews included banks, importers and money lenders. The full list of the persons interviewed is attached as Annex 2.

1.6.6 User interviews.

Focus Group Discussions of the boda boda users to establish the users' perceptions on the use of motorcycles were conducted. Of particular importance, these discussions were used in accessing cross cutting issues. Both men and women were carefully selected to bring out issues regarding the use.

1.6.7 Data Management

Data was entered in Epi info/Epi data and Epi data Analysis done by Microsoft Excel while qualitative data was transcribed and thematically analyzed. The above programmes were selected because they have relatively better comparison of statistical package, capture epidemiological aspects like age, sex, and other socio economic aspects of the community. They are also good at descriptive analysis and checks which make data entry error free.

1.6.8 Study Area

The study area included Kampala Central Uganda. Upcountry areas studied included Lira in the North, Mbale and Buwenge in the East, Kabale and Itendero in Western Uganda.

Schematic Location of Kampala study area

1.


KAMPALA
BOMBO, LUWERO, GULU
GAYAZA
GAYAZA
Komamboga
KAWEMPE
Kanyanya
Kisaasi
Kulambiro
Kiwatule
Mbalwa
KIKAYA
BUYE
KAZO
NABWERU
KYEBANDO
BWAISE
KAWEMPE
BUKOTO
NTINDA
Kampala Technical Institute
MUKONO, JINJA
NAGURU
KIREKA
KAMWOKYA
KYAMBOGO
Nambole National Stadium
SPORTS VIEW
MULAGO
NAMUNGOONA
KAMPALA DISTRICT
LUBYA
Masanafu
Lugogo Sports Ground
NAKAWA
KINAWATAKA
Uganda Manufacturers' Association
NAKAWA
Vatican
MBUYA
LUGALA
LUSAZE
RUBAGA
KAMPALA
See enlargement above right
CENTRAL
Ange Noir Night Club
KISWA
BUTABIKA
Burundi
Bamboo Nest
SILVER SPRINGS
MUTONGO
Mackay Church (First Protestant Missionary in Uganda)
NATETE BACKPACKERS HOTEL AND CAMP SITE
Teacher Training College
KITINTALE
BUGOLOBI
BUSEGA
LUNGUJA
NAMUWONGO
BIINA
KIROMBE
NATETE
HOLIDAY
TIDES
KABALAGALA
MPANGA
LUZIRA
New Bristol Bar
View Point Bar
Pope Paul VI Memorial Community Centre
MENGO
Happy Land Night Club
Ethiopian Village
RESTE CORNER
Afrika Sana INTERNATIONAL
SHIRES COUNTRY CLUB
MUYENGA
KIBUYE
SUMMER
DIPLOMATE
Half London Night Club
Le Petit Bistro
Port Bell
MUTUNDWE
KYEITABYA
Wankulukuku Stadium
CALENDAR GUEST HOUSE
Tickles Bar
OLYMPIA
KABOWA
Stella
NAJANANKUMBI
MAKINDYE
KITEBI
KAUKU
Namalusu Island
LUWAFU
BUNGA
Kazinga
NAMASUBA
Masajja
KONGE
Murchison Bay
BUNAMWAYA
Gaba Major Seminary
GABA
Gaba Beach Night Club
Mulamula
Ggangu
Kiruba Island
Nantubule
MUNYONYO
Munyonyo Horse Riding School
Seguku
Ndeje
Nabusanke
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2.0 LITERATURE REVIEW

2.1 International Literature

Reddy (1999) argues that urbanisation is a concomitant feature of economic development. On average 45% of the human population in the world live in urban centres. With growing population in urban centres, vehicles operate in cities and share the same road space resulting into inefficient operations and hazards because of varying speeds and dimensions. He shows that studies done in Delhi, Mumbai, Calcutta, Hyderabad, and Bangalore have indicated that the per capita trips by vehicular modes have more than doubled in the last two decades and the number of vehicles has progressively increased at a rapid rate in these cities. He shows the inadequacy of public transport to cope with the demand especially at peak hours and that it has largely remained inefficient and unattractive thus inevitable need for structural improvement and upgrading. In the absence of an efficient mass transit public transport in Indian cities, a large number of private and Para-transit modes have emerged in the market to meet the travel needs. The gap in the supply of transport is filled by an array of Intermediate Public Transport (IPT) modes like auto rickshaws, cycle rickshaws and tempos. IPT have increased due to the high cost of private transport and less flexibility and overcrowding of public transport.

Paul Barter (1999) provides an overview on urban transport from the Asian perspective. He argues that urban poverty and transport had been a neglected issue especially in the eyes of multilateral lenders. He showed that there is now a renewed interest to tackle this problem. The report shows transport patterns and the needs of the urban poor. He showed that poor people in Asian cities have problems of affording public transport and it is a big burden to them. He further showed that small changes in the public transport prices can make a large difference to the mobility of the poor. There is therefore need to focus on the pro-poor transport strategy to make improvements that benefits the modes widely used or potentially used by the poor. He shows that making walking easier and safer, especially in and around low-income settlements and concentrations of low- income employment, would benefit the poor, since most of their trips are on foot. Similarly, policies that succeed in making non motorised vehicles (NMV) and public transport more accessible and affordable to the poor will make a large difference.

Setty Pendakur (2005) provides an important insight on non motorised transport in African cities. The document specifically looks at the experience in Kenya and Tanzania that have similar context with Kampala. The report shows how small scale private sector is the major supplier of public transport, mainly minibuses. Minibus regulatory system is inadequate and ineffective. The report shows that NMT improvements, mainly used by the poor, could be a way to increase urban productivity and thus reduce poverty. He argues that cycling does not appear to have a significant potential for increase in large cities.

Promoting Pro Poor Growth (2006) provides guidelines for planners in as far as infrastructure for the poor are concerned. The report shows that transport infrastructure enhances the production and trade potential of local, national and regional economies. It also facilitates access to economic and social services especially for reaching the MDGs. But transport costs are too high due to inadequate facilities and weak services. In urban areas, in particular the poor suffer if their rapidly growing demand for transport is not met. In rural and slum areas for instance they are not served by adequate transport. Maintenance is rarely performed due to irregular funding, badly maintained transport networks exacerbate environmental and health problems such as pollution, and spread of HIV/Aids – all of which take a disproportionate toll on the poor, and responsibilities are often splintered among several ministries, impeding co-ordination and sector governance.

Scoping Study (2002) on urban mobility in three cities of Addis Ababa, Dar-es-Salaam and Nairobi provides an overview of the urban transport characteristics. The study shows that public transport is

of poor quality, unreliable and very often unsafe and insecure. It shows private sector dominance in public transport market. The roads themselves and associated pedestrian facilities are badly maintained and managed, contributing to problems of commuting, unsafe nature of travel and general congestion in the central areas. The report further shows that the cost of travel is too high for the urban poor to make regular use of public transport and alternative means (walking and cycling) are not only onerous but also receive little encouragement in the way of facilities. The report shows that the environmental hazards are not yet a major problem but are likely to get worse. It shows that the urban transport problems rise because of poor leadership and coordination and cites funding as a constraint arising out of low priority by the cities' leadership. It also shows that urban transport policies are heavily influenced by political environment. It also shows factors that influenced the urban transport such as the economic recovery programmes that have seen government divest itself from provision of transport services; liberalisation of the economy; decentralisation of services to the local governments and; high urban growth that have outpaced provision of transport services. However in the studied cities, there were no motorcycles as a means of public transport though mention is made of how use of low capacity vehicles lead to increased congestion.

2.2 Local Literature

Benmaamar (2002) discussed that public transport system in both Accra and Kampala cities. In regard to Kampala, he showed how a taxi association (UTODA) that controls the public transport in Kampala is providing a poor quality service and there is need for improvement. The study showed that the market is not competitive but rather monopolistic in nature. He further showed significant savings from improved vehicle efficiency but this needs institutional reforms. His study did not however look at motorcycle taxi as a means of public transport although it was established at the time of study in Kampala. His outlook was towards mass transit system as the way forward.

The Draft Policy and Strategy Paper (2001) that provides government's overall transport policy underpin the principle of liberalisation of the public transport. The report mentions that government shall not participate in the provision of transport services. Its role is to provide policy guidelines and to clearly define by law and efficiently exercise its regulatory powers to ensure the establishment of a level playing field for the competitive provision of services. The report further provides that the private sector has the role of public transport provision as transport services should be privately operated and will generally adapt themselves to meet demand. It also identifies the public transport problems of Kampala as lack of road maintenance, at least partly due to an inadequate revenue base for city council, a failure to develop infrastructure in line with rapid urban growth and inability to properly plan and regulate the supply of public transport. The report further mentions the need to improve public transport and the need to reduce the use of motorised transport in the city centre and provide safe environments for pedestrians and cyclists throughout the urban area.

Howe (2002) looks specifically at the motorcycle transport taxi as an alternative public transport system. He shows how motorcycles provide a low capacity transport system for Uganda which should be promoted through creation of economic opportunities for the poor and reduction of taxes on motorcycles and bicycles. When the poor are provided with economic opportunities then their demand for the public transport services will be increased. He showed that the greatest impact boda boda had made on the Ugandan scene is the employment creation. He estimates that there were about 200,000 boda boda and amongst these 70,000 were motorcycle operators in the country by 2002, caring for about 1.6 million people. The report showed how it benefits the users to avoid traffic jams and also how it enhances the income of the users through being appropriate to their needs. The report provides a detailed view on the regulation and organisation of the boda boda business, the operations, operators and the users, it also mentions the problems related to boda boda use like the inherent problems of leadership and organisational instability which usually leads to political patronage in the business. In addition it shows how safety has been compromised by the users. However the report did not talk about the infrastructure required for the motorcycle use especially in urban areas.

Kwamusi (2004) showed how public transport does not provide value for money services. He showed current problems related with private sector services in urban transport in Uganda including the industry being invaded by lumpens who take advantage of the poorly regulated transport sector to commit crimes towards the passengers. Though public transport is the mode of transport for the poor, the users have no where to complain for the poor service provision. Like Benmaamar, there is little about motorcycle transport.

The Traffic and Road Safety Act (1998) provides the legal framework in which public transport is controlled in the country. The Act classifies types of public transport licences. Public transport was seen from large buses, minibuses and taxi (saloon) perspective. By the time the Act was developed, motorcycle taxi was not a significant mode of transport. However in 2004, Government enacted a regulation on use of helmet as a direct response to the growth of motorcycle taxi use that resulted into increased road accident rates.

Kyamulabi (1999) looked at motorcycle taxi from a gender perspective; she revealed the importance of motorcycle use as a means of relieving the travelling burden of women in accessing social services in addition to economic activities. She also looked at limitations of women in accessing these services especially in regard to affordability.

National Transport Master Plan (2005) which includes a master plan for Greater Kampala identifies three types of public transport systems in Kampala. These are *boda boda*, minibuses and large conventional buses. It further shows that public transport is operated through transport associations and regulated by the Transport Licensing Board. The plan mentions that there are 4,000 boda boda in Kampala. The Plan identifies inadequate provision for and use of stopping areas for these modes and recommends a further study on how to improve the service. It envisages an investment of $323M by the private sector in form of bus fleets over the period of the next 15 years. It does not mention how much would be invested in motorcycles over the given period. Government plans to reverse the fast growth of both minibuses and motorcycles in favour of big buses in order to decongest the city. The plan reveals that the roads were designed without proper care for the needs of pedestrians and non motorised transport modes. The plan proposes the creation of the Metropolitan Area Transport Authority (MATA) to handle the function of urban transport management.

The Multi Sectoral Transport Regulatory Authority study (2005) identifies motorcycle taxi as a mode of transport. The study estimated that by 2003, there were 4,000 motorcycles operating in Kampala. The study however does recommend the abolition of minibuses and adoption of mass transport system. In addition, a metropolitan transport institution was suggested to regulate and control public transport in Kampala. The study is silent on the supervision and control of the growth of motorcycles and the way forward on how to manage motorcycle regulation under the proposed MTRA system.

Kampala Urban Traffic Improvement Plan Study (2005) covered various areas including infrastructure improvement plans both for the short and long term basis. The study further carried out vehicle growth estimates up to 2018. The overall vehicle growth estimation was 3.50 % up to 2018. In regard to motorcycles the study revealed that the motorcycle growth would be by 3.10 percent. It revealed that there were 73,000 motorcycles in 2003, then 85,000 units by 2008, then 100,000 in 2013 and by 2018 there would be 116,000 motorcycles. However, the records from the Uganda Revenue Authority show that in 2005 there were 41,282 imports and in 2006 there were 42,816 motorcycle imports, thereby having a total of 84,098 motorcycles imports in two years alone.

The Uganda Police Accident Data (2004-5/2005-6) shows that there is a high accident rate amongst the motorcycle users. Accidents rose from 4000 victims to 5000 victims within one year representing a 12.5 % increase in one year. Motorcycle accidents are the fastest growing accident

user category. Police crime statistics shows boda boda theft as one of the leading vehicles related crimes in the city.

Injury Control Centre Uganda study (2007) looked at the helmet use in commercial motorcyclists in Kampala: prevalence, associated factors and outcomes of motorcycle-related injuries. It examined the cyclists and passenger's reasons for use or non-use of helmets and the severity and outcomes of traffic injuries among boda - boda riders in relation to helmet use. The results of the observations suggest a low helmet use among the cyclists although the interviews show a high prevalence of helmet ownership among the riders. A number of reasons could have accounted for this; they can be categorized into rider, helmet, socio-economic and legal contextual factors. The study also found a low prevalence of helmet use by passengers. Almost all boda-boda users or pillions had no helmets.

Arrive Alive Uganda report (2007) looked at lessons learnt in raising road safety awareness amongst public transport operators particularly the motorcycle taxis; the report provides important insights of how to run a road safety awareness programme on a sustainable basis. Issues like motivation, mobilisation of the participants is important for the success of the campaign. Good facilitation skills on the part of the facilitators are important for the success of the campaign. Thorough preparation on the part of the project coordinators and the contractors is important. Linkages with Government are crucial. Participants have their own issues concerning the smooth operations that need consideration. There is need to follow up the community trainers to help mentor them into full scale trainers. This requires equipping them with, among others, training materials. External factors that affect the implementation of the activities of the project were also analysed.

3.0 KEY FINDINGS

The findings of the study have been described following closely the issues raised in the Terms of Reference.

3.1 Vehicle growth in Uganda.

3.1.1 Historical Traffic Growth

The historical traffic growth was based on the previous studies done, namely the KUTIP (August 2002), and the Greater Kampala Metropolitan Areas (GKMA) Transport Master Plan (March 2004). A traffic growth rate of 5% has been adopted as estimated in KUTIP. Current traffic volumes and the Traffic projection based on estimated growth rates of 5% have been carried out for the year 2022.

3.1.2 Estimation of Base Year Traffic

The base year traffic flow is the primary input for determination of future traffic demand. With a view to estimate the base year traffic levels in respect of goods and passenger carrying vehicles on the National roads, urban roads and peri-urban, classified volume count surveys were conducted. For the purpose of traffic estimation and projections the year 2007 has been taken as the base year. Keeping in view the road network and expected improvement and upgrade of road has been assessed by the Consultant.

3.1.3 Primary Traffic Surveys

The Classified traffic Surveys were carried out at the location for each road, for 12 hours. Traffic count locations were decided judiciously so as to capture representative traffic flow on respective roads.

The classified traffic volume surveys were conducted for 12 hours (07-19h) from 2nd December to 8th December 2007. 12-hour traffic volumes observed were compiled and analysed. Hourly traffic volume for each of the project roads is outlined below for respective zones i.e. (Urban, Peri-urban and National) Observed traffic volume has been analysed for traffic composition and hourly variation.

3.1.3.1 Criteria for Primary Traffic survey locations

The following are the locations selected for the survey

3.1.4 Urban roads

Graph 1

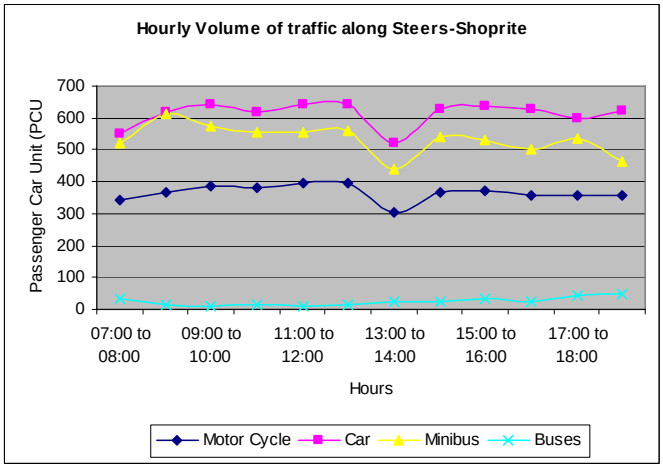
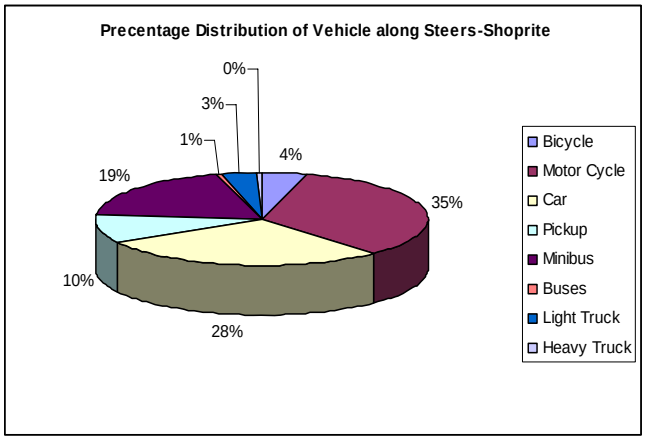


Chart 1



From the above presentation, it may be observed that out of combined traffic population, motorcycle has 35% vehicle share thus being the highest on that particular link in terms of number and in terms of volume the motorcycle is ranked 3rd as clearly illustrated in graph 1.

Graph 2

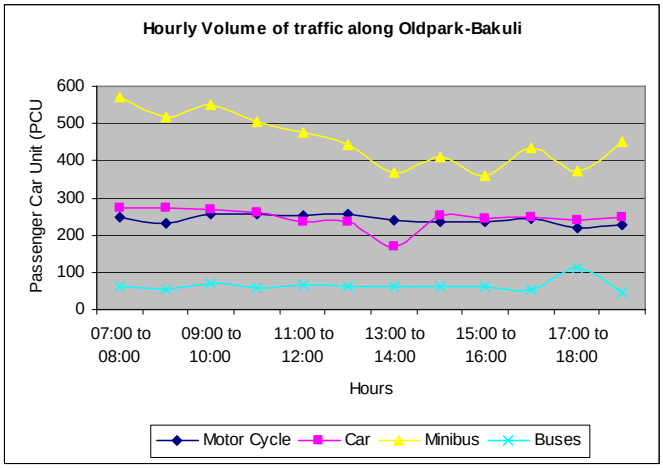
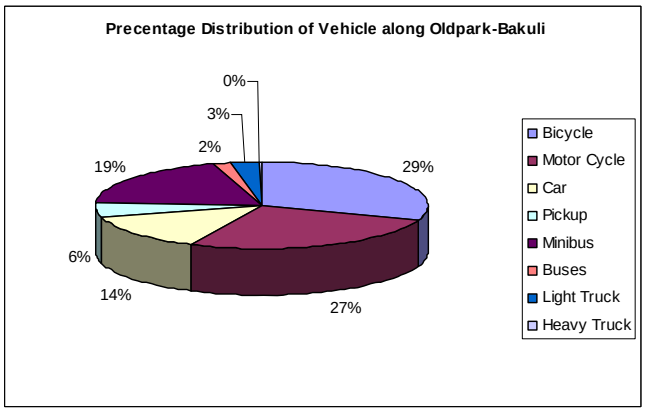


Chart 2



From the above presentation, it may be observed that out of combined traffic population, Bicycle has 29% of vehicle share and then followed by the motorcycle which has a share of 27%. From graph 2 it's evident that there is conflict among the car users and motorcycle users.

3.1.4.1 Main Findings on the urban roads

In light of the above, it is evident that there is need to consider banning of motor cycles from the Central Business District (CBD) in the future by the planners if we are to reduce on conflict in vehicular traffic as clearly demonstrated in graph 2 above. This conflict if not mitigated, there is a high incidence of increased conflicts and accidents. In this respect, it is recommended that the CBD is serviced by Mass transit vehicles like buses.

3.1.5 Peri urban roads

Graph 3

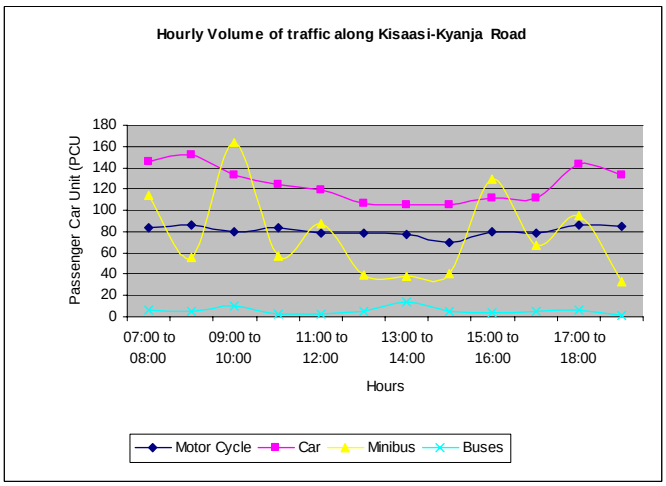
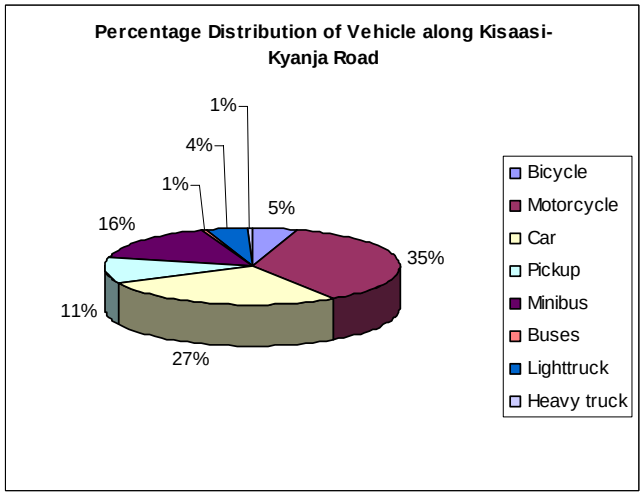


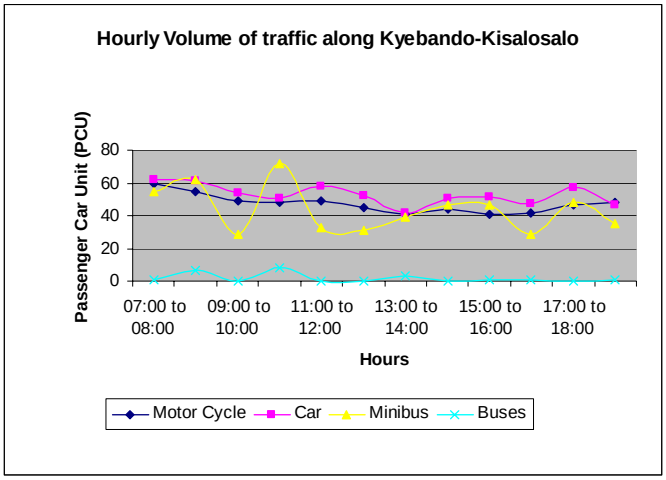
Chart 3

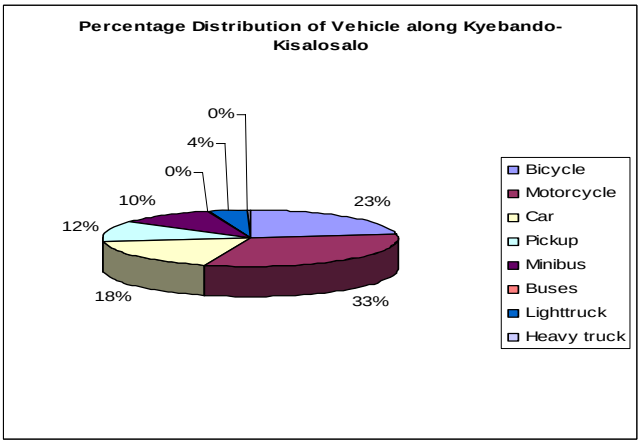


From the above presentation, it may be observed that out of combined traffic population, Motorcycle is the highest with 35% vehicle share. From graph 3 it's evident that there is conflict among the car users and motorcycle users. This signifies that this link is prone to accidents since cars using this link in particular not only stop within the area but are also continue to the Gayaza road.

Graph 4

Chart 4





From the above presentation, it may be observed that out of combined traffic population, Motorcycle is the highest with 33% vehicle share. From graph 4 it's evident at some time "t" vehicle volume for the car, minibus and motorcycle on this link is almost the same. This scenario is indicative that there is more likelihood for accidents to occur if the lanes are not separated to cater for the motorcycle.

3.1.5.1Main Findings in the Peri Urban roads

The behaviour pattern of the vehicular traffic in the peri urban settings with high population density per hectare is clearly different from that of low population density per hectare as clearly demonstrated in graph 3 and 4. However, although there is this difference, we do observe that in both cases there is conflict in traffic flow which certainly puts the end users to a great risk especially those travelling on the motor cycles.

In light of the above, in future the planners need to look into the aspect of absorbing volume generated by the motorcycle and car traffic coming to the CBD into the Bus category such conflict is reduced since provision of the motor cycle lanes as of present seems to be complicated because it involves compensating with big sums of money and hence making the solution not viable.

3.1.6 Flow of Traffic from Peri Urban towards the National Roads

Graph 5

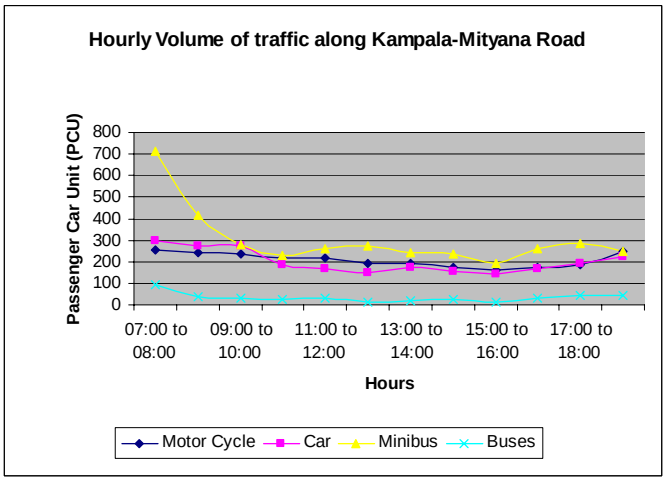
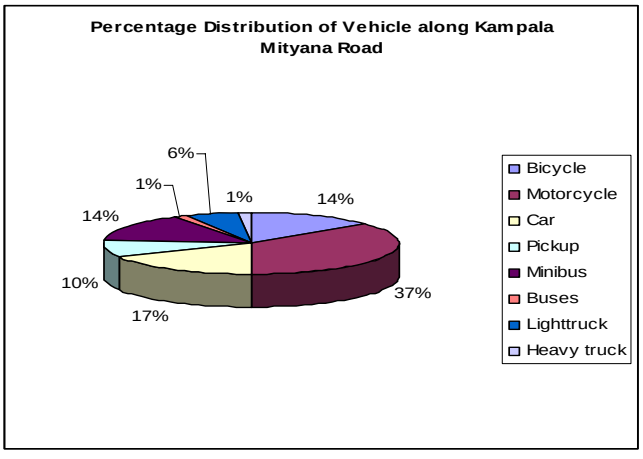
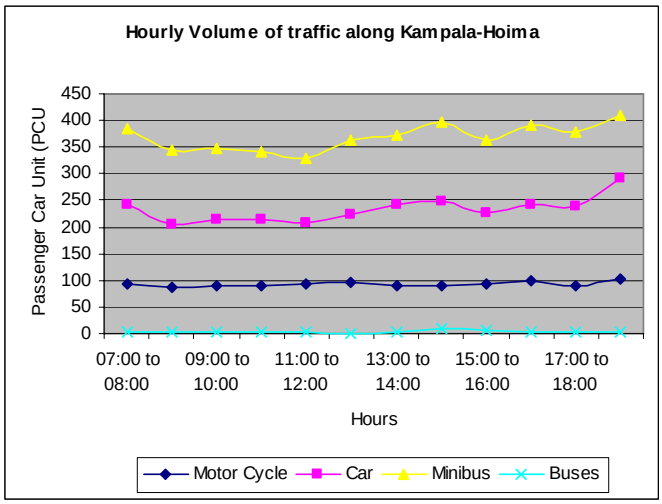


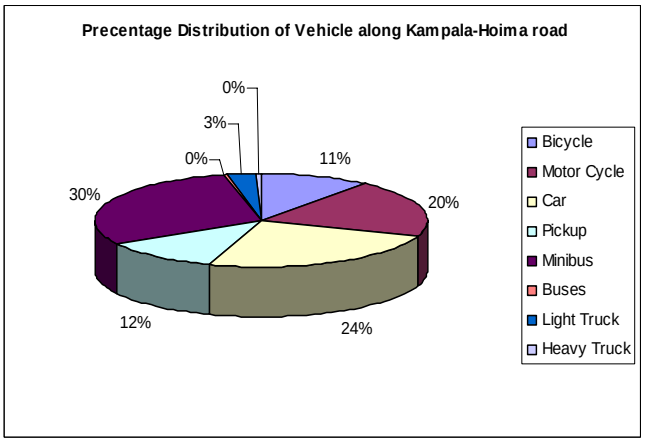
Chart 5



From the above presentation, it may be observed that out of the combined traffic population, Motorcycle is the highest with 37% vehicle share. From graph 5, it's evident that between 10:00 to 18:00 hrs, there is high percent chance occurrence of an accident.

Graph 6 *Chart 6*





From the above presentation, it may be observed that out of combined traffic population, Motorcycle is the highest with 30% vehicle share in terms of numbers. However from graph 6, it's evident that transportation is mainly conducted by the minibus along this route.

3.1.6.1 Main Findings on the National Roads

We observe that in graph 5 there is conflict in the vehicular traffic and while in graph 6 there is no conflict in the vehicular traffic in terms of volume. This is indicative that the users of the motorcycle mode of transport do appreciate the likely hood cost per Kilometre (Km). That is why there is this variance in graph 5 and graph 6.

In light of the above, we note that on these National roads there is no provision of motorcycle lanes and yet some road users prefer to use the motorcycle mode of transport in spite of its cost per Km. In this regard, it is high time the planners put into consideration provision of the motor cycle lane while upgrading these National roads.

3.2 Average Daily Traffic (ADT)

Primary traffic surveys carried out by the Consultants correspond to 12 hour volume. In order calculate daily traffic, MOWHC study (March 2002) on "Traffic Census Project on Central Uganda Road Links" is referred to. Based on this study, Night Expansion Factors of 1.41 for motorised traffic and 1.28 for non-motorised traffic are used against 12-h traffic volume (07-19h).

Table 1: Average Daily Traffic for 2007 (Motorised)

Link		Count Station Name	Location	Motor cycles	Saloon cars	Pickup	Minibus	Buses	Light truck	heavy truck	ADT including Motor Cycles
Kampala	Mityana	Busega Tr. centre	National	6,998	3,388	1,856	2,799	257	1,184	244	**16,725**
Kampala	Hoima	Nansana Tr. Centre		3,144	3,938	1,912	4,790	27	470	69	**14,350**
Shoprite	Steers	Hussein Place	Urban	12,384	10,358	3,638	6,933	189	1,207	176	**34,885**
Oldpark	Bakuli	Nakivubo stadium gate		4,110	4,164	1,733	7,694	1,089	1,939	130	**20,858**
Kyebando	Kisalosalo	Nsooba Tr. Centre	Peri Urban	1,600	893	572	516	14	209	14	**3,818**
Kisaasi	Kyanja	Odesa Tr. Centre		2,733	2,102	825	1,191	44	324	51	**7,270**

Table 2: Average Daily Traffic for 2007 (Non Motorised)

Link		Count Station Name	Location	Bicycles	ADT for Bicycles
Kampala	Mityana	Busega Tr. centre	National	2,474	**2,474**
Kampala	Hoima	Nansana Trading Centre		1,590	**1,590**
Shoprite	Steers	Hussein Place	Urban	1,439	**1,439**

Oldpark	Bakuli	Nakivubo stadium gate		3,365	**3,365**
Kyebando	Kisalosalo	Nsooba Tr. Centre	Peri Urban	1,016	**1,016**
Kisaasi	Kyanja	Odesa Tr. Centre		351	**351**

The following PCU conversion factors which were used in the (KUTIP) study have been adopted to convert vehicle to PCU.

Table 3: Passenger Car Unit (PCU)

Mode	PCU Factor
Car/Van/Jeep/Pickup	1.00
Motorised two wheeler	0.5
Lorry 2-axle / Bus	2.2
Trailor (multi-axle)	3.0
Matatu	1.3
Bicycle	0.4

Daily traffic volume thus arrived for the project roads are given below.

Table 4: Passenger Car Unit (PCU) for Motorised Traffic

Link		Count Station Name	Location	Motor cycles	Saloon cars	Pickup	Minibus	Buses	Light truck	heavy truck	Total PCU including Motor Cycles
Kampala	Mityana	Busega Trading centre	National	3,499	3,388	1,856	3,639	565.4	2,605	732	**16,284**
Kampala	Hoima	Nansana Trading Centre		1,572	3,938	1,912	6,227	59.4	1,034	207	**14,949**
Shoprite	Steers	Hussein Place	Urban	6,192	10,358	3,638	9,013	415.8	2,655	528	**32,800**
Oldpark	Bakuli	Nakivubo stadium gate		2,055	4,164	1,733	10,002	2395.8	4,266	390	**25,006**
Kyebando	Kisalosalo	Nsooba Tr. Centre	Peri Urban	800	893	572	671	30.8	460	42	**3,468**
Kisaasi	Kyanja	Odesa Tr. Centre		1,367	2,102	825	1,548	96.8	713	153	**6,804**

Table 5: Passenger Car Unit (PCU) for Non Motorised traffic

Link		Count Station Name	Location	Bicycles	Total PCU for Bicycles
Kampala	Mityana	Busega Trading centre	National	990	**990**
Kampala	Hoima	Nansana Trading Centre		636	**636**
Shoprite	Steers	Hussein Place	Urban	576	**576**
Oldpark	Bakuli	Nakivubo stadium gate		1,346	**1,346**
Kyebando	Kisalosalo	Nsooba Trading Centre	Peri Urban	406	**406**
Kisaasi	Kyanja	Odesa Trading Centre		140	**140**

3.2.1 Projected Traffic

Road Note-31(1993) in its current version suggests a design life of 10 to 20 years depending on uncertainty of traffic forecasting. The Road Design Manual of MoWHC (2004 revision) indicates that the design year is normally chosen as year 10 after the year of opening to traffic.
The 15year design life was adopted in consonance with Road Design Manual of MoWHC.

Design Traffic, ADT = Daily ADT * 365 * K

where

$$K = \frac{(1 + r)^n - 1}{R}$$

r = average traffic growth over the 15 year design period

$$= \frac{(1+0.05)^{15}-1}{0.05} = 21.58$$

Therefore, ADT = ADT * 365 * 21.58

Traffic demand forecast has been based on economic parameters and growth of registered motor vehicles and dealt in the report component for traffic improvement plan. Based on the same, a uniform average annual growth rate of 5% per annum for motorised traffic has been considered. Thus, traffic projection is worked out for a design life of 15 years.

Table 6: Average Daily Traffic Projected

Link		Count Station Name	Location	ADT including Motor Cycles (2007)	ADT including Motor Cycles (2022)
Kampala	Mityana	Busega Tr. centre	National	16,725	**131,737,808**
Kampala	Hoima	Nansana Tr. Centre		14,350	**113,030,645**
Shoprite	Steers	Hussein Place		34,885	**274,778,680**
Oldpark	Bakuli	Nakivubo stadium gate	Urban	20,858	**164,292,209**
Kyebando	Kisalosalo	Nsooba Tr. Centre		3,818	**30,073,241**
Kisaasi	Kyanja	Odesa Tr. Centre	Peri Urban	7,270	**57,263,609**

Table 7: Average Daily Traffic Projected (Non Motorised)

Link		Count Station Name	Location	ADT for Bicycles (2007)	ADT for Bicycles (2022)
Kampala	Mityana	Busega Tr. centre		2,474	**19,486,956**
Kampala	Hoima	Nansana Tr. Centre	National	1,590	**12,523,953**
Shoprite	Steers	Hussein Place		1,439	**11,334,571**
Oldpark	Bakuli	Nakivubo stadium gate	Urban	3,365	**26,505,096**
Kyebando	Kisalosalo	Nsooba Tr. Centre	Peri Urban	1,016	**8,002,727**
Kisaasi	Kyanja	Odesa Tr. Centre		351	**2,764,722**

3.3 Motorcycle growth in Uganda

The study has established that there is a high growth rate of motorcycles in Uganda. The motorcycle importation has grown from 12,564 in 2000 to 42,816 in 2007 representing a growth rate of 19 % per year. In regard to value of motorcycles the value rose from $ 5,317,074 in 2000 to $ 15,413,175 in 2007 representing a growth rate of 16 % per year.

Table 8: Total imports of motorcycles in Uganda

Year	Number of motorcycles	Value in U Shs	Value in $
2000	12,564	9,039,027,384	5,317,074.9
2001	8,549	6,276,986,927	3,692,345.3
2002	13,416	7,651,471,829	4,500,865.8
2003	18,562	10,557,864,017	6,210,508.3
2004	24,312	11,826,254,816	6,956,620.5
2005	35,691	18,177,896,486	10,692,880.3
2006	41,282	23,835,972,552	14,021,160.3
2007*	42,816	26,202,398,733	15,413,175.7

**Up to November does not include Dec 2007.*

Source: Uganda Revenue Authority

It was established that there is a significant number of motorcycles that are not registered. However, it was not possible to provide the data on the number of such motorcycles. Explanation for the difference is delay by the importers to register the motorcycles due to non payment of taxes.

Table 9: New motorcycle imports and registrations

Year	Number of motorcycles imported	Number of cycles registered	Percentage of registered cycles
2000	12,564	10,145	80.7
2001	8,549	10,122	118.4
2002	13,416	12,159	90.6
2003	18,562	15,982	86.1
2004	24,312	17,131	70.5
2005	35,691	19,429	54.4
2006	41,282	N/A	-
2007*	42,816	N/A	-

Source: Uganda Revenue Authority

The growth of motorcycles has exceeded the forecast done in previous studies. For instance the Kampala Urban Traffic Improvement Plan estimated that motorcycle annual growth would be 3.10% and by 2018 there would be 116,700 in the country yet the current import growth in the last seven years has been annual rate of 19% per annum. The records from the Uganda Revenue Authority show that in 2005 alone there were 41,282 imports and in 2006 there were 42,816 motorcycle imports, thereby having a total of 84,098 motorcycles imports in two years alone. In other words the study underestimated the motorcycle growth rate.

Table 10: Forecast of Motor vehicles in Uganda 2018

Vehicle Fleet	Growth Rate	2003	2008	2013	2018
Total Vehicles	3.50%	216,600	257,300	305,700	363,200
Trucks	6.50%	16,700	23,000	31,600	43,300
Pick up/4WD	4.00%	47,300	57,900	70,700	86,500
Buses	4.10%	900	1,100	1,300	1,600
Minibuses	3.50%	18,600	22,200	26,400	31,400
Cars	2.90%	55,800	64,400	74,300	85,800
Motorcycles	3.10%	73,500	85,700	100,000	116,700
Tractors	0.03%	2,300	2,300	2,300	2,300
Other	1.70%	1,600	1,700	1,900	2,000

Source: TAHAL (2005)

Ministry of Works estimated in 2003 that motorcycle 10 year growth rate will be at 22.07 %. This implies that there would be about 108,901 motorcycles in the country by 2014.

Table 11: Estimated number of vehicles on road 1991-2004

Year	Heavy commercial	Pick-up vans	Buses	Mini buses	Cars	Motor cycles	Agri tractors	Others	Total
1991	7,224	13,000	342	4,680	17,804	5,226	988	838	**50,102**
1992	7,397	13791	382	5,283	18,998	6,213	1,222	981	**54,267**
1993	7,554	15,035	401	5,283	20,464	7,646	1,331	1,080	**60,000**
1994	7,957	17,776	464	6,489	24,208	12,142	1,541	1,150	**74,047**
1995	8,531	22,039	591	8,809	28,941	21,988	1,785	1,179	**96,212**
1996	9,187	27,365	617	11,158	35,361	36,994	2,043	1,386	**126,214**
1997	9,850	33,120	625	13,261	42,000	48,000	2,100	1,400	**150,495**
1998	11,451	37,199	686	13,400	46,930	61,044	2,287	1,424	**176,164**
1999	12,801	41,365	770	15,272	48,392	63,769	2,427	1,448	**186,244**
2000	13,240	42,443	800	15,523	49,016	64,305	2,334	1,444	**189,105**
2001	14,441	45,161	845	17,148	53,105	66,984	2,317	1,520	**201,521**
2002	15,719	45,472	836	18,006	54,173	71,229	2,291	1,552	**209,278**
2003	16,122	48,528	846	19,726	56,837	80,088	2,421	1,623	**226,191**
2004	17,530	52,685	878	22,565	59,786	89,212	2,574	1,815	**247,045**
10 Yr Gr rate	8.22%	11.48%	6.59	9.86%	9.46%	22.07%	5.26%	4.67	12.80%

Source: Ministry of Works

Howe (2002) estimated that there were 70,000 motorcycle taxi in Uganda by 2002 and 130,000 bicycle taxi in Uganda.

3.3.1 Factors that have enabled the growth of motorcycles in Uganda.

There has been an enabling environment of the growth of the motorcycle industry.

a) Poor public transport services
The private sector has not been able to cope with the rapid growth and demand of the services. According to Benmaamar (2002), the vehicle fleet is old, and of poor quality. The road infrastructure is also poor. The result has been long waiting time resulting into delays.

"The waiting time for Boda boda is less than one minute whereas it takes up to thirty minutes to fill a taxi with passengers, so I opt for boda boda"…….FGD Boda boda user, Nakulabye, Kampala City Centre.

Motorcycles also serve areas of low demand capacity where it is not economical for a minibus to ply the route. They also act as feeders of higher capacity PSV vehicles.

b) Liberalisation
Government policy to liberalise and disengagement from public transport service provision has contributed to the growth of motorcycles. Liberalisation has led to the increased importation of used motorcycles that are relatively cheap. In 1991, Government relaxed the regulation that restricted the importation of vehicles that were five years old. By 1999, 90% of newly registered imported vehicles are used. Of recent traders have been importing new Chinese motorcycles that are equally cheap.

c) Direct government motorcycle promotion
Faced with the growing problem of particularly, urban unemployment, government has promoted motorcycle taxis as a strategy towards poverty alleviation. Government has secured funds to purchase cycles on credit schemes. Under the "Prosperity for All" programmes for instance, provision of motorcycle taxis has been pursued.

d) Availability of cheap new and used motorcycles from Asia
Motorcycle dealers confirmed that it is in Asia, particularly India and China that provides cheaper motorcycles compared to other areas like Europe. In addition, the spare parts are also available to service the motorcycles.

e) Credit facilities from persons and banks
Commercial banks are willing to lend money for motorcycle taxis which has contributed to their growth. Government has been on the forefront in arguing banks to lend the operators. In addition to banks private businessmen have developed their own credit schemes for motorcycle procurement. The scheme is explained in section 4.2

f) Poor road infrastructure,
Some areas of the city and rural road network is of poor repair conditions. Unlike buses, that demand a good or fair condition to operate, motorcycles can be on poor road conditions. This favours motorcycle taxi use.

g) Waiving of local Government tax on motorcycle.
In 2005, the local government tax on motorcycle was removed by the President. The reason for the waiving was due to the fact that operators are poor people who should not be taxed. This encouraged people to invest into the business as they felt that the tax was a disincentive into business.

3.4 Motorcycle taxi in Kampala

3.4.1 Previous motorcycle taxi estimates for Kampala

The Master plan study report estimated that Kampala had 4,000 boda boda taxis in 2004. During the course of this research, it was learnt from KCC, that there was a KCC motorcycle cycle census that was carried out in June 2007 which revealed that there arej 20,300 motorcycle taxi in the city, it was not possible to verify the KCC methodology.

3.4.2 The motorcycle taxi estimation

This study has established that Kampala city had 15,979 motorcycle taxis (Nov 2007). This figure was arrived at by physically visiting the stages Kampala. At the stages information was provided for those were under repair and the cycles that had been removed from service due to accident and age. The list of all stages visited is attached as *Appendix 5*

Table 12 Consultant's estimates of motorcycle taxis in Kampala

Division	Average No. Of Motorcycles Per Stage	No. of Motorcycle Stages	No. of Motorcycles
Nakawa	24.37	88	2145
Central	27.12	240	6,509
Kawempe	29.5	106	3,127
Makindye	29.89	84	2,509
Rubaga	25.59	66	1,689
Total		**584**	**15,979**

Source: Consultants surveys

3.5 Motorcycle taxi growth in Kampala

Using 2004 as a base year therefore the study revealed that the growth rate of motorcycles is 58.7 % per annum. The use of the 2004 as base year is based on the fact that it is the credible motorcycle estimation the consultant found which had shown that there are 4,000 motorcycles in Kampala. The number of motorcycles in Kampala at the growth rate of 58.7 % per annum from the survey is projected as follows:

Computation of Growth rate:

$$\mathbf{P_{(t+n)} = P_t(1+r)^n}$$

Where:
r is the growth rate
n is the number of years
P_{t+n} is the projected No. of motorcycles after n years
P_t is the No. of motorcycles in the base year

3.5.1 Forecast for growth of motorcycles in the next 5 years

Table 13: Projected motor cycle growth in Kampala

Year	No. of Motorcycles Projected
2008	25,359
2009	40,244
2010	63,867

2011	101,357
2012	160,855
2013	255,277
2014	405,124

3.6 Motorcycle taxi growth upcountry

The survey carried out revealed that in Buwenge town there were 56 motorcycles in 2004 and 317 in 2007 which puts the growth rate at 78 %. Lira town had 35 motorcycles in 2004 but currently (2007) there are 50 motorcycles which is a growth rate of 13 %. The survey revealed that in Mbale there were 200 motorcycles yet in 2007 there are 300 motorcycles which is a 14 % growth rate. Kabale town depicted the highest growth rate of 304 % i.e. from 5 in 2004 to 330 motorcycles in 2007.

Table 14: Number of motorcycles in some up country towns

		No. of Motorcycles			
Towns	**Growth rate %**	**2004**	**2005**	**2006**	**2007**
Buwenge	78	56	93	191	317
Lira	13	35	40	42	50
Mbale	14	200	250	270	300
Itendero	26	150	200	250	300
Kabale	304	5	25	80	330

3.7 Impact of motorcycle growth

3.7.1 Positive impact

3.7.1.1The demand for the service

The motorcycle taxi has had a number of positive impacts. One benefit of the service is the filling the gap created by inadequate public transport services. Boda boda provides door to door services and there is an effective demand for boda boda service in Kampala city. The reasons for use of the service according to a total of 489 people, 255 (52%) used it for time saving, 106 (22) for avoiding the traffic jam, 94 (19 %) for convenience as it provides door to door service, 27 (6 %) for its cheapness and only 7 (1%) felt using it for privacy.

3.7.1.2 The employment creation

Boda boda has created jobs for the male youths in country. Howe estimated that 200,000 youth were employed by boda boda by 2002. Of these 70,000 were operating motorcycle taxis throughout the country.

Our research found out that about 17,964 are employed in Kampala. It is estimated that the employed are as provided below.

Table 15: Estimated number of motorcycle operators

Division	**Number of Motorcycles**	**Number of Motorcycle Operators**
Nakawa	2145	2,376
Central	6,509	7,200
Kawempe	3,127	3,180
Makindye	2,509	3,360
Rubaga	1,689	1,848
Total	**15,979**	**17,964**

3.7.1.3 Source of revenue for Government

The growth of motorcycles has led to increased importation of motorcycles which has led to increased revenue for the central government. It was also a source of revenue for the local government until it was suspended as will be shown. The growth of motorcycles has led to increased use of fuel which is also taxed thereby leading to more revenue for government.

3.7.2. Negative impact of boda bodas.

3.7.2.1 Congestion of the city.

Kampala city was not designed for intermediate means of transport but for vehicular traffic. In this way the motorcycle growth has created problems of congestion. The cycles park on pavements thereby restricting movement of non motorised traffic especially pedestrians. This is a problem especially in the congested Central Business District (CBD). The congestion has created problems that some planners are of the view of banning them from some routes of the city. It is for this reason that this report recommends the banning of motorcycles in the Central Business District.

3.7.2.2. Inadequate infrastructure

Kampala city has infrastructure provision for motorcycle taxi transport system. The city planners admit that there is inadequate infrastructure for the boda boda services. However, even new infrastructure plans have not accommodated this new challenge. For instance infrastructure designs recommended under KUTIP has not catered for this service; instead, they recommend mass transit transportation system for Kampala.

Fig.8 Cycles operate in the open street usually blocking the smooth flow of pedestrian traffic.

3.7.2.3. Decline of demand for Special Hire taxi business

The growth of motorcycle taxis has led to the decline of the vibrant business of special hire taxi business. Special hire taxis are saloon cabs. Their demand has declined in number due to strong competition and their business has been restricted to the rich. In addition, in case of Central Business District, they also compete for parking space.

"We only work when a customer has many goods and is rich or because it is raining but most of business has been taken by Boda boda. Some of my friends have left the business"……Special hire operator, Kampala.

Fig.9 A cycle shed in Fada, Borkina Faso. Such infrastructure is important for cyclists in Kampala

Fig. 10 Cyclists take shelter under filling station shed due to lack of sheds.

Due to insufficient infrastructure for boda boda, for instance, it is common to find boda boda taking shelter under filling station during rain. Fuel station operators claim they lose business during such period.

Fig.11 A traffic light that is appropriate for motorcyclists, in Ouagadougou, Borkina Faso such infrastructure is needed for motorcyclists in Kampala.

3.7.2.4 Road Safety

The growth of boda boda service has resulted into a serious road safety challenge. There is a significant correlation between motorcycle growth and growth of motorcycle accidents and injuries. This correlation is seen in Table 17 in chapter 7 where road safety issues are discussed.

3.7.2.4 Crime amongst the motorcyclists.

There is a significant crime involvement in motorcycle taxi business 244 of the 318 stages (76.23%) of the stages in Kampala have ever had a case of robbed motorcycles. Many of these cycles disappear for good. Many operators are victims of violent robberies and end up losing their lives. One of the reasons for the crime is the high demand for the motorcycles and their spare parts.

3.7.2.5 Health related challenges of Motorcyclists.

It was established that the motorcyclists, due to the exposure to cold weather, dust and lack of parking shades are vulnerable to health risk. Of the 485 operators interviewed, Pneumonia was one illness that was sighted being of common occurrence amongst the operators 343 (71%), eye diseases 94 (19%) and other illnesses were given as 48 (10%)

3.7.2.6 Environmental challenges

The use of motorcycle taxi has caused a number of environmental issues in the country. The pollution caused by the motorcycles is a big concern. This issue is discussed in chapter 7 as a cross cutting issue

Amongst the operators, majority 203(43%) believe reduction of pollution can be by purchase of newer cycles.162 34% believe there is need for raising awareness amongst the operators and 107 23% gave other ways like regulations.

4.0 OPERATIONS OF BODA BODA

4.1 Ownership

It was established that among the 201 operators (41%) out of 490 own motorcycle taxis they operate. This figure is almost similar to the Howe study that found ownership at 44%. However in regard to motorcycle operator leaders their percentage of ownership is 60 (67%). This shows that the business is profitable and people are investing in Kampala.

In regard to upcountry, operator ownership is lower than Kampala. In Mbale 20% of the operators own the motorcycles and in Lira, it is less than 10%. The reason for the low ownership was the absence of loan facilities. In Buwenge, only 30% own motorcycles.

4.2 Supply of motorcycles

All the motorcycle dealers were interviewed in this survey said they procure motorcycles from Asia and particularly India and Japan. Most of the imports from Japan are used motorcycles while the Indian cycles are new. The motorcycles come in two main forms: in parts or whole machines. The parts are reassembled at the point of sale.

Import profile for both new and used Motorcycles.

No	Activity	Importer	
		Gold wheels International Ltd	BMK Uganda Ltd
1	Country of Import	India (New)	Japan (used) China (New)
2		Place the order to the supplier Payment is made in the bank	Importer goes to countries of origin and selects motorcycles from open market. Payment done at the depots. Motorcycles collected from depots to the buyers collection yard, pay taxes to the city authority for the yard
		On arrival at the port of Mombasa	Motorcycles- loaded in containers and loaded on ship and shipped to Mombasa
		Clearance process done by paying all required taxes and supplier transports consignment to Kampala	After paying shipping fees. Bill of lading issued At Mombasa port clearing done by a clearing agent Pay taxes to Kenya Revenue Authority
		At customs points- clearance with the Revenue authorities	Consignment loaded on trucks on trucks, transported to Uganda – clear with Uganda Revenue Authority at customs point – Malaba
		Supplier delivers consignment to customer in Kampala	Deliver consignment at BMK Motorcycles sold at different BMK shops BMK registers motorcycles (number plates) in names of buyer

** N.B Procedure for new cycles for BMK is similar to that of Gold wheels.*

Up country, most motorcycles are bought from Kampala. Traders (mostly of Indian origin have established shops that sell brand new and used Indian motorcycles.

For areas near the border areas (Congo side), there is an influx of smuggled motorcycles. These cycles do not pay import taxes and are therefore cheaper. The most common one is Chinese make called Senke.

4.3 Operating times

Boda boda service in the city operates both during day and night. The operators' average time on work was found out to be approximately 13 hours per day. This time shows that the operators work for long hours and therefore suffer fatigue which has safety implication.

Up country, there is low use of motorcycle taxi at night. The operators in Kabale cite the terrain being dangerous, then other areas insecurity was sighted for the non operation.

4.4 Average passengers carried

It was established that the average number of passengers transported by motorcyclists per day is 20 as the majority (24.04%) and others 15 (19.36%) Based on these averages, it implies that in Kampala, there are 332,203 trips made by Boda boda daily in Kampala. The average passengers carried in Kabale are10; in Buwenge are 12; Lira 20; Mbale 15 and; Itendero 15

4.5 Types of Machines.

The types of machines in motorcycle bussiness in Kampala have changes over time. In the 1990, the 50 cc and 80 cc engine Yamaha Mate was the most common and preferred type. Eventually with the introduction of the Chinese and Indian products, other brands like Jiange and TVS have become dominant. Today, customers prefer bigger 125 cc engine. It took long for the operators to shift to Indian and Chinese brands. They are now preferred due to their versatility and availability of spares. It is important to notice that stages within the city use new and bigger cycles whilst old cycles are used in the suburbs on marrum poor roads.

In Kabale which is a mountainous area, higher capacity cycles of 125 cc (Yamaha) are used though 50 cc are also used. In Lira, Mbale and Buwenge the Indian TVS of 100 cc is used and preferred.

4.6 Average distances for users.

In Kampala, it was established that majority of the trips 288 (59%) cover more than a kilometre but less than 7kms. 155 (33%) cover a distance between half a kilometre and a kilometre and 31 (7%) of the users cover a distance of less than half a kilometre, this therefore implies that most city routes are relatively short.
In regard to the upcountry travel average distances with the exception of Mbale were longer. For instance, in Kabale; it was established that the distances for motorcycle taxi were about 5 kms; n Lira 5kms In Mbale 2 kms; in Buwenge 6.5 kms and in Itendero was found to be 7 kms

4.7 Financing of motorcycles

4.7.1 Sources of capital to acquire motorcycles

According to the 201 respondents who own motorcycles, most of them,108 (53.73%) said they money used for buying motorcycles through personal savings, 55 (27.36%) acquired loans from banks and 26 or (12.94%) loans from persons and 9 (4.48%) through sale of assets and 3 or (1.50%) said other sources.

Procedure of acquiring a motorcycle loan from a Financial Institution

Name of Financial Institution	Post Bank Uganda Limited, *(has so far given out 500 motorcycles in Kampala)*
Administered through	Boda Boda Associations.
Procedure	The association must open an account with the bank.
	The buyer must be a member of the association.
	The individual borrower must also open an account with the bank

	The individual applies for a loan seconded by an association.
	He must get personal guarantee of three (3) persons from his association.
	The buyer is given an offer and signs an agreement with the bank
	He identifies a company/supplier of motorcycle of his own choice and confirmed by his association.
	The bank cross-checks credibility of supplier/company and the account of the company
	The bank (Post Bank) deposits the money (cost of the motor cycle) on the suppliers account
	Buyer required to deposit 20% of the cost of motor/cycle.
	The bank does comprehensive insurance and individual life insurance at the cost of buyer
	The individual collects motor/cycle but the log book is in the names of the Bank
	Buyer pays back in monthly instalments for between 1 year-18 months to complete the whole loan.
	After loan clearance the motorcycle registration is transferred in names of buyer who becomes owner.

The associations are recommended to the different financial credit institutions by the Office of the President.

4.7.2 Loan from person procedure

The loan from person works in the following way:

- Operator pays 10,000/- per day to the loan owner for 15 months
- When the operator fails to pay, (due to illness or non work) the debt is taken forward
- On completion of the loan, the motorcycle is taken by the operator and is registered in his names.

(10,000*15*30) = 4,500,000/- yet the new motorcycle costs 2,300,000/-. The loan owner therefore earns 2,200,000/- from a motorcycle almost 95.6% profit. This reveals not only how profitable the business is but it is full of exploitation by the loan providers.

4.7.2.1 Failed Government motorcycle credit scheme.

In 2005, the Office of the President initiated a credit scheme and instructed Ministry of Finance to release funds for Boda Boda Associations to purchase motorcycles for their members. The money (cash) was paid to association leaders to purchase motorcycles for their members, unfortunately the money was misappropriated and motorcycles were not bought. Some of the leaders are under prosecution for the fraud. This and other misappropriation of funds scandals underlies the corruption challenge within the motorcycle associations and undermines their growth for the welfare of the operators.

4.7.3 Cost of motorcycles

The table shows that on average the cost of a used motorcycles is1,951,731.6/= ($1,148) whilst the average cost for a new motorcycle is 2,300,000/- ($ 1,352). In Lira new motorcycles go for between 2,000,000 ($1176) to 2,500,000/- ($1,470.5). In both Lira and Kabale the cheapest new motorcycle is Chinese import called Senke that goes for 1,850,000/-($1,088). They are brought in from China to Congo and then smuggled into Uganda.

4.7.4 Average fuel cost of a motorcycle taxi

It was established that 2 % of operators use fuel of less than 5,000/- ($2.94), 92%use between 5,000 and 10,000 ($2.94-$5.88) 5% use between 10,000-20,000/- ($5.88- 11.76) and a very insignificant number1%) use more than20, 000/-($11.76) daily.

4.7.5 Average monthly maintenance costs

Monthly maintenance costs are as follows, 2% use less than 10,000/-($5.88), majority use 59% whilst 31% use 30,000 to 50,000/- ($17.6-and $29.4) 8 % use over 50,000/- ($29.4)

4.7.6 Income from motorcycle taxi

In regard to the income generated from motorcycle per week in Kampala, 2% said they got less than 30,000 ($17.64) per week, 9% got between 30,000 to 40,000 ($17.64- $23.5) per week, 42% got between 40,000 to 50,000 ($23.5-$29.4) per week and majority (47%) said they got over 50,000/- ($29.4) per week.
For those operators who do not own motorcycles, 12% earn less than 21,000 ($12.35) per week while majority (42%) earn between 21,000-35,000 (12.35-20.35) per week and 27% retain between 5,000-10,000 ($2.94-$5.88)daily and 19% earn over 10,000 ($5.88) per day.

2. *FIG 12 STAKEHOLDERS DISCUSSING THE DRAFT MOTORCYCLE REPORT WITH THE CONSULTANT ON 12TH FEBRUARY 2008 IN MOWT OFFICES IN KAMPALA.*

5.0 REGULATION OF MOTORCYCLE TAXIS

5.1 Institutional Framework for regulating motorcycles in Uganda

5.1.1 Ministry of Works and Transport

Ministry of Works and Transport (MOWT) is in charge of regulating public transport in the country. Following the growth of motorcycle as a public transport mode, Regulations to improve bodaboda operations have been put in place. For instance, The Traffic and Road Safety (Motorcycle Regulation 2004) were developed to regulate use of helmets by motorcycle taxi.

5.1.2 Transport Licensing Board

The Traffic and Road Safety Act mandates the Transport Licensing Board (TLB) to license, regulate and control public transport in Uganda. Since October 2006, motorcycle taxis were registered with the Transport Licensing Board (TLB) for inspection of and issuing of P.S.V licenses.

Table 16: Motorcycles licensed by TLB.

Month	**No. of motorcycles Registered**
October 2006	469
November 2006	595
December 2006	626
January 2007	177
February 2007	127
March 2007	171
April 2007	118
May 2007	102
June 2007	77
July 2007	142
August 2007	167
September 2007	86
October 2007	26
November (up to 21st) 2007	7
Total	**2,890**

The TLB has been able to register only 2,890 compared to 15,979 representing only 18.3% of the total motorcycle fleet in Kampala. This implies that Government loses 129,070,000/- ($75, 923.5) due to un paid license fees in Kampala alone. However it should be noted that the whole motorcycle fleet in the country has to be covered. The main challenge affecting the operations of TLB is political interference in implementing and enforcing the regulation.

"The decision to phase out boda boda from the city centre was interfered with and the whole plan was abandoned". Implementation of regulation as this requires the cooperation of all stakeholders including the political leadership"……Key Informant, Government Official

5.1.3 The National Road Safety Council

The National Road Safety Council does not regulate motorcycle taxis but its mandate is related to r to raising road safety awareness amongst the Boda boda. However, this effort is constrained by both the human and material resources to effectively carry out this function.

5.2 Regulation and Control of Motorcycle taxis in Kampala

5.2.1 Kampala City Council (K.C.C)

Kampala City Council is the local authority in charge of provision of infrastructure management and supervision of public transport in Kampala city. Bodaboda are among the users of urban transport infrastructure and have to be accommodated and regulated in the K.C.C urban infrastructure management plans. Officials in KCC agree that there is need to critically assess the impact of bodaboda operations in the city. Much as they are filling the gap in the transport services they are also a cause of key transportation problems, and therefore they must be regulated. The revenue collection from bodaboda was suspended; this has led to a loss of up to 1,895,640,000/- ($1,115,082.4). However, despite the abolition of taxes K.C.C sees bodaboda as a potential source of revenue.

The officials observe that the main challenges in governing boda bodas in Kampala are:

- Lack of policy framework to regulate bodabodas
- Politicization of the boda boda existence
- Public institutions need a competent policy on bodaboda transport regulation
- Lack of coordination among public institution on their objectives and lack of agreement on their strategies

5.2.1.1 Motorcycle Enforcement Unit (KUBOKA)

KUBOKA creation was an effort that was spearheaded by Police to control and enforce regulation amongst the motorcycle taxis. This unit was used to enforce traffic regulations amongst the cyclists in Kampala and were particularly instrumental in enforcing the helmet use amongst the operators. They also performed as traffic wardens to control traffic. They were paid from the collection of taxes from the operators. This further shows how profitable the business is. However, following the operators outcry over extortion, the President ordered the Inspector General of Police to disband the unit in 2007.This further shows the influence of political decisions in the control and regulation of motorcycle taxis in the city.

5.2.1.2 The Uganda Police

The Police also have a big influence in the running of Boda boda business. In addition to enforcement role, they also work as a regulator of boda boda. For instance, the creation of an enforcement unit called KUBOKA which is now defunct. It has overseen efforts to bring together rival boda boda association into one association in Kampala. It has also influenced the removal of stages that are located in strategic security locations. They blame both the Ministry of Works and Kampala City Council for the ineffective way in controlling and managing motorcycle taxi business.

In 2006, a ban of boda boda riding after 11.00 pm was enforced to help reduce crimes related to Boda boda. This helped reduce crime however, this was eventually relaxed and they now operate 24 hours a day.

5.3 Impact of political influence in the motorcycle taxi business in Uganda

Due to instability in boda boda associations, yet the business is profitable; politicians have been sought for protection and patronage by the operators. The politicians have not only provided the protection but have led to the mismanagement of the industry. In this way there is a lot of political influence in the operations of Boda boda businesses.

Resident District Commissioners (RDC) who is the local presidential representatives exerts a lot of influence in the management of boda boda business more than the Transport Licensing Board which has the mandate. The RDCs were influential in the abolition of the taxes levied upon the operators. The reason given was that Boda boda operators were poor people who have created their own employment and should be left alone to fight poverty; secondly, the method of collection of revenue was crude usually involving violent means.

The majority of motorcycle leaders (53%)still view that Kampala City Council as the body is responsible for controlling them. Up to 18% view RDCs as those controlling the motorcycles with only 12% seeing TLB as the controller and 2% believe it is the president and 5% believe that it is the associations that have control.

5.4 Regulation of motorcycles up country.

In all the areas of survey, it was established that the Local Government do regulate the motorcycles use. With the exception of Buwenge, all towns do not collect any tax from the operators.
The Police are instrumental in raising road safety seminars and also crime control. Theft of motorcycle is common, in Buwenge 6 were robbed, Kabale 4 Itendero are 3 Lira 2 and none for Mbale within the last 12 months.
Drunken riding was raised as one of the key challenges according to regulators. The operators use local potent gin and usually end up in accidents which in some cases are fatal.

Fig 13 In Benin, cyclists are registered, and their registration number is placed on their uniforms, in Uganda, such initiative is not there.

6.0 CROSS CUTTING ISSUES

Cross cutting issues here include road safety, gender, environment and HIV/Aids in relation to the use of motorcycle taxis.

6.1 Road Safety

6.1.1 The growth of motorcycle accidents

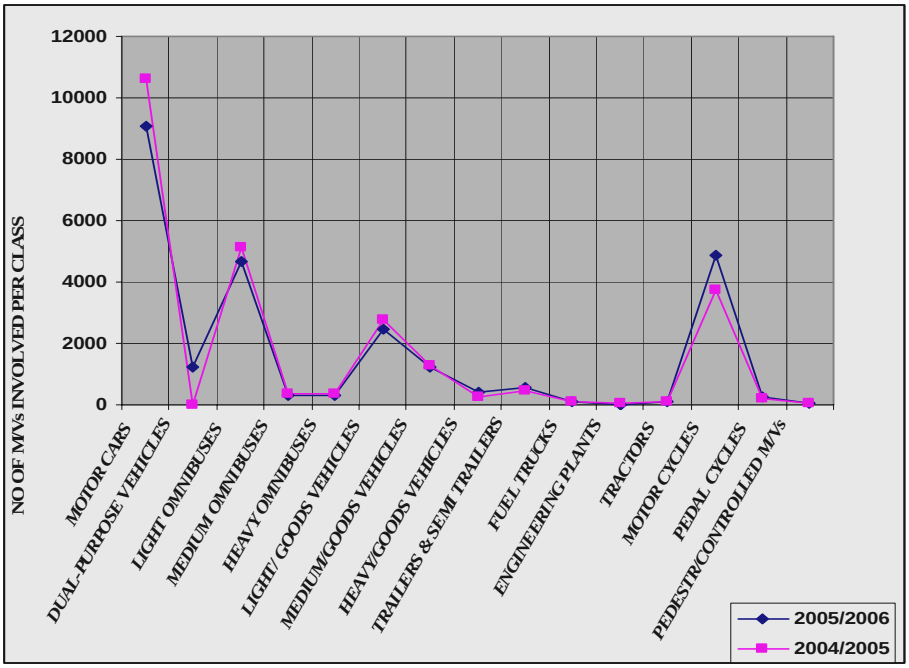
The growth of boda boda service has resulted into a serious road safety challenge. There is a significant correlation between motorcycle growth and growth of motorcycle accidents and injuries. In 2006/7, for instance accidents rose by 30% as shown in the table 17 and 18 below.

Table17: Growth of motorcycle accidents in Uganda.

Classes Of M/Vs	2005/2006	2004/2005	% Change
Motor Cars	9102	10612	-14
Dual- Purpose Vehicles	1248	0.00	
Light Omnibuses	4649	5132	-9
Medium Omnibuses	310	334	-7
Heavy Omnibuses	325	360	-10
Light/Goods Vehicles	2436	2779	-12
Medium/Goods Vehicles	1222	1283	-5
Heavy/Goods Vehicles	399	280	43
Trailers & Semi Trailers	572	459	24
Fuel Trucks	95	81	17
Engineering Plants	12	26	-54
Tractors	106	95	12
Motor Cycles	4877	3764	30
Pedal Cycles	275	229	20
Pedestrian/Controlled Motor Vehicles	59	33	79

The motorcycle growth has developed without adhering to safety prescriptions as contained in the traffic laws of the country. The distribution of motorcycles is carried out without ensuring proper training and licensing of operators. The safety standards have therefore been compromised and as a result roads have become increasingly unsafe, due to the recklessness and actions of some motorcyclists who are neither cautious nor knowledgeable about traffic rules and regulations.

Table 18: Growth of motorcycle accidents in Uganda.



6.1.1.1 ACCIDENT INVOLVEMENT OF OPERATORS.

According to interview from operators, 329 who were the majority (67.42%) said they have ever been involved in minor accidents, 96 (19.75%) have been involved in serious accidents and 28 (5.74%) were involved in fatal accidents. (65.5%) said they have ever attended a road safety course. This could not be verified.

6.1.1.2 CAUSES OF ACCIDENTS

There are a number of reasons that are given for high accident rates amongst the boda boda riders. There is no driving school that provides elementary or profession riding lessons in Kampala. The survey showed that 347 (71.1%) have a driving permit implying that 141 (28.89%) have never been tested in competence yet on the road. The study established that the causes of accidents amongst the operators were reckless driving, over speeding, minibus drivers driving recklessly, other motorists rather than minibuses and others as shown below

Table 19 Causes of accidents according to operators.

Causes of accidents	Number	%
Reckless riding	233	48
Over speeding	126	26
Minibus reckless action	75	15
Other motorists reckless ness	18	4
Other causes	34	7
Total	486	100

Other causes of accidents above include given for accident rates in amongst boda boda cyclists. Lack of safety awareness; lacks of experience; Poor or low level of enforcement; over estimation of performance; free entry into business which attracts inexperienced riders; over speeding; lack of respect and indiscipline; youth culture; non use of mirrors; traffic conflict due to different categories of road users; poor judgment; stiff competition for customers; political interference on stage management; over and dangerous loading; drunken riding; fatigue; poor mechanical conditions; poor quality spare parts; poor maintenance culture; use of mobile phone whilst riding; use of loose shoes and full light that dazzle riders by motorist

A study by Injury Control Centre, Uganda shows that a total of 200 traffic injuries involving boda-boda cyclists have been reported in Mulago hospital in two months; 85% of the patients are male with a mean age = 26 years (minimum age = 5 years, maximum age = 60 years). The top three occupations in the distribution are cyclist (28.6%), student/ pupil (19.6%), and casual labourer (17.1%).

6.1.1.3 USE OF HELMETS

The above mentioned study provides an insight in regard to road safety amongst riders with particular focus on helmet use. The prevalence of helmet use by riders in the 159,670 boda-boda trips observed was 46.4% (CI= 46.1 – 46.6%), while that of passengers was 0.26% (CI= 0.24 – 0.28%). Yet the structured interviews showed helmet ownership by 70% of the rider participants only 0.7% had helmets for their passengers. Only two of the 481 passengers interviewed, both of them male, had their own helmets; three others had helmets belonging to their work places. Most (87.4%) of the riders reported wearing their helmets on the day of interview, 95% during the week preceding the interview and 93.3% more than half of the time in the past month.

Our study collaborates with the above ICCU study in relation to use of helmet which showed that which showed that 422 (86.30%) had a helmet. In addition our study showed that 301 (70%) always use, 87 (20.23%) often and 42 (9.77%) rarely use it.

Regarding the low prevalence of use by the operators, they gave the following reasons for the non-use: some riders developing headaches after wearing them, others having difficulties with hearing when their helmets were on, others having neck pains, others experiencing high temperatures inside

the helmets, other feeling helmets were too heavy, and others complaining of the bad smell helmets generate after prolonged use.

Others were; inconvenience, poor hygiene, high cost, people not taking them serious, people not being sensitized and riders not providing them. All the passengers interviewed reported that they had never been offered helmets by boda boda riders.

6.2 Gender Issues

6.2.1 Men control use of motorcycle taxi operations

The entire motorcycle taxi operation is exclusively managed and controlled by males. Even outside public transport few women do ride motorcycles in Uganda compared to West African countries like Benin and Borkina Faso.

"This business is for men because it requires a lot of strength especially when you have overloaded, it also requires perseverance which very few women have"……Participant, men FGD meeting, 2007

6.2.2 Women dominate the use of motorcycles

According to operators, they revealed that they have more (258 operators) female customers compared to 229 operators who reported that they have more male customers. The study contradicts what Howe found that more men use motorcycles compared to women.

6.2.3 Security benefit of motorcycle use

Female users said they use the motorcycles as a way of security especially at night. They are likely to be attacked when they are alone compared to when on boda boda. However, there are cases at the Police where the operators turn against the user, however, it is not a very significant problem.

"When you use a boda boda you are sure that you are safe to pass through dangerous spots at night, however, there of recent cases of cyclists raping female passenger… this is bad"……Participant women FGD meeting.

6.3 Environment

The increase of motorcycles in the city has had a negative impact on the environment. The environment has been negatively impacted mainly through emissions and maintenance.

6.3.1 Emissions and combustion

Emissions from motorcycles pollute the environment depending on the age of the motorcycle. Since many of the motorcycles that are imported are used, their pollution levels are high. The older the machine the poorer the quality of emission, this increases the degree of pollution of the environment. Majority of the operators 342 (70.66%) believe that their motorcycles pollute the environment, however 142 (29.34%) did not. Motorcycles use petrol which contains dangerous gases. The gas compounds pollute the air, which is inhaled by humans. This has negative impact on human health.

6.3.2 Maintenance

Out of 486 operators interviewed, majority of motorcycle taxi 439 (90.33%) said that repairs were done in the open road side garages. Only 33 (6.79%) reported to dispose their oils at petrol stations and 14 (2.88%) reported they disposed oil in other ways. The road side garages have no specific oil disposal procedure and as a result in pollution of the atmosphere. There is need to have more operators to dispose of their oil at petrol stations as they have a logical procedure of handling used oils.

National Environment Management Authority (NEMA) the institution in charge of management of the environment says that they realized that motorcycles transport was growing, and this could have

impact on the environment like the other motor vehicles. NEMA has set up an air quality standard for emission for motorcycles. However, it was observed that these standards are not enforced and as such there are currently no mitigating factors in place to control motorcycle pollution effects.

Amongst the operators, majority 203 (43%) believe reduction of pollution can be by purchase of newer cycles. 162 (34%) believe there is need for raising awareness amongst the operators and 107 (23%) gave other ways like regulations.

6.3.3 Two stroke versus four stroke motorcycles.

Sources from NEMA show that four stroke engines are cleaner motorcycles compared to the two stroke engines. In terms of pollution therefore it is important that a policy be designed to import four stroke motorcycles compared to two stroke engines. However, from the findings from motorcycle dealers, the prices of four stroke motorcycles are more expensive than two stroke ones as shown by the table below. Government could achieve this through a deliberate policy by reducing import taxes.

Table 19 Table showing cost of motor cycles

Type	Stroke	Cost (New) UG Shs	Cost (Used) UG Shs
Victor/ SK 128	4	2,100,000	1,700,000
Victor/SK 128	2	1,800,000	1,200,000
Bujab/ Boxer	4	2,600,000	2,000,000
Bujab/Boxer	2	2,100,000	1,800,000
Max 100	4	2,400,000	1,800,000
Max 100	2	2,100,000	1,500,000

6.4 HIV/Aids Pandemic

The HIV/Aids Pandemic were cited as problems suffered by the operators. Because of the need for privacy and stigma related concerns related to the epidemic, it was difficult to get the overall picture of the magnitude and number of victims that had or live with HIV/Aids to the respondents. However, what the survey succeeded in interviewing leaders on what preventive measures, if any, to fight the HIV/Aids pandemic amongst operators. Majority 40 (44.44% said they distribute condoms, 26 (28.89%) said they arrange HIV/Aids awareness workshops and 14 (10%) said they have taken no action. Details are shown in table 20 below.

Table 20, Action have you taken to prevent HIV/Aids infection amongst operators

What have you done to help your members in regard to {HIV} prevention?			
	No	%	Cum %
Distribute condoms	40	44.44	44.44
Arrange HIV awareness seminars	26	28.89	90.00
Preach about ABC	1	1.11	74.44
Taken no action	14	15.56	90.00
Other	9	10.00	100.00
Total	90	100%	

On the overall it was observed that HIV/Aids preventive measures within the operators needs to be intensified by stakeholders who include Government and NGOs involved in HIV/Aids and the motorcycle leadership.

7.0 CONCLUSION

The institutionalisation of motorcycle taxi as a public transport system in Uganda has been as a result of a number of factor including the supply factors caused by conventional public transport system. Motorcycle taxi play an important role in filling this gap in provision of public transport services both for the urban and rural setting.

In regard to the urban areas, though the use of motorcycle contributes to filling the public transport supply gap; it comes at a high cost of congestion. The short term solution is to ban the use of motorcycles within the CBD but at the same time provide for mass transit buses which ought to be efficient. In the peri urban areas just like the national roads, provisions ought to be made for cycle lanes to minimise the traffic conflicts which lead to accidents.

In rural areas motorcycle use ought to be promoted due to limitations of bicycle especially the terrain that is not flat and slower speed involved. However, advantages of bicycles should not be overlooked as they are cheap and affordable and therefore should be promoted hand in hand with motorcycles.

Government has acted and put in place institutional framework and regulations for control and regulation of motorcycle taxis. However, there are concerns that management and implementation of motorcycle taxis by the concerned authorities are ad hoc and uncoordinated, usually involving the interference of the politicians. This has led to loss of revenue to the local and central government, unrestricted growth of motorcycles in Kampala city resulting into congestion especially in central business district; increase in road traffic accidents involving motorcycle taxis and; increased pollution from motorcycle taxi use.

This therefore calls for need to tackle motorcycle taxi at the political, economic and planning levels.

7.1 The Way Forward

The way forward is the following in regard to the following sub themes

7.1.1. Infrastructure:

1. Policy makers and technical personnel should be sensitised motorcycle friendly infrastructure provision.
2. Planners should consider banning motorcycles from the Central Business District.
3. Compensate land owners and secure space for dedicated motorcycle lanes in peri urban areas of the city.
4. Provision of motorcycle lanes on National roads.
5. Plan and gazette the parking places in the city centres outside the Central Business District.
6. Design dedicated lanes in busy areas on the National roads.

7.1.2. Regulations

1. Strict implementation of regulations already in place i.e. regulation on permits, helmets, reflective wear. The regulations should be enforced.
2. Designate bodabodas to specific areas/ routes especially outside the city centre.
3. Plan and gazette the parking places in the city centres.
4. Design and provide for dedicated lanes in busy areas as for motorcycles and bicycles is paramount
5. Reduce the cars into the CBD to reduce traffic conflicts (Consider mass transit system)
6. All riders need to be registered and certified before being allowed to operate.
7. There is need to enforce of the helmet law.

8. There is need to increase access to helmets by exploring cost cutting measures such as tax reductions.

7.1.3. Road safety

- There is need for massive education of riders and passengers about road safety issues
- There is need review and enforce appropriate standards for helmets that are appropriate to the Ugandan climate.
- There is need for regular studies to monitor the trend of helmet use by the commercial riders and passengers.
- The capacity of local government to cater for the motorcycle taxi infrastructure needs to be made.

7.1.4. Environment

- Government needs to enforce the law that will gradually phase out two stroke engines in favour of the four strokes which pollute less the environment.
- Operators should be encouraged to use newer four stroke motorcycles
- Sensitisation of operators about environmental awareness programmes.
- There is need to enforce the pollution standards developed by NEMA

7.1.5. Financing

- There is need for Government to promote credit schemes that encourage operators to purchase newer motorcycles that are efficient.
- Government programme of Prosperity for all should be rolled out especially for urban and rural areas where the cycles are not yet congested.

7.1.6 Governance

- Motorcycle taxi management should be de politicised. The political leadership at all levels ought to leave the management of motorcycle taxi to the local authority (KCC) and the local boda boda associations. This will raise revenue for the Council and also use the resources to plan for the cyclists.
- Motorcycle taxi associations need to be strengthened and their capacity built. This could be a channel for efficient management and control of motorcycle taxi operations. In addition, capacity building programmes like those of road safety could be organised and managed through such a framework.

7.1.7 Gender

- Government should make efforts to encourage women to operate boda bodas as a poverty eradication plan

7.1.8 HIV/Aids

- HIV/Aids preventive measures within the operators needs to be intensified.

ANNEX 1

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ANNEX 2

List of Key informants interviewed.

1. Mr. P. Saga,
Commissioner Transport Regulation,
Ministry of Works and Transport.

2. Mr. W. Katushabe,
Ag Secretary Transport Licensing Board,
Ministry of Works and Transport

3. Eng D. Kyakulaga
Safety Officer,
National Road Safety Council,
Ministry of Works and Transport

4. Eng B. K. Nsambu,
Planning Engineer
Kampala City Council,

5. Mr. Waiswa Ayazika,
Environmental Impact Assessment Co-Ordinater,
NEMA.

6. Mr. Rashid Ssesanger Kasanga,
Chairman,
National Union of Bodaboda Association.

7. Mukooba Stephen,
Chief Manager Credit,
Post Bank Ltd.

8. Mr Ali,
BMK Sales Manager.
Kampala

9. Mr Avimsh,
Managing Director,
Gold Wheels International.

10. Semanda
Public Realtions Officer,
NAFEBO
Kampala.

ANNEX 3

Operator Questionnaire.

Ministry of Works and Transport

MOTORCYCLE STUDY
Operator Questionnaire

Government Of Uganda plans to improve the planning and management of motorcycle taxis (commonly called boda boda) in Uganda. The purpose of this questionnaire is to assist the interviewer to collect data to come up with feasible policy provisions. Hoping for your cooperation.

1. Division.....stage.....Date.....

2. When did you start at the stage.....Month.....Year

3. How many motorcycles were at the stage then?.....

4. How many operators were at the stage then?.....

5. How many cycles are at the stage now?.....

6. How many operators are at the stage now?.....

7. To become a member of this stage, how much do I have to pay?.....

8. What do you think attracts people to use the motorcycle taxi?
   (a)Time saving (b) Avoiding Jam(c) Cheapness (d) Convenience (e) Privacy
   (f) (Others Specify).....

9. Are you the owner of the motorcycle?
(a) Yes (b) No

10. If yes, how did you acquire this motorcycle?
(a) Personal savings (b) Loan from Bank (c) Sale of an asset (d) Loan from person (e) Don't know (f) (Other Specify.....

11. If No, how did the owner acquire it?
a) Personal savings (b) Loan from Bank (c) Sale of an asset (d) Loan from person (e) Don't know (f) (Other Specify.....

12. How {much} did it cost? Ushs.....

13(a) How much do you spend on fuel per day? (b)How much do you spend on maintenance per month?
(c)How much do you give the owner per week?
(d)How much do you retain as income if not owner of the cycle.....

14(a) When does your work day start?.....Am/Pm
(b)When does your work day end?.....Am/Pm

15. a) from this stage, where do you take <u>Most</u> of your clients?
b) How many far in km is it from this stage?

16. In your opinion, who controls motorcycles in Kampala?
   a) Kampala City Council
   b) Resident District Commissioners
   c) Transport Licensing Board
   d) Motorcycle Association (Name it)
   e) Uganda Police
   f) President of Uganda
   g) Don't Know
   h) (Other Specify).....

17. On average how many passengers do you carry per day?

18. Have you been involved in a minor accident?
a) Yes b) No

19. Have you been involved in a serious accident?
a) Yes b) No

20. Have you been involved in a fatal accident?
a) Yes b) No

21. Do you have a helmet?
a) Yes b) No

22. If yes how often do you use it?
a) Always b) Often c) Rarely

23. Do you have a driving permit?
a) Yes b) No

24. What is the biggest cause of motorcycle accidents?
a) Reckless driving b) Speed c) PSV d) Other motorists
e) (Other specify).....

25. Have you ever attended a road safety workshop?
a) Yes b) No

26. Has any one been robbed of a motorcycle on your stage?
a) Yes b) No

27. Motorcycle taxi work causes some illness to the operators, which are they?
a) Phenomonia b) Eye diseases c) (Others Specify).....

28. Where do you dispose off your used oil?
a) Petrol Station b) Roadside Garage c) (Others Specify).....

29.Do you think motorcycles pollute the environment?
a) Yes b) No

30.What can be done to reduce pollution from motorcycles?
a) Acquire new motorcycles b) Awareness Campaign c) (Other Specify).....

31.Who do you think uses most your services?
a) Men b) Women

32. Why do you think there are few women operating boda bodas?

.....

ANNEX 4

Motorcycle Leader Questionnaire

Ministry of Works and Transport

Government of Uganda plans to improve the management of motorcycle taxis (commonly called Boda bodas) in Uganda. The purpose of this Questionnaire is to assist the interviewer to collect data so that Government can come up with feasible policy provisions.
Hoping for your cooperation

Date……. Name (optional)……

1. When did you become a leader of Boda boda…….Month…….Year
2. How many motorcycle operators did you lead then?
3. Do you own a motorcycle? A) Yes b) No
4. How many operators do you lead now?
5. How many stages do you lead?
6. What do you think attracts people to use the motorcycle taxi
    a) Time saving
    b) Avoiding jam
    c) Cheapness
    d) Convenience
    e) Privacy
    f) Other (specify)……
7. How did you become a motorcycle leader?
    a) Election b) Nominated c) Other (specify)…….
8. In your opinion, who controls motorcycles in Kampala?
    a) KCC
    b) RDCs
    c) TLB
    d) Motorcycle Association (Name it)…….
    e) Uganda Police
    f) President of Uganda
    g) Don't know
    h) Other (specify)……..
9. Do you associate with the above authorities? a) Yes b) No
10. If yes, how?
    a) Always b) Often c) Rarely
11. How many members have been killed in accidents this year?
12. How many members have been seriously injured in accidents this year?
13. What assistance do you give to accident victims?

……
14. Do you encourage your members to use a helmet? a) Yes b) No
15. If yes, how?
    a) Always b) Often c) Rarely d) Other (specify)……
16. Have you ever attended a road safety workshop? a) Yes b) No
17. Has any one amongst your members been robbed of a motorcycle?
    a) Yes b) No
18. If yes, How many?
19. What have you done to help your members in regard to?

a) Crime Prevention

……
……..

b) Road Safety

……
……

c) HIV/AIDS Prevention

……
……

d) Pollution

……
……..

e) Gender

……
……..

20. What can Government do to improve boda boda business in your area?

……
……
……
……
……..

Thank You

ANNEX 5

List of Motorcycle stages in Kampala City

Rubaga Division Motorcycle stages:

1. Albert cook
2. Bakuli
3. Bakuli (1)
4. Bakuli (11)
5. Bakuli Total
6. Bristal
7. Bukeesa
8. Butikiro
9. Church Road
10. CMF
11. Coca cola
12. Doctor Mumpi
13. Egen
14. Eliana
15. Elioti
16. Haji Kumbugwe
17. Haji musa
18. Kabakaanjagala
19. Kabusu
20. Kabuusu Market
21. Kamwo
22. Kanala
23. Kanisa
24. Kasimu
25. Kasubi
26. Kasubi Kasule
27. Kategula
28. Kavuma
29. Kawaala Police
30. Kawala
31. Kawala Market
32. Kawwala Road
33. Kidugavu
34. Kikandwa
35. Kilokole
36. Kivumbi
37. Little Havana
38. Lubiri
39. Mabirizi
40. Mambo bado
41. Market
42. Masiro
43. Mengo Hospital
44. Mengo Market
45. Mengo Market
46. Miracle Centre
47. Mpatex
48. Mukasa Kizza
49. Mulowoza
50. Musa Alumba
51. Musigula
52. Nakawuka
53. Nakulabye
54. Nakulabye Market
55. Nalukolongo
56. Namirembe
57. Police
58. Pride
59. Rubaga Hospital
60. Samona
61. Sasana
62. Tides
63. Tiptop hotel
64. Total
65. Water
66. Yiga Balibaawo

Central Division Motorcycle stages:

1. Acacia 1
2. Access Road
3. Aga Khan 1
4. Aga Khan 2
5. Agakhan Primary school
6. Amate stage
7. Ambasador House
8. Amber House
9. Ange noir stage
10. Arroz Centre
11. Avemar shopping centre
12. Avenue 1
13. Avenue 2
14. Avenue 3
15. Avenue 4
16. Avenue 5
17. Baclays bank 1
18. Baclays Bank 2
19. Bakuli stage
20. Balikudembe Market stage
21. Bat Valley
22. Bat valley
23. Bata Shoe shop
24. Binaisa Road
25. Blue room
26. Boost House
27. Breakdown
28. Bukasa zone
29. Caltex Owino
30. Capital Radio
31. Capital studio
32. Celtel House stage
33. Central workshop
34. City house 1
35. City house 2
36. City shoe repair
37. City Square
38. City square
39. Clock tower
40. Club Obligato
41. Conrad Plaza
42. Cooper complex
43. Cooper motors
44. Corner stage 2
45. Corner stage 3
46. Corner stage1
47. Crestank stage

48. Delta station
49. Dewinton stage
50. Diamond trust 1
51. Diamond trust 2
52. East Kololo
53. Electro Commission
54. Equator joint
55. Fairway hotel
56. Fidodido
57. Fontana Corner
58. Gapco
59. Garden City
60. Gateway
61. Gateway bus
62. Gelp stage
63. Gelp stage
64. Golf course
65. Good shade
66. Grand Imperial Hotel
67. Green Valley
68. Highway restaurant
69. Housing Finance stage
70. Jinja road police
71. Kafumbe Mukasa 1
72. Kafumbe Mukasa 2
73. Kalitunsi
74. Kamwokya Central
75. Kamwokya Market
76. Kaqlitunsi stage
77. Kasasiro
78. Katumwa sports wear
79. Kawempe stage
80. Kavule
81. Kavule 1
82. Kavule 2
83. Kayunga
84. Kayunga Road 1
85. Kayunga Road 2
86. Kayunga Road 3
87. Kiira Road
88. Kimanya
89. King Fahad Plaza
90. King's palace
91. Kisekka Market 1
92. Kisekka Market 2
93. Kisekka Market 3
94. Kisekka Market 4
95. Kisekka Market 5
96. Kisementi
97. Kisenyi Industrial Area
98. Kitamanya ngamba
99. Kitante Hill
100. Kivulu
101. Kivulu
102. Kiyembe
103. Kiyembe
104. Kiyembe lane 1
105. Kiymebe lane 2
106. Kizito tower
107. Kizito towers
108. Klyn cash
109. Kololo S S
110. KPC
111. Kyakuwa
112. Kyeyune
113. Law development centr
114. Lorry stage
115. Lugogo by pass
116. Majestic Plaza
117. Makerere Hill
118. Makerere Hill
119. Makerere hospital
120. Makerere Kivulu
121. Maria's Gallaria 1
122. Maria's Gallaria 2
123. Maria's Gallaria 3
124. Mariandina
125. Market street corner
126. Mawingo
127. Michael courts
128. Mini price
129. Mukwano corner
130. Mukwano Corner 1
131. Mukwano Corner 2
132. Mulago gate 1
133. Mutasa Kafeero1
134. Mutassa Kafeero 2
135. Mutekanga
136. Nabdos
137. Nabukera Plaza
138. Najja stage
139. Nakivubo mews 1
140. Nakivubo mews 2
141. Nakivubo Road
142. Nakuvubo stadium
143. Nalubega chemicals
144. Nandee tower
145. Nasser rd Junction
146. National mosque
147. Nebbi Park
148. Necodemous
149. New Bus Park 1
150. New Bus Park 2
151. New Mulago
152. Old Kampala police station
153. Old Kampala S.S
154. Opp. Gapco Nakulabye
155. Opp. Value super market
156. Owino 1
157. Owino 2
158. Owino 3
159. Owino 4
160. Owino main stage
161. Palm tree Kisaasa
162. Palm tree Nasser road
163. Park yard 1
164. Parkyard 2
165. Peacock Paints
166. Pearl view
167. People's plaza
168. Petro Jinja Road
169. Picfare
170. Pioneer Mall
171. Pioneer mall yard 2
172. Pionner mall yard 1
173. Post Office
174. Posta Stage
175. Pride 1

176. Pride 2
177. Pride 3
178. Printer's Arcade
179. Public Service
180. Railway Headquarters
181. Railway station Approach
182. Raja channel
183. Rene Plaza
184. Rhino Motors
185. Rimanda 1
186. Rimanda 2
187. Rimanda 3
188. Rohana Academy
189. Roko town
190. Roofings
191. Royal complex
192. Royal complex
193. Salvation Army Veteran stage
194. SAS Clinic
195. Serena Hotel
196. Shell Bakuli
197. Shell Ben Kiwanuka
198. Shell Capital
199. Shell Jinja Road
200. Shell Lugogo
201. Shell Station
202. Shell station
203. Shell station-Nakasero
204. Shetty foto
205. Silk stage
206. Simba Manyo Building
207. Snay 1
208. Snay 2
209. Snay 3
210. Spear house
211. Speke Road
212. St Balikudembe market
213. Starcom 1
214. Starcom 2
215. Sunset Arcade
216. T junction
217. Teacher's House
218. Temple village 1
219. Temple village 2
220. Temple village 3
221. Temple village 4
222. TLC stage
223. Total Arua Park
224. Total stage 1
225. Total stage2
226. Tree shade
227. Uganda Bookshop
228. Uganda House
229. Umoja stage
230. UTODA
231. Wandegeya Market
232. Water melon 1
233. Water melon 2
234. Voice of Toro
235. Yard 11
236. Yard 6th Street
237. Yard Jinja Road
238. YMCA
239. Yusuf Lule Road
240. Yusufu Lule
241. Zai Plaza

Nakawa Division Boda boda stages

1. 5th Street Industrial Area
2. Albino
3. Albino
4. Albino stage
5. Banda road side
6. Banda stage
7. Banda trading centre stage
8. Biina COU
9. Biina Stage
10. Bugolobi MTN
11. Bugolobi roadside
12. Bukoto market
13. Caltex
14. Club ten
15. Coin stage
16. Combine Club
17. Cossy hostel
18. Cub ten stage
19. Division offices
20. Doctor's view Clinic stage
21. Dofra Hostel
22. Fish Factory, Luziira
23. Frobel stage bukoto
24. Good Shepard stage
25. Kabila stage
26. Kakumba Chapel stage
27. Kiira rd police station
28. Kinawataka mosque
29. Kinawataka stage
30. Kinawataka trading centre
31. Kinawataka washing bay
32. Kirombe LC
33. Kirombe Stage Luzira
34. Kisasa market
35. Kisasi Nalya rd
36. Kisasi TC
37. Kitintale half price
38. Kitintale market
39. Kitintale Stage
40. Kiwatule Kisasi stage
41. Kiwatule Kyanja
42. Kiwatule market
43. Kiwatule TC
44. KPC
45. Kunya stage
46. Kyambogo stage
47. Kyambogo University stage
48. Luzira Caltex
49. Luzira Trading centre.
50. Luzira water
51. Mbuya Army
52. Mid East Bugolobi
53. MTAC stage
54. MUBS Stage
55. Nabisunsa stage
56. Naguru katale
57. Naguru Police
58. Naguru teenage centre
59. Nakawa bwenyanja
60. Nakawa luzira

61. Nakawa market
62. Nalya SSS
63. Nalya stage
64. Northern by pass stage
65. Ntinda market
66. Ntinda transformer
67. Ntinda view College
68. Pepsi cola, Kyambogo
69. Portbell stage Luzira
70. Premier
71. Quality super market, Ntinda.
72. Radio Simba
73. Railway
74. Remand home
75. Semawataka
76. Shoprite
77. Shumuk
78. Spear motors stage
79. Stretcher
80. TC
81. Tiptop
82. Tooth brush factory
83. Total nakawa
84. UMEME
85. UNEB stage
86. URA stage
87. Victory church
88. Yuasa Nakawa

Makindye Division Boda boda stages

1. Bihal Theoregical- Bunga
2. Bulikiso close
3. Bunga Hill nursery
4. Bunga- Kavule
5. Bunga Trading Centre
6. Buyinga Kasanga
7. Buziga kukatuba
8. Calender Nsambya
9. Caltex American Embassy stage
10. Cape road stage
11. Club agendadala- Bunga
12. Didi Amusement
13. Didi Amusement
14. Dr Sekintu- Bunga
15. Eugen bunga
16. Gaba trading centre
17. Gogonya
18. Half London
19. Hered station
20. Honey tree stage
21. Hot loaf bakery kasanga
22. Jimmy Sekasi Insitute
23. Kabalaga Police post
24. Kabalagala muyenga road
25. Kabalagala trading centre stage
26. Kakensa Computer services
27. Kalala
28. Kasanga Miracle centre
29. Kasanga trading centre
30. Kayinginu
31. Kibuli road
32. KIU
33. Kiyembe- Salaama
34. Konge 1
35. Konge 11
36. Lukenda stage
37. Lukuli – Mubaraka 1
38. Lukuli – Mubaraka 11
39. Lukuli- Kalongoti
40. Lukuli- Nanganda
41. Lusaka 1
42. Lusaka 11
43. Madirisa 1
44. Madirisa 11
45. Madirisa 111
46. Migadde
47. Miltary 1
48. Miltary 11
49. Miltary 111
50. Mirembe Primary School
51. Mukigaga- Salaama
52. Munomukabi- Salaama
53. Munyonyo Resort
54. Munyonyo trading Centre
55. Muyenga Day Primary School
56. Muyenga Resr corner
57. Nabisaalu
58. Nsambya
59. Nsambya Church
60. Nsambya Estate 1
61. Nsambya Estate 11
62. Nsambya Hospital
63. Nsambya TC
64. Payless Kabalagala
65. Petro city bunga
66. Petro kabalagala
67. Pineer- Bunga
68. Saalama Kavule
69. Sadak Engineering
70. Salaama- Buziga Junction
71. Salaama Caltex
72. Salaama- Kalitunsi
73. salaama Katweyambe Fena
74. Salaama- Lukuli
75. Salaama- Munyonyo Junction
76. Salaama- Nsambya Junction
77. Salaama Trading Centre
78. Sir Jose Executive
79. Soya bunga
80. Success Christian Centre
81. Total nsambya
82. Tudo House stage
83. Twegatile Wamu-Salaama
84. Zebra tree bunga

Kawempe Division Boda boda Stages

1. Aidan Primary School Stage
2. Assessment Centre Stage – Old Mulago
3. Bahai Temple Stage
4. Bakeri Stage – Mulago
5. Banadda Cooperative Stage - Kalerwe
6. Benzina Stage Kawempe
7. Bwaise Caltex stage
8. Bwaise New Park Stage I
9. Bwaise New Park Stage II
10. Bwaise Operators Stage I
11. Bwaise Operators Stage II
12. Chez Johnson Stage I

13. Chez Johnson Stage II
14. Christian Life Church Stage
15. City Mortuary Stage – Mulago
16. Cream hill Stage Nsooba
17. Delta Stage Bwaise
18. Dragados Stage – Mulago
19. Eastern Gate Stage Makerere
20. Eden Service Park Stage
21. Erisa Road stage
22. Excel Inn Stage - Kanyanya
23. Full Gospel Stage
24. Gaz Stage Kanyanya
25. Habanomu Stage
26. Hajji Mumyuka Rd Stage (Kawempe Mbogo)
27. Happy Times Guest House Stage
28. Homesdaren Stage – Nsooba
29. Jambula Stage
30. Jjaja Nkonge okuva entweetwe Stage
31. Kalerwe Bivamuntuyo Stage
32. Kalerwe Kibe Road Stage
33. Kalerwe Market Stage I
34. Kalerwe Market Stage II
35. Kalerwe Market Stage III
36. Kalerwe Market Stage IV
37. Kalerwe Market Stage VI
38. Kalerwe Roundabout Northern-Bypass Stage
39. Kanyanya Transport Boda Stage
40. Kanyanye Stage Kagamba (Kubiri)
41. Kasawe Mulago Stage
42. Katumba Furnishing H'se Bwaise Stage
43. Kawaala Junction Boda boda stage
44. Kawempe College Sch Stage – Kalerwe
45. Kawempe College Sch Stage – Mpererwe
46. Kawempe KCC Stage
47. Kawempe Police Stage
48. Keti Falawo Stage
49. Kisalosalo Stage I
50. Kisalosalo Stage II
51. Kiwonvu Stage – Mulago
52. Kiyembe Sakata Stage Kalerwe
53. Kobil Stage Kawempe
54. Kyebando main stage
55. Kyebando Musenyu Stage
56. Lugoba Boda boda Stage
57. Lugoba Road (Kataka) satge
58. Lwakataka Stage – Kyebando
59. Makerere kasubi stage
60. Makerere kikoni stage
61. Makerere Main Gate Stage
62. Makerere University Hospital Stage
63. Mambule Road Stage I
64. Mambule Road Stage II
65. Mawanda Road Stage I
66. Mawanda Road Stage II
67. Mawanda Road Stage III
68. Mawanda Road Stage IV
69. Mawanda Road Stage V
70. Mawanda Road Stage VI
71. MBI Makerere Stage
72. Mbogo stage 1
73. Mbogo stage 2
74. Mpererwe T.C Stage IV
75. Mpererwe TC Stage I
76. Mpererwe TC Stage II
77. Mpererwe TC Stage III
78. Mulago Cholera Treatment Centre stage
79. Nabweru Country Inn Stage
80. Nalwewuba Stage – Mulago
81. Namasole Road Stage – Kanyanya
82. Nanfumbambi Road Stage (Sir Appolo Rd)
83. Nice Stage Kalerwe
84. Njonjo Pri. Sch Stage
85. Norther By-Pass Stage
86. Nsooba Northern ByPass Stage
87. Nsooba TC Stage I
88. Nsooba TC Stage II
89. Nsooba TC Stage III
90. Palsy General Hard ware stage (Nabweru Rd)
91. Paramedical School Gate Stage
92. Planet Plaza Bwaise Stage
93. Pride Corner Stage (Roundabout Kubiri Stage)
94. Roundabout Kubiri (URA) stage
95. Small Gate Makerere Stage (Sir Appolo Rd)
96. Taibah High Rd Stage –Kyebando
97. Taibah High School Stage – Tuula
98. Total Kalerwe Stage
99. Transformer Stage (Sir Appolo Rd)
100. Ttula Rd Kawempe ku taano Stage
101. Ttula Road stage
102. Tuula Road Inn Stage
103. University Hall Small Gate Stage
104. UPTA stage
105. Wandegeya Katanga stage
106. Wisdom Primary Sch Stage – Kanyanya