



GLOBAL LABOUR INSTITUTE
MANCHESTER

NAIROBI BUS RAPID TRANSIT

Labour Impact Assessment Research Report

January 2019

PREFACE

This is the second report of research commissioned by the International Transport Workers Federation (ITF) as a contribution to the ITF Our Public Transport (OPT) programme. The overall objectives of OPT are to “promote quality public transport and inclusive cities in Africa, including decent jobs, a just transition for informal workers, strong union representation and improved access to affordable mobility”.

The brief was to undertake research on:

- a) The likely impact and implications of Bus Rapid Transit (BRT) for transport workers in Nairobi;
- b) Good practice examples from elsewhere in sub-Saharan Africa of engagement and inclusion of workers’ organisations in the development of BRT policy and implementation by local, national and international decision-makers;
- c) The nature of the worker groups consulted (e.g. trade union, association, cooperative etc);
- d) Consultation or negotiation processes;
- e) Outcomes of the inclusion of workers’ representatives in the design and operation of BRT.

In October 2017 and November 2018 research teams of union representatives, led by the University of Nairobi, undertook questionnaire surveys among 607 workers (484 men and 117 women) in the Nairobi matatu industry.

The surveys were designed to capture data on the matatu workforce in the context of the development of BRT in Nairobi. The interviews were designed to build a profile of workforce demographics, occupations, work experience and qualifications, employment terms and relationships, working hours and conditions, earnings and major issues experienced at work. It also aimed to determine the level of matatu workers’ awareness of BRT.

The street surveys were accompanied by a sequence of focus group discussions (FGDs), designed to provide further insight into the key issues faced by matatu workers, issues facing the Nairobi passenger transport system, ideas for improvements and reform, and attitudes towards the introduction of BRT.

In November 2018, there were an additional eight in-depth extended one-to-one interviews with workers to gain deeper insight into livelihoods, employment relationships and economics of the ‘target system’.

The 2017 fieldwork in Nairobi was accompanied by initial desk research to identify policies or analysis on the question of community and workforce engagement in BRT consultation, planning and implementation.

The subsequent **Preliminary Research & Baseline Study Report**¹, published in March 2018, included proposals for further research which formed the basis for the further work included in this report.

The first report was launched on 28 March 2018 at a seminar in Nairobi organised by the Kenya Transport Research Network, attended by fifty representatives of government and intergovernmental agencies, academic transport specialists, consultants, NGOs and transport trade unions². This provided invaluable feedback to the research team and assisted us to refine and improve our survey methodology and research questions.

1 See <https://www.informalworkersblog.org/nairobi-brt-labour-impact-assessment/>

2 See <https://www.informalworkersblog.org/itf-unions-demand-workers-voice-on-brt-implementation/>

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Dave Spooner, Global Labour Institute, Manchester

Erick Manga, Institute for Development Studies, University of Nairobi

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Glossary of terms

Unless otherwise indicated, terms refer to the Nairobi matatu industry

Askari	Police or City Council Inspectors (uniformed)
Ayalolo	Accra 'BRT' service
Bagation	Claiming an unofficial stage or bus stop along a route, from which cartels collect money
Boda Boda	Motorcycle taxis
Caller	Tout attracting passengers to board departing matatu
Cartel	Criminal gang / protection racket
Chama	Informal savings and credit cooperative
Daladala	Minibuses (Dar es Salaam)
Danfo	Minibuses (Lagos)
Deliver	Daily vehicle rental fee (Lagos)
Hesabu	Daily vehicle rental fee (Dar es Salaam)
Jua Kali	Informal economy workers ("hot sun")
Kabu-Kabu	Shared taxis (Lagos)
Kamagera	Casual drivers and conductors, often unlicensed
Kanju	City council police / Askari
Keke	Auto-rickshaws (Lagos)
Kombi	Minibus taxis (Johannesburg)
Makanga	Matatu conductor
Mananba	Caller
Matatu	Informal passenger bus, including mini-buses and 14-seater PSVs
Mates	Tro-Tro conductors (Accra)
Merry Go Round	Rotating Savings and Credit Association (ROSCA) - micro-savings group
Molue	Midi-buses (Lagos)
Mpesa	Mobile phone-based money transfer and microfinancing service
Mungiki	Organised 'cartels'
Mwananchi	Ordinary person / member of the public
Okada	Motorcycle taxis (Lagos)
Piggaseti	People paid to occupy matatu seats to give impression of imminent departure
Radar men	Observers on the roads warning drivers of police presence, jams etc
Rhinos	Plain-clothes police
Spare Driver	Relief driver (Johannesburg)
Squad driver	Relief driver
Target	Daily vehicle rental fee
Tro-Tro	Minibus taxis (Accra)
Tuk-tuk	Auto-rickshaw
Umananba	Calling/ Touting
UWAMADAR	Tanzanian association of drivers and conductors of urban buses

Acronyms / Abbreviations

AfDB	African Development Bank
AMA	Accra Municipal Assembly
BRT	Bus Rapid Transit
CBD	Central Business District
COTWU (T)	Communication and Transport Workers Union of Tanzania
DARCOBA	Dar es Salaam Commuter Bus Owners Association
FGD	Focus Group Discussion
FPTO	Federation of Public Transport Operators
GCTA	Ghana Co-operative Transport Association
GLI	Global Labour Institute
GNTOA	Ghana National Transport Owners Association
GPRTU	Ghana Private Road Transport Union
GRTCC	Ghana Road Transport Coordinating Council
ITDP	Institute for Transportation and Development Policy
ITF	International Transport Workers Federation
LAGBUS	Lagos State Bus Management
LAMATA	Lagos Metropolitan Area Transport Authority
MOA	Matatu Owners Association
MWA	Matatu Welfare Association
MWU	Matatu Workers Union
NAMATA	Nairobi Metropolitan Transport Authority
NTSA	National Transport and Safety Authority
NURTW	National Union of Road Transport Workers, Nigeria
NYS	National Youth Service
PROTOA	Progressive Transport Owners Association, Ghana
PSV	Public Service Vehicle
PWD	People with Disability
PUTON	Public Transport Operators Union
SACCO	Savings and Credit Cooperative Organisation
SANTACO	South African National Taxi Council
SATAWU	South African Transport and Allied Workers Union
SPSS	Statistical Package for Social Sciences
TARWOTU	Tanzania Road Transport Workers Union
TAWU	Transport Workers Union of Kenya
UDA	Usafiri Dar es Salaam bus company

INTRODUCTION

This report assesses the potential impact of the introduction of Bus Rapid Transit (BRT) on the workforce of Nairobi's informal transport ('matatu') industry, and seeks to encourage the active engagement of matatu workers' representatives in shaping a modern, accessible, efficient and environmentally sustainable transport system for the city.

As far as we are aware, this remains the only assessment of the impact of BRT on employment in Nairobi, or any other city in Africa, particularly for the large numbers of workers who currently depend on the informal matatu bus industry for their livelihoods. At the time of writing, despite formal requests from the trade unions concerned, there been no consultation or engagement with matatu workers' representatives in the BRT planning process.

Bus Rapid Transit

BRT is a public transport system designed to improve capacity and reliability in congested cities. It is based on dedicated road lanes that cannot be used by vehicles other than large buses operated by BRT companies. BRT involves building new roads, interchanges, terminals and modern stations along the routes.

All over the world, cities like Nairobi are encouraged by the World Bank and national governments to adopt BRT. They believe that BRT will ease congestion, increase efficiency, and reduce air pollution.

There are some complex factors involved in determining what constitutes a recognisable BRT system, including service planning, infrastructure, station design, communications and integration with pedestrians and other transport systems. The Institute for Transportation & Development Policy (ITDP) developed the BRT Standard, a worldwide evaluation tool to determine BRT best practice.

The most basic criteria are:

- Dedicated right-of-way
- Busway alignment (minimising conflict with other traffic)
- Off-board fare collection
- Intersection treatments (reducing delays at intersections)
- Platform-level boarding

The BRT Standard has a scorecard which attempts to evaluate planned and operational BRT systems based on 43 further criteria, giving a score out of 100 (see www.itdp.org/the-brt-standard/).



The Transmilenio BRT system in Bogotá, Colombia | Credit: smartcitiesdive.com

BRT in Nairobi

Five BRT lines are proposed in Nairobi³:

1. Ndovu (Kangemi – Imara)
2. Simba (Bomas – Ruiru, includes Thika Superhighway)
3. Chui (Njiru - Show Ground)
4. Kifaru (Mama Lucy - T-Mall)
5. Nyati (Balozi – Imara)

(See map next page)

If and when BRT will be implemented in Nairobi is open to question, as is the meaning of “BRT” in this context. According to ITDP, a full “gold standard” BRT system would cost a minimum of Ksh 100bn (Business Daily 2018b). But it is not the only option. The authorities are also considering other means of improving public transport: various versions of cheaper “BRT-lite” systems, perhaps similar to the model adopted in Lagos (see case study in Part 3), light rail and other infrastructure projects. At a minimum, “BRT” could simply be the reorganisation and branding of new fleets of large buses using the existing road infrastructure.

● BRT “PINK LIPSTICK” ON THIKA SUPERHIGHWAY

In April 2018, pink road markings appeared on the ‘Thika Superhighway’, claiming to be “BRT”. According to the Ministry of Transport, the express lanes would be used by high capacity buses carrying 80 passengers, travelling non-stop from outlying estates to the Central Business District (CBD). The buses were to be operated by the National Youth Service (NYS)⁴.

According to press reports, the Transport Cabinet Secretary explained that “because we require more than 900 buses for (the full BRT system), which we don’t have right now, we shall start with one corridor, which is the Thika Highway coming into the city. So that with the few buses, although they are not fully BRT compliant because these are the NYS buses, we can start having those dedicated buses to bring commuters into the CBD” (Capital News 2018)

● BRT “READY TO RIDE” BY DECEMBER 2018

In October 2018, President Kenyatta announced that least two stages of BRT must be ready for him to ride by 12 December 2018, but this would be far



“BRT” Bus Lane on Thika Superhighway, Nairobi
Credit: The Star, Kenya

from a full BRT system. “We need a dedicated right of way for the buses, not just paint”, according to Chris Kost, the Africa director of ITDP, adding that it would take about 5 to 10 years to build 86km to a full BRT specification. (Business Daily 2018b)

A few weeks later, the Kenyan press reported that BRT had stalled by the lack of money to buy high-capacity buses and build supporting BRT infrastructure. The Star newspaper claimed that despite public announcements by the Cabinet Secretary responsible for transport and City Hall officials that the government was planning to import 100 high-capacity buses, there is no budgetary allocation. The Nairobi County Assembly member responsible for Infrastructure and Transport was reported to have said that the project has been ‘hijacked’ by middlemen, vehicle manufacturers and private matatu owners who say the new buses will hurt their business. “There are those who feel we want to kick them out of business and hurried to acquire buses that do not meet the specifications,” he said. (Otieno 2018).

● ALTERNATIVE INFRASTRUCTURE PROJECTS?

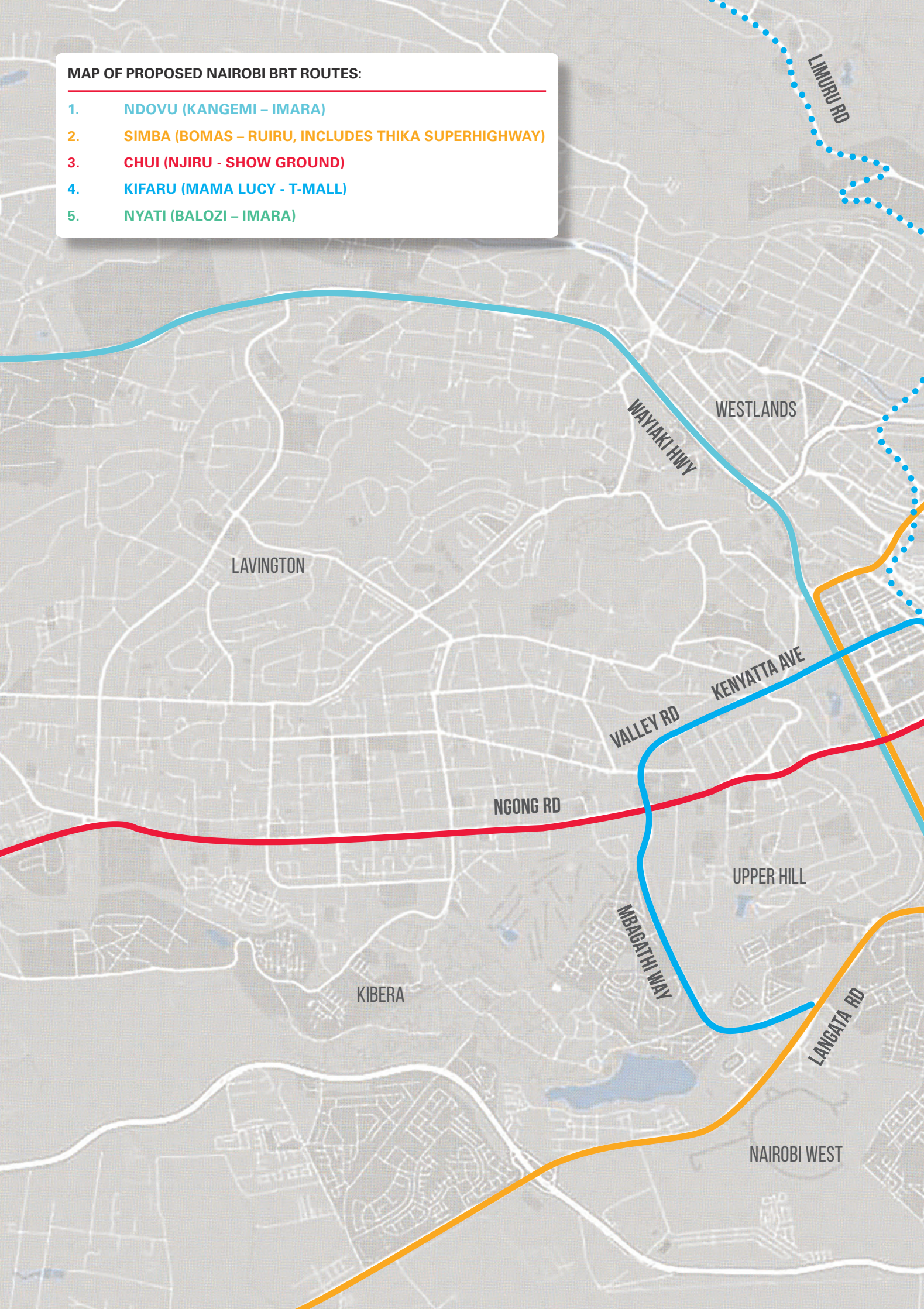
The government may also be distracted away from investment in a full BRT system by other infrastructure projects with alternative financing arrangements. In meetings during the 2018 China-Africa summit, agreement was reached on a range of projects, including a long-awaited toll-paying 30-kilometre expressway running from the airport across the city to Westlands; there are ongoing debates on the preference between BRT and light rail projects for Nairobi; and there are offers of 100% financing from India to introduce “BRT” buses, but on a system well below the BRT standard.

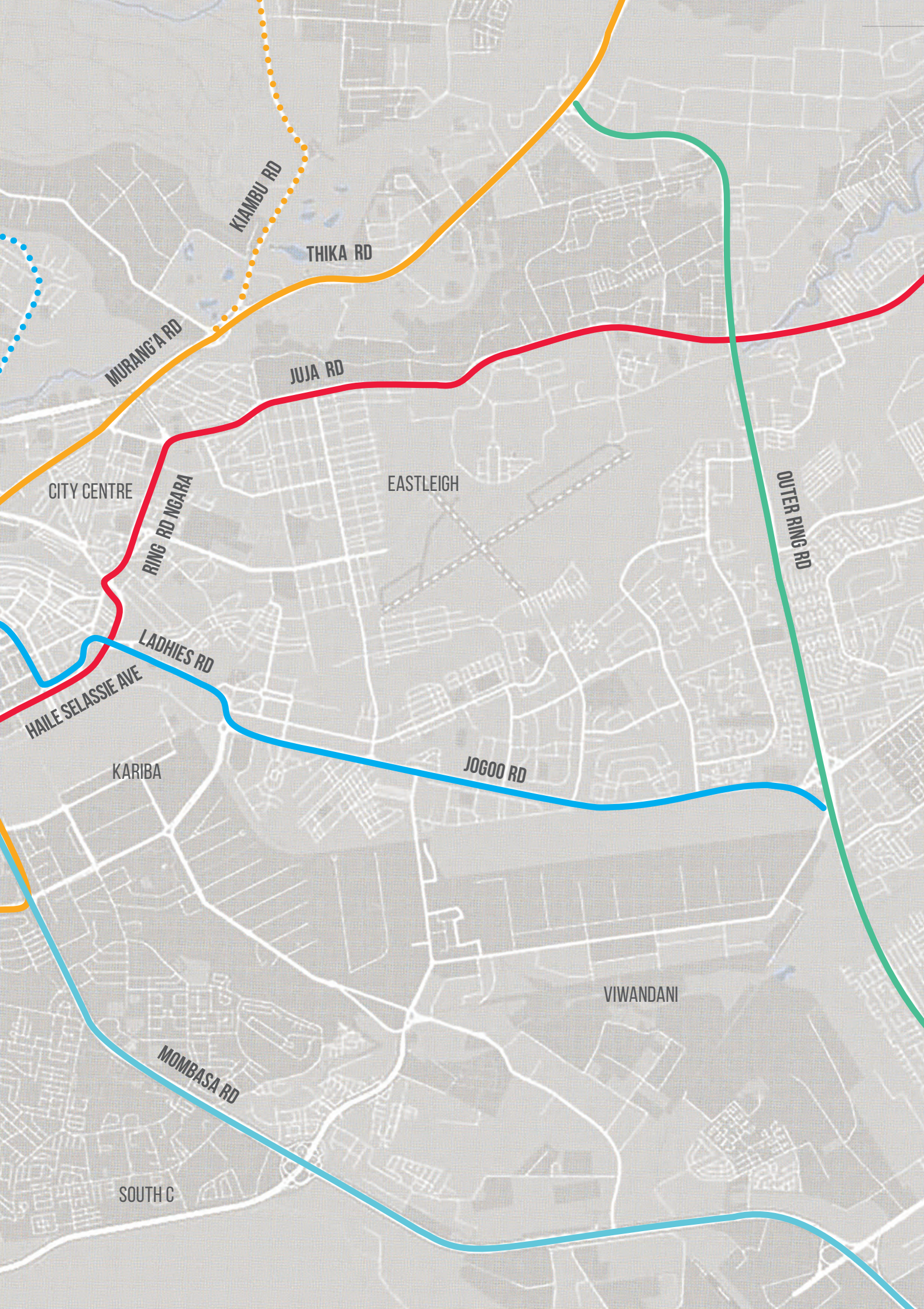
3 Sourad Based Mass Rapid Transit System on Jogoo Road Corridor, Results of the Harmonisation Study Stakeholder Presentation”. Gauff Consultants. May 16, 2014

4 The National Youth Service was established in 1964 as a paramilitary organisation. It was restructured in 2013 to focus on youth employment.

MAP OF PROPOSED NAIROBI BRT ROUTES:

1. **NDOVU (KANGEMI – IMARA)**
2. **SIMBA (BOMAS – RUIRU, INCLUDES THIKA SUPERHIGHWAY)**
3. **CHUI (NJIRU - SHOW GROUND)**
4. **KIFARU (MAMA LUCY - T-MALL)**
5. **NYATI (BALOZI – IMARA)**





KIambu Rd

Thika Rd

Muranga Rd

Juja Rd

CITY CENTRE

EASTLEIGH

RING RD NGARA

OUTER RING RD

LADHIES RD

HAILE SELASSIE AVE

KARIBA

JOGOO RD

VIWANDANI

MOMBASA RD

SOUTH C



Matatu buses in Nairobi | Credit: Mobile Lives Forum

The Nairobi Matatu Industry

Nairobi's public transport system is almost entirely within the informal economy. There are an estimated 10,000 14, 25 and 33-seater matatu buses in the system (Envag Associates 2012), along with a growing number of boda-boda motorcycle taxis and tuk-tuk three-wheelers. Matatus are all privately owned. Some owners may own just one vehicle, others may own an entire fleet.

The matatu industry has become notorious in Kenyan media for inefficiency, congestion, violent criminality, pollution and corruption. On the other hand, it offers cheap transport for hundreds of thousands of Nairobi commuters, is highly flexible and has a very vibrant matatu street culture, with "pimped-up" matatus attracting customers with music, graffiti art, lighting and video systems. It also informally employs many thousands of people.

The authorities will want to see matatus removed from BRT routes. There may be opportunities for some matatus to continue operating on routes away from BRT, and on "feeder routes" taking passengers to and from BRT terminals and stations. There may be new opportunities to work for BRT, but it is likely that many more jobs in the matatu industry will be at risk.

In Nairobi, in common with other African cities, the development of good quality, efficient and sustainable public transport depends not just on good vehicles, infrastructure planning and finance, but on the business models and political economy of transport – particularly the powerful interests surrounding the informal matatu industry.

● CRIMINALITY

It is widely believed that various cartels (criminal gangs) run the matatu industry. Cartels are thought to control many of the city routes, and a matatu owner is often required to pay daily 'security' fees to operate a particular route. When the crew has to pay several cartels each day, it eats into the owners' daily earnings.

Matatu owners use the industry for money-laundering. Since the matatu industry is largely unregulated, unscrupulous businessmen and drug dealers run fleets of matatus to recycle illegitimate income.

Bribery and corruption by police and city government officers is endemic throughout the matatu industry.

PART ONE:

The Nairobi Matatu Workforce

Survey Methodology ⁵

● SURVEY DESIGN

In October 2017 and November 2018 research teams overseen by the University of Nairobi undertook participatory research among workers in the Nairobi matatu industry to collect baseline data on the matatu workforce. The research consisted of interviews with 607 workers (484 men and 117 women) a sequence of nine focus group discussions, and in-depth interviews with eight matatu workers. Each research team was led by university researchers, accompanied by men and women representatives of transport trade unions: Public Transport Operators Union (PUTON), the Transport Workers Union of Kenya (TAWU) and the Matatu Workers Union (MWU).

The research programme was preceded by participatory research training delivered by Dave Spooner and Jess Whelligan from the Global Labour Institute and John Mark Mwanika from the Amalgamated Transport & General Workers Union (ATGWU) in Uganda, the ITF's 'mentor union' for East Africa informal transport workers. The training included discussion on conceptual and methodological issues, preparation and interrogation of the research instruments, mapping of various different categories of informal workers in the matatu industry within Nairobi's Central Business District (CBD), and identification of various matatu routes and corresponding sampling

points. The training also pre-tested the survey questionnaire, focus group guide, the sampling points and made subsequent adjustments.

The research was designed to capture baseline data on the matatu workforce in the context of the development of BRT in Nairobi. Interviews and focus groups were intended to build a profile of workforce demographics, occupations, work experience and qualifications, employment terms and relationships, working hours and conditions, earnings and major issues experienced at work. It also aimed to determine the level of matatu workers' awareness of BRT.

● TARGET POPULATION AND SAMPLE SIZE

A total of 600 informal matatu workers were interviewed (300 during the first wave and another 300 during the second wave), targeting different categories of informal workers in the public transport sector in Nairobi City. They were grouped into three main categories namely crew, service providers and stage workers, each with its own dynamics. Since the number of informal workers in this industry is not known due to lack of authoritative data, the team did not rely on the census population to determine the sample size. Sampling was conducted along different routes along the five designated BRT routes in Nairobi city:

FIRST WAVE (2017)

Target population	Location
100 Matatu crew (drivers and conductors)	Githurai, Kiambu, Kayole, Kenol
100 service providers (mechanics, vendors and spare part dealers)	Park Road, Kariako Road, Kirinyaga Road, Kipande Road and Ruai Road
100 stage workers (callers, stage managers etc)	Commercial, Bus Station, Railways, Mfang'ano and Posta

⁵ For more detailed information on research methodology, see Manga E. (2018) Assessment of Labour Impact on Informal Workers in the Matatu Industry in Nairobi City, Institute for Development Studies, University of Nairobi.

SECOND WAVE (2018)

BRT lanes	Crew	Stage workers	Service providers	Total
1. NDOVU	20	20	20	60
2. SIMBA	20	20	20	60
3. CHUI	20	20	20	60
4. KIFARU	20	20	20	60
5. NYATI	20	20	20	60
Total	100	100	100	300

● SOURCES OF INFORMATION AND MEANS OF COLLECTION

The baseline survey relied on different sources and tools to gather information required to address specific issues under investigation.

occupations, employment relationship, length and contract, earnings and payments, problems at work, membership to unions/associations, knowledge and perceptions about BRT and traffic congestion and related problems in Nairobi.
(See Appendix 1. Questionnaire)

● RESPONDENTS TEMPLATE

A total of 600 survey templates were administered to respondents across the city. The tools had both structured and open-ended question covering the following key issues: age and gender, location,

● FOCUS GROUP DISCUSSIONS

There was a total of nine focus group discussions (FGDs) conducted in nine different places of the city as shown in the table below.

SUMMARY OF THE FOCUS GROUP DISCUSSIONS

FGD	Category of participants	Number of participants	Location	Date
1	Service providers	9	Kibanda- Kariokor	5/10/2017
2	Service providers	10	Kipande Road	20/10/2017
3	Service Providers	10	Kayole	18/11/2018
4	Crew (drivers and conductors)	10	Globe Roundabout	5/10/2017
5	Crew (drivers and conductors)	10	Komarock Route	17/10/2017
6	Crew (drivers and conductors)	13	Kitengela	18/11/2018
7	Stage worker	10	Mathai Supermarket	5/10/2017
8	Stage workers	10	Commercial – Stage 105 (City Shuttle)	19/10/2017
9	Stage Workers	12	Kariobangi	19/11/2018

Each FGD involved between 9 and 13 participants. The 2017 FGDs lasted for approximately 1 hour, the three FGDs in 2018 were more detailed, lasting 90- 120 minutes . They were conducted in secluded venues to avoid unnecessary interruptions using open ended guidelines. They focused on three key issues namely major challenges facing informal workers in the industry, measures to addressing problems of congestion, pollution and traffic accidents, and lastly, knowledge and perception of BRT. (see Appendix 2. Focus Group Discussion Guidelines)

● IN-DEPTH INTERVIEWS

Data from questionnaires and focus group discussions was supplemented by a sequence of longer in-depth one-to-one interviews in November 2018 with eight workers, including drivers, former matatu owners, service workers and mechanics. The interviews were designed to gain deeper insight into livelihoods, employment relationships and economics of the 'target system', providing the data for illustrative examples of income and expenditure for matatu drivers and owners (see Livelihoods and Employment Relationships, p19).

● PREPARATION AND REVIEW OF BASELINE SURVEY TOOLS

This exercise was iterative and participatory in order to ensure quality output. The research team spent two preparatory days discussing conceptual and methodological issues. Specific issues involved preparation and interrogation of the research instruments to ascertain their relevance and conceptual grounding, mapping of various different categories of informal workers in the matatu industry within the city, identification of various matatu routes and corresponding sampling points. In both waves, the second stage involved pre-testing of the survey instrument in respective sampling points and adjustment of the research instruments.

● DATA COLLECTION

Sixteen researchers were involved in data collection, including five researchers from two Kenyan universities and eleven members of unions with experience and knowledge of the matatu industry. They were paired (men and women) and each team assigned a particular category of the target population. In both cases researchers provided general oversight during actual data collection and directly supervised the process on a daily basis to ensure quality.

In 2017 focus group discussions were conducted in two phases: at the beginning and towards the end of the survey. University researchers facilitated the discussions. In 2018, the additional three FGDs were undertaken over a two-day period, led by an external professional facilitator.

In November 2018, there were an additional eight in-depth extended one-to-one interviews with workers to gain deeper insight into livelihoods, employment relationships and economics of the 'target system'. The in-depth interviews were conducted by Dave Spooner (GLI) , assisted by Joe Ndiritu (PUTON).

● LIMITATIONS/CHALLENGES EXPERIENCED AND MITIGATION MEASURES TAKEN

The second wave of the survey addressed some of the limitations experienced in 2017: failure by some respondents to give information on gross and net payments and extraction, due to inadequate framing of questions or perceived sensitivity of the issue; missing responses in some cases mainly due to difficulties experienced by the researchers in the field; lack of information on the number of vehicles plying routes which have been identified for the construction of the BRT lanes in Nairobi as well as the number of employees in different SACCOs.

Steps taken to mitigate these limitations during the second wave included revision of the questionnaire, closer support and supervision of the survey team, more intensive effort to obtain data from the relevant government agencies and owners' organisations, and organisation of in-depth interviews to explore issues of gross and net income in an environment assured of confidentiality and trust.

Questionnaire survey team | Credit: GLI



MATATU WORKFORCE

Characteristics

CURRENCY

Unless indicated to the contrary, financial information is given in Kenya Shillings (Ksh). At the time of writing, the exchange rate is approximately USD 1.00 equivalent to Ksh 100.00.

● AGE

The matatu workforce is **young**. 73% of the respondents were under the age of 40, similar to other sectors of the Kenyan informal economy (Kamau et al, 2018) and pointing to the way the sector is providing employment for a large pool of unemployed young people, especially men.

● GENDER

19% of respondents were women. It is clear that young men continue to dominate the sector. Previous studies have estimated the proportion of women in the matatu industry to be 0.4% in 1997 or 6.7% in 2011 (Khayesi, 2015). Anecdotal evidence suggests that the number of women is growing, but this needs further exploration through representative sampling. It is important to use a definition of matatu employment which includes occupations often overlooked in previous research studies, e.g. matatu stage vendors, who are more likely to be women and likely to be among the most precarious and low-paid.

● DURATION OF EMPLOYMENT

Most matatu workers are in **long-term informal employment**. Nearly 50% of the workers interviewed have been in their respective occupations for five years or more.

● WORKFORCE QUALIFICATIONS

The workforce is largely educated, with nearly 60% having completed secondary level, and 18.8% achieving college graduation. Furthermore, many have additional qualifications, including driving (47%) and mechanical engineering (18%). In total, more than 80% of correspondents claimed additional training or qualifications, in a wide range of skills, including IT, accountancy, electrical engineering, business management, catering, teaching and others.

AGE OF RESPONDENTS

Age	Frequency	%	Cumulative
<18	3	0.5%	0.5%
18-24	76	12.5%	13.0%
25-39	364	60.0%	73.0%
40-59	139	22.9%	95.9%
No response	25	4.1%	100.0%
Total	607	100%	

GENDER OF RESPONDENTS

	Frequency	%
Man	484	79.7%
Woman	117	19.3%
No response	6	1.0%
Total	607	100.0%

YEARS IN CURRENT OCCUPATION

Years	Frequency	%
< 1 - 4	312	51.6%
5 - 9	175	28.9%
10 - 14	49	8.1%
15 - 19	36	6.0%
>20	33	5.5%
	605	

LEVEL OF EDUCATION

	Frequency	%
Primary level	130	21.4%
Secondary level	361	59.5%
College level	114	18.8%
No response	2	0.3%
Total	607	

ADDITIONAL QUALIFICATIONS/TRAININGS

	Frequency	%
Driving	119	46.9%
Mechanic	46	18.1%
Computing / IT	22	8.7%
Electrician	11	4.3%
Catering	10	3.9%
CPA	9	3.5%
Tailoring / shoemaking	8	3.1%
Business management	4	1.6%
Teaching	4	1.6%
Salons	4	1.6%
Carpentry and joinery	4	1.6%
Sales and marketing	3	1.2%
Engineering / welding	2	0.8%
First Aid	2	0.8%
Music programmer	1	0.4%
Fire-fighting	1	0.4%
Pharmacy	1	0.4%
Cleaning and Forwarding	1	0.4%
Barber	1	0.4%
Karate instructor	1	0.4%
Total	254	

● OCCUPATIONS

The workforce includes many varied occupations, all dependant on the matatu industry for livelihoods. For the purpose of analysis, occupations are considered within three groups of workers, each with distinct different workplaces.

The list is not exhaustive, and continues to be developed as the result of surveys, interviews and focus group discussions.

STAGE WORKERS

SACCO supervisors, "Supervisors", SACCO agents, Owners' agents, Stage attendants, Callers (Mananba), Money changers, Loaders / Porters, Vendors, Shoe Shiners, 'Seat warmers' (Piggaseti), Side mirror menders, Bus Sweepers, Police Agents, Traffic marshals, 'Cartel' workers (Bagatons), Boda Boda riders, Tuk-Tuk drivers

MATATU SERVICE WORKERS

Mechanics: Routine vehicle services, Brakes, Tyre menders, Welders, Panel beaters, Painters, Spare part dealers
Technicians: Sound systems, Video systems, Lighting, Artists, Tailors, Upholsterers
Support workers: Petrol Station workers, Carwash workers, Radarmen, Night guards, Food vendors, Mpesa Agents

ON-BOARD CREWS

Drivers, Conductors, Squad Drivers, Squad Conductors, Kamagera Drivers, Kamagera Conductors

Each of the three research teams undertook questionnaire surveys and focus group discussions in different locations, to capture data from each group of occupations. The combined 2017 and 2018 surveys captured data from sixteen of these occupations.

OCCUPATIONS OF RESPONDENTS

Occupations	Frequency	%
Driver	124	20.4%
Conductor	98	16.1%
Caller	71	11.7%
Vendor	62	10.2%
Mechanic	48	7.9%
Hawker	32	5.3%
Loader/porter	21	3.5%
Tyre fitter/repairer	20	3.3%
Panel beater	19	3.1%
Cleaner	18	3.0%
Stage supervisor	17	2.8%
Other	17	2.8%
No response	15	2.5%
Kamagera	14	2.3%
SACCO management	12	2.0%
Unofficial supervisor	8	1.3%
SACCO supervisor	8	1.3%
Traffic marshall	3	0.5%
Total	607	

● SECURITY OF EMPLOYMENT

Matatu workers are in **highly precarious employment**. Very few have formal contracts. Most are wholly self-employed, or on hourly or daily informal 'contracts'.

Only a tiny percentage of respondents (3.9%) have any form of written agreement or contract covering their employment.

● WORKING HOURS

Most matatu workers work **very long hours**.

A 1997 study of working conditions in the matatu industry (Khayesi 1997) found that nearly half of drivers and conductors worked between thirteen and fifteen hours per day.

The 2018 survey provided data comparing the working hours and days between the different workplaces, and revealed a consistent pattern of excessive working hours, particularly for on-board crews, almost identical to conditions twenty years earlier.

NUMBER OF DAILY WORKING HOURS FOR MATATU WORKERS

Number of Hours	Drivers	Conductors	Stage Workers	Others	Total	Per cent
Less than 9	6	2	4	1	13	4.9
9-12	21	13	36	3	73	27.8
13-15	51	46	19	1	117	44.5
Over 15	20	16	3	1	40	15.2
Varied	8	4	5	2	19	7.2
No response	1	0	0	0	1	0.4
Total	107	81	67	8	263	100.0
Per cent	40.7	30.8	25.5	3.0	100.0	

Source: Khayesi (1997)

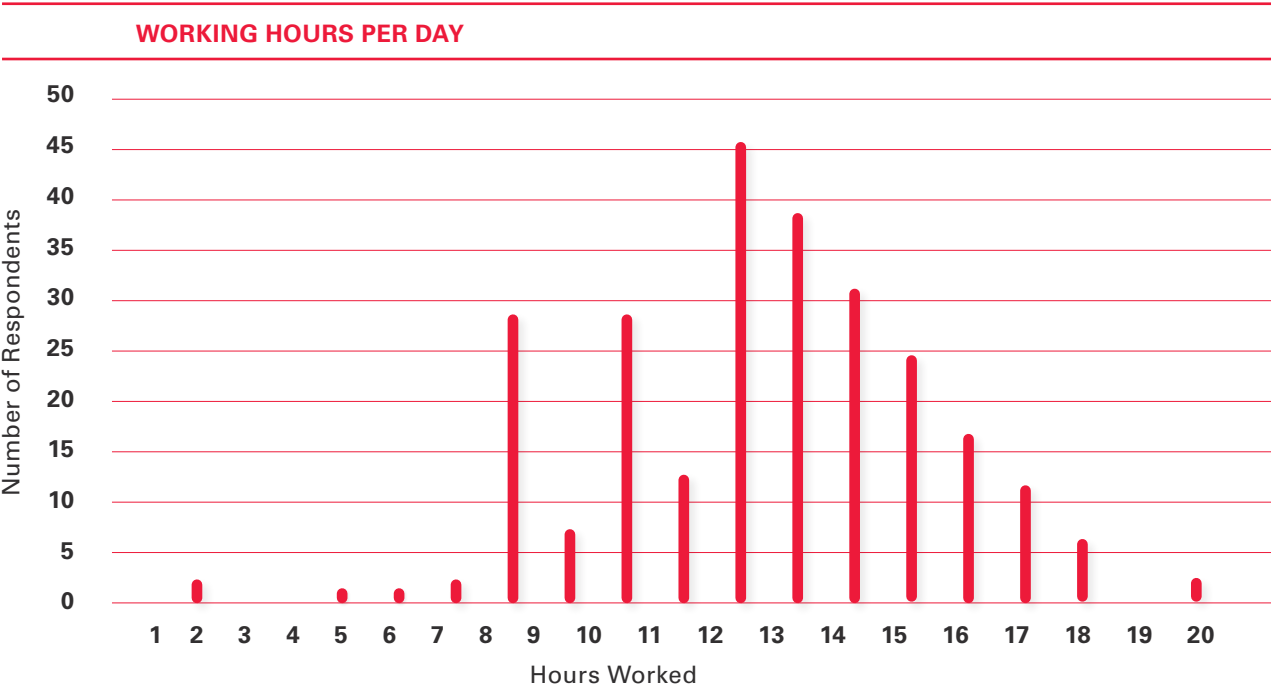
WORKING HOURS / DAYS (2018 SURVEY)

AVERAGE WORKING TIME

	No. of responses	Hours per day	Days per week
On-board crews	125	14.8	6.1
Stage workers (inc. SACCOs)	54	12.8	6.2
On route (hawkers etc)	47	11.8	6.3
Service workers	70	11.0	6.4
Other	11	11.0	6.4
	307		

Most of those surveyed work 12 hours per day or more. More than 65% work six days per week, and 27% work seven days per week.

The large majority of respondents surveyed in 2017 worked more than 12 hours per day.



● LIVELIHOODS AND EMPLOYMENT RELATIONSHIPS

Most matatu workers have **low incomes**. There are considerable fluctuations in gross income from day to day, or hour to hour, and a wide variety of necessary outgoings which are often unpredictable. Before vehicle crews can start to earn money, most have to meet **high daily financial “targets”** set by vehicle owners – in effect a rental fee. This leads to long working hours, high accident rates and poor health.

In addition, workers have to pay for fuel, taxes, licenses, vehicle maintenance, loan repayments, insurance etc. They are also subject to **arbitrary fines and extortion** from police and *Askari* county inspectors.

To estimate net income, we need to take all outgoings (‘extractions’) into considerations. These include a wide range of payments, including ‘owners’ targets’ (vehicle rental), police bribes and fuel.

The matatu industry involves a **complex set of employment relationships**. Matatu workers’ livelihoods depend on informal income from a wide range of sources, including drivers, conductors, customers, informal employers, and SACCOs.

The industry employs a wide range of other workers, including conductors, Kamagera, callers, vehicle washers, squad drivers, food and drink vendors, painters and artists, mechanics, county officials, stage clerks, SACCOs, “set guys”, stage “owners” and others.

The attempts to capture reliable detailed data on livelihoods from questionnaire surveys proved to be extremely difficult. Time was very limited, which prevented the researchers from asking the detailed follow-up questions and clarifications required and made it difficult to establish sufficient trust from respondents to provide honest and candid information.

As a result, a sequence of in-depth interviews was conducted in 2018 with drivers and conductors, service workers and former vehicle owners provides further data for a more detailed analysis of the industry’s micro-economics.

The following tables are illustrations, based on the 2018 interview data, of typical annual income and expenditure for both drivers and owners, demonstrating the major differences between the economies of old and new and 14 and 33-seater vehicles.

DRIVING A NEW 33-SEAT MATATU

Number of Seats	33	Seats	
Age of Vehicle	2	Years	
Working days per year	300	Days	
Costs		Ksh Per Year	US\$
Fuel (per day)	7,000	1,750,000	\$17,500
Target (per day)	5,000	1,250,000	\$12,500
Mechanics (per month)	1,000	250,000	\$2,500
Police bribes and fines (per day)	1,000	250,000	\$2,500
Conductor (per day)	300	75,000	\$750
Stage "Supervisor" (per day)	200	50,000	\$500
Callers (per day)	200	50,000	\$500
Kamagera / Squad workers (per day)	2,400	28,800	\$288
Carwash (per day)	100	25,000	\$250
Night Guard (per day)	100	25,000	\$250
Routine Service (per month)	2,600	31,200	\$312
Petrol station services (per month)	800	9,600	\$96
Technicians (per month)	500	6,000	\$60
Licenses etc (per year)		2,900	\$29
Uniforms (per year)		1,000	\$10
Total Annual Costs		3,804,500	\$38,045
Passenger Fares (per day)	15,000	4,500,000	\$45,000
Annual Income less Expenditure		695,500	\$6,955
Daily net income		2,318	\$23.18

DRIVING AN OLD 14-SEAT MATATU

Number of Seats	14	Seats	
Age of Vehicle	5	Years	
Working days per year	300	Days	
Costs		Ksh Per Year	US\$
Fuel (per day)	2,600	780,000	\$7,800
Target (per day)	2,500	750,000	\$7,500
Mechanics (per month)	900	270,000	\$2,700
Police bribes and fines (per day)	900	270,000	\$2,700
Conductor (per day)	800	240,000	\$2,400
Stage "Supervisor" (per day)	300	90,000	\$900
Callers (per day)	260	78,000	\$780
Kamagera / Squad workers (per day)	200	60,000	\$600
Carwash (per day)	200	60,000	\$600
Night Guard (per day)	100	30,000	\$300
Routine Service (per month)	1,200	14,400	\$144
Petrol station services (per month)	900	10,800	\$108
Technicians (per month)	500	6,000	\$60
Licenses etc (per year)		2,900	\$29
Uniforms (per year)		0	\$0
Total Annual Costs		2,662,100	\$26,621
Passenger Fares (per day)	10,000	3,000,000	\$30,000
Annual Income less Expenditure		337,900	\$3,379
Daily net income		1,126	\$11.26

OWNING A MATATU

	OLD 14-SEATER			NEW 33-SEATER		
			US\$			US\$
Number of Seats	14	Seats		33	Seats	
Age of vehicle	14	Years		1	Years	
Vehicle Purchase Price		450,000	\$4,500		4,600,000	\$46,000
Deposit		67%			57%	
Loan		300,000	\$3,000		2,600,000	\$26,000
Interest Rate		10.00%			10.00%	
Loan Period		2.5	years		3	years
Start-Up Costs						
Deposit		150,000	\$1,500		2,000,000	\$20,000
Refurbishment		25,000	\$250		280,000	\$2,800
Reg. plate		0	\$0		15,000	\$150
SACCO registration		20,000	\$200		20,000	\$200
Road Service Licence (TLB)		1,250	\$13		1,250	\$13
Total Start-Up Costs		196,250	\$1,963		2,316,250	\$23,163
Operating days per year		200	days		350	days
Annual Costs						
Loan repayment		120,000	\$1,200		1,040,000	\$10,400
Loan interest		30,000	\$300		260,000	\$2,600
Vehicle management			\$0	5,000	60,000	\$600
Major repairs / refurbishment		400,000	\$4,000		100,000	\$1,000
Insurance (per month)	8,000	96,000	\$960	25,000	300,000	\$3,000
Road Service Licence (TLB)		2,000	\$20		2,000	\$20
Tax (per seat/year)	720	10,080	\$101	720	23,760	\$238
Total Annual Costs		658,080	\$6,581		1,785,760	\$17,858
Annual Income						
Target per day	3,500	700,000	\$7,000	10,000	3,500,000	\$35,000
Annual Income less Expenditure		41,920	\$419		1,714,240	\$17,142
Per Month		3,493	\$35		142,853	\$1,429

It is evident that the net income for both workers and vehicle owners varies considerably, according to the size (number of seats) and age of the vehicle. There is clearly a huge difference between the income of an owner with sufficient capital to purchase a large fleet of new 33-seat vehicles (especially if they can finance the vehicles without loans) and an individual who borrows sufficient money to buy an old 14-seat matatu. One interviewee, a former driver who managed to raise sufficient capital to buy an old 14-seater matatu, explained in detail how it proved impossible to make any profit, and was forced to give up the business.

The net income for matatu drivers is a tiny proportion of the fares collected, after covering costs. The cost of fuel and target payments to owners represent the greatest costs. Police bribes and fines are a major drain on income. There are “polite bribes” - routine, often multiple, daily payments of Ksh.200, Ksh.400 or more, which may afford protection from arrest or further harassment; and heavier intermittent fines for minor traffic violations (not wearing the correct uniform or PSV badge, contravening a matatu route etc), typically of Ksh.1-2,000 per week.

MAIN HEALTH ISSUES EXPERIENCED

	Frequency	%
Chest problem	50	29.4%
Injuries / accidents	22	12.9%
Colds / flu	20	11.8%
Back problem	18	10.6%
Fatigue	14	8.2%
Sore throat/voice	9	5.3%
Swollen legs	9	5.3%
Malaria	7	4.1%
Pneumonia	5	2.9%
Eye problems	4	2.4%
Joint pains	3	1.8%
Leg pains	3	1.8%
Dust related issues	2	1.2%
Headache	2	1.2%
Typhoid	1	0.6%
Ulcers/stress	1	0.6%

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● OCCUPATIONAL HEALTH & SAFETY

The matatu industry is bad for workers' health.

A third of respondents reported health problems or injuries suffered as a consequence of work in the matatu industry. A third of these reported respiratory problems most likely linked to long hours of exposure to air pollution (Ngo et al, 2015). Others (particularly drivers) reported back pain, aching joints, swollen and painful legs, eye conditions, dust related issues, sore throats, headaches and ulcers.

Accidents are frequent. 22% of 2017 respondents reported that they had been directly involved in crashes, ranging from knocks from vehicle side-mirrors, to careless driving, failed brakes, speeding, dangerous overtaking, and drunk driving. It is important to note that the matatu drivers are not always at fault although long hours without rest are associated with more potential crashes linked to fatigue.

REPORTED CAUSES OF ACCIDENTS

		%
Minor injuries from the mirrors	23	35.94
Sharp objects	10	15.63
Over speeding	9	14.06
Careless driving	8	12.5
Brakes failed	6	9.38
Overtaking	5	7.81
Drunk driving	1	1.56
Fell from moving vehicle	1	1.56
Somebody jumped on the highway	1	1.56

● KEY ISSUES AT WORK

Survey respondents reported **other major problems**, including sexual harassment, lack of social protection, lack of sanitation, abusive customers, and poor security.

Most importantly, however, a large proportion of all those surveyed, including crews, stage workers and service providers, complained of **harassment and extortion** from police (31%) and local government officials (22%).

WHAT ARE THE PROBLEMS YOU FACE AT WORK?

	Frequency	%
Police harassment	280	31.1%
Local Government (Kanju)	194	21.5%
Poor working environment	55	6.1%
Reduced income /poor pay	49	5.4%
Long working hours	48	5.3%
Unfaithful/rude customers	38	4.2%
Pressure to meet target	38	4.2%
No job security	37	4.1%
Insecurity	26	2.9%
Cartels	18	2.0%
Sexual harassment	14	1.6%
Low clients base	13	1.4%
Sun, dust	12	1.3%
Mungiki / Kamegera	9	1.0%
Lack of sanitation	9	1.0%
Lack of parking space	8	0.9%
Power blackout	7	0.8%
Mistreatment by SACCO officials	6	0.7%
Work space is too small	5	0.6%
No business when it rains	5	0.6%
Fake goods	5	0.6%
Poor drainage	4	0.4%
No pay while off duty	4	0.4%
Lack of water	4	0.4%
High taxes	3	0.3%
No maternity leave	3	0.3%
Low clients turn up	2	0.2%
No guard force training	2	0.2%
Drivers breaking rules	1	0.1%
Balancing work and family	1	0.1%
High bus fares	1	0.1%
	901	

Focus group discussions provided a picture of key **challenges specific to crews, service workers and stage workers.**

SUMMARY OF KEY CHALLENGES MENTIONED BY FGD PARTICIPANTS**CREWS**

Extractions and harassment by law enforcement officers (traffic police and city traffic marshals).
 Long working hours
 Poor remunerations
 Corrupt, dysfunctional and unresponsive SACCOs
 Traffic congestion
 Cartels demanding protection money with threat of destroying the vehicle
 General poor working conditions
 Rude and disrespectful passengers

SERVICE PROVIDERS

Harassment and extractions by law enforcement agencies especially city county officials
 Limited and poor-quality working spaces
 Diminishing job opportunities
 Skilled workers (e.g. mechanics and technicians) livelihoods and quality of work undercut by younger poorly qualified workers
 No documentation (orders, invoices etc) therefore no means of legal redress in disputes with customers or suppliers
 Lack of affordable safe modern equipment, therefore accidents
 Un-roadworthy vehicles, encouraging crime and corruption

STAGE WORKERS

Harassment by law enforcement officers (traffic police and city traffic marshals)
 Police generally collect 50/- “polite” bribe per day per worker
 Fear of wearing the uniform, as workers become targets for police attack and robbery
 Thieves steal from passengers, then the stage workers are blamed by police
 Owners call the police when collectors fail to reach targets
 Sexual harassment by drivers and other stage workers
 SACCOs poorly organised
 SACCOs harass the stage attendants, but don’t recognise that they perform an essential service
 Poor payment
 Lack of formal contracts
 No social protection
 General poor working conditions

The problem of police harassment is universally regarded to be the single most important challenge facing all workers in the matatu industry.



Averagely, police collect Ksh.1,000 for every trip/squad. This is because there are several police strategic points where they have to part with at least Ksh.100/200. Apart from traffic police arrests, the drivers and conductors are harassed by 'Rhino Commandos.' These are plain-clothed police officers who accuse them of idling to steal from the public. The drivers and conductors usually converge at strategic places (bases) as they wait for their turn 'squad'. This is due to lack of employment and few matatus hence they cannot be all accommodated at one go. The Rhino harassment is a common practice within the CBD, Komarock and Kayole estates, collecting illegal fees/bribes from the crew."

Crew member

It was also evident from the focus groups that perhaps the great majority of SACCOs fail to meet their legal obligations to the workforce.



The SACCOs don't fight for the welfare of the workers. They are only interested in their own welfare and that of the vehicle owners. They have also neglected their role as SACCOs to ensure compliance of traffic rules and regulations and hence ensure sanity within the public transport."

Stage Worker

● GENDER IN THE MATATU WORKFORCE

The matatu industry is evidently dominated by men, especially when simply including on-board crews. A broader definition of the workforce to include **all** workers that depend on the industry for their livelihoods reveals a much higher number of women, not surprisingly in the most precarious of jobs – notably in street vending (including food vending) at matatu stages.

Yet the 2018 survey revealed a surprisingly high proportion of women working as matatu conductors (15.7%) and drivers (5.9%). This could be the unintended consequence of the sampling methods, and the effect of having an equal number of women on the research teams, but it may also indicate that the number of women with on-board jobs is rising.

PERCENTAGE OF WOMEN AND MEN RESPONDENTS BY MATATU OCCUPATION (2018 SURVEY)

Men	%	Women	%
Driver	25.80%	Street Vendor	41.20%
Conductor	17.20%	Conductor	15.70%
Mechanic	9.40%	Other	7.80%
Street Vendor	7.80%	Driver	5.90%
Tyre fitter/repairer	5.50%	Kamagera	5.90%
Cleaner	5.10%	Traffic Hawker	5.90%
Other	5.10%	Stage supervisor	3.90%
Panel Beater	4.30%	Caller	3.90%
Kamagera	3.90%	Loader/Porter	2.00%
Loader/Porter	3.10%	Unofficial Stage Supervisor	2.00%
SACCO Mgt./Admin	3.10%	Mechanic	2.00%
SACCO supervisor	2.70%	Cleaner	2.00%
Stage supervisor	2.00%	SACCO Mgt./Admin	2.00%
Unofficial Stage Supervisor	2.00%	Panel Beater	0.00%
Traffic Hawker	2.00%	SACCO supervisor	0.00%
Caller	0.80%	Traffic Marshal	0.00%
Traffic Marshal	0.40%	Tyre fitter/repairer	0.00%

When considering the gender balance between workers in the specific workplaces, it is not surprising that the off-road service areas and on-

board crews are dominated by men, and women form a substantial proportion of the on-route workers (notably vendors and hawkers) .

GENDER BALANCE BETWEEN RESPONDENTS BY WORKPLACE (2018 SURVEY)

Men	%	Women	%
Off-road service area (e.g. mechanics, tyre-menders)	92.90%	Along the route (e.g. traffic hawkers)	42.60%
On board (e.g. drivers, conductors)	91.20%	Other	36.40%
SACCO workers	85.00%	Stage/Bus stop	23.50%
Stage/Bus stop	76.50%	SACCO workers	15.00%
Other	63.60%	On board (e.g. drivers, conductors)	8.80%
Along the route (e.g. traffic hawkers)	57.40%	Off-road service area (e.g. mechanics, tyre-menders)	7.10%

YEARS IN THE MATATU INDUSTRY (2018 SURVEY)

	Men	Women
Below 5 years	35.70%	61.40%
5 - 10 years	40.00%	20.50%
11 - 15 years	9.10%	9.10%
16 - 20 years	9.10%	4.50%
More than 20 years	6.10%	4.50%

It is notable that 61.4% of **women** have been working in the matatu industry for less than five years, compared to only 35.7% of men, with a similar proportion working for less than five years in their respective specific jobs.

This could of course be an indication that women stay working in the industry for a shorter time, perhaps due to family commitments, social pressure, or the difficulties in working in a male-dominated, tough and sometimes violent

YEARS IN CURRENT JOB (2018 SURVEY)

	Men	Women
Below 5 years	50.00%	70.60%
5 - 10 years	36.30%	17.60%
11 - 15 years	6.30%	5.90%
16 - 20 years	4.30%	2.00%
More than 20 years	3.10%	3.90%

environment. It is possible however that it may also be due to an increased influx of women into the industry in recent years. This requires further research.

As may be expected, problems of sexual harassment, lack of sanitation, lack of maternity pay etc were given higher priority by women workers. Yet the overwhelming issue of harassment by police and *kanju* is common to both women and men.

MAJOR PROBLEMS IDENTIFIED (2017 SURVEY)

Men	%	Women	%
Police harassment	53.8%	Local Government (Kanju)	46.6%
Local Government (Kanju)	43.1%	Police harassment	31.0%
Poor working environment	18.2%	Poor working environment	24.1%
Reduced income /poor pay	17.8%	Long working hours	17.2%
No job security	14.7%	Reduced income /poor pay	15.5%
Unfaithful/rude customers	13.3%	Sexual harassment	15.5%
Long working hours	12.0%	Sun, dust	10.3%
Insecurity	9.8%	Insecurity	6.9%
Pressure to meet target	7.6%	No job security	5.2%
Low clients turnup	5.3%	Unfaithful/rude customers	5.2%
Many cartels	3.1%	Low clients turnup	5.2%
Sun, dust	2.7%	Lack of sanitation	5.2%
Mistreatment by SACCO officials	2.7%	Power blackout	5.2%
Lack of parking space	2.2%	No pay while off-duty	3.4%
Work space is too small	2.2%	No maternity leave	3.4%
Lack of sanitation	1.8%	Pressure to meet target	1.7%
Power blackout	1.8%	No business when it rains	1.7%
No business when it rains	1.8%	Poor drainage	1.7%
Poor drainage	1.3%	Fake goods	1.7%
No pay while off-duty	0.9%	Lack of water	1.7%
Fake goods	0.9%	No guard force training	1.7%
Lack of water	0.9%	Balancing work and family	1.7%
Sexual harassment	0.4%	Many cartels	0.0%
No guard force training	0.4%	Mistreatment by SACCO officials	0.0%
No maternity leave	0.0%	Lack of parking space	0.0%
Balancing work and family	0.0%	Work space is too small	0.0%

● WORKERS' ORGANISATION

21.6% of the workers interviewed are members of organisations, including formal and informal organisations which provide financial assistance, rather than groups which support livelihoods or advocate workers' rights. Only sixteen (2.6%) of respondents have trade union membership.

MEMBERSHIP OF ORGANISATIONS

		%
Informal savings / credit coops	49	8.1%
SACCO	41	6.8%
Association	16	2.6%
Trade Union	16	2.6%
Cooperative	9	1.5%
Total respondents	131	21.6%
No response	476	
Total	607	

● HOW TO IMPROVE NAIROBI'S PUBLIC TRANSPORT?

Survey interviewees and focus group participants were given the opportunity to comment generally on the public transport system in Nairobi and how it might be improved. There were 366 responses from survey participants.

The responses were concerned with three broad themes: how to formalise, regulate and improve the matatu industry, the need to tackle crime and corruption, and proposals to reduce congestion and pollution.

● FORMALISATION

Overall, 220 responses were concerned with how to formalise and improve the matatu industry, while respecting the very large number of people who directly or indirectly depend on matatus for their livelihoods.

These included proposals to:

- Improve job security and regular/ predictable pay
- Improve the working environment, particularly the provision of decent sanitation, drainage, shelter from rain and sun, availability of fresh drinking water
- Allocate and respect work space for stage workers and service providers

- Remove the mungikis from matatu stages, and hand over management to the SACCOs
- Give formal recognition to kamagera, stage supervisors and other key workers

Focus group participants suggested:

- Oblige SACCOs to pay social security
- Harmonise and regulate fares
- Ensure the accountability of SACCOs over the fees collected from the workers
- Formalise and recognise the stage attendant jobs
- Provide entrepreneur / business training for vendors, phone chargers, shoe-shiners etc
- Introduce a two-shift system for crews, creating more jobs while reducing working hours (and accident rates etc)

Despite various attempts, members of the crews' focus group still had not been able to establish their own welfare association for social protection. Each attempt had been blocked by interference from the owners.

● CRIME & CORRUPTION

76 responses were concerned with the need to reduce crime and corruption in the industry. This included demands to:

- End police harassment, bribery and corruption
- End the corruption and harassment by county askaris
- Reduce road accidents as the result of police corruption
- Take the cartels / mungikis out of the industry
- End corruption and bribery within SACCOs on the allocation of jobs
- End car-jacking and improve personal security in matatus

The crew participants in the focus group discussion explained that the courts contribute to the corruption. The workers are given no opportunities to defend themselves and face very high fines, and the owners refuse to take any responsibility, so it is better for the workers to negotiate a (cheaper) bribe with the police before the case reaches court.

● CONGESTION & POLLUTION

All interviewees and focus group participants agreed that that traffic congestion was a major problem in Nairobi, along with the consequential air pollution from exhaust fumes.

When asked what they thought should be done to address the problem, they made several suggestions:

- Reduce the number of private cars by improving public transport
- Ensure better self-regulation by SACCOs
- NTSA to ensure modernisation and improved quality of vehicles to reduce pollution and road accidents
- Improve fuel quality to enhance air safety/ reduction of traffic congestion
- Control the unplanned expansion of roads
- Reclaim grabbed land/ expanding Nairobi city
- Introduce long buses
- Decongest the city through mixed land use approaches
- Develop other cities/ satellite and regional towns



Traffic congestion within Nairobi City cannot end because the government keep on expanding road entering the city but do not expand roads within the city. Engineers need to monitor new roads to ensure that there is good traffic flow if they really want to address traffic congestion.”



Owners of the private cars are the main cause of traffic congestion in town. Families should be restricted by law to own only one private car.”



Another way of addressing the problem of traffic congestion is to expand Nairobi city besides developing the satellite town to accommodate more people. There is no need for everybody to come to town. Expand and create similar opportunities in the new cities.”



The new stage managers/marshals unveiled by the current governor are not a solution to traffic congestion. These are the same matatu drivers and conductors who used to ply the same routes and cannot control traffic within the same areas. If the governor could change his tactics and redeploy them to different routes or other cities. Otherwise they will turn into another form of cartel within the CBD.”



SACCOs can ease traffic congestion within and outside the CBD. They should be able to organize their vehicles in an orderly manner. For instance, if the Githurai SACCO took control of their vehicles which pick up passengers in the middle of the road along the Ronald Ngala street, then the CBD will be free of traffic.”

PART TWO:

BRT - Implications for Matatu Workforce

Awareness of BRT

The survey revealed a significant increase in awareness and understanding of Bus Rapid Transit (BRT) among matatu workers in the year between the two waves of the survey. In 2017, more than 80% of those interviewed or participated in focus group discussions said that they had never heard of BRT, or the plans to introduce BRT in Nairobi. In 2018, this had fallen to 54.4%. This is almost certainly because of the much greater media coverage of BRT during 2018, including widespread

reporting on the President’s pledge to ride on a BRT bus before the end of 2018.

Yet this was contradicted by the focus group discussions. When asked about BRT in 2018, none of the service workers, one of the stage workers and few of the crew members had any knowledge.

Although awareness has increased, the proportion of those with a positive attitude declined over the same period, overwhelmingly due to fears of jobs loss.

HAVE YOU HEARD ABOUT BUS RAPID TRANSIT - BRT?

	2017	%	2018	%
Yes	48	16.0%	115	37.5%
No	242	80.7%	167	54.4%
No response	10	3.3%	25	8.1%
Total	300		307	

IF YES, WHERE DID YOU HEAR ABOUT IT FROM?

	2018	%
Media (Newspapers, Radio, TV, Social Media)	58	53.2%
SACCO owners	15	13.8%
Matatu crews	13	11.9%
Word of mouth	10	9.2%
Friends	7	6.4%
Trade union	3	2.8%
Other stakeholders	2	1.8%
City Council	1	0.9%
	109	

Focus group of stage workers discuss BRT | Credit: GLI



IS BRT A GOOD IDEA?

		%		%
Yes	26	59.1%	38	31.9%
No	15	34.1%	61	51.3%
Partially / Don't know	3	6.8%	20	16.8%
Total responses	44		119	

EFFECTS OF BRT ON YOUR LIVELIHOOD?

		%		%
Loss of jobs	16	28.1%	35	92.1%
Decrease in income	8	14.0%		
Few employment opportunities	6	10.5%	3	7.9%
Better business	6	10.5%		
Discipline on roads	5	8.8%		
Time saving	5	8.8%		
It will create employment opportunities	5	8.8%		
Gender bias/Favouring one gender	2	3.5%		
It will not have any effect on my business	2	3.5%		
Increase in crime	1	1.8%		
It will lock out investors	1	1.8%		
Total responses	57		38	

On the other hand, interviewees and focus group participants gave examples of what they predicted to be the benefits of BRT: better discipline on the roads, faster journey times, and more business and employment opportunities.

The stage workers participating in the focus group had little confidence in the competence of the government to deliver BRT, and it was unlikely to be viable for at least ten years. They suggested that most matatu owners still owed substantial amounts of money in loans, which would create big problems if they were to be replaced by BRT.

The focus group of crew members thought that BRT could be possible, with sufficient commitment from the government, but not without strong regulation and a crackdown on corruption. It would take at least ten years, and even then, there was only a 50/50 chance because the infrastructure simply isn't in place. Even if BRT was successfully introduced, it would only last five years before the matatus re-emerge.

The crews thought it would be better to give matatu vehicles their own lane than attempt to build a full BRT.

The crews thought that a few would benefit from BRT, those with formal jobs. They were concerned that competition between BRT and the matatu system would drive down fares, increase insecurity, making it more difficult to survive. Some thought that the decline in matatu profitability might spell the end of the target system. Ironically it could also reduce corruption, as workers would no longer be able to afford the bribes.



We will simply get into debt with the Chinese government. It is better to improve the matatu first!"

Service worker

“

Those kinds of buses will take away jobs from ordinary person in the matatu industry because they cannot be repaired by the ordinary mechanic in Kariakor. They cannot even fit in this garage. They will also require special spare parts which ordinary suppliers cannot afford. It is for the rich.”

Service worker

“

The (BRT) buses are all the same colour! No room for graffiti! ... design! ... art!”

Service worker

“

The government should understand peoples' needs and problems from the ground before introducing BRT”

Stage worker

“

What happens to the informal 'artisans'?”

Service worker

“

Will BRT employ young workers? Or – like KBS (Kenya Bus Service) – only old ones?”

Stage worker

“

This is an attempt to remove the matatu crew from the transport sector”.

Crew member

“

With automation, a donkey will not have his work”

Stage worker, 2018,
commenting on automated ticketing systems

“

People who work on the streets would not be able to apply for BRT jobs”

Service worker

“

The matatu owners will be very unhappy! They will lose their cherished target system!”

Crew member

“

You must have a godfather to get a job in BRT”

Service worker

“

Why wait for BRT? Why can't the government deal with the matatu issues now?”

Crew member

Impact on matatu employment

It is evident that the introduction of BRT in Nairobi will have a major impact on large numbers of workers dependent on the matatu industry for their livelihoods.

● ESTIMATING THE SIZE OF THE TOTAL MATATU WORKFORCE IN NAIROBI

While there are no reliably precise figures, there are various estimates on the number of matatu vehicles operating in Nairobi, and the number of people employed in the industry.

There are problems encountered when attempting to define the matatu workforce. Nearly all studies which attempt to define the size of the matatu industry are limited to a consideration of the number of “operators”, and even this is not easily defined. “Operators” may include SACCOs, vehicle owners, and/or drivers.

Based on 2004 figures, one estimate suggests 40,000 vehicles provide 80,000 ‘direct’ and 80,000 ‘indirect’ jobs in the national matatu industry (Khayesi, 2015). In 2012, a study of the industry made the assumption that each vehicle employs about four people, also suggesting a national workforce estimate of 160,000 (Chitere and Kibua 2012).

According to the Head of Road Transport Services, Ministry of Transport and Infrastructure, “informal public transport operators” employ 70,000 people in Nairobi and 300,00 nationally. It is however not known how this figure was calculated. (Eshiwani, 2016).

The 2017 Economic Survey undertaken by the Kenya National Bureau of Statistics estimates that there are 417,200 people engaged in the national informal transport and communications sector, and that the number has risen steadily year by year. It notes that the sector “includes mainly support services to transport activity” (KNBS 2017).

According to the ILO’s Law-Growth Nexus Project, there are over 65,000 matatu “investors” with huge annual turnover. The national industry directly employs close to 350,000 workers comprised of drivers, conductors and office staff. The industry also creates indirect job through forward and backward linkages namely vehicle assemblers, importers and vehicle maintenance personnel (ILO 2017).

To provide a more accurate estimate of total numbers in Nairobi, we attempted more detailed analysis of the many occupations and roles to be found in the matatu workforce and estimate the numbers employed per occupation affected by BRT systems. These could be calculated from the numbers of SACCOs, vehicles, stages and matatu routes affected, and the numbers of workers in each, depending on occupation.

● CALCULATION ASSUMPTIONS

Given the difficulties in identifying precise figures, we have made a number of assumptions as the basis for calculating the potential impact on employment figures:

● BRT ROUTES

Figures assume that all five routes will be in operation, as outlined in the original proposal for a full BRT system by NAMATA (Gauff Consultants 2014). These include extensions 4b (Limuru Road) and 2b (Kiambu Road). Each cross-town route is divided in two – from the CBD to the respective terminus. Distances are calculated from Google Map data. **Data was unavailable for Route 5.**

● SACCOS AND VEHICLES

The estimated number of SACCOs and vehicles per route is from data supplied by the Matatu Owners Association. This provides a total of **175 SACCOs** and **6,000 vehicles** currently operating on the proposed BRT routes. This seems to be consistent with the results of a 2012 survey commissioned by the Transport Licencing Board, which estimated the total fleet size to be approximately 10,000 vehicles (Envag Associates 2012) and estimates from 2017 of 11,000 vehicles (Kisingu 2017). It is unlikely, but not clear, that these include unregistered vehicles.

● STAGES

The definition of a “stage” is not clear, sometimes referring to terminals, major intersection bus stops, or all bus stops (including unofficial stopping places). We have estimated a total of **1,141 stages**, identified from Google Map data.

● MATATU ROUTES

The matatu routes affected by each of the BRT routes and corridors has been calculated on the basis of data from digitalmatatus.com, estimating **61 matatu routes** in total.

● NUMBERS OF WORKERS AFFECTED

From information provided from surveys, interviews and focus groups, we have made broad – but conservative – assumptions on the number of workers from each occupation employed per

vehicle, route, or stage. (see Appendix: Assumptions for Calculation of Matatu Workers)

NEW JOBS CREATED IN BRT OPERATIONS

There are no figures available on the anticipated number of jobs created in the Nairobi BRT system. However, employment data is available from other BRT operations. In Johannesburg, for example the Rea Vaya (phase 1A) 25.5 km BRT system generated 830 permanent jobs: 256 within the bus operating company, 280 in the stations (cashiers, ‘ambassadors’ and marshals), 240 in security and cleaning, and 40 in administration (McCaul and Ntuli 2011). Phase 1 of Rea Vaya is comparable to route 3 of the proposed Nairobi BRT. A very approximate estimate of jobs to be created by the BRT system in Nairobi can be provided by calculating the number of jobs per kilometre of route, based on the Rea Vaya example:

Jobs Created (Rea Vaya)	Jobs per Km
Bus operating company	10
Station staff	11
Cleaning and Security	9
Administration	2
Total jobs created per KM	32

CALCULATION METHOD

For each occupation in the matatu industry, we estimated the number of jobs at risk from the introduction of BRT, per route, based on assumptions on the number of workers from each occupation employed per vehicle, route, or stage (see appendix - Labour Impact Calculations). The number of jobs likely to be created were calculated on the basis of jobs per kilometre, using the Rea Vaya data.

JOBS AT RISK – JOBS CREATED

Overall, from these calculations, we estimate that **35,193 jobs are at risk**, if all BRT systems were to become operational, not including line 5 (Outer Ring Road / East Nairobi), for which data is unavailable.

Of these, the **on-board crews** account for 18,400 anticipated jobs at risk. But these represent not much more than half the total. Vendors, food vendors, loaders, stage attendants, and boda-boda riders based at matatu stages are particularly at risk.

At the same time, we estimate that BRT operations will create **5,760 new jobs**.

Taking this into consideration, we estimate that nearly **30,000 jobs would be at risk**.

It is of course extremely unlikely that all five BRT lines will come into operation at the same time, and the impact on employment may be spread over perhaps ten years or more, which may help alleviate the problem if the authorities take sufficient mitigation action.

JOBS AT RISK – JOBS CREATED

BRT Route	Jobs at Risk			Jobs to be Created
	On-Board Crews	Stage Workers	Stage Workers	Total
1 Ndovu Kangemi - Imara	4,907	2,353	2,353	1,536
2 Simba Bomas - Ruiru	5,520	2,863	2,863	2,496
3 Chui Njiru - Showground	4,140	2,125	2,125	928
4 Kifaru Mama Lucy - T-Mall	3,833	2,264	2,264	800
	18,400	9,605	9,605	5,760

PART THREE:

BRT in Africa – Labour Impact, Engagement and Inclusion

“

Planning and implementation of BRT is too often seen as an engineering problem focused on the provision of segregated transitways, state-of-the-art vehicles, and complex ITS applications. That is, the primary focus is on BRT “hardware” rather than the market and services, which are the most important planning and design criteria, or the critical institutional and governance roles and political and technical advocates necessary to get BRT successfully planned, implemented and operated.”

Kumar, A., Zimmerman, S., Agarwal, O.P. (2012) *The Soft Side of BRT: Lessons from Five Developing Cities*

“

Implementation is a big challenge and requires considerable up-front discussions and consensus building... A successful system requires ownership by existing operators, drivers and users and incorporation of their specific concerns in the design... bringing the operators on board; and understanding needs of users through surveys and focus group discussions. Investments in BRT ‘hardware’ will come about only after an understanding and acceptance of the broader reform programme and an appreciation of the complexity of issues involved”.

World Bank, 2007

There is widespread and authoritative recognition that the **inclusion of all stakeholders** in the African informal transport industry is an essential element in the successful planning and delivery of BRT.

Despite this, evidence suggests that good examples of inclusion and consultation in BRT planning by African cities and countries are rare. The lack of an inclusive planning and implementation strategy is a frequent major contributor to poor-quality BRT systems, or failed BRT projects.

When there is consultation with the informal transport industry, it is invariably with informal **operators**. Yet the term is highly confusing. Are operators the SACCOs (or equivalents in other countries)? Vehicle owners? Drivers? Or the workforce as a whole? Very often the voice of operators is restricted to that of representatives of vehicle owners and their associations. Their

interests can be very different from the huge workforce which depends on the informal transport economy for their livelihoods, for whom the impact of BRT can be economically devastating if their interests are ignored.

The issue is complicated by the variety and complexity of trade unions representing informal transport workers. In some cities, there are rival trade unions that compete for workers’ membership in the sector. Some trade unions include owners, as well as informal employees, own-account workers and dependent contractors. Some unions have formal or semi-formal roles in the management of terminals and revenue collection or the issue of licences, which in effect makes membership obligatory. Some unions include members throughout the informal workforce⁶. Others are restricted to on-board crews.

6 See for example the Amalgamated Transport & General Workers Union in Uganda (Spooner and Mwanika 2017)



Kombi Taxis in Johannesburg | Credit: IOL

If formally registered unions are only partially representative, it may be necessary to include a variety of informal associations, cooperatives or community-based organisations who have membership in important transport industry sectors or occupations. This is particularly important for the inclusion of women workers, who are over-represented in the most precarious occupations (vending, cleaning, service functions etc), and under-represented in the transport unions.

As we know from the survey in Nairobi, the matatu workforce is largely young and comparatively well-educated. The potentially harmful economic and social impact of a badly-planned and executed BRT system could cause serious problems. The exclusion of the workforce can lead to political resistance to the introduction of BRT and potential social unrest.

“

Strong stakeholder commitments (especially from bus operators) is crucial while introducing BRT or bus schemes which require relocation of bus routes and rationalization of urban transport system... Opposition to changes in the status quo from GPRTU members played a significant role in hindering the implementation of the BRT and QBS schemes”

World Bank, Ghana Urban Transport Project Implementation Completion Report Review, 2017

The state of BRT in Africa

At the time of writing, the 'BRT Centre of Excellence' recognises five BRT systems in operation in Africa⁷: *Lagos BRT*, *DART* (Dar es Salaam), *MyCiTi* (Cape Town), *Rea Vaya* (Johannesburg) and *A Re Vaya* (Pretoria).

Yet there are many more in various stages of planning and implementation, and further BRT schemes that failed to reach implementation.

BRT DEVELOPMENT IN SUB-SAHARAN AFRICA

City	Country	Financing	Current Status (Nov 2018)
Abidjan	Côte D'Ivoire	n/a	March 2015 Urban Transport Master Plan proposes BRT study
Abuja	Nigeria	\$100m (African Devt Bank) Abuja Facilitating Urban Mobility project proposal 2013.	No dedicated lanes for the BRT buses
Accra	Ghana	\$79m (WB) Urban Transport Project approved May 2007	Project outcomes not achieved; BRT element abandoned
Addis Ababa	Ethiopia	€85m (Agence Française de Développement) approved 2014-15	French / Ethiopian companies secured design/construction contracts 2015
Cape Town	South Africa	National government	operational
Dakar	Senegal	\$300m (WB) BRT Pilot Project approved May 2017	Due to start operations in June 2023
Dar es Salaam	Tanzania	<p>\$150m (WB) 2002?</p> <p>\$254m (WB) Second Central Transport Project (1st phase implementation) approved May 2008</p> <p>\$103m (AfDB et al) Dar es Salaam Bus Rapid Transit Infrastructure Project (2nd phase implementation) approved Sept 2015</p> <p>\$425m (WB) Dar es Salaam Urban Transport Improvement Project (3rd & 4th phase implementation) approved March 2017</p>	Started operations in 2016 after numerous delays and restructuring
Durban	South Africa	National government	Was due to start operations in 2018

⁷ Data from brtdata.org

BRT DEVELOPMENT IN SUB-SAHARAN AFRICA

City	Country	Financing	Current Status (Nov 2018)
Ekurhuleni	South Africa	National government	Under investigation over debts and mismanagement
Johannesburg	South Africa	National government	Operational
Kampala	Uganda	?	Design “completed”
Kigali	Rwanda	?	Feasibility study near completion
Lagos	Nigeria	\$150m (WB) \$266m (national government)	“BRT Lite” – not to full BRT specification. Operational.
Lusaka	Zambia	\$289m (Exim Bank of India)	Design phase. Due to start operations in 2021
Nairobi	Kenya	\$300m (WB) National Urban Transport Improvement Project approved Aug 2012. Plus EU and AfDB.	Intention to start pilot system before end of year 2018
Maputo	Mozambique	\$235m loan (Brazilian development bank), but suspended Nov 2016 for corruption	Slimmed-down \$40m project, attempting to raise loans. Not BRT standard.
Mombasa	Kenya		Announcement of intention
Pretoria	South Africa	National government	
Port Elizabeth	South Africa	National government	Launched in 2014. Operational – but not BRT standard
Rustenburg	South Africa	National government	Due to start operations in 2018 (?)

Sources: World Bank, ITDP, press reports, BRT agency/ operating company websites.

To what extent has effective inclusion of the informal transport workforce been a significant factor in successful examples of BRT?

And to what extent has the lack of inclusion been a significant factor in BRT failures?

Case Study 1.

Nigeria

● THE WORKFORCE

There are an estimated 75,000 minibuses (danfo) and 200,000 motor-cycle taxis and couriers (okada) in Lagos, along with midi-buses (molue), shared-ride taxis (kabu-kabu) and auto-rickshaws (keke) (Kumar et al 2012).

According to a 2012 SSATP⁸ report, the informal transport economy in Lagos provides direct employment to more than 500,000 people:



Assuming one public transport worker per household, with an average household size of five, means that more than 2.5 million people, or almost 15 percent of the population, rely on the sector to provide their basic needs."

Kumar et al, 2012

There are few owner-drivers. Most drivers pay a daily rental fee (deliver) to the vehicle owners, the equivalent to the target system in Nairobi, and standard practice in Sub-Saharan Africa. Many owners are reported to be government officials (Nigerian Tribune 2017) or police (Punch 2016).

● WORKERS' ORGANISATION

The National Union of Road Transport Workers (NURTW) dominates the urban and small-bus sectors in Nigeria. Each route is controlled by the relevant NURTW Branch, charging fees on each departure from the terminals.

● THE DEVELOPMENT OF LAGOS BRT

Lagos BRT was the first in Africa, and began operations on March 17, 2008. Called "BRT-Lite", it is a form of BRT, but not of the highest specification. It was quick and cheap. It took only 15 months from conception to operation and cost only \$1.7 million per kilometre (Mobereola 2009).

After elections in 1999, transport was identified as one of the most pressing issues in Lagos. The newly-elected Lagos State governor appointed a special adviser on transportation and sought development assistance from the World Bank Group, creating the Lagos Urban Transport Project and, in 2002, the Lagos Metropolitan Area Transport Authority (LAMATA).

LAMATA recognized it would have to exercise regulatory control over the danfo system and introduce some order in the market, where the response to demand in terms of fare level and routing had been taken to extremes. It tightened up the registration and introduced "controlled competition" for route licenses.

A study undertaken in late 2003 concluded that the vehicle owners did not have the capacity to invest in larger buses (molue), whose fewer numbers (in comparison with minibuses) would reduce congestion and whose greater capacity would raise productivity, thereby offering the potential of lower fares or enabling scheduled services (as opposed to the traditional 'fill-and-run') at the same fare.

After an extended period of consultation with and education of the leadership of the operator unions (NURTW) and associations, agreement was reached to test both the regulatory reform and fleet investment in a pilot scheme using a private-public financing framework.

The Lagos legacy of poor and inefficient transport had resulted in virtually no knowledge or vision in the community or among the workforce of what an organised public transport system could be like. "Scepticism and suspicion of motives and intentions was rife" (Mobereola 2009).

LAMATA therefore launched a community engagement strategy to educate the public on the role of LAMATA, to provide access to decision-makers and to show accountability. Community meetings were endorsed by local community leaders and were attended by senior LAMATA officers. In parallel, meetings continued to be held with NURTW and its members at the local level, as well as with taxi drivers and haulage operators.

Lagos BRT timeline	
May 1999	Bola Tinubu elected Lagos State Governor
May 2007	Babatunde Fashola elected Lagos State Governor
February 2007	NURTW establishes Lagos State Bus Management Ltd (LAGBUS)
March 2008	Lagos BRT starts operations
2012	LAGBUS issues BRT franchises to 10 companies
May 2015	Akinwunmi Ambode elected Lagos State Governor
November 2016	Ambode bans LAGBUS buses from operating along BRT corridors, sparking violent protests
	LAMATA gives exclusive BRT contract to PRIMERO, a private company
February 2017	PRIMERO raises fares
March 2018	PRIMERO runs skeletal BRT service amid rumours of rising debt and mismanagement



Lagbus vehicles in Lagos | Credit: car.com.ng

The implementation strategy for BRT in Lagos included study tours with transport trade union executives to BRT operations in other countries, and a series of high-level meetings with union members. This led to the formation of the Cooperative of union members on the BRT corridor, and the establishment of a steering committee with representatives of LAMATA and the lending institutions to provide professional advice on the management of the cooperative and BRT operations. The union subsequently leased 100 buses for operation through a bank guarantee. According to LAMATA, trade union involvement and participation was a critical success factor (Orekoya 2010).

In 2007, NURTW established the Lagos State Bus Management Ltd (LAGBUS), which held the franchise for operating the buses on the BRT system.

One commuter, interviewed for the Nigerian Tribune, explained:



Before LAGBUS was introduced, one could never have assumed that road transportation system in Lagos could come with such convenience. The drivers were courteous, so also were the conductors. All the notoriety associated with old Molue was absent. The number of people standing was minimal, while hawking, begging and all sorts of activities were totally removed.”

Dodndawa, T. et al 2017

According to a 2009 World Bank Report by Dr. Dayo Mobereola (subsequently the Commissioner for Transportation in Lagos State) the success of Lagos BRT stemmed “not solely from its infrastructure but from a holistic approach that has included reorganizing the bus industry, financing new buses, creating a new institutional structure and regulatory framework to support the system, and training the personnel needed to drive, maintain, enforce, and manage it” (Mobereola 2009).

A 2008 evaluation of the system had identified critical success factors that included “work undertaken to engage key stakeholders and ensure that they benefit, and a community engagement program that has worked to assure Lagosians that the BRT-Lite system is a community project created, owned, and used by them” (Mobereola 2009).

The 2016 World Bank Project Performance Assessment Report on the Lagos Urban Transport Project specifically emphasised the importance of engagement with the NURTW:



Observing the experience of other countries or cities where new public transport concepts have worked successfully can convince local stakeholders to adopt a new approach. In this case it convinced key stakeholders, including the trade unions, to agree to adopt the franchising and BRT concepts locally. That said, the integration of existing operators into new bus franchise services without fundamental transformation of business models underlying those services is at best a transitional strategy and not sustainable in the long run”

World Bank 2016

Yet in January 2016 the Lagos State Government terminated operations of the first BRT cooperative run by NURTW, from the Mile12 to CMS BRT corridor with immediate effect. The State Commissioner for Transportation, announced that “The termination of the franchise agreement with the operator is sequel to breaches of the BRT operations Service Level Agreement signed with the state government, despite years of discussions and engagement”.

LAGBUS vehicles were no longer allowed to use the BRT lanes, and a private company PRIMERO had been given a monopoly on BRT operations.

By August 2017, the press was reporting a dramatic decline in LAGBUS services. The buses were now sharing ordinary roads alongside danfo and private care, and profits had been slashed. The vehicles were being poorly maintained, the seating was getting worn out, fans were no longer working, and breakdowns had become common. Conductors were no longer selling tickets, and buses were stopping at every bus stop to call passengers, just like the old molue. Badly trained drivers were now driving recklessly. “The celebrated project has become a shadow of its former self” (Nigeria Tribune, 2017).

Yet the PRIMERO BRT operation was faring little better. Fares were increased in February 2017, with management citing soaring US dollar exchange rates dramatically increasing the cost of fuel and spare parts (from China).

In March 2018, the press reported a chronic lack of PRIMERO buses on the road and stranded passengers, due to a lack of fuel, and rumours of mounting debts and mismanagement by the company.

In August 2018, it was reported that the Lagos State Government had taken delivery of 300 new buses into its BRT fleet, to be operational in October. It was part of an order for 800 buses paid for by the state government, with a “firm agreement” with the bus company for more than 4,000 buses “in the next three to four years”. According to the government, the bus company was also committed to establishing an assembly plant within Nigeria to provide jobs and for easy maintenance of the buses. (Vanguard 2018)

In September 2018, LAMATA found it necessary to distance itself from the chaotic operations on the BRT system (LAMATA 2018).

At the time of writing, Nigerian social media is full of videos showing huge crowds of people waiting for BRT buses in Lagos.



Lagos Workers Stranded at BRT bus terminus | NigeriaTrends

Case Study 2.

Johannesburg⁹

● THE WORKFORCE

In South Africa, the minibus 'Kombi' taxi industry had many characteristics in common with Nairobi's matatus. By 2002, it was a large employer that had grown very rapidly since the 1980s, albeit within the informal economy. It was the most commonly used form of public transport and played a critical role in the lives of most commuters, particularly in poor black communities. Kombi taxis accounted for 65 per cent of all public transport commuter trips. (Barrett 2003)

According to South African National Taxi Council (SANTACO) statistics (Competition Commission 2018) it has a collective national fleet of more than 250,000 minibuses with 123,000 owners. The government's official statistics put the number of minibus taxis at 130,996 (Grice and Oldjohn 2018). These are almost certainly an underestimate of the total numbers, with many taxis still unregistered.

A 2003 ILO report estimated that there were 1.5 workers directly or indirectly employed in the industry for every driver. The total number of people directly employed in the sector was estimated to be around 185,000 (drivers, queue marshals, car washers and on-board fare collectors), and a further 150,000 or more additional jobs are indirectly associated with the sector, mainly in motor manufacturing, provision of supplies (including fuel and spare parts) and maintenance. (Barrett 2003).

● TAXI ASSOCIATIONS AND TURF WARS

The strongest organisations in the taxi industry are the associations of taxi owners.

The deregulation of the industry in the 1980s had unleashed uncontrolled growth of the industry and provided fertile ground for conflicts ("turf wars") over route and ranking facilities. During the same period the industry boomed into a giant sector, and became unmanageable in the absence of any form of regulatory framework.



By 1990, the industry was showing the signs of over-saturation in some areas and sparked intense (and often violent) battles between associations of owners, fighting for commuter routes." During the five year period from 1985 to 1990, there was a "2,500% increase of the number of permits issued for minibus taxis." Many drivers and operators lost their lives in these battles and often passengers were caught in the crossfire."

Grice and Oldjohn 2018

The fragmentation of the industry across taxi association lines had created serious problems, as these became power blocks vying for lucrative routes and gave rise to violent confrontations.

A National Taxi Task Team was set up in November 1994 comprising taxi owners, government officials, specialist advisors and SATAWU. The task team sat for six months from August 1995 and conducted 36 public hearings including two national meetings. It was evident that self-regulation of the industry was largely a failure, and that the industry was plagued by ongoing violent conflict over routes, with too many permits issued, many of them false or duplicated. There was no single unified national association to represent the industry, and workers' rights were openly flouted.

The team recommended that the government regulate and control access to the industry through the permit system and set minimum labour and safety standards, and assist the development of a credible and recognised national owners and employers' association.

⁹ GLI is very grateful for the work of Jenny Grice and Siyenge Macolive Oldjohn in providing background on taxi organisation in Johannesburg. See Grice and Oldjohn 2018.

After a long and intensive government consultative process with taxi operators, the South African National Taxi Council (SANTACO) was established in 2001 as an umbrella body governing the industry to act as the principal representative body for taxi owners. It was formed from 34 taxi federal organisations and three national bodies. It brought a significant amount of unity to the industry, but didn't completely end the conflicts.

Fights over routes still persist, compounded by the saturation of taxis operating in the industry. In July 2018, for example, more than 10 people were killed in fights between rival taxi associations, over which association had the right to run the route to the 'Mall of Africa' in the Midrand area of Johannesburg. (Grice and Oldjohn 2018)

● WORKERS' ORGANISATION AND TAXI INDUSTRY FORMALISATION

The South African Transport and Allied Workers Union (SATAWU) has the largest union membership in the transport sector. SATAWU has supported a number of government strategies since the 1990s to improve conditions for taxi workers but with little success.

Theoretically South African labour law gave every worker, including taxi workers, basic worker rights e.g. the right to a contract of employment, the right to a fair dismissal, the right to collective bargaining and to join a trade union. However, these laws were largely ignored by taxi operators.

SATAWU lobbied for the Minister of Labour to make a "Sectoral Determination" for the taxi industry, which set out minimum wages, working hours, holiday entitlements and rules for termination of employment. This was launched in 2005, but with obvious resistance from the owners and, according to SATAWU, the government failed to enforce or educate owners and workers in the new rules.

According to Jane Barrett, then the SATAWU Policy Coordinator, when challenging the Department of Labour on their failure to enforce the rules or undertake labour inspections in the taxi industry, she was told "we can't send anyone there to inspect, they are afraid (of the taxi owners)" (Grice and Oldjohn 2018).

The government also attempted to modernise and regulate the industry through a programme of "taxi recapitalisation", whereby smaller vehicles would be phased out, and new larger and safer minibuses would be introduced with an electronic fare system. If properly registered and members of a recognised

taxi association, owners were given the option of getting cash compensation for scrapping their old vehicle, or a deposit for a new vehicle.

SATAWU welcomed the initiative as a step towards formalisation and an opportunity to introduce collective bargaining and enforcement of labour legislation in the industry. Yet in 2018 many of the smaller vehicles are still operating, the electronic ticketing system has only been piloted in a few areas, and only a minority of taxis have been recapitalised.

● THE DEVELOPMENT OF BRT

In the mid-2000s, the government began to promote Integrated Rapid Public Transport Networks (IRPTNs) with Bus Rapid Transit (BRT) as the core. Disappointment caused by the failure of earlier government plans prompted SATAWU to support BRT as a means to formalise the informal transport industry.



One of the most challenging aspects of implementing any transport reform is the resistance to change of those who are benefitting most from the present system. In much of the developing world this usually means the informal minibuses owners and drivers and the various types of taxi service. In Johannesburg, it was known that much of the resistance to any changes in transport organization came from the powerful taxi (associations). These strong groups kept tight control of their businesses and made solid defence of the right to operate unhindered and, as far as possible, un-regulated. This was identified early on as a major challenge and tested the political commitment to the limit".

Allen 2013

From 2006, with the election of a new mayor in Johannesburg, the government began to plan the introduction of Bus Rapid Transit. The award of the 2010 FIFA World Cup event to Johannesburg stimulated the realisation that the transport system had to live up to the projected image of being a 'World Class City'.

From the very outset, discussions were held with the two largest taxi owner organisations, known as Top Six and the Greater Johannesburg Regional Taxi Council. There was intense rivalry between the two organizations, and many of these initial meetings had to take place separately.

The two organisations, and a further sixteen associations that were to be affected by the first phase of BRT formed a taxi industry steering committee, which became the main bargaining body with the city over the introduction of BRT.

Representatives of taxi owners, along with private bus companies, city officials and politicians visited the TransMilenio BRT system in Bogotá in 2006 and again in 2007.

One of the challenges was establishing exactly who was going to be affected by the project. It became apparent that there were possibly as many as eight vehicles operated under one licence, making it difficult for the city to determine exactly who should be included as a stakeholder. To simplify matters the city was obliged to certify the affected taxi owners in a database.

Contracts were signed in late 2006, construction started in 2007 and first operations commenced in 2009. Phase 1A started with 25.5 km service linking the Soweto township to Ellis Park, on the east side of the Johannesburg central business district. Five feeder services and two complementary routes are linked to the trunk, requiring 143 buses (Allen 2013).

Initially 585 taxis had to be withdrawn along the BRT corridor and their owners were compensated and became shareholders in the new bus operating company. Financial arrangements needed to be agreed on either the resale or scrappage value of these vehicles. This was not easy as some licensed routes were high value and some not. In order to achieve the objectives, it was decided to negotiate on the higher value, rather than the true, value of the routes. Displaced drivers were offered re-employment and training in the new scheme and 80 ex-taxi drivers obtained secure jobs in the BRT operations in the first phase.

Compensation was paid to the taxi owners in four groups: 163 vehicles put into storage in November 2009, 138 vehicles stored in April 2010, and the remainder of the 585 vehicles that will be removed from their routes and scrapped or sold as part of the process of subscribing for shares in the bus operating company. Compensation was also paid to owners of a further 65 taxis who provided evidence that they were prevented from operating by intimidation (Allen 2013).

A framework was approved by the Mayoral Council in 2009 that set out the employment, business and investment opportunities for minibus taxi operators arising out of the implementation of the Rea Vaya BRT system. It provided for affected taxi operators, among others, to be eligible to benefit from certain preferential procurement processes.

The agreement allows the release of funds from the scrapping or sale of vehicles and subscription for the shares, and for the transfer of ownership of the bus operating company to the taxi operators.

In February 2011, some 300 minibus operators became shareholders in the new bus operating company under an allocation scheme based on shares and employment opportunities.

The process to get to this point was certainly not easy and there were moments when there was widespread and visible opposition from other actors in the taxi industry, especially at regional level who felt that those involved were getting a better deal, creating unfairness in the sector.

There were two major taxi strikes just before and after the start of first phase operations. Violent clashes led by some more aggressive members of the taxi industry (in particular those that had seen others benefit from the quite generous financial terms and extra training made available to them as affected incumbents) included shooting at the buses in the first few days of operations in which 11 people were injured and the death of one person. (Allen 2013).

By January 2011, the private operating company 'Piotrans' was established and began operating the first phase operations of Rea Vaya. Piotrans is a partnership between existing minibus owners and Fanalca South Africa - a subsidiary of one of the principal operators from the Bogotá TransMilenio system. A Fanalca representative was named as chief executive officer.

The scrapping of their vehicles gave the taxi owners automatic share ownership in Piotrans for 12 years, as well as a guaranteed monthly payment. Taxis were prohibited from running the same route as the BRT route. Once the 12 years expired, share owners would receive a lump sum payment from the company if they chose to move out of it or their company could tender for a new contract to operate the BRT after the 12 years had expired.

Nevertheless, violent clashes continued. Zweli Mtuze, PRO for SANTACO describes it this way:



Even today there is no peace in the BRT because it is affecting their [taxi] business so much.. Irrespective of the municipality trying to fake the peace, there is no peace in BRT. They [drivers] are going to overload, because it won't be the same – they were getting R1000 a day and now they are getting only R400 a day or R500 a day.”

Grice & Oldjohn 2018

Some formerly informal workers are now formalised and fall under the SA Road Passenger Bargaining Council that not only guarantees higher minimum wages but also provides established dispute resolution mechanisms. The minimum rates of pay that apply to taxi drivers in the taxi industry compared with the BRT bus drivers are given below. Taxi drivers who became BRT bus drivers have seen their wages double and their hourly rates reduce.

HOURLY RATE AND HOURS OF WORK OF TAXI DRIVER VERSUS A BRT BUS DRIVER

	Hourly rate of pay	Hours of work
Taxi sectoral determination – taxi drivers	R16.41 per hour (1 October 2017 to June 30 2018)	48 hours a week
SA Road Passenger Bargaining Council (BRT bus drivers)	R36.68 (1 April 2017 – 31 March 2018)	45 hours a week

Grice and OldJohn 2018

In addition BRT workers now belong to a provident fund, and have access to unemployment insurance. Working hours, annual leave, sick leave, family responsibility leave etc. are all set out clearly and is more easily enforceable in the BRT system than in the informal sector.

In the Rea Vaya Phase 1A, 585 taxi drivers lost their jobs while only 536 permanent jobs were created, “all taxi drivers were offered the chance to obtain employment opportunities in the new system. A total of 414 drivers finally registered on the employment database, while an additional 200 taxi drivers had already been employed as drivers.”

NUMBER OF JOBS CREATED IN REA VAYA PHASE 1A

Kinds of jobs created	Number of jobs created	Temporary/permanent
Construction	6,800	Temporary jobs only
Bus operating company – administration etc.	256	Permanent
Security and cleaning contracts for the stations	240	Permanent
Rea Vaya administration	40	Permanent
	7,336 (only 536 permanent)	

Grice and OldJohn 2018

However, there is disappointment that promises of workers getting a share in the BRT company never came to fruition.

Compounding this problem is that there is disunity within the transport union sector: some members and officials broke away from SATAWU to form the Democratic Transport and Allied Workers Union (Detawu) in 2015 while the metalworkers' union NUMSA broadened its scope to include organising workers in the transport sector. Both NUMSA and SATAWU are represented on the SA Road Passenger Bargaining Council under which the BRT now falls, but are politically on opposite sides which has caused major crises in the trade union movement. This hinders the likelihood of SATAWU and NUMSA agreeing a united position on BRT and the formalisation of the taxi industry.

Nevertheless, it was essential that democratically accountable representative organisations had a voice in the development of new mass transit systems.



The ability of informal economic actors to exercise the right to freedom of association (establish or join organizations of their own choosing without fear of reprisal or intimidation) is critical to shaping regulatory frameworks and institutional environments that ultimately help informal workers a move into the formal economy. Lack of voice at work is marginalizing informal economic actors in the labour market and in society at large."

Barrett, 2003

The Institute for Transportation and Development Policy (ITDP) notes that "as in many places around the world, informal networks of taxi or minibus drivers are the primary providers of public transport in Johannesburg, and transition to a formally run BRT system would mean massive change and was sure to be controversial".



(Johannesburg) was proactive, engaging with taxi leaders at the outset of planning by taking them to South America to visit TransMileno, and meet with operators who were previously also operating informally. They held formal negotiations with representatives of the taxi industry, which resulted in the taxi drivers becoming directly tied to Rea Vaya as shareholders of the operating company, which the city contracted to run the BRT. This gave the city a formal way to relate to these stakeholders, and it gave the stakeholders a platform with which to advocate for themselves, in partnership with, rather than in opposition to the city."

ITDP 2018

Case Study 3.

Dar es Salaam

● THE DALADALA WORKFORCE

There are an estimated 20-30,000 workers in the Dar es Salaam daladala minibus industry (Rizzo 2017), which forms the backbone of the public transport system. The World Bank recently estimated that there were over 7,500 minibuses along 213 routes, “entrepreneurially operated, competing with each other in congested traffic for passengers and of varying quality” (World Bank 2017a)

More than 90% of the workers sell their labour to vehicle owners, with the vast majority without a contract. Most of the owners are individuals, rather than companies, although many are registered to ‘name lenders’ rather than their actual owners. “The practice, by wealthy and politically well-connected individuals, of registering buses under their relatives’ or overseers’ names to avoid unwanted publicity on their investments is well-known and has been a source of problems for policymakers on urban transport in Dar es Salaam” (Rizzo 2017).

The workforce is young (66.3% aged between 20 and 35) but, in contrast to the Nairobi matatu workforce, poorly educated, especially among conductors of who, according to a 2003 survey, 14% were illiterate.

Just as the target system in Nairobi, daladala workers have to pay a daily rental fee (hesabu) to the vehicle owners, and their wage consists of anything left after paying this - plus fuel, other workers, repairs, bribes etc. Because of high unemployment, and the desperate need to find work at any price, owners are able to demand extortionate fees.



As too many of us are jobless, if for instance a bus owner is looking for a driver, he will find more than fifty people just at this one station ... That is why they can ask you whatever they want, and you have to accept it. I worked for the same bus for two years. He used to ask me for 50,000 shillings (USD 74¹⁰) every day. Over time the buses became too many and the chance of making money decreased. I went to my employer and I told him 50,000 was not possible anymore. He could not understand me, and he wanted his bus keys back. He gave the bus to somebody else and he is still working with it. I do not know if he manages to give him back 50,000 every day.”

1998 interview, quoted in Rizzo 2017

This inevitably leads to extremely long working hours: average 15 hours per day, six and a half days per week, and the consequences for bad driving, accidents, overloading etc. A 1998 survey estimated that take-home pay averaged 2,654 shillings (USD 3.90).

● WORKERS’ ORGANISATION

In the mid-1990s, daladala workers began to organise themselves as an association, finally formalised and registered in 2000 as UWAMADAR, the association of drivers and conductors of urban buses, and a branch of the Communications and Transport Workers Union of Tanzania - COTWU (T). The key demand of the workers was to replace the hesabu system with contracts and salaries. By 2013, UWAMADAR was able to claim 5,236 members.

Vehicle owners were represented by the Dar es Salaam Commuter Bus Owners Association (DARCOBA).

10 1998 exchange rate

Throughout this period there were frequent protests and attempted strike action (for which UWAMADAR and COTWU (T) denied responsibility) including occasional outbreaks of violence. This led the government to force DARCOBA to the negotiating table with UWAMADAR and COTWU (T). After a long and laborious negotiation process, a legally-binding collective agreement was signed in March 2004, with the Tanzania Labour Court's seal of approval.

The collective agreement was a substantial victory for the daladala workers. It formally recognised that there was a contractual employment relationship between the vehicle owners and the workforce, it established a wage level, working hours and holiday entitlement.



The contract legally brought to an end the unregulated nature of the employment relationship in the Dar es Salaam passenger transport sector that had been central to the bus owners' ability to financially squeeze workers."

Rizzo 2017

Nevertheless, enforcement of the agreement proved to be more difficult. There was no mechanism whereby the government could ensure that owners issued contracts to the workers, and UWAMADAR was unable to organise its members sufficiently to claim their rights. It was made more difficult by the inclusion of a clause in the bargaining agreement that stipulated a class of driving licence that was out of reach for many of the less educated workers.

The workers subsequently demanded that the state take a stronger role in enforcing contracts, and after protracted negotiation, the government agreed in 2009 that the requirements for public transport licences had to include the registration of workers' contracts, including photographs and signatures.

Continuing problems in forcing owners to issue contracts and respect for workers' rights led to growing frustration and tension between UWAMADAR and COTWU(T). This led to a split in the union, with UWAMADAR and the association of upcountry bus workers (UWAMATA) forming the Tanzania Road Transport Workers Union (TARWOTU) in 2013.

● DAR ES SALAAM RAPID TRANSIT (DART) PROJECT

In 2016, after years of delay, the Tanzanian government launched DART, a new BRT system in Dar es Salaam. First announced in 2002, the DART project was supported by a World Bank loan of USD 150m.

From the outset, there was considerable scepticism about the ability of DART to smoothly integrate *daladala* operators into the new system.



As a single DART bus will displace about 10 minibuses', job destruction will be considerable. Although there are funds earmarked to train some drivers to qualify for driving on BRT buses, DART operators will be under no obligation to hire them. In sum, DART entails a shift from labour-intensive to capital-intensive urban bus transport, with a contraction in the quantity of jobs and, ideally, their replacement with more secure and better quality jobs. The role of the sector as a source of demand for employment for the urban poor seems to be a goal of secondary importance to increasing the carrying capacity of buses. From this perspective one can understand the dismissive tone with which the 'grievance management planners' addressed workers: "Some of these drivers will be re-routed; absorbed in the BRT system; lose jobs etc. They should categorically be informed what would be their fate."

Rizzo 2014

The World Bank acknowledged the impact of BRT on the informal workforce.



The establishment of such infrastructure has land acquisition implications ... In some of the corridors, street vendors (informal traders) use the existing sidewalks to sell their wares that include vegetables, fruits, and other items, while in other places Daladalas park as they wait for passengers. Thus, the implementation of the BRT infrastructure and other auxiliary facilities physical construction in such areas will affect these people's livelihood activities. Hence, appropriate measures will be taken under the project to minimize and compensate land acquisition, as well as non-land-based economic displacement of the people working along the road corridors."

World Bank (2017e)



As part of their key assignment, 'Transaction Advisers' will also help the existing Daladala (minibus) operators establish companies, cooperative, or franchises in line with the sector transformation efforts ... The design for operations will (a) Sensitize the local transport operators (trucks operators, up-country bus operators, and Daladala owners) to work with international bus manufacturers and bankers (local and international) to participate in the bidding for operation of BRT trunk bus services; and (b) Support transformation of the existing Daladala operators and help them establish a company, cooperative, or franchise that can become one of the operators of the BRT phase 3 and 4 system."

World Bank (2017e)

The impact of the BRT on the Daladala operators was to be managed separately. In a model similar to that introduced in Johannesburg, owners were encouraged to form collective enterprises to invest in BRT operations.

In November 2014 DART published a detailed 'Report on Consultations with Existing Daladala Operators and the Mitigation Measures' (DART 2014).

The report estimated that there were over 5,000 daladalas operating in Dar es Salaam, and that Phase 1 of BRT would require the replacement of about 1,500." This will affect their overall employment opportunities in the public transport sector otherwise there might be strikes and violence due to lack of appreciation of the BRT system".



The Government is keen to have a smooth transition from existing bus operations to BRT operations in a manner that avoids any disruption or sabotage in the public transport services rendered to the City commuters. This is being achieved through consultative and participatory approach in dealing with existing operators with a view of cultivating a sense of ownership and feeling of having been given due regard for the past contribution in rendering public transport services prior to the introduction of BRT.”

DART 2014

The financing agreement with the World Bank covering DART included specific conditions that “affected private operators of daladalas and daladala drivers are afforded preferential access to ownership of shares in the entities contracted to (operate BRT)”, and that “a grievance process is established as a mechanism for addressing any grievances that may arise from ... the introduction of the BRT system”.

The report is unusual in that it explicitly differentiates between owners, drivers and conductors. As part of the consultative process, a consultant was hired by DART to conduct an exercise of registering all daladala buses, owners, drivers and conductors who are likely to be affected by the planned operation of DART Phase I project. The number of owners and drivers who actually registered was a small proportion of the total affected workforce. Nevertheless, the exercise generated useful data.

The report contained estimates of the number of vehicles, owners and workers to be affected by Phase 1 of DART, which showed that more than half the workforce would be affected. The workforce figures are based on the estimate that each vehicle provides jobs for three workers: the driver, conductor and “day workers” (undefined)¹¹.

Affected owners and drivers were classified as being fully or partially impacted. ‘Fully impacted’ meaning those on daladala routes that were cancelled, and had to stop operations on the first day of BRT operations. ‘Partially affected’ vehicles and crews are on daladala routes that would have to be shortened or adjusted, but not entirely cancelled.

● CONSULTATION PROCESS

The long and tortuous planning process prior to the launch of DART operations included several initiatives to engage daladala owners, dating back to their involvement in ‘working groups’ in 2002-2004, the distribution of information leaflets and media coverage. The first formal consultation meeting was held in September 2013, attended by representatives of DARCOBA, UWADAR (a breakaway owners’ association), government ministries and agencies. There is no evidence of any engagement with the trade unions or associations representing the workforce.

The owners represented at the meeting were given two options: raise capital to form new companies to bid to become an operator on the new BRT system; or buy shares in other local or foreign companies set to bid for BRT.

	NO. OF ROUTES	NO. OF DALADALAS	NO. OF OWNERS	NO. OF WORKERS
Total Daladala Fleet	388	5,200	3,200	15,600
Fully Impacted	71	1,651	982	4,953
Partially Impacted	86	1,074	639	3,222
Total Impacted	157	2,725	1,621	8,175
% Impacted	40%	52%	51%	52%

Source: Dart 2014

¹¹ This is certainly an underestimate, as it does not include the large number of workers employed in the daladala service industry or in or around terminals and stops.

This led to the creation of UDA-RT - a special purpose company formed by the Usafiri Dar es Salaam (UDA) bus company, DARCOBOA and UWADAR for the provision of interim services. In April 2015 the Dar Rapid Transit Agency (DART) signed a contract with UDA-RT for the provision of interim services on the first phase of the system. The interim service was supposed to provide training to future operators and build up local capacity. During interim operations the private daladalas are still operational on these routes.

● OPERATIONS

Construction of the first phase was completed in December 2015 at a total cost of EUR134m, funded by the African Development Bank (AfDB), the World Bank (WB) and the Government of Tanzania. Operations began in May 2016 on a 21km route designed to carry 300,000 commuters daily along 29 stations.

Currently, the route is serviced by 140 Chinese-built buses. While UDA-RT is providing 'interim services', another private operator is being competitively procured to supply an additional fleet of 165 buses.

By 2018 there were "ongoing complaints" about the state of the UDA-RT system. These included overcrowding, vandalism and poor reliability

(The Citizen 2018a). Of particular concern was the frequent cancellation of services whenever the city experienced heavy rain. The terminal for the system had been built on a flood plain, and the consequent severe flooding rendered buses inoperable.

A World Bank transport specialist reported on "reputational challenges – teething problems". He noted the deterioration of operations, including the flooding, overcrowded buses, passenger discomfort, gender-based violence, long ticketing queues, unreliability of services and high driver turnover. There were further problems caused by inadequate UDA-RT capacity, court injunctions by the internet service provider, 'hesitation' in public-private partnership processing and inadequate communications (Mchomvu 2018).

In May 2018, according to press reports, the newly appointed Chief Executive Officer of UDA-RT explained it was very difficult to overcome the problems faced by the system – especially the flooding – without subsidy. "I know the subsidy model cannot be practised here because it requires big economic muscle. Strong economies normally practice the subsidy model, while weak economies rely on the revenue model" (The Citizen 2018b).

At the same time, the DART agency announced that it was preparing to close the 'interim phase' of BRT, and introduce a new operator to run the system alongside UDA-RT.



DART in operation alongside informal transport | Credit: National Observer

Case Study 4.

Accra

With the support of the World Bank, the Ghana government launched the Ghana Urban Transport Project (GUTP) in 2007, to “improve mobility in areas of participating metropolitan, municipal, or district assemblies through a combination of traffic engineering measures, management improvements, regulation of the public transport industry, and implementation of a BRT system”.

The project was financed through loans of \$44.7m from the World Bank, \$9.7m from Agence Française de Développement, a grant of \$6.9m from the Global Environment Facility, and a contribution of \$1.5m from the Ghana government. (World Bank 2017)

● THE TRO-TRO WORKFORCE

By the early 1970s Accra’s municipal passenger transport services were beginning to collapse. Within ten years, they had been largely replaced by informal minibuses, known as tro-tros¹².

In 1983 the government launched an Economic Recovery Program under the guidance of the World Bank and the IMF. Under the strategy, loss-making transport activities must be phased out, the Government should encourage full commercial freedom to operators to set market-oriented tariff rates, and the Government’s policy of free entry into the road transport market was sound and would best protect the public interest by continuing the present system (Fouracre et al 1994).

The tro-tro industry was able to determine its own routes and services. Fares were officially deregulated (Barrett, Finn and Godard 2016).

Today, Accra’s public transport is almost entirely informal: tro-tros, cars operating as shared taxis and motorcycle taxis. A World Bank report published in 2010 found that 70% of Accra’s residents generally use tro-tros to commute to work or shopping; 11% walk, 10% use private cars and 8% rely on taxis. (World Bank 2010). By 2016, there were an estimated 10,000 tro-tros operating in Accra (Gyamera 2016).

Tro-tro drivers may start work as early as 4.00 am, especially in the cities, and continue working until 10.00pm or 12.00 am. Vehicle owners prescribe fixed daily amount of ‘sales’ to meet as targets. Other drivers who do not have vehicles of their own to drive (‘Spare Drivers’) take over to work at night. Tro-tro conductors (‘Mates’), collect fares and manage the opening and closure of the buses’ doors, collect fares, assist passengers, and load/unload luggage (Sarfo 2016).

● WORKERS ORGANISATION

The tro-tro system is highly organised, particularly through the Ghana Private Road Transport Union (GPRTU), the Progressive Transport Owners Association (PROTOA) and other driver and owner associations.

In 1989, the Ministry of Local Government recognized the GPRTU as the sole organization to control, regulate the movement and operation of all vehicles at bus terminals. At the same time, it attempted to safeguard the right of access to any terminal by all transport operators. In practice the government action polarized the split in management of the bus terminals between the GPRTU and the other unions. None allowed the others to operate from the terminals which each had managed to ‘wrest’ control of. This was “clearly visible in Accra where the conflict was between GPRTU and GCTA, while in Kumasi, PROTOA was in conflict with GPRTU”.

The roles of the authorities were effectively limited to vehicle inspections and income-generating permits (Gyamera 2016).

A 1994 study of the tro-tro industry (Fouracre et al 1994) focused on the power of the unions in controlling Ghana’s public transport system. The authors argued that “the policy issue at stake is how to relinquish completely the responsibility of running bus services to the private sector, without the users suffering the imposition of the unions’ restrictive practices”.

12 The word “tro-tro” originates from the initial fares charged by the buses (one “tro” per trip). It is derived from the old Ga word meaning three pence (the unit of currency used during the period of British rule in Ghana). At the time, three pence was the going rate for a single ride in the public transport vehicles that came to be known by the same name. Historically, tro-tros were Bedford trucks converted to hold passengers seated on wooden benches.

“

The tro-tros of Ghana have been the mainstay of Ghana's public transport system for many years, despite concerted attempts by successive Governments to develop and maintain publicly organized stage-bus services. A characteristic of this sector is the very powerful influence of the Owner and Driver Unions.”

“

Some of the unions have derived their power through the patronage of earlier Governments which encouraged their organization and development. Their power is exerted through control of the terminals from which services are operated. Without access to a terminal, independent operators have limited opportunities to generate custom. Through their control of the terminals, the unions have effective quantity control of the public transport sector and hence control of service quality. For the most part service to the user is poor.”



Tro-tro terminal in Accra | Credit: ycicanada



Since the financial rewards inherent in the control of bus terminals is high, rivalries have developed between and even within unions. Monopoly access to its bus terminals is jealously guarded by each union branch. The situation is partially analogous to the rivalries between airlines for limited landing slots at an airport. These disputes have had a further restrictive impact on the sorts of service which can be provided to users."



Where Government has abrogated most responsibility, and local government has been too weak to take any responsibility, the unions have stepped in with Government encouragement to take strong powers of controlling the organization and operations of the sector... The Government needs to take some action to break the strictures of union control, while maintaining some of the benefits of private enterprise. Some form of regulatory intervention would seem inevitable. Interestingly, it is the control of the lorry parks which will dictate the future development of public transport in Ghana's cities."

Fouracre et al 1994

● THE DEVELOPMENT OF BRT

In 2014 the Greater Accra Passenger Transport Executive (GAPTE) was established as the agency to plan and regulate passenger transport operations in the Greater Accra Metropolitan Area. It was given the legal mandate to plan, regulate and coordinate urban passenger transport activities in Greater Accra and to implement and oversee operations of the proposed BRT system.

GAPTE identified a wide range of stakeholders in the tro-tro industry, including local, regional and national association officials; owners, financiers and suppliers of vehicles; drivers and conductors ("drivers' mates"); mechanics, spare parts and fuel suppliers; franchise and permit holders, and 'background' franchise beneficiaries; and financial and political beneficiaries (Gyamera 2016).

The World Bank appraisal of the proposed BRT project identified critical risks and possible controversial aspects (World Bank 2007). The highest risk was that "floaters, illegals, unaffiliated operators and various discontents will resist change and try to cause trouble both at political and street levels". The report proposed mitigation measures to include:

- (a) ensuring political commitment to the process based on visible and permanent benefits to citizens.
- (b) working with operators to bring maximum number on-board from the outset
- (c) avoid upsetting operators against each other
- (d) being patient and negotiating to bring as many into the scheme as possible

GAPTE recognises the important role of the informal transport operators in the planning of BRT – "Key Issue! Those who control the informal sector are those who are most threatened by change! How do we deal with this?". The GAPTE needed to obtain the support of the 'tro-tro' (minibus taxi) unions and other organisations, notably GPRTU and PROTOA. (Gyamera 2016)

● THE CONSULTATION PROCESS

Consultations started in 2007, and study tours were organised for tro-tro operators to visit BRT systems in Curitiba, Sao Paulo, Cape Town, Johannesburg and Lagos. (Ghana Times 2016). A 35-member Ghanaian delegation made up of members of the GPRTU, PROTOA and other officials paid a visit Lagos on two occasions to learn about the success story of the BRT system. Given the fact that Lagos and Accra have similar transportation challenges, it was hoped that such technical support will be sustained so as to ensure transfer of knowledge and subsequent improvement of the transit system in the latter (Okoye et al 2010). An Operator Steering Committee (OSC) was established in 2010 as a forum to enable regular consultation with both organisations and others in the informal transport economy.

A Transport-Land Use Research report by the Millennium Cities Initiative and University of Ghana (Okoye, V., Sands, J. and Debrah, A. 2010), recommended:



Integrate BRT with the activity of local transport operations. Bringing in union tro-tro operators requires addressing their concerns, namely: addressing their misconceptions about the BRT and its potential negative impacts on tro-tro operations will be a long process of building trust, and this must begin with more transparency; and balancing potential job losses for tro-tro operators ... (as the BRT becomes more effective and ridership increases) with secure employment and equitable pay. (Local governments) ... can play a central role in assist tro-tro operators interested in participating in the BRT system to improve their services. They can also assist them in securing government financial assistance to purchase buses and provide support, so they can complete the necessary requirements to operate BRT buses."

Okoye et al 2010

In 2011, an environmental and social impact assessment (CEHRT 2011) acknowledged that it was primarily concerned with the environmental rather than social impact, and particularly focused on the construction, rather than the operational, phase. Nevertheless, the consultants held meetings with the affected branches of the GPRTU and reported:



It was clear from the interactions with the drivers that were not very much aware of the BRT. Though some of the executives were aware, the majority of union members were quite oblivious of the project. It appeared the representatives of the drivers' union on the BRT Steering Committee may not have briefed the rank and file of the unions about BRT and the role of the unions to ensure its successful construction and operation. Not surprisingly therefore, the drivers' unions were not in favour of the project. The main reason for their rejection of the project was purely economic and had nothing to do with the potential environmental and social impacts of the project."



The drivers pointed out the negative impact of the projects on their livelihood. Most of the drivers interviewed believed that the project will have negative impacts on their business in terms of loss of revenue. They indicated that they may have to relocate from their current stations of operation and that can affect their passenger base and thereby reduce their daily sales. They also cited the competition for passengers with the BRT fleet on the road corridors, The BRT buses which will be newer will operate on a strict schedule and that will attract passengers to patronise the BRT buses at the expense of the tro-tro buses."

When considering the potential negative impacts of the operational phase of the project, the consultants noted the inevitable displacement of tro-tro operators:

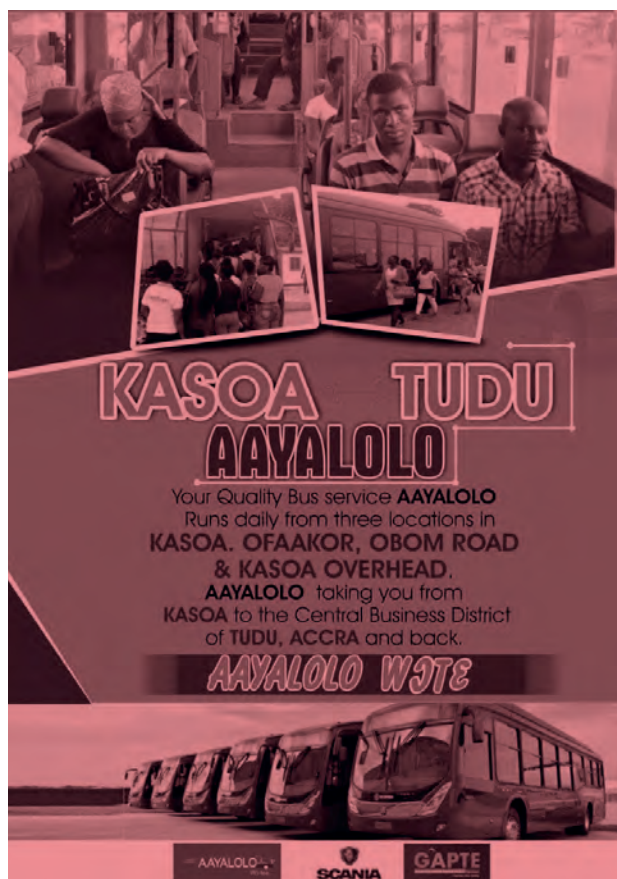
“

Tro-tro and bus vehicles account for nearly 39% of all vehicles along the project corridor. These are likely to be displaced with the more efficient BRT service. This situation could result in untold economic hardship to the operators of the existing public transport services. Both drivers and their car owners may be out of employment resulting in economic hardship for their dependants.”

To mitigate against this:

“

As part of the implementation process for the UTP, an Operational Advisor for the transport operators has been employed to help reorganise the existing transport operators to take over the operation of the BRT service. This is to ensure that the existing operators do not go out of business with the introduction of BRT. The design of the BRT system is such that there is the need for feeder services. Displaced tro-tros will be deployed to other feeder routes to feed the BRT service. Thus, while the drivers and operators will move onto the BRT service, the tro-tro buses will be redeployed to other routes to offer feeder services to sustain the BRT service.” CEHRT 2011



Advert for Aayalolo services

Credit: @aayalolo_ghana

As the result of consultations, a formal Memorandum of Understanding was signed in 2013, proposing the creation of three operator companies by the affected organisations:

- Amalgamated Bus Transit Services Limited registered as an offshoot company of PROTOA and GRTCC¹³ to operate from Achimota Terminal to Tudu
- Accra GPRTU Rapid Bus Transit Company Limited, registered as an offshoot company of GPRTU to operate from Ofankor Terminal to Tudu
- Ghana Cooperative Bus Rapid Transit Association registered as an offshoot company of the Cooperative and some members of GRTCC to operate from Amassaman Terminal to Tudu (Central Business District)

● THE PILOT PROJECT

The Amassaman to Tudu corridor was selected as a pilot BRT project. Contracts were signed in August 2014 and after several delays, 4 terminals, 15 BRT specific stations and 27 simple bus stops were constructed along the route. Other “bus priority measures” were introduced along the corridor, along with solar street lighting and traffic light systems along the corridor and junction improvement works.

The Government bought 245 Scania high occupancy BRT buses, capable of carrying up to 86 passengers. 85 buses were deployed on the pilot corridor. Buses are equipped with an electronic ticketing system, GPS receptors, on-board computers, CCTV and communications systems.

The bus service, branded as Aayalolo, was to be run by the three operator companies under contracts signed with GAPTE. Each had its own terminal and was allocated to one of the three routes along the corridor. (Ghanaian Times 2016).

In June 2016 the President of Ghana said that the BRT system will revolutionise public transport in Accra when the system becomes operational later that year. He told crowds of supporters that the project had been completed and was awaiting inauguration (Boadu 2016).

Three months later however, GAPTE admitted that the system had no dedicated bus lanes (a critical element of any BRT system) and therefore re-designated it as a Quality Bus System. The GAPTE Chief Executive Officer explained that, “what we are putting in place on the Amasaman corridor is not a full-blown BRT. We are putting in place what we call a Quality Bus Service, taking some of the attributes of the BRT and enhancing operation of these services” (Adogla-Besa 2016).

In September 2016, free rides to commuters were offered in a pilot test Aayalolo of operations. Nine buses were allocated for the test run and the Aayalolo marketing manager claimed that “overall, it’s going to limit your stay in traffic between 10 and 15 minutes” and that other routes would be brought on board within the next six to 12 months (Graphic Online 2016).

The full service was launched in December 2016. Within a few days, Accra media reported problems encountered on the Aayalolo system, particularly the occupation of the bus stops by private car owners, tro-tros, taxis and hawkers. “They park at the bus stop anyhow and always fight with our drivers over parking space”, complained one Aayalolo marshal (Ofori-Boateng 2016).

By July 2017, Aayalolo management admitted that they were still making losses after 8 months of operation. 197 out of the 245 imported Aayalolo buses had not been used. There were simply not enough passengers using the system and, according to press reports, the absence or lack of dedicated lanes meant it did not match up to that standard. There was only one dedicated lane, which was less than one kilometre long, and often occupied by parked or broken-down vehicles with some tro-tros taking over the lanes to avoid waiting in traffic.

GAPTE “downplayed concerns that the Aayalolo buses were behaving like glorified tro-tros because they were not making use of dedicated lanes. ... (A representative) ... insisted that the full benefit of the system will be realized if the encroachment on the designated lanes for the buses is halted. They (the government) would have to create those dedicated lanes for the buses to be deployed. Now if we have the buses sitting down there and if we want to assure people of the quality that we are promising, we need the dedicated lanes from the moving point to destination.” (Adogla-Bessa 2017)

In December 2017, the government demanded that GAPTE investigate the circumstances under which the management of the Aayalolo buses accrued huge debts, particularly in relation to the purchase of fuel.

According to media reports, commuters still preferred to use the tro-tros.

In March 2018, with the system still not making money, GAPTE and the Accra Metropolitan Assembly (AMA) announced new sanctions against tro-tros and other vehicle-owners who impede the Aayalolo buses. Vehicles found to have been parked in the middle of the dedicated lanes would be towed and their owners fined (Nyabor 2018)

At the end of June 2018, GAPTE admitted that the Aayalolo bus system was not a viable venture. It was reported that 70% of the cashflow goes into fuel purchase, while 30 per cent goes into the payment of wages and other expenses, and that it was not possible to break even. Since early 2018 the Aayalolo

workers had wage payments delayed or cut. The numbers of passengers had dwindled from 12,000 to 9,000 passengers per day. Newspapers reported that during the day, some buses were empty.

Promises and commitments made by GAPTE and the government to roll out the Aayalolo service on new routes on the other corridors had failed to materialise.

Meanwhile, many of the Scania buses originally bought by the government were still standing idle. The GAPTE stated that they “are ready to roll out because the buses are sitting there, and we’re worried about their state, and until the dedicated lanes are constructed by the agencies responsible, it will be difficult to deploy the buses”. Later, GAPTE would claim that the government bought twice the number of buses needed for the Bus Rapid Transit (BRT) system despite an advice against that action from the World Bank.

The Chartered Institute of Logistics and Transport (CILT) Ghana made a statement that the whole challenge with Aayalolo could be traced to the inability of the agencies responsible for its operation to ensure that the dedicated lanes were not abused by tro-tro drivers (Graphic Online 2018).

A few days later, not for the first time, the Aayalolo drivers went on strike over 5 months’ unpaid wages. On 15 July the National Labour Commission summoned the Aayalolo management, the Ministry of Finance, and two other ministries over the issue, and directed the striking drivers to resume work, under compulsory arbitration.

● ACCRA BRT PROJECT: “MINIMAL IMPACT”

The World Bank Implementation Completion and Results report on the Ghana Urban Transport Project published in January 2017 gave the overall outcome rating as ‘unsatisfactory’.



The project’s impact on improved urban mobility is deemed minimal at (project) closure. The... mission in January 2016 noted that the significant reduction of travel time along the original BRT corridor was largely attributed to the recent construction of a national highway, not to the project. Positive impacts of civil works completed along the original BRT corridor on travel time and speed remain limited without the actual full-scale operation of the BRT.”



The first month of (Aayalolo) operation indicates the challenges in attracting passengers. The team was able to obtain some information for the first month of operation ... Based on the data ... on average, 86 percent (21 against 24 buses) of the target number of buses per day has been deployed and seven percent (1,580 against 22,500 passengers) of the target number of passengers per day has been recorded in December 2016.”

World Bank 2017a

The report found that one of the key factors that affected the implementation of the project was continued resistance from some of the tro-tro operators:



"In spite of a series of information sharing and awareness raising activities and the development of a communication strategy, the project was not able to unite all parties. In 2010, several sources reported resistance from members of the GPRTU against the implementation of a BRT. At the project's closure, the authorities had not reached an agreement on the route assignments among tro-tro, large buses, and scheduled bus services along the QBS corridors and feeder routes."

World Bank 2017a

The report's recommendations include:



Strong stakeholder support is crucial, especially in urban transport with multiple actors and interests. The risks that bus operators would not accept relocation of their routes and rationalization of the urban transport system were identified at appraisal, but the mitigation measures (communications events and encouraging small operators to form associations) were insufficient to gain stakeholders' support. Opposition to changes in the status quo from GPRTU members played a significant role in hindering the implementation of the BRT and QBS schemes."

World Bank 2017a

The subsequent independent review of the completion and results report concluded that "Strong stakeholder commitments (especially from bus operators) is crucial while introducing BRT or bus schemes which require relocation of bus routes and rationalization of urban transport system", and that "Opposition to changes in the status quo from GPRTU members played a significant role in hindering the implementation of the BRT and QBS schemes". (World Bank 2017b).

CONCLUSION



Implementation is a big challenge and requires considerable up-front discussions and consensus building...

A successful system requires ownership by existing operators, drivers and users and incorporation of their specific concerns in the design... bringing the operators on board; and understanding needs of users through surveys and focus group discussions.

Investments in BRT 'hardware' will come about only after an understanding and acceptance of the broader reform programme and an appreciation of the complexity of issues involved."

World Bank, 2007



Among the high level of people directly affected, the owners and operators of vehicles in the informal sector have significant political power, which could be helpful in affecting change or could become an insurmountable obstacle. The success of BRT ... with a powerful informal sector is related to how well BRT proponents deal with the people in it"

Kumar et al, 2012

urgent need to reform Nairobi's public transport, requiring **formalisation of employment**, reduction in **crime and corruption**, and action to reduce **congestion and pollution**.

Implications of BRT

Awareness of BRT among the matatu workforce is low, although noticeably improved over the year between the 2017 and 2018 surveys. Although awareness is growing, the reaction to proposals for BRT in Nairobi is **increasingly negative**, particularly concern at the potential job losses in the matatu industry.

There are an estimated **70,000 people employed** in Nairobi's matatu industry. We calculate that half of these jobs are at risk from BRT. Assuming that BRT will create 5-6,000 new formal jobs, and unless action is taken to protect livelihoods, **30,000 jobs** will be at risk.

Assuming BRT becomes operational in Nairobi over a number of years as each line is introduced, there is time for measures to be introduced that reduce the number of jobs affected or introduce new opportunities for job creation through reform and integration of the matatu industry, but this requires serious engagement and inclusion of the matatu workforce in the planning process.

Engagement and Inclusion

It is widely appreciated that BRT planning authorities need to consult and include all stakeholders in the process of planning and implementation.

The Matatu Workforce

Those working in the matatu industry are relatively young and well-qualified. They are in long-term employment, in a wide range of occupations with complex employment relationships. They work exceptionally long hours, and are highly precarious. Most have very low pay, although there are major differences in net income, especially for on-board crews and vehicle owners, depending on the size and age of the vehicles. The working environment is bad for health, and there are frequent accidents.

The industry is dominated by men, but there are some indications that the numbers of women are increasing, although mostly in the most precarious of occupations, such as street vending.

The major issues faced by all workers are the endemic problems of **police and local authority corruption and extortion**, and the so-called **target system of daily payments** to vehicle owners, which drives long working hours, accidents, corruption and violence.

Matatu workers – on-board crews, off-road service workers and stage workers – are fully aware of the

Representatives of matatu vehicle owners are already included in the consultation process, but it would be wrong to assume that they represent the matatu industry as a whole. Although there may be some convergence between owners and the workforce in protecting the matatu industry, there are many clear and major differences in interests.

It is also obvious that the matatu industry will continue to play a crucial role in Nairobi's transport system after the introduction of BRT, providing feeder routes and transport services in those parts of the city not served by BRT. Thus, the question of how this critical part of the public transport system will be improved and integrated properly with BRT needs to be addressed.

It is important to restate the overall objectives behind the introduction of BRT in Nairobi, or indeed other projects designed to improved urban passenger transport. These are to transform Nairobi's current transport services towards an efficient, affordable, and environmentally sustainable urban transport system which promotes economic growth and decent employment. To be sustainable and achievable, BRT needs to be conceptualised, planned and delivered with the maximum engagement and inclusion of all stakeholders, including the workforce.

A good passenger transport system in Nairobi is not just the result of good engineering but requires innovative and inclusive business models that address the underlying problems of the matatu political economy.

The common practice of including 'operators' in consultations and policy discussion is insufficient to describe or engage the current urban transport workforce – those whose livelihoods depend on the matatu industry. 'Operator' is not a useful term. It is a catch-all, covering an estimated 70,000 people who depend directly on the Nairobi matatu industry for their livelihoods, but frequently with very different economic interests and involving a complex set of employment relationships.

When referring to 'operators', those in transport policy, planning and implementation should include both vehicle owners and democratically accountable representatives of (informal) employees or own-account workers dependant on the matatu industry and recognise that they have distinct and frequently divergent interests.

Yet at the time of writing, matatu workers and their representative organisations have been given no opportunities to have a voice in the planning of BRT in Nairobi.

Lessons from African Experience

There are at least twenty BRT systems at various stages of development in African cities. A handful (including Johannesburg, Lagos and Dar es Salaam) are operating and recognised by the BRT Centre of Excellence. Others are in early planning stages, yet to become operational, not operating to a full BRT specification, or failed in implementation (e.g. Accra).

Successful or part-successful systems certainly included the informal transport workforce in planning and implementation to a certain degree. In some cases (Lagos, Accra), trade unions representing the industry – both owners and workers – were centrally involved in establishing BRT operating companies. In others (Johannesburg, Dar es Salaam), associations of owners did the same.

Yet in each case, after a few years of operation, BRT did not live up to expectations.

In **LAGOS**, the government terminated the franchise agreement with the union cooperative after eight years, handing it over to a private company, which is now debt-ridden and in chaos.

The **JOHANNESBURG** authorities engaged in lengthy and serious negotiations with the 'taxi' associations, leading to their central involvement in the new operating company and a comprehensive programme of compensation to taxi owners. Nevertheless, violence continues between rival taxi associations, and workers' representatives are divided among themselves.

In **DAR ES SALAAM**, the daladala industry was represented by owners' associations who became partners in the BRT operating company. But within two years of operation, the system had severely deteriorated, and the government announced the intention to hand over to a private sector company.

The **ACCRA** BRT system involved the main trade union from the outset, which established one of the three BRT operating companies. Within a few months, the system was obviously in trouble, with no dedicated bus lanes, and losing money. The World Bank found the overall project to be "unsatisfactory".

An analysis of the underlying causes of failure or major problems in the introduction of BRT are beyond the remit and scope of this study, but the literature and discussions with transport specialists and workers suggest problems in the core business model of BRT operations in the African urban context, the inability or unwillingness of governments to subsidise public transport, lack of sufficient capital, rising debt, corruption and powerful interests in the informal transport economy.

Unions have played two (perhaps contradictory) roles in BRT planning and operations, advancing the interests of vehicle owners through gaining direct interest in BRT operating companies, while seeking to protecting the interests of the informal workforce where their livelihoods are threatened.

It is clear that positive engagement with unions representing transport workers at an early stage of BRT planning is essential to build awareness and understanding in the informal workforce, to gain their involvement as key stakeholders, and to include them in the development of a comprehensive plan for an integrated and efficient passenger transport system.

Key Issues

Whether or not BRT is a successfully introduced in Nairobi, plans for an integrated, efficient and environmentally safe passenger transport system will still need to address the key issues facing the matatu industry – the need for employment formalisation, the elimination of corruption and extortion, and the reduction of congestion and pollution.

Formalisation: the Target System and Alternatives

The fundamental problem in Nairobi's passenger transport is the so-called 'target system' in the matatu industry, whereby vehicle owners charge high daily rental fees to drivers. This business model has profound consequences:

- It is highly profitable for vehicle owners, some of whom are able to impose 'targets' of KSh. 10,000 or more per day on drivers.

- The vehicle owners have entrenched interests in the matatu industry, and some have substantial political, regulatory and administrative power – not least in the police, military and security agencies.
- The high profits attract new entrants to the market, often borrowing at high interest to purchase vehicles. This increases the number of vehicles competing for passengers, and pressure to demand high targets from drivers.
- The target system impoverishes the workforce: not just the drivers, but the large numbers of workers that depend on the matatu industry, and thus the target system.
- The target system leads to exceptionally long working hours, competitive and aggressive driving, and high accident rates. It produces congestion on the streets. It encourages corruption and organised crime.
- It leads to poorly maintained vehicles, poor relationships with passengers, and popular media images of matatu workers as rude, uncooperative and violent.

The results of the surveys, focus groups and interviews covered in this report demonstrate that matatu workers have serious and practical proposals towards formalisation of the industry, potentially forming an important contribution to policy development. Some of these, requiring further exploration, include:

- Replacement of targets with regular, predictable and secure wages
- Introduce a two-shift system for crews, creating more jobs while reducing working hours
- Introduce harmonised and regulated fares
- Explore means to remove cash from the system
- Improve the working environment: sanitation, drainage, shelter, availability of fresh drinking water etc (both for workers and passengers)
- Allocate and respect safe and secure work spaces for stage workers and service providers
- Give formal recognition to kamagera, stage supervisors and attendants and other key workers
- Strengthen the democratic accountability, governance and management of SACCOs, restructure to enable the workforce to have equal representation to vehicle owners, or support the development of new SACCOs under the management of workers' cooperatives

- Vehicle owners, through SACCOs or independently, to be held responsible for the good maintenance and upkeep of the vehicles.
- Remove the mungikis from matatu stages, and hand over management to the SACCOs
- Assist the development of formalised social protection cooperatives under the democratic governance of members, through SACCOs or independent organisations
- Provide entrepreneur / business training for vendors, service providers, and other own-account workers in the matatu industry.

Police corruption and extortion

Corruption and extortion by police and local government askaris is endemic in the matatu industry. It is a major factor in the matatu economy, fuelling poverty, lawlessness, accident rates, and social unrest on the streets. The effects are well-known. A detailed analysis of causes and potential solutions is beyond the scope of this report, but clearly very little can be achieved in the development of a well-regulated, efficient and safe passenger transport industry without serious action to eliminate corruption and extortion from law enforcement agencies on the streets.

This also requires reform of the law courts to ensure that matatu workers are given their rightful opportunities to defend themselves, rather than being forced to negotiate bribes with police to avoid prosecution.

Congestion and Pollution

Workers in the matatu industry are fully aware and supportive of the need to dramatically reduce the levels of congestion and pollution – which directly impact their livelihoods and health. Practical proposals put forward in surveys and focus groups included:

- Reduction in the number of private cars and improved public transport
- Government to introduce a programmes of modernisation and improved quality of vehicles

- Ensure better regulation of SACCOs on the condition of vehicle fleets
- Improved fuel quality to enhance air safety/ reduction of traffic congestion
- Tight controls over road expansion
- Reclaim grabbed land/ expanding Nairobi city
- Introduce high-capacity buses
- Decongest the city through mixed land-use approaches
- Develop other cities/ satellite and regional towns

Inclusion and Integration

Most importantly, a strong representative voice of the matatu workforce is a precondition for reform and development of an achievable efficient integrated public transport system for Nairobi. The Kenyan transport unions, supported by the International Transport Workers Federation, are committed to support and represent the matatu workforce, and to ensure that their democratic voice is included in the planning and development of a good quality transport system, whether BRT or other major infrastructure projects, and through the reform of the matatu industry, while improving the livelihoods of the many thousands of women and men who depend on it.

There is a very positive example of policy-level shift in South Africa to encourage integrated public transport networks and “hybrid systems” that focus on complementarity between scheduled services and unscheduled minibus operations, as well as innovations to improve, restructure and engage, rather than simply replace, minibus service (Schalekamp, H. and Klopp, J. 2018).

The World Bank Environmental and Social Framework (World Bank 2016b) specifically recognises “the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice”. It requires borrowing governments to engage with stakeholders throughout the project life cycle, starting as early as possible, and “in a timeframe that enables meaningful consultation”.

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APPENDIX 1

Matatu Industry Workforce Survey

Date of interview _____

Interview Questions

I am [name] from [union / university]. We are doing some research on working conditions for Nairobi transport workers.

The results of this research will be used to help persuade the authorities to improve pay and conditions for the workers, and to include them in planning and implementation of better transport systems in the city.

We would like to ask you a few questions. Everything you say will be treated in strictest confidence.

Male	1	2. Age	<18	18-24	25-39	> 40
Female	2		1	2	3	4

3. Highest level of education attained	Primary level	1
	Secondary level	2
	College level	3
4. List any additional Training in case you have one?		

5. Workplace (Where do you work?)		
On board (drivers, conductors etc)	1	
Off-road service area (mechanics, tyre-menders etc)	2	
SACCO	3	
Stage/Bus stop	4	
Along the route (in case of traffic hawkers)	5	
Other (Name it) _____	6	

6. What do you do in the matatu sector at the moment?							
Driver	1	Conductor	5	Caller	9	Cleaner	13
Loader / Porter	2	Street Vendor	6	Traffic Hawker	10	Traffic Marshal	14
Kamagera	3	Panel Beater	7	Mechanic	11	Tyre fitter / repairer	15
Stage supervisor	4	Unofficial Stage Supervisor	8	SACCO Supervisor	12	SACCO Mgt./Admin.	16
Other (name it)							17

7. How long have you worked in the matatu sector?		
8. How long have you been involved in what you are doing at the moment?		

9. Do you have a written agreement with someone who pays you to do your job?		
Yes		
No		

10. Working Hours	
10a. How many hours do you normally do this job each day?	
10b. How many days do you normally do this job each week?	
10c. Irregular / unpredictable work? (please tick)	

11. Whom do you receive money from in this particular job? (NB if self-employed, who are your customers?)	
12. Whom, do you in turn pay within your work set up?	

13. How much money do you receive in total, before paying other people of other expenses?	a) Per Day	1	Ksh.	
	b) Per Week	2		
	c) Per Month	3		
	d) Per Year	4		
	<i>Tick one as appropriate</i>			

14	Out of the total money you make out of your business/job, how much do you use for the following purposes	Enter the amount per day, per week, per month <u>or</u> per year, as appropriate			
		Ksh per day	Ksh. per week	Ksh. per month	Ksh. Per year
a	Fuel for vehicles				
b	Maintenance of vehicles or machines you use				
c	Fines/Bribe for example to police or 'kanjo'				
d	Taxes (payment to example Kenya Revenue authority/filing of returns)				
e	Licenses for businesses				
f	Insurance for business				
g	Suppliers (those who provide your with goods/services you need for your business to run)				
h	Owners target (in case of matatu owners or business owners)				
i	Other workers helping you in the business				
j	Loan repayment for money taken to run the business				
k	Any other payment which is required of your business (Name it e.g. rent for space)				
	Total				

15. What is the average amount of remaining money for yourself, after making all these other payments?	Per Day	1	Ksh.	
	Per Week	2		
	Per Month	3		
	Per Year	4		
	Tick <i>one</i> as appropriate			

16. Have you had health problems or injuries as a result of your work in this sector?	Yes
	No
17. If yes, mention the problem (s)	
18. If yes, what are the cause (s) in your view	

19. What are the problems you face at your work?	
---	--

20. Name any union, association or cooperative which you are a member of	
---	--

21. Have you heard about Bus Rapid Transit - BRT?	Yes
	No (if no go to question 26)

22. If yes, where did you hear from?	
---	--

23. If yes, do you think BRT is a good idea?	Yes
	No
	I do not know
24. If yes, why	

25. If yes, how do you think BRT will affect you?

26. *Is there anything else you would like to say about your work, or about the Nairobi public transport system in general? Or do you have any questions for us?*

If you have any questions, or other comments you would like to make later, here are our contact details [Give card]

If you would like to see the results of this research, or learn about the ITF and its members in Nairobi, please give us your contact details [? WhatsApp #?]

Thank you.

APPENDIX 2

BRT Labour Impact Assessment

2018 Focus Group Discussions: 18-19 November

Guide questions for facilitator

1. *What are the major problems you face in your job?*
2. *Do you think this is the same for other workers?*
3. *What do you think are the major passenger transport problems in Nairobi?*

If **congestion, pollution and traffic accidents** are not mentioned, ask about these, but do not exclude other issues.

4. *How could these problems be addressed? Are there any practical solutions you would propose to the government or the city authorities?*
5. *The government is planning to introduce a Bus Rapid Transit (BRT) system in Nairobi in an attempt to tackle these problems. Have you heard about this?*

If **yes**: go to Question 6.

If **no or unsure**: show and explain the **cards provided**, and go to Question 7.

6. *What do you think is meant by "BRT"?*
7. *Do you think that BRT is a good idea for Nairobi?*
8. *Why? or Why not?*
9. *How in your own thoughts would the introduction of BRT affect your work?*
10. *How do you think the matatu owners might react?*
11. *Do you have confidence in the government to introduce BRT?*
12. *Elaborate on why you have or don't have confidence?*

APPENDIX 3

ASSUMPTIONS FOR CALCULATION OF MATATU WORKFORCE

Matatu Crews				
Drivers	1	per	1	vehicle
Conductors	1	per	1	vehicle
Squad Drivers	1	per	3	vehicles
Squad Conductors	1	per	3	vehicles
Kamagera Drivers	1	per	5	vehicles
Kamagera Conductors	1	per	5	vehicles
Stage Workers				
SACCO supervisors	2	per	1	route
"Supervisors"	4	per	1	route
SACCO agents	2	per	1	route
Owners' agents	10	per	1	route
Stage attendants	1	per	1	stage
Callers (Mananba)	6	per	1	route
Money changers	2	per	2	route
Loaders / Porters	1	per	1	stage
Vendors & Shoe Shiners	2	per	1	stage
'Seat warmers' (Piggaseti)	2	per	1	route
Side mirror menders	2	per	1	route
Bus Sweepers	1	per	1	route
Police Agents	1	per	6	stages
Traffic marshals	2	per	1	route
'Cartel' workers (Bagations)	6	per	1	route
Boda Boda riders	2	per	1	stage
Tuk-Tuk drivers	1	per	6	stages

Service Workers				
<u>Mechanics:</u>				
Weekly vehicle servicing	10	per	1	route
Brakes	4	per	1	route
Tyre menders	8	per	1	route
Welders	6	per	1	route
Panel beaters	6	per	1	route
Painters	4	per	1	route
Spare part dealers	4	per	1	route
<u>Technicians:</u>				
Sound systems	4	per	1	route
Video systems	2	per	1	route
Lighting	2	per	1	route
Artists	2	per	1	route
Tailors	4	per	1	route
Upholsterers	4	per	1	route
<u>Support workers:</u>				
Petrol Station workers	10	per	1	route
Carwash workers	10	per	1	route
Radarmen	4	per	1	route
Night guards	1	per	10	vehicles
Food vendors	20	per	1	route
Mpesa Agents	4	per	1	route

APPENDIX 4: Labour Impact Calculations


	1	1	2	2
BRT Route	Ndovu	Ndovu	Simba	Simba
	MOMBASA ROAD	WAIYAKI WAY	SUPERHIGHWAY	LANG'ATA ROAD
MATATU ROUTE TO CBD	Kitengala	Kikuyu	Thika	Rongai
Distance (Km)	32	16	45	18
SACCOS	20	20	25	20
Vehicles	1,000	600	1,000	400
Stages	190	120	142	99
No. of matatu routes	5	5	9	7
JOBS AT RISK?				
Matatu Crews				
Drivers	1,000	600	1,000	400
Conductors	1,000	600	1,000	400
Squad Drivers	333	200	333	133
Squad Conductors	333	200	333	133
Kamagera Drivers	200	120	200	80
Kamagera Conductors	200	120	200	80
Stage Workers				
SACCO supervisors	10	10	18	14
"Supervisors"	20	20	36	28
SACCO agents	10	10	18	14
Owners' agents	50	50	90	70
Stage attendants	190	120	142	99
Callers (Mananba)	30	30	54	42
Money changers	10	10	18	14
Loaders / Porters	190	120	142	99
Vendors & Shoe Shiners	380	240	284	198
'Seat warmers' (Piggaseti)	10	10	18	14
Side mirror menders	10	10	18	14
Bus Sweepers	5	5	9	7
Police Agents	32	20	24	17
Traffic marshals	10	10	18	14
'Cartel' workers (Bagations)	30	30	54	42
Boda Boda riders	380	240	284	198
Tuk-Tuk drivers	32	20	24	17
Service Workers				
Mechanics:				
Weekly vehicle servicing	50	50	90	70
Brakes	20	20	36	28
Tyre menders	40	40	72	56
Welders	20	20	36	28
Panel beaters	30	30	54	42
Painters	30	30	54	42
Spare part dealers	20	20	36	28
Technicians:				
Sound systems	20	20	36	28
Video systems	10	10	18	14
Lighting	10	10	18	14
Artists	10	10	18	14
Tailors	20	20	36	28
Upholsterers	20	20	36	28

2b	3	3	4	4b	5	Totals
Simba	Chui	Chui	Kifaru	Kifaru	Nyati	
KIAMBU ROAD	NG'ONG ROAD	JUJA ROAD	JOGOO ROAD	LIMURU ROAD	OUTER RING	
Kiambu	Ng'ong	Kariobangi Eastleigh	Mama Lucy- Kayole	Ruaka		
15	23	6	13	12	Data Unavailable	180
15	20	15	25	15		175
400	600	750	750	500		6,000
94	161	76	117	142		1,141
3	7	9	11	5		61
400	600	750	750	500		6,000
400	600	750	750	500		6,000
133	200	250	250	167		2,000
133	200	250	250	167		2,000
80	120	150	150	100		1,200
80	120	150	150	100		1,200
6	14	18	22	10		122
12	28	36	44	20		244
6	14	18	22	10		122
30	70	90	110	50		610
94	161	76	117	142		1,141
18	42	54	66	30		366
6	14	18	22	10		122
94	161	76	117	142		1,141
188	322	152	234	284		2,282
6	14	18	22	10		122
6	14	18	22	10		122
3	7	9	11	5		61
16	27	13	20	24		190
6	14	18	22	10		122
18	42	54	66	30		366
188	322	152	234	284		2,282
16	27	13	20	24		190
30	70	90	110	50		610
12	28	36	44	20		244
24	56	72	88	40		488
12	28	36	44	20		244
18	42	54	66	30		366
18	42	54	66	30		366
12	28	36	44	20		244
12	28	36	44	20		244
6	14	18	22	10		122
6	14	18	22	10		122
6	14	18	22	10		122
12	28	36	44	20		244
12	28	36	44	20		244

APPENDIX 4: Labour Impact Calculations (continued)

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