

**FEASIBILITY STUDY REPORT FOR THE
PHASE 2 OF THE BUS RAPID SERVICE IN DAR ES SALAAM, TANZANIA TO BE
PROCURED THROUGH THE PUBLIC-PRIVATE PARTNERSHIP MODEL**

Submitted to

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6th May 2024

TABLE OF CONTENTS

ACCRONYMS.....	5
CHAPTER 1: EXECUTIVE SUMMARY	7
Public transport in the city of Dar es Salaam.....	7
The need and intended beneficiaries.....	8
Use of the Public-Private Partnership (PPP) model.....	8
Analysis of the proposed solution.....	9
Technical analysis.....	9
Commercial assessment.....	10
Financial and fiscal assessment.....	10
Social and Environmental Assessment.....	10
Legal assessment.....	11
Evaluation of value for money proposition under the PPP model.....	11
Management capacity through the PPP model.....	11
The Project Proponent and our Value Proposition.....	11
The Contracting Authority.....	12
Overview of the government set up.....	13
CHAPTER 2: PROJECT DESCRIPTION.....	14
Project location.....	14
Problem statement and proposed solution.....	15
Global case studies of similar solutions.....	15
Critical analysis of major BRT projects in the world.....	17
Bogota- Colombia.....	17
Jarkata, Indonesia.....	19
Lagos, Nigeria.....	20
Our value proposition.....	22
Option analysis and project selection.....	22
Selection of the procurement option.....	23
Service levels and output specifications.....	25
CHAPTER THREE: TECHNICAL ANALYSIS.....	26
Technical features and specification of the bus.....	26
18 metre articulated CNG BRT Bus.....	27
12 Metre rigid CNG BRT Bus.....	32
Bus Stations.....	35
Ticket card issuance.....	35
Conclusion.....	36
CHAPTER THREE: FINANCIAL ANALYSIS.....	37
Project financial model.....	37
Revenue generation.....	38

Project Capital Expenditure (CAPEX)	41
Project financing	44
Government support	45
Net Present Value and Internal Rate of Return	47
Project Cash Flows	47
Sensitivity analysis	51
Analysis and conclusion based on sensitivity analysis	53
CHAPTER FOUR: RISK ALLOCATION AND MANAGEMENT	54
Background	54
CHAPTER FIVE: SOCIAL AND ENVIRONMENTAL CONSIDERATIONS	59
Social consideration	59
Reduced travel time	59
Affordability	59
Reduction of accidents	59
Job creation	59
Stakeholder engagement sessions	60
Collaboration with dala dala owners and operators	60
Environmental benefits	60
CHAPTER SIX: LEGAL DUE DILLIGENCE AND ANALYSIS	61
Legal framework	61
Registration, permits and licenses	64
Dispute resolution and legal jurisdiction	65
CHAPTER SEVEN: IMPLEMENTATION ROAD MAP	66
APPENDICES	68
Appendix 1: Value Added Tax Registration Certificate	68
Appendix 2: Tax Identification Certificate	69
Appendix 3: Certificate of Incorporation	70
Appendix 4: Business License	71
Appendix 5: Tax Clearance Certificate	72

List of tables

Table	Page	
Table 1:	Forecast population of Dar es Salaam	8
Table 2:	Option analysis	23
Table 3:	Bus delivery schedule	25
Table 4:	Responsibility allocation matrix	26
Table 5:	Technical specifications of 18-Metre BRT Bus	29
Table 7:	Bus Scheduling and Allocation during Week and Weekend Days	41
Table 8:	Fare collection in 12 years of operation	41
Table 9:	Cost of procurement of buses in US\$	42
Table 10:	12 year operating expenses for the proposed BRT project: Base Case Scenario	43
Table 11:	12 year operating expenses for the proposed BRT project: Worst Case Scenario	43
Table 12:	12 year operating expenses for the proposed BRT project: Best Case Scenario	44
Table 13:	Debt size and repayment profile for BRT project: Base Case	47
Table 14:	NPV and IRR for Base Case, Best Case and Worst Case Scenarios	48
Table 15:	12-Year Baseline Project Cash Flows	49
Table 16:	12- Year Project Cash Flows: Worst Case Scenario	50
Table 17:	12 -Year Project Cash Flows: Best Case	51
Table 18:	Sensitivity analysis results under Base Case Scenario	52
Table 19:	Sensitivity analysis results under the worst case scenario	53
Table 20:	Sensitivity analysis results under the worst case scenario	54
Table 21:	Risk Allocation Matrix	59
Table 22:	Legal framework in Tanzania	65
Table 23:	Permits and licenses	65
Table 24:	Key tasks to be undertaken	66
Table 25:	Roadmap of planned activities post award of contract	68

List of figures

Figure 1:	Proposed PPP Structure	24
Figure 2:	Proposed contractual fare collection arrangement	39
Figure 3:	Proposed financing structure	45

List of images

Image 1:	Images of BRT systems in different cities operated through PPP model.	10
Image 2:	Map of the BRT Phases in Dar es Salaam, Source: Scientific Research	15
Image3:	Front and side body view of the 18 metre BRT bus	30
Image 4:	Front and rear doors of the 18 Metre Bus	31
Image 5:	Side and rear view of the 18 metre bus	31
Image 6:	Interior view of the 18 metre CNG bus	32
Image 7:	Interior view of the 18-metre CNG bus	33

ACCRONYMS

ADSCR:	Annual Debt Service Coverage Ratio
BCS:	Base Case Scenario
BCS:	Best Case Scenario
B R E L A :	B u s i n e s s Registration and Licensing Agency
BRT:	Bus Rapid Transit
CAPEX:	Capital Expenditure
CCTV:	Closed Circuit Television System
CFADS:	Cash Flows Available for Debt Service
CIF:	Cost Insurance Freight
CNG:	Compressed Natural Gas
DART:	Dar Rapid Transit Agency
FC:	Fare Collector
FCS:	Fare Collection System
GDP:	Gross Domestic Product
IRR:	Internal Rate of Return
KM:	Kilometre
KPI:	Key Performance Indicator
LAMATA:	Lagos Metropolitan Area Transport Authority
LATRA:	Land Transport Regulatory Authority
LC:	Letter of Credit
MoWTC:	Ministry of Works, Transport & Communication
NPV:	Net Present Value
OSHA:	Occupational Safety and Health Authority
PO-RALG:	President's Office, Regional Administration and Local Government
PPP:	Public-Private Partnership
SBLC:	Standby Letter of Credit
SDG:	Sustainable Development Goals
SPV:	Special Purpose Vehicle
TANROADS:	Tanzania Roads Agency
TZS:	Tanzania Shilling
USD:	United States of America Dollar
VAT:	Value Added Tax

VGF: Viability Gap Funding
WCF: Workers Compensation Fund
WCS: Worst Case Scenario

CHAPTER 1: EXECUTIVE SUMMARY

Public transport in the city of Dar es Salaam

Traffic congestion has been one of the major problems facing Dar es Salaam City and has been attributed to a number of factors such as rapid population increase, inadequate and poor road infrastructure, the city structure, rapid increase in number of cars and lack of a physical plan to control the city development.

The population of Dar es Salaam has grown significantly over the last decade, standing at 7.7million as at the end of the year 2023 and growing at an average rate of 5 % per annum.

If this growth persists, the population in the city will hit a record 11million in the year 2030 as indicated in Table 1 below:

Year	2023	2024	2025	2026	2027	2028	2029	2030
Population	7,775,865	8,164,658	8,572,891	9,001,536	9,451,613	9,924,193	10,420,403	10,941,423

Table 1: Forecast population of Dar es Salaam

Public transport system in Dar, majorly through the “*dala dala*” is unreliable and crowded thus avoided by many.

The working class who can afford prefer to use personal cars, further exacerbating the situation.

If nothing is done to remedy this situation, the city will grind to a halt in the near future leading to massive economic losses and security challenges.

The government has tried to address the public transport challenge although it has been faced with a number of challenges. The lack of access to sustainable finance to invest in the expansion and construction of new roads, and investment in mass public transport systems has been the biggest challenge.

The investment in the Bus Rapid Transport (BRT) is one of the intervention by government to address the challenge.

The construction of Phase 1 and subsequent phases has failed to deliver the intended goal since the traffic congestion is still a daily occurrence in the city. Phase 1 that is operational is currently congested and has inadequate number of buses to ferry all the passengers in the stations.

The morning and evening busy hours are characterized by long queues and crowded stations, indicating the need to increase the buses on the line.

This is a clear testament that government alone cannot effectively address the public transport challenge in the city.

The need and intended beneficiaries

Up to 1 million passengers along the Phase 2 route are in dire need of a safe and reliable mode of transport every week day. The traffic numbers surge during the rush hours namely morning, lunch hour and in the evening.

The passengers comprises of locals living in the outskirts of the city who commute every day to their work places in the city centre. A majority of the passengers are low income earners, who earn relatively low income.

The proposed solution has to be cognizant of this limitation and ensure it accommodates a majority of the passengers.

Use of the Public-Private Partnership (PPP) model

Pursuant to the provisions of the Public-Private Partnership (PPP) Act of Tanzania, Mofat Company Limited and partners propose to support the Government of Tanzania to address the public transport situation in the city. Our analysis of the market reveals gaps that present an attractive solution if acceptable to the government.

We propose to procure, finance and operate buses on a Bus Rapid Transport (BRT) model in Phase 2 of the BRT routes in Dar es Salaam through the PPP model. This will augment the government efforts in the provision of efficient BRT road infrastructure in the city.

Phase 2 is an extension of the broader BRT network in Dar es Salaam and comprises of 20.3Km infrastructure comprising of 27 stations, 2 terminals and 2 depots along with 4 feeder stations along different locations on the route.

The route starts from the Mbagala Area in Temeke District to the City Centre where it connects with Phase 1 of the BRT at Kariakoo station. Our traffic surveys indicate that up to 1 million passengers every work day.

BRT interventions by the private sector like the Transmilenio BRT PPP project in Colombia has shown how the private sector can offer inclusive, safe and reliable transport in the city

Our proposition will address the following key challenges facing the government:

- a) Access to finance for the operation of safe, efficient and inclusive public transport system.
- b) Access to innovation and expertise in the delivery of quality public transport
- c) Improved air quality in the city through reduced emissions
- d) Creation of quality jobs for locals during operation of the buses



Image 1: Images of BRT systems in different cities operated through PPP model.

Analysis of the proposed solution

Technical analysis

Mofat Company Limited will procure and operate a fleet of 755 buses comprising of 18 metre articulated buses.

The 18 metre articulated bus will be fitted with 90cm high platforms and will have a passenger capacity of 165 passengers. Full technical specification of the buses is included in Chapter Three.

In line with the country's commitment to environmental sustainability, the buses will be powered by Compressed Natural Gas (CNG) thus reducing emissions to the environment.

Fare collection is going to be cashless supported by prepaid card system that can be easily activated and loaded with money directly from the mobile phone or at the bus stations or over bank counters. Through a system called AFC (Automated Fare Collection) where by bank account is integrated with the daily receipts.

The Mofat will negotiate with DART on the identification and appointment of an independent Fare Collector (AFC) who will oversee the collection of fares. Mofat will bring on board a Bus Operator that will work closely with the Fare Collector to ensure seamless operations of the Fare Collection System (AFCS). Additionally, the Fare Collector will also station Attendants in each station to also facilitate the issuance of new cards and also address any challenges that the passengers might face.

Mofat Company will discuss with DART to ensure there is uninterrupted power supply in all stations to ensure minimal or no interruption of the fare collection system.

In order to enhance closer monitoring of the entire operations along the line, we recommend the installation and interconnection of a Closed Circuit Television (CCTV) system in all the stations and the entire route.

Commercial assessment

The proposed procurement model, the PPP, offers an attractive offering to the private sector party. Under the arrangement, Mofat Company Limited together with partners will raise financing for the procurement and operation of the buses. Upon agreement with the DART, the Mofat will work with the Fare Collector to ensure efficient collection of the fares.

From the financial modelling undertaken, depending on the final negotiation on the pricing and risk allocation with DART, the Mofat will repay the investment in the 5th year of operation, providing a tail of 1 years to recoup the investment.

Based on the assumptions used, the project will generate a Net Present Value (NPV) of USD. 68,505,740 and an Internal Rate of Return (IRR) of 29.31%. The risk profile however remains high will require close check up and immediate solutions.

Financial and fiscal assessment

There will be need for further negotiation and discussion with the DART in order to arrive at a conclusion on the affordability of the proposed service to the passengers and DART while at the same time not compromising the commercial aspect of the project.

Using the financial model, we have undertaken various simulations to arrive at the most viable structure, fare regime, fare collection and operation model that strikes a balance for the different parties involved in the project.

We recommend the fares to be increased up to TZS. 1,000 while the Operator and Fare Collector fees to be capped at 7% of the project revenue. We also recommend waiver of the road access fee for the first two years of operation of the project. This will avoid the requirement by Government to provide Viability Gap Funding (VGF) for the project.

Mofat will require the Government through the Ministry of Finance to offer various support mechanisms including a tax exemptions to the reduce the cost of the project value, also value of the buses so as to facilitate the issuance of LC facility by local financial institutions. A deeper analysis of the financial and fiscal assessment is contained in Chapter Four of this study.

Social and Environmental Assessment

The use of CNG buses will significantly reduce the project's carbon footprint, in line with the Government's commitment to the Sustainable Development Goals (SDGs).

This will require the construction of a gas station at the Bus Yards to facilitate refueling of the buses.

On social impact, the project will have significant positive social impact as it will alleviate the challenges faced by many passengers along the route.

Additionally, the project will create sustainable employment opportunities for locals and also enhance the efficiency of the passengers at work due to shorter travel times.

The social and environmental assessment is detailed in Chapter Six.

Legal assessment

The procurement of the project will be done under the PPP regulatory framework that comprises of the PPP Act and Regulations, PPP processes and institutions established to oversee PPP projects in Tanzania.

Mofat Co. Ltd will however engage with other parties necessary to deliver quality service. These engagements will be guided by different laws of Tanzania including company law, environmental laws, employment laws, tax laws among others.

Chapter Seven of this study provides deeper analysis of the legal aspects of the project.

Evaluation of value for money proposition under the PPP model.

The bringing together of partners with diverse and competent skills in the procurement , operation and maintenance of buses and BRT service will guarantee quality service to DART and the passengers of the Dar es Salaam city.

With suggested service levels regime, we are confident that the PPP model will deliver better value than the traditional public procurement model.

Management capacity through the PPP model

Tanzania has a well-established PPP regulatory framework that provides clear guidance as to how the project will be operated and managed.

Mofat has engaged project finance and PPP consultants who will provide the requisite support to ensure that the project is run in line with the PPP requirements and also global best standards,

DART on the other hand has fairly good knowledge on the use of the PPP model. To augment the current PPP capacity at the authority, Mofat proposes to work with the Agency to develop a capacity building roadmap that will leverage mostly on this project to train and equip key officials with PPP knowledge.

The Project Proponent and our Value Proposition

Mofat Company Limited is a specialized logistics and transport company incorporated in the year 2018 in the United Republic of Tanzania. The company offers logistics services including the transportation of dry containers and heavy cargo for import and export. Since its inception, the company grown steadily and diversified in various industries inter alia agriculture, food sector and mining, earning a reputation for reliability, quality, and ethical practices.

With an extensive fleet of vehicles, logistics expertise, and an unwavering commitment to reliability, Mofat ensures that goods reach their intended destinations efficiently and on time.

Our commitment to sustainable practices has allowed us to excel offering logistical solutions and also in other sectors including horticulture and livestock breeding. Attached to this presentation is our audited financial statements for the last two years of operation.

The company is owned and operated by the below Directors:

- a) Muhammad Abdallah Kassim
- b) Abdul Rahman Abdallah Kassim

Our Vision is to drive the export of high-quality goods and services from Tanzania, thereby strengthening our nation's position in the global market. We continuously strive to expand our business channels and enhance trade relations across borders. is to drive the export of high-quality goods and services from Tanzania, thereby strengthening our nation's position in the global market. We continuously strive to expand our business channels and enhance trade relations across borders.

Our Mission revolves around creating awareness and generating employment opportunities for Tanzanian citizens in diverse industrial sectors. By engaging with local talent and encouraging skill development, we contribute to the overall growth and prosperity of our nation.

The below appendices are official documents of the project proponent:

- Appendix 1: VAT Registration Certificate
- Appendix 2: Taxpayer Identification Certificate
- Appendix 3: Certificate of Incorporation
- Appendix 4: Business License
- Appendix 5: Tax Clearance Certificate

The Contracting Authority

The Dar Rapid Transit Agency (DART) is an executive agency established through a Government Notice (GN) No. 120 of 25th May 2007 under the Executive Agencies Act No. 30 of 1997 and its subsequent amendments. The key role of the DART Agency is to establish and operate a BRT system for Dar es Salaam.

The Agency operates under the guidance of the President's Office, Regional Administration and Local Government (PO-RALG).

The vision of the agency is to have a modern public transport system at reasonable cost to the users and yet profitable to the operators using a high quality capacity buses which meet international standards, environmentally friendly, operating on exclusive lanes, at less travelling time.

Its mission is to provide quality, accessible and affordable mass transport system and improve urban mobility for the residents of Dar es Salaam which will subsequently.

The objectives of the agency include:

- a) Provide affordable and reliable public transport system;
- b) Provide physical infrastructure;
- c) Ensure Commuter safety
- d) Reduced traffic congestion and emissions;
- e) Contribute towards poverty reduction

Overview of the government set up

The DART is part of the government structure charged with the responsibility of developing and modernizing the public transportation infrastructure of the city of Dar es Salaam.

DART reports to the President's Office-Regional Administration and Local Government (PO- RALG).

The Ministry of Works, Transport & Communication (MoWTC) through the Tanzania Roads Agency (TANROADS) supervises the construction of the infrastructure while the Land Transport Regulatory Authority (LATRA) regulates surface transport fares which are charged to the users of the BRT system.

CHAPTER 2: PROJECT DESCRIPTION

Project location

The project location is the exclusive trunk road that has been developed by the DART. It comprises of a 20.3km corridor comprising of 27 stations, 2 terminals and 2 depots along with 4 feeder stations.

In order to enhance efficiency, it is envisaged that the feeder buses will complement the trunk operations by implementing the critical last mile function while integrating with the trunk corridor at the feeder stations.

The route starts from the Mbagala Area (Kilwa Road) and ending at the Kariakoo Hub (Mbagala Rangitatu). The other parts of the corridor include inter-connected trunk routes from South Kawawa Road at Morogoro junction to Mgulani junction and on Changombe road.

A detailed description of the feeder routes is indicated in the Image 2 below:

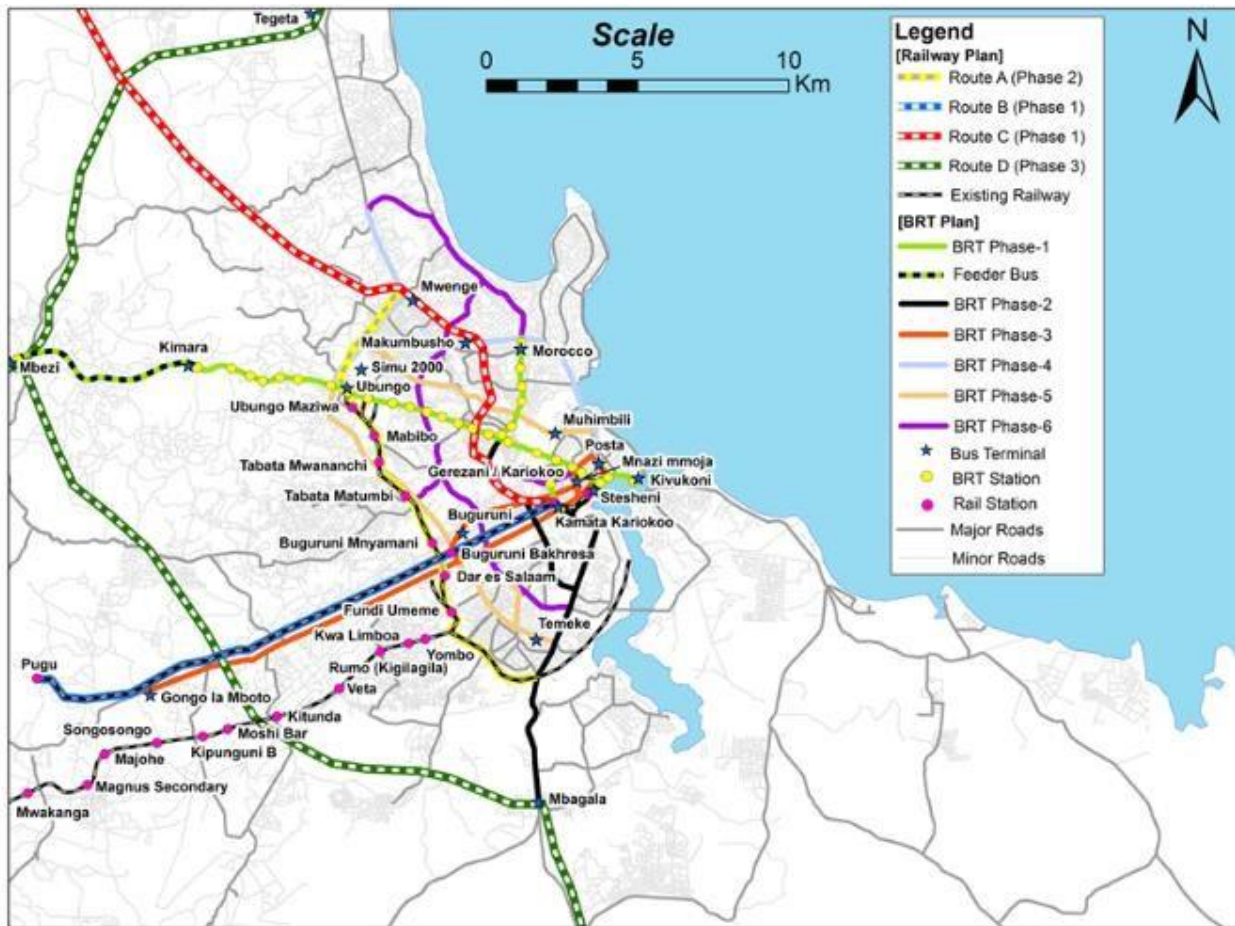


Image 2: Map of the BRT Phases in Dar es Salaam, Source: Scientific Research

Problem statement and proposed solution

The biggest challenge that DART is trying to solve is the congestion of the transportation network in Dar es Salaam.

The proposed project aims to mitigate part of the adverse impacts caused by the congestion in terms of excessive travel time, road safety, emissions, as well as the positioning of Dar es Salaam as an agglomeration economy that brings together people, goods and employment closer together and delivering a more productive urban economy.

More broadly it thus addresses the problem of the quality of urban life in the urban region of Dar es Salaam as experienced by the people working and living in and around the city. The proposed project is aligned to Tanzania's Vision 2025, which underscores the need for increased investment in transport infrastructure with a view to improving social-economic well-being of people and thereby contributing to poverty reduction. As such, the project is strategically aligned with various national development plans of Tanzania and, based on its strong ridership potential, will help in improving the economic conditions and welfare of the society.

Global case studies of similar solutions

We have conducted a desktop review of some of the BRT projects across the globe so as to refine our value proposition. The findings here have been extracted from a previous report on the BRT project in Tanzania.

Globally, the PPP model has been used to operate BRT services in major cities across the globe. The model has been labelled as a cost-effective and sustainable solution for better public transport in congested cities.

Cities like Bogota, Jakarta, Istanbul, Beijing, and recently Lagos have embraced the model. Many more systems are being planned, designed or are under construction across the world. While some have been highly successful, others have faced challenges.

Brazil introduced their BRT system in the late '70s in the city of Curitiba, Parana. Later on, in the 90s, Bogota in Colombia and Quito in Ecuador implemented BRT systems.

The success of Bogota's TransMilenio system led to the surge of interest in BRT. Other cities followed suit including Goiania and Sao Paulo in Brazil, Guayaquil in Ecuador, Guatemala City in Guatemala, and Mexico City and Leon in Mexico.

Despite the challenge of financial sustainability and need for government support, BRT systems have generally succeeded in reducing travel time and in offering greater comfort and safety for passengers.

Proper structuring, scope and risk allocation in BRT projects is critical as it determines the degree of self-sustainability of the BRT project. The level of government support depends on the policies and institutional and operational measures undertaken by the government.

Most successful BRT systems are based on the PPP model whereby the contracting entity is responsible for the planning and control aspects and for constructing the infrastructure, while operations and fare collection are provided by private companies.

In order to enhance service delivery, the performance of the private party is continually monitored against a set of performance indicators spelled out in their contracts. Failure to meet the targets, they are fined a certain monetary amount.

As a policy decision, the contracts with the private operators were structured in a way that the operators were reasonably insulated from the demand risk, i.e when the ridership is lower than anticipated. BRT operators are paid per km in Curitiba and Bogota which means they are paid a certain amount regardless of demand. This structure ensures that operating companies have a vested interest in maintaining good service and promoting the system in order to retain ridership.

In most cases, the PPP model has ensured financially sustainable BRT systems. Private control over operations shields the system somewhat from the political process. For instance, in Bogota, profits from the BRT system cannot be diverted directly to other public funds. The city government gets only about 4 per cent of the revenue from passenger fares. They are allowed to reduce the passenger fare nevertheless operators then have to be compensated. Hence, private operators are consequently protected against arbitrary tariff changes by the government.

Another important measure that ensured smooth implementation of the BRT systems in the region was involving former operators in the planning process and offering them the opportunity to be a part of the new system. This participatory approach helped to avoid protests and work stoppages.

A key challenge in implementing the BRT systems is sourcing finances for infrastructure development. In the Latin American cases, the financial resources came from fuel taxes, local city revenues, credit from global and regional lending institutions such as the World Bank, Inter-American Development Bank and CAF, and grants by the federal governments.

In order to popularize BRT, Bogota's local administration launched a structural change in public transport conditions with a view to reduce the use of motorised transport. The measures included constructing pedestrian walkways and bikeways, imposing vehicle restrictions in peak periods, raising parking prices, and imposing day-long automobile bans. Proper urban planning, compatible with the new BRT systems, has been another contributing factor. This synergistic approach was possible due to the strong political will of the city governments.

While a consensus of sorts has emerged on the policies and frameworks (institutional and operational),

implementation varies in different cities. In Curitiba and Bogota, the BRT systems have been built in gradual Phases, giving enough time to the public to understand and use it.

Public transport restructuring, when introduced gradually, has a greater chance of being accepted. Guatemala City's Transmetro and Guayaquil's Metrovia followed TransMilenio's example and have proved to be successful.

The Latin American experience indicates that BRT is a highly-effective solution to improve and upgrade public transport, especially in today's tighter financial scenario. Today, BRT is considered to be a smart public transport system driven by features and technology, and often considered to be an alternative to metro rail due to its low cost, high capacity and quick implementation period. BRT is also an eco-friendly solution to the effects of climate change. As major cities across the world continue to grow and prosper, the demand for increased mobility will in parallel rise. It will hence become crucial for these cities to implement strategies that aim to reduce carbon dioxide emissions from the transport sector which is precisely what BRT systems offer. In fact, TransMilenio is the first BRT project to be registered under the Clean Development Mechanism for carbon credits.

There has been a growing tendency in involving the private sector in providing high-standard transport infrastructure to meet the needs of rapid economic growth. For many years, the public sector has traditionally financed and operated infrastructure projects using resources from taxes and various levies (e.g. fuel taxes, road user charges). However, the recent disparity between the capacity to generate resources and the demand for new facilities has forced governments to look for new funding methods and sources. Many countries are now contemplating the PPP model as an arrangement between public and private sectors to finance, design, build, operate and maintain public infrastructure, community facilities and related services.

Critical analysis of major BRT projects in the world

Bogota- Colombia

Transmilenio bus-based rapid transit system opened in December, 2000. It benefited from a solid legal framework and good practices that have served as examples to other areas of the world. Transmilenio S.A operates 12 lines serving 149 stations in the city of Bogotá.

Important attributes of the system are the collection mechanism for the sale of tickets (also through a concessionaire arrangement) and the trust fund. From the latter, the funds generated through the collection mechanism are distributed among Transmilenio S.A. and the various concessionaires of the system, in accordance with each of their respective concession contracts.

Transmilenio S.A. distributes the licenses or concession for the operation of the system and the

collections mechanism. It is a public entity with shares that coordinates the entire system and is in charge of its management, organization and planning. The private sector maintains its operations through fare collection. No public subsidies were provided to fund equipment acquisition.

The *Instituto de Desarrollo Urbano* (IDU) is in charge of constructing and maintaining the infrastructure associated with the BRT system. TransMilenio S.A. supervises the operations of the system, including awarding contracts to the private sector operators. In order to ensure continual funding to monitor and maintain the control system, TransMilenio S.A. receives four percent of the system's revenues from the collection trip selling and secondary activities, such as advertising at station.

Jarkata, Indonesia

Following the intense public consultation leading up to the implementation of Trans Jakarta, there was a significant change in the communications strategy in the first two years of operations. The Provincial Government, having experienced an extremely positive public reaction to Corridor 1, felt that there was little need to communicate their plans and the impacts of them when constructing further corridors. The government perceived that the BRT was a concept that Jakarta residents and visitors could now understand and support.

There were six different operators providing services on the Trans Jakarta network. Four of these operators are a consortia of existing operators that were set up to take advantage of the compensation offered by Trans Jakarta for reforming the public transport services along those particular corridors. These were given no-competition contracts for the initial 7-year period of operation. Two of the operating companies were existing private organisations which won the opportunity to operate through an open, competitive tendering process, obtaining an operating license for a period of 7 years and expected that by 2014, all operating contracts competitively tendered. The informal sector, mini-bus operators, still ply all Trans Jakarta corridors unimpeded.

Different elements of the Trans Jakarta network were funded by different bodies. Firstly, BLU Trans Jakarta is funded by the Jakarta Provincial Government. BLU Trans Jakarta is the body that manages the BRT network, but does not have financial control over the funding of infrastructure. The public works department of the Jakarta Provincial Government funded both the construction and maintenance of the BRT running lanes.

The road traffic management team within the Transportation department of the Jakarta Provincial Government (Dishub) funded the bus stations and the pedestrian foot bridges. Once constructed, the responsibility for managing and maintaining the stations and foot bridges lies with BLU Trans Jakarta.

Fare currently cover about 60% of short-term avoidable costs compared to 90% in 2005 because of the opening of less productive lines. The operating and maintenance subsidy is funded by the Jakarta Provincial Government which funds BLU Trans Jakarta. Cost recovery is expected to improve as a higher proportion of operations are competitively procured as opposed to being given to existing operators at a negotiated price.

The financing of the fleet differs depending on the corridor. The buses that operate along Corridor 1 were funded by the Provincial Government, while those buses that will operate along corridors 9 and 10 once operational will also be funded by the Provincial Government with operators tasked with simply operating services. All buses on the remaining corridors are funded by the operators themselves and reimbursed for this outlay through the operating “per kilometre” payment provided by BLU Trans

Jakarta. It is the intention of Trans Jakarta that bus investment is carried out by the government to reduce operational cost and subsidy.

Lagos, Nigeria

At the outset of BRT development, there was not even one private company in Lagos capable of operating the BRT-Lite system on its own - far less a range of potential operators among whom this opportunity could be competitively tendered. Therefore, it was agreed that this scheme would include an operator capacity development function in partnership with the National Union of Road Transport Workers (NURTW) under the private- public financing approach envisaged for mass-transit in the LUTP.

A special purpose entity for the actual operation of BRT-Lite was established by NURTW- Lagos NURTW (1st BRT) Co-operative Society Limited (referred to forthwith as FBC, standing for 1st BRT Co-operative). Whilst this entity remains a wholly owned subsidiary of the Lagos State Council of the National Union of Road Transport Workers, it is managed on an arm's- length basis with day-to-day control vested in the 50 or so members who subscribed equity at its launch. Subsequent members may only be admitted to the Society by agreement with those already included, and on payment of the same equity subscription.

Once FBC was formally constituted and empowered, it commenced the range of preparations for the launch of the BRT-Lite service. This focused initially on the creation of a small management team and the recruitment and training of the pilots (drivers). The latter represented a particular challenge in that relatively few NURTW members held large-bus licenses, and even fewer were qualified to drive such vehicles or had recent experience of so doing. The problem was exacerbated by the need for the competence to drive smoothly and at consistent speed within the confines of the BRT-Lite running lanes, which are only 2.8m wide in some places.

During this developmental Phase, it soon became apparent that NURTW actually lacked the relevant experience for the operation of a large-scale scheduled bus service. In effect, their sector skills had been based on the management of terminals, with vehicle queuing and passenger boarding being their priorities, with little or no control along the line of route. The Lagos Metropolitan Area Transport Authority (LAMATA) realised that they would have to step in to provide the relevant expertise. They recruited a Senior Public Transport Specialist from one of the major private-sector bus and coach operators in Nigeria for this purpose.

In addition, it was also recognised that a number of the specialised activities of a large commercial passenger transport undertaking would need to be outsourced. First of these was the vehicle maintenance function, where the vehicle supplier was required to provide full technical support covering both trained personnel and spare parts stockholding. Second was financial management, where the bank recognised the critical nature of cash flows during the early years of the scheme and needed to control its risk exposure. Third was operational management itself, with this being outsourced to a

specialist business handling 1,600 vehicles and 2,600 drivers across Nigeria and covering the full range of human resource issues.

Infrastructure and facilities for the initial BRT Lite line were financed directly from Lagos State general revenue provided through LAMATA. The latter also has a dedicated source of funds (road use taxes) which will be used to partially finance future lines.

The question of financing vehicles to operate on the BRT corridor proved to be more of a challenge with the experience of earlier initiatives to encourage fleet investment (both at the Federal and State levels) by informal sector owners not having proved sustainable, and hence acting as a deterrent to banks for their involvement in the sector. No financial institution chose to make good on its expression of interest in participating in the bus finance scheme.

The vehicle supplier eventually resolved this matter by offering to accept deferred payment over two years, provided that the local bank underwrote the counterparty risk. This arrangement was agreed to by Ecobank Nigeria Plc, but it in turn then required the lodging of collateral personal guarantees from senior officers of NURTW in order to mitigate the risk exposure. Fortunately, the levels set for these guarantees were proportionate to the affordability of those who had to provide them, covering less than 10% of the total transaction value, and so could be put in place. Once all the financial arrangements had been finalised, the order was confirmed for shipment in the first half of 2007. Delivery was then made in two batches, arriving in Lagos in June and September of 2007.

India's Tata Corporation, the vehicle supplier, also financed and managed construction of the depot which was paid for by the Union Corporation as part of the vehicle lease/purchase program.

There are no public operating subsidies for BRT Lite in Lagos. In fact, the system has made a sufficient operating profit that allowed the loans used to purchase the buses from Tata have been paid back early.

Our value proposition

Based on an analysis of different BRT models across the globe, Mofat Company Limited proposes to collaborate and enter into contract with the DART for the procurement, financing, operation and maintenance of the BRT service along Phase 2 in Dar es Salaam.

Below are the proposed partners that Mofat has negotiated to be part in running of the project.

- a) Competent BRT operator with a track record and experience of operating a BRT service with more than 300 buses.
- b) Operator with more than 10 years in BRT projects
- c) Local or foreign investors to contribute equity into the business.
- d) Bus supplier.

The Mofat is incorporated under the Company law of Tanzania and is headquartered in Oyesterbay/Msasani Area in Dar es Salaam. Mofat will discuss and negotiate with DART on contractual service arrangements that will ensure quality service delivery to the citizens.

Option analysis and project selection

An analysis of various options to address the public transport challenge in the city of Dar es Salaam have been undertaken. Below are the different options:

Option	Solution	Decision
Option 1	Do nothing/ minimal	Not preferred as it does not address the pressing transport challenge
Option 2	Invest in light rail	This option is not viable as it requires significant capital investment in the development of railway, signaling, locomotives, engines among others. Besides, it will render the already done investment in the road infrastructure useless
Option 3	Investment in an expressway road	Not a preferred option. Requires acquisition of additional land and also significant capital investment in the road infrastructure.
Option 4	Invest in the BRT service	Most preferred option because the Government has already made the required investment in the horizontal infrastructure and stations. In addition, the solution will offer safe and reliable mass public transport and is in line with the strategic aspirations of the Government of Tanzania.

Table 2: Option Analysis

After a series of analysis, the 4th option is preferred as it offers value for money beyond the other options. In addition, it rightfully aligns with the strategic planning and aspiration of the Government of Tanzania.

Selection of the procurement option

Phase 1 of the BRT that is currently under management by DART has indicated the challenges that public entities face in the provision of critical services to the citizens. The service has faced quite a number of challenges majorly being the lack of enough buses to meet the increased passenger demand.

From the lessons in Phase 1, we propose to use the PPP model as it is more effective and efficient in the delivery of the BRT service. Through the model, the Mofat will procure and operate the service while the DART and the Government will play a critical role of ensuring a conducive environment for operating the business.

Under the arrangement, we propose to supply 255, 18 metre articulated buses.

Below is the proposed structure of the transaction:

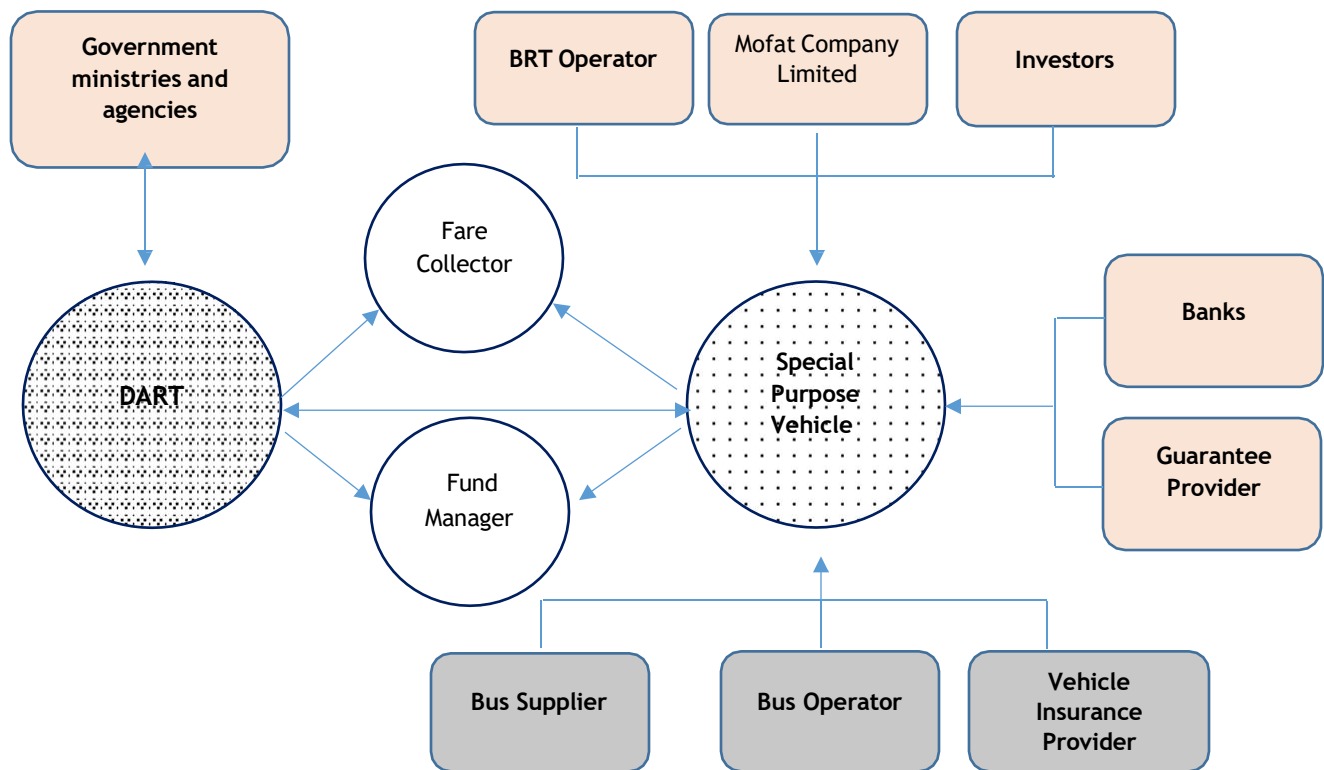


Figure 1: Proposed PPP Structure

Under the proposed arrangement, Mofat will undertake the following functions:

Procurement of buses and associated bus management information systems:

Mofat will identify and negotiate with BRT bus manufacturers from across the globe and ensure the delivery of quality buses in line with the acceptable standards by the Government of Tanzania.

Mofat will supply a total of 255 buses as indicated below:

- 18 metre articulated buses: 255 buses

The buses will undergo factory assessments and testing before being shipped to Tanzania. Additionally, the buses will undergo inspection and testing when they arrive in Tanzania to ensure they conform to the required standards.

Mofat Limited has negotiated with Xiamen Golden Dragon Bus Co. Limited to manufacture and ensure the buses are delivered at the Port of Dar es Salaam as indicated in the schedule below:

Bus Type	Month 4	Month 5	Month 6	Total
18 Metre	255	0	0	255
Total number of buses supplied				255

Table 3: Bus delivery schedule

In addition, Mofat will procure ITS (Intelligence Transport System) that will oversee the operations of the service.

Operation and maintenance of the buses:

Mofat proposes to enter into a 12 year renewable contract for the operation and maintenance of the buses. Mofat, together with its contracted parties, will ensure the service offered subscribes to the agreed service standards. Further negotiations will be done with DART to agree on the service level agreements.

On expiry of the period, and subject to the performance under the contract, Mofat will negotiate with DART for the renewal of the contract.

Below is the proposed allocation of the scope of activities in the project:

	Function	Government	Mofat
1	Procurement of buses		Mofat
2	Operation of buses		Mofat
3	Maintenance of buses		Mofat
4	Fare collection	Independent party identified by both Government and SPV	
5	Provision of Bus Management Information System		Mofat
6	Procurement and management of fare collection system	Fare Collector identified by both Government and SPV	
7	Station management (Security and cleaning)		Mofat
8	Station and road repairs and maintenance	DART	
9	Fund management	Fund Manager	
10	Route planning and scheduling	DART	
11	Fare fixation and management	LATRA in consultation with DART and Mofat	
12	Provision and availability of infrastructure	DART	

Table 4: Responsibility allocation matrix

Service levels and output specifications

In order to monitor the project and ensure it continuously delivers value for money for the citizens of Dar es Salaam, it is important to have in place contractually agreed service levels and Key Performance Indicators (KPIs) that will be used to measure the private party's performance.

Depending on the compensation model agreed with DART, further negotiations should be held to discuss how to penalize and reward Mofat for poor and stellar performance respectively.

According to the global standards, the penalty should be based on a percentage with a maximum limit of 10%.

CHAPTER THREE: TECHNICAL ANALYSIS

Technical features and specification of the bus

The technical specification of the BRT buses to be supplied is largely influenced by the existing infrastructure that has already been developed and also the need to offer safe mass public transport in the target corridor.

Mofat has undertaken analysis of the existing infrastructure that has the following characteristics:

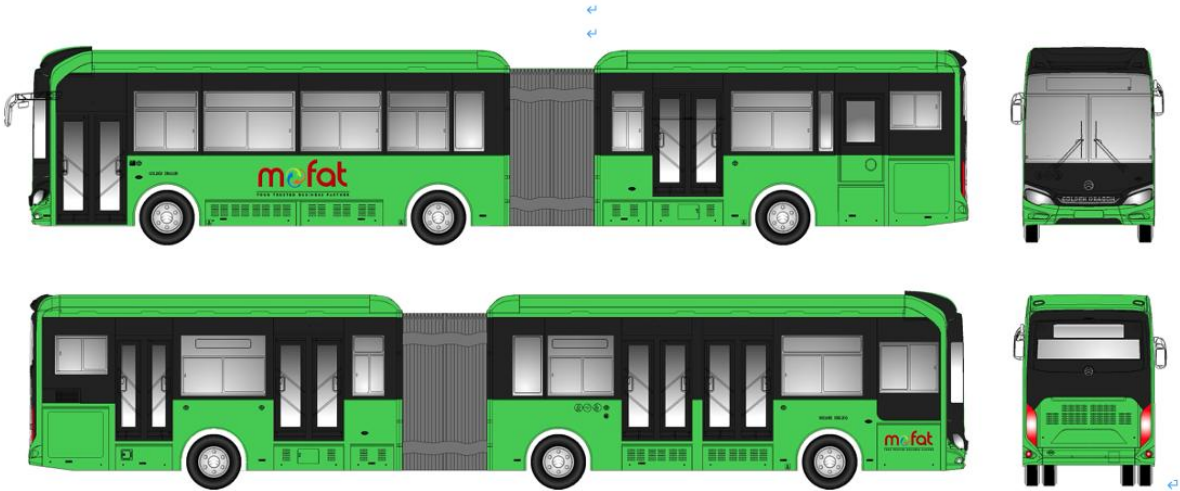
- a) The bus lanes are segregated and located on the median section of the road. There are one lane per direction along the corridor, and two lanes at most stations. The section varies according to the available space, and are as wide as 49 m.
- b) The stations are built by modules, each one with a capacity for 65 buses per hour per.
- c) The platform are 90cm high and 5 m wide. Distance between stations is 500m to 700m. Its conceptual design has followed the Transmilenio System Design and is accessible by ramps at the extremities. Stations may or may not require specific energy infrastructure depending on choice of vehicle energy and propulsion technology.
- d) Terminals: DART Terminals are integration points between trunk and feeder services.
- e) Terminals are large and comfortable to give possibility of including different services and transportation means and avoid transfer inside the corridor. Terminals may or may not require specific energy infrastructure depending on choice of vehicle energy and propulsion technology.
- f) Bus depots: The depots are designed to provide cleaning and maintenance facilities for the bus fleet. Depots are modern and efficient, planned as service production areas where buses are inspected, sent to cleaning or maintenance and parked until the next operation day. Bus depots may or may not require specific energy infrastructure depending on choice of vehicle energy and propulsion technology.

Based on the above and the need defined in Chapter One, and subsequent option analysis undertaken, Mofat proposes to supply modern, environmentally friendly, high capacity buses that will ensure safe and efficient mass public transport in the city of Dar es Salaam.

Our bus supplier, Xiamen Golden Dragon Co. Limited, China, has supplied buses currently operating on Phase 1. It is based on the performance of the said buses that a strategic decision was made to procure similar buses. However, unlike those operating in Phase 1, we are proposing to supply CNG engine powered buses that has minimal emission to the environment.

18 metre articulated CNG BRT Bus

The 18-metre bus will mainly serve on the main trunk line. Below are the technical specifications bus:



INDICATIVE TECHNICAL SPECIFICATIONS

GENERAL DATA	
General	Golden Dragon 18-meter BRT City Bus, rear mounted CNG engine, high floor with the same height as Dar BRT platform
Model Year	2024 or after
Overall Dimension:	Approx. 18000*2550*3750mm
Speed limit	55km/h or less
CNG Tank	Around 12 Tanks, each tank 120L with 1440L in total, capable of 350-400km for each refueling
Passenger Door	TWO passenger doors in left side, FOUR passenger doors in right side
Body Painting	E-coating technology, painted in green and Mofat logo as above indicated
CHASSIS SYSTEM	
Engine	CNG engine, Euro V, rear mounted, 6 cylinders direct line Rated power: approx.340HP (250Kw)/1900-2100rpm, Max torque: 1350-1500N.m/1200-1500rpm, Displacement: mini. 8.9L
Transmission	Germany brand Voith Automatic Gearbox
Retarder	Hydraulic Retarder, integrated in AT
Suspension	Air Suspension
Axles	Front 6.5T / Rear 13T / Supportive axle
Tire	295/80R22.5
Wheel Size	22.5 X 8.25
Steering	BOSCH Power steering
Brake System	WABCO/Knorr ABS and braking valves
BODY & INTERIOR	
Interior Design	Golden Dragon Articulated City bus interior design
Driver Seat & compartment	Premium adjustable driver seat with shock absorption, 3-point seatbelt Driver compartment on the right-hand side
Seat & Passenger Capacity	36 passenger seats + 5 folding seats, Standard city bus seats, edgeless design, capable of 165 Passengers including standing
Handrails in passenger cabin	Equipped in passenger cabin for standing passengers
Flooring	Premium anti-slipping, wear-resisting flooring
Windscreen	Front: left & right pieces Rear: sealed with tempered glass
Driver Window	Sliding window with tempered glass
Side windows	Half-sliding windows with tempered glasses
Front Windscreen Sun Visor	Equipped for driver side
Side windows Curtain	No side window curtain
Passenger door	Pneumatic control doors
Articulation	Equipped with premium Articulation
Entry & exit Step	THREE steps from ground; NO step from BRT platform
Luggage Compartment	None
Rear view Mirror	Power controlled

(outside)	
Fire Extinguisher in passenger cabin	Mini. 4 units
ELECTRICAL SYSTEM	
Video & audio System	AM/FM radio
Reversing & CCTV cameras	Equipped with reversing & CCTV cameras displaying in dashboard
Destination Line Display (outside)	Front & rear & right-side programmable LED display
Destination Line Display (inside)	Two, front & rear
Drop-off call	Equipped
Air Condition	Equipped, roof mounted, with cooling capacity of max.58000Kcal/h
ITS (Intelligent Transport System)	Not included

Image 7: Side and interior images of the 12-metre CNG BRT bus by Golden Dragon

Bus Stations

The bus stations will be managed by the Mofat and will be fitted with CCTV cameras. In addition, Station Attendants will be stationed at to facilitate the issuance of prepaid ticket cards, control the movement of passengers in the station, offer signage sensitization,

The turnstiles fitted at the entry of the stations will control the movement of passengers into and out of the station. There is need to ensure that there is power backup to avoid failure of the turnstiles.

The stations will also be fitted with servers, computer, ticket vending machines and the requisite software infrastructure to facilitate seamless communication of the hardware.

Ticket card issuance

In order to avoid revenue leakages and enhance service delivery, we propose to ensure the entire system is cashless. Passengers will be issued with prepaid cards that will be used to access the stations. The cards can be loaded through mobile money, banks and also over the bank counters in Dar es Salaam.

Conclusion

The population in the city is growing at an annual average of 5%. This puts a lot of pressure on the government and DART to be proactive in addressing the challenges that the growth poses.

Cognizant of the fact that there would be challenges in the operation of the BRT service, we have put measures in place early warning signaling framework that will necessitate corrective measures to address the challenges.

We are open to discussing with the DART, government and other stakeholders to ensure we work together to arrive at solutions that will ensure the project continues to offer the intended service to the beneficiaries.

CHAPTER THREE: FINANCIAL ANALYSIS

Project financial model

A robust financial model has been developed to support decision making for the project. The model is built using key assumptions some of which have been verified by actual surveys and correspondence with the project beneficiaries and stakeholders. Other assumptions have been picked from models of similar projects across the globe.

Below is a summary of the key assumptions of the model:

Macro-economic indicators

a) Average annual inflation:	3.12%
b) Average exchange rate USD/TZS, March 2024:	2,450
c) Average annual GDP growth, 2025:	5%
d) Average population growth:	5% (Dar es Salaam)
e) Current bus fare in TZS:	1000

Project financing assumptions

a) Proportion to be financed through debt:	90%
b) Proportion to be financed through debt:	10%
c) Cost of capital (USD):	11%
d) Letter of credit arrangement fees:	2% (one off)
e) Standby Letter of Credit (SBLC) issuance fees:	1% (one off)
f) SBLC annual fees:	1.8% p.a
g) Annual Debt Service Coverage Ratio (ADSCR):	1.1:1

Capital expenditure assumptions

a) Cost Insurance Freight (CIF) price of 18-metre CNG BRT bus:	US\$ 290,000
c) Exception on excise duty and Value Added Tax (VAT):	To applied
d) Number of 18-metre buses:	255
f) Passenger capacity of 18-metre bus:	165

Operating expenses assumptions

a) BRT access fee:	TZS. 43,000,000
b) BRT Operator & Fare Collector fee:	7% of the ticket revenues

Revenue generation

The Mofat will generate revenue through the below broad streams:

- a) Fare collection
- b) Non fare collection including advertisements

Mofat can recover its investment in the project as follows:

- a) Based on passengers using the service

Based on passengers using the service

Under this model, the system installed by the Fare Collector will automatically charge each passenger using the service a one way fee that will be fixed by the LATRA, currently capped at TZS. 750.

Based on the financial modelling undertaken, in order to make the project viable, we recommend that the fee be increased to TZS. 1,000. This will enable the Mofat to repay the debt by the 5th year compared to the 7th year if the fee is maintained the current level of 750.

The proposed fare collection and payment arrangement is as indicated in Figure 2 below:

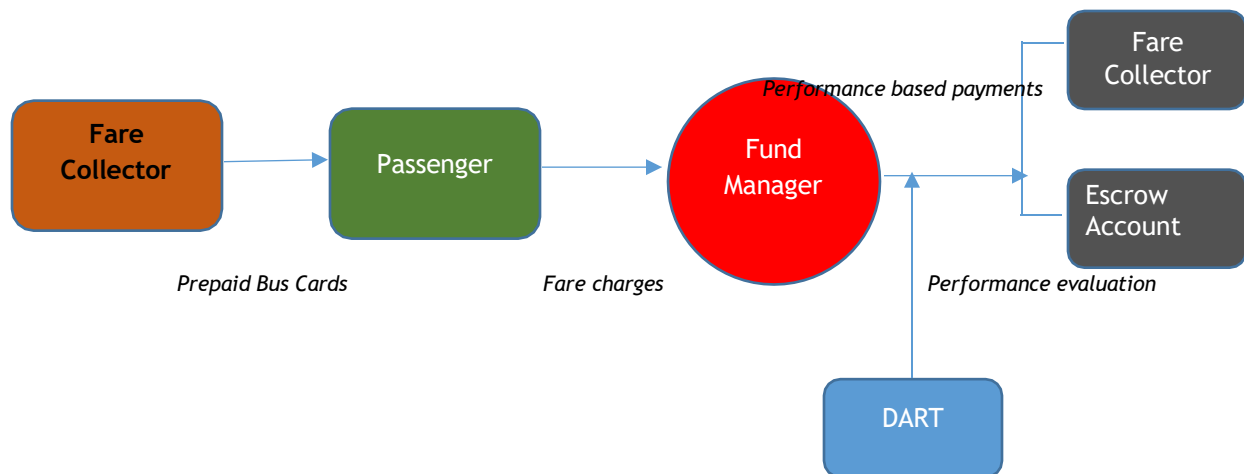


Figure 2: Proposed contractual fare collection arrangement

In order to estimate the number of passengers that will use the service, we have classified a working day into 8 different sessions, each characterized by different passenger numbers. For each session, based on the passenger numbers, different number of buses have been assigned for service, with fewer buses on the road during the off peak and weekends. This will enable efficient use of the fleet and enable functions like refueling and minor servicing to be done on the idle fleet.

In order to estimate the number of passengers using the service, a base case average ridership level of the going and return trip has been calculated using the below formula:

$$\text{Average ridership} = (\text{Going bus occupancy level} + \text{Return bus occupancy level})/2$$

In order to estimate the number of passengers, the following formula has been used:

$$\text{Total passengers} = \text{Number of buses} \times \text{Average occupancy} \times \text{average number of passengers per bus}$$

Different assumptions have been used for the extreme scenarios namely the best and worst case scenarios as will be detailed in the sensitivity analysis.

Once the entire fleet is delivered and operational, the buses will transport an average of 556,920 per day, translating to 16,150,680 passengers per month. This is expected to increase by an average rate of 5% every year.

Based on the bus delivery schedule, total revenue generated from the passenger fares in the first 12 years is as indicated in Table 8 on the next page.

The Model is favourable to Mofat as it will own the project in 100% then paying other partners including DART (The Government),

This is the model which the government adopts now, they want the investor to supply the buses, Operates, Collects the fares and maintain the buses then being paying them an agreed access fee which is favourable to both parties but the motive is to provide quality services to the public.

Based on Kilometres covered

A review of case studies of successful BRT projects across the globe indicate that a number of them have used this model to compensate Mofat.

We recommend the application of this model so as to cushion Mofat from low passenger numbers especially during the off-peak periods and weekends. This will enable Mofat maintain the required service levels even during off peak periods.

For this model to work efficiently, all the buses will be fitted with verifiable mileage readers that will be audited by both the and DART. We recommend that, on review and approval of the mileage covered, DART should authorize weekly payments to the Mofat so as to guarantee cash flow liquidity.

Using financial modelling, and using the proposed bus scheduling plan, in order to guarantee the viability of the project, a standard fee of US\$ 1 per kilometer covered should be paid to the S.

In conclusion, the Government wants an Investor to supply, operate and collect the fares and pay all it partners including the government. So access fee model is chosen and will be applicable in this project.

Table 7: Bus Scheduling and Allocation during Week and Weekend Days

Session	Start	End	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Hours
Session 1	5:00 AM	6:00 AM	25%	25%	25%	25%	25%	25%	20%	1
Session 2	6:00 AM	10:00 AM	100%	100%	100%	100%	100%	100%	70%	4
Session 3	10:00 AM	16:00 PM	80%	80%	80%	80%	80%	80%	70%	6
Session 4	16:00 PM	19:00 PM	100%	100%	100%	100%	100%	100%	50%	3
Session 5	19:00 PM	20:00 PM	70%	70%	70%	70%	70%	70%	70%	1
Session 6	20:00 PM	22:00 PM	50%	50%	50%	50%	50%	50%	50%	2
Session 7	22:00 PM	24:00 PM	25%	25%	25%	25%	25%	25%	25%	1

Table 8: Fare collection in 12 years of operation amount in '000

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Fare revenue in US\$	81,833	85,925	90,221	94,732	99,469	104,442	109,664	109,664	109,664	109,664	109,664	109,664

Project Capital Expenditure (CAPEX)

Procurement of buses + Capex

The project's capital expenditure comprises of cost of procurement of the BRT buses as indicated below:

Bus type	No.	CIF price in US\$	Total cost in US\$
18- metre	200	290,000	58,000,000.00
ITS & AFC	27 Stations	2,200,000	2,500,000
CNG Stations	1	1,300,000	1,800,000
Stations Mgt	27	200,000	200,000
Total	200		62,250,000.00

Table 9: Cost of procurement of buses = Capex in US\$

In order to enhance the viability of the project, we recommend the granting of exemption of excise duty, Value Added Tax (VAT) and clearance charges for the bus consignment. If this is not granted, the project will cease to be viable and will require government subsidies.

Installation of CNG refueling stations

With regards to the supply of CNG, Mofat has negotiated and agreed with a local supplier who will install a refueling station at the two depots. Depending on the negotiations with DART, the supplier has agreed to have the stations functional three months after issuance of all the requisite permits by the relevant government agencies.

Installations of ITS & AFC

AFC

Each stations must be installed an AFC (Automated Fare Collection) gates, this is very crucial as the money will be collected from this point. Each stations will have gates where passengers will be scanning their cards and the machine will deduct the money from the card and send it to the integrated account as directed.

ITS

This is intelligence Transport system, will help monitoring of the buses through out the trip, will also look at the traffic,inform the passengers timing of the buses, will also show which stations has more passengers at a specific time. So it is crucial in running the business effectively and smoothly.

Stations Managements

In order to perform all of the above all the stations must have internet and other corresponding devices which might be in the stations.

Operating and administration expenses

Under the base case scenario, the project's operating costs for the 12 year period is as indicated in Table 10 on the next page.

In order to guarantee liquidity in the first two years of operation, we recommend the Government through the DART to waiver the road access fee so as to consolidate the cash flows to address unforeseen challenges that might adversely impact on the project.

Table 10: 12 year operating expenses for the proposed BRT project: Base Case Scenario

Figures in 000' of US \$	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Distribution
Procurement of Gas	9,007	13,004	13,540	14,099	14,680	15,285	15,915	16,572	17,255	17,966	18,707	19,537	185,567	49%
BRT Operator fees	2,718	4,014	4,295	4,595	5,308	5,573	5,852	6,144	7,097	7,452	7,824	8,215	69,087	18%
Bus maintenance	2,836	6,184	4,280	8,550	6,299	6,631	3,491	7,879	6,626	6,439	5,644	6,819	71,677	19%
DART fees (Road access)	2,279	2,373	2,471	2,573	2,679	2,789	2,904	3,024	3,149	3,279	3,414	3,565	34,498	9%
Personnel expenses	612	612	643	643	707	707	707	707	707	707	707	707	8,168	2%
Contracted services	377	664	692	721	751	783	816	850	886	923	962	1,005	9,431	2%
Administration expenses	180	252	288	300	312	325	339	353	367	382	398	416	3,912	1%
Total operating expenses	18,010	27,103	26,209	31,480	30,737	32,094	30,024	35,529	36,086	37,148	37,656	40,264	382,340	100%

Table 11: 12 year operating expenses for the proposed BRT project: Worst Case Scenario

Figures in 000' of US \$	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Distribution
Procurement of Gas	9,007	13,004	13,540	14,099	14,680	15,285	15,915	16,572	17,255	17,966	18,707	19,537	185,567	50%
BRT Operator fees	2,289	3,379	3,616	3,869	4,469	4,692	4,927	5,173	5,975	6,274	6,587	6,917	58,168	16%
Bus maintenance	2,836	6,184	4,280	8,550	6,299	6,631	3,491	7,879	6,626	6,439	5,644	6,819	71,677	19%
DART fees (Road access)	2,279	2,373	2,471	2,573	2,679	2,789	2,904	3,024	3,149	3,279	3,414	3,565	34,498	9%
Personnel expenses	612	612	643	643	707	707	707	707	707	707	707	707	8,168	2%
Contracted services	377	664	692	721	751	783	816	850	886	923	962	1,005	9,431	3%
Administration expenses	180	252	288	300	312	325	339	353	367	382	398	416	3,912	1%
Total operating expenses	17,580	26,468	25,530	30,754	29,898	31,213	29,099	34,558	34,965	35,970	36,419	38,966	371,421	100%

Table 12: 12 year operating expenses for the proposed BRT project: Best Case Scenario

Figures in 000' of US \$	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Distribution
Procurement of Gas	9,007	13,004	13,540	14,099	14,680	15,285	15,915	16,572	17,255	17,966	18,707	19,537	185,567	47%
BRT Operator fees	3,148	4,648	4,974	5,322	6,147	6,454	6,777	7,116	8,218	8,629	9,061	9,514	80,007	20%
Bus maintenance	2,836	6,184	4,280	8,550	6,299	6,631	3,491	7,879	6,626	6,439	5,644	6,819	71,677	18%
DART fees (Road access)	2,279	2,373	2,471	2,573	2,679	2,789	2,904	3,024	3,149	3,279	3,414	3,565	34,498	9%
Personnel expenses	612	612	643	643	707	707	707	707	707	707	707	707	8,168	2%
Contracted services	377	664	692	721	751	783	816	850	886	923	962	1,005	9,431	2%
Administration expenses	180	252	288	300	312	325	339	353	367	382	398	416	3,912	1%
Total operating expenses	18,440	27,737	26,888	32,207	31,576	32,975	30,949	36,500	37,208	38,326	38,892	41,563	393,260	100%

Project financing

The project will be financed through a combination of debt and equity in the proportion of 90% to 10% respectively.

The equity component will be raised by the shareholders of the Mofat while the debt will be raised through financing solutions provided by both local and international lenders.

Local Major banks have shown an appetite in financing the project, CRDB is ready to furnish Mofat with 90% of an invoice amount of USD \$ 58,000,000.00 (Fifty Eight Million Dollars) which is CIF to Dar es salaam Tanzania. NBC bank is also ready to furnish Mofat with the 10% of an Equity to CRDB bank as to complete the 100% of the Total LC amount to Xiamen Golden Dragon Bus Company Limited

Mofat and partners have negotiated for a US denominated LC facility that will be backed by the project’s future cash flow streams. On procurement of the buses, the LC facility will crystalize into a term loan with interest chargeable at the rate of 11% p.a.

In addition, Mofat has also negotiated for a moratorium on the principal component corresponding to the first year while the interest component will be capitalized to be paid together with the debt.

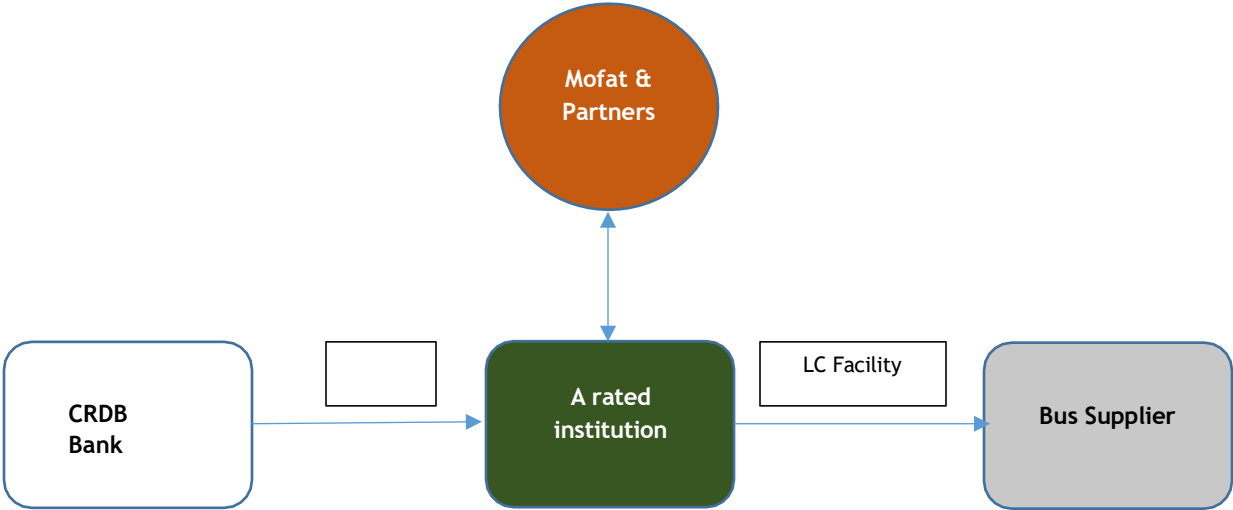


Figure 3: Proposed Financing Structure

Below is a breakdown of the financing mix and the corresponding interest:

- Total project debt: US\$ 62,200,000
- Total equity: US\$ 5,800,000
- Total interest cost: US\$ 6,842,000

Government support

Using financial modelling, we have determined the optimal debt size (equivalent to 90% of CAPEX) and also determined a sustainable repayment plan for the project. Under the base case scenario, using an Annual Debt Service Coverage Ratio (ADSCR) of 1.1:1, the debt will be fully repaid by the 5th year, leaving a tail of only 7 years for Mofat to enjoy returns from the project. The 3 years is not favorable for both the lenders and the investors of the Mofat.

For this reason, Mofat requests the government to make the following considerations:

- a) Increase the fares from Tzs. 750 to 1,000. This will allow repayment in a short time of about 4 to 5 years and making the project attractive to lenders.
- b) Issue exemption for excise duty, clearance and Value Added Tax on the procurement of the buses.
- c) Waive the Road Access Fee for the first two years of operation. This will lead to a saving of US \$ 4,652,077 that otherwise have to be injected by Government as Viability Funding.
- d) Create a revolving fund at the Fund Manager equivalent to three months payments, approximately USD. 19,591,836 that can be used as comfort for the providers of debt for the project.
- e) Issue, through an A rated institution, a guarantee equivalent to the value of the buses. The guarantee's value will be reduced at the rate of repayment of the facility.

Table 13 details the project debt sizing and repayment profile of the project over the 9 year period:

Net Present Value and Internal Rate of Return

The Net Present Value (NPV) is the present value of the net cash flows of the project generated over the 12 year period of operation. This has been arrived at by discounting the 12 years net cash flows attributable to Mofat, using a discounting factor of 11% corresponding to the cost of capital injected into the business.

Using the baseline assumptions, and assuming that the Government will grant exemption for excise duty and other taxes, the project will generate a positive NPV of US\$. 68,505,740, indicating a viable project.

In addition to the NPV, the Internal Rate of Return (IRR) has also been used to confirm the validity of the NPV findings. IRR is the estimated factor that will discount the future net cash flows of the project to post an NPV of zero.

Using the baseline assumptions, the project will generate IRR of 21.31%, above the cost of capital, signaling a viable venture.

We have stress tested the project in the worse case scenario yet the project shows viable indications as it generates an IRR of 18%.

Below is a summary of the IRR and NPV under the different scenarios:

	Base Case	Best Case	Worst Case
Net Present Value (US \$)	29,898,427	40,440,033	18,553,098
Internal Rate of Return	21.31%	38%	18%

Table 14: NPV and IRR for Base Case, Best Case and Worst Case Scenarios

Project Cash Flows

We have used a number of assumptions to develop a 12 year base line cash flow envelope of the project. Some of the baseline assumptions have been detailed in the sensitivity analysis indicated in this Chapter.

Table 15 details the project's cash flow model of the project.

Table 15: 12-Year Baseline Project Cash Flows Amount in USD \$ '000

Project receipts	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Total
Fare collection	81,833	85,924	90,220	94,732	99,468	104,441	109,663	115,147	120,905	120,905	120,905	120,905	1,265,048
Advertising & branding	250	250	250	250	250	250	250	250	250	250	250	250	3,000
Total receipts	82,083	86,174	90,470	94,982	99,718	104,691	109,913	115,397	121,155	121,155	121,155	121,155	1,268,048
Operating and administration expenses													
Procurement of Gas	9,007	13,004	13,540	14,099	14,680	15,285	15,915	16,572	17,255	17,966	18,707	19,537	185,567
BRT Operator fees	2,718	4,014	4,295	4,595	5,308	5,573	5,852	6,144	7,097	7,452	7,824	8,215	69,087
Bus maintenance	2,836	6,184	4,280	8,550	6,299	6,631	3,491	7,879	6,626	6,439	5,644	6,819	71,678
DART fees (Road access)	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	103,968
Personnel expenses	890	612	643	643	707	707	707	707	707	707	707	707	8,444
Contracted services	377	664	692	721	751	783	816	850	886	923	962	1,005	9,430
Administration expenses	180	252	288	300	312	325	339	353	367	382	398	416	3,912
Total operating expenses	24,672	33,394	32,402	37,572	36,721	37,968	35,784	41,169	41,602	42,533	42,906	45,363	452,086
Counter guarantee issuance fees	-	-	-	-	-	-	-	-	-	-	-	-	-
Financing arrangement fees	4,282	-	-	-	-	-	-	-	-	-	-	-	-
Counter guarantee annual fees	-	-	-	-	-	-	-	-	-	-	-	-	-
Guarantee and financing arrangement fees	4,282	4,282	4,282	4,282	4,282	4,282	-	-	-	-	-	-	25,692
Cash flows Available for Debt Service	53,129	48,498	53,786	53,128	58,715	62,441	74,129	74,228	79,553	78,622	78,622	75,792	790,270
Interest	-	6,280	6,280	6,280	6,280	6,280	-	-	-	-	-	-	31,400
Principal repayment	-	13,508	13,508	13,508	13,508	13,508	-	-	-	-	-	-	67,450
Post debt service equity cash flows	53,129	28,710	33,998	33,340	38,927	42,653	74,129	74,228	79,553	78,622	78,622	75,792	691,330

Table 16: 12- Year Project Cash Flows: Worst Case Scenario Amount in USD \$ '000

Project receipts	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Total
Fare collection	68,739	72,176	75,785	79,575	83,553	87,731	92,118	96,724	101,560	106,560	111,970	117,569	1,094,060
Advertising & branding	250	250	250	250	250	250	250	250	250	250	250	250	3,000
Total receipts	68,989	72,426	76,035	79,825	83,803	87,981	92,368	96,974	101,810	106,810	112,220	117,819	1,097,060
Operating and administration expenses													
Procurement of Gas	9,007	13,004	13,540	14,099	14,680	15,285	15,915	16,572	17,255	17,966	18,707	19,537	185,567
BRT Operator fees	2,718	4,014	4,295	4,595	5,308	5,573	5,852	6,144	7,097	7,452	7,824	8,215	69,087
Bus maintenance	2,836	6,184	4,280	8,550	6,299	6,631	3,491	7,879	6,626	6,439	5,644	6,819	71,678
DART fees (Road access)	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	103,968
Personnel expenses	890	612	643	643	707	707	707	707	707	707	707	707	8,444
Contracted services	377	664	692	721	751	783	816	850	886	923	962	1,005	9,430
Administration expenses	180	252	288	300	312	325	339	353	367	382	398	416	3,912
Total operating expenses	24,672	33,394	32,402	37,572	36,721	37,968	35,784	41,169	41,602	42,533	42,906	45,363	452,086
Counter guarantee issuance fees	-	-	-	-	-	-	-	-	-	-	-	-	-
Financing arrangement fees	4,367	-	-	-	-	-	-	-	-	-	-	-	-
Counter guarantee annual fees	-	-	-	-	-	-	-	-	-	-	-	-	-
Guarantee and financing arrangement fees	4,367	4,367	4,367	4,367	4,367	4,367	-	-	-	-	-	-	26,202
Cash flows Available for Debt Service	39,950	34,665	39,266	37,886	42,715	45,646	56,584	55,805	60,208	64,277	69,314	72,456	618,772
Interest	-	6,406	6,406	6,406	6,406	6,406	-	-	-	-	-	-	32,030
Principal repayment	-	14,858	14,858	14,858	14,858	14,858	-	-	-	-	-	-	74,290
Post debt service equity cash flows	39,950	13,401	18,002	16,622	21,451	24,381	56,584	55,805	60,208	64,277	69,314	72,456	512,452

Table 16: 12- Year Project Cash Flows: Best Case Scenario Amount in USD \$ '000

Project receipts	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Total
Fare collection	94,926	99,672	104,656	109,889	115,383	121,153	127,211	133,572	140,251	147,264	154,627	162,359	1,510,963
Advertising & branding	250	250	250	250	250	250	250	250	250	250	250	250	3,000
Total receipts	95,176	99,922	104,906	110,139	115,633	121,403	127,461	133,822	140,501	147,514	154,877	162,609	1,513,963
Operating and administration expenses													
Procurement of Gas	9,007	13,004	13,540	14,099	14,680	15,285	15,915	16,572	17,255	17,966	18,707	19,537	185,567
BRT Operator fees	2,718	4,014	4,295	4,595	5,308	5,573	5,852	6,144	7,097	7,452	7,824	8,215	69,087
Bus maintenance	2,836	6,184	4,280	8,550	6,299	6,631	3,491	7,879	6,626	6,439	5,644	6,819	71,678
DART fees (Road access)	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	103,968
Personnel expenses	890	612	643	643	707	707	707	707	707	707	707	707	8,444
Contracted services	377	664	692	721	751	783	816	850	886	923	962	1,005	9,430
Administration expenses	180	252	288	300	312	325	339	353	367	382	398	416	3,912
Total operating expenses	24,672	33,394	32,402	37,572	36,721	37,968	35,818	41,169	41,602	42,533	42,906	45,363	452,086
Counter guarantee issuance fees	-	-	-	-	-	-	-	-	-	-	-	-	-
Financing arrangement fees	4,282	-	-	-	-	-	-	-	-	-	-	-	-
Counter guarantee annual fees	-	-	-	-	-	-	-	-	-	-	-	-	-
Guarantee and financing arrangement fees	4,282	4,282	4,282	4,282	4,282	4,282	4,282	4,282	4,282	-	-	-	25,692
Cash flows Available for Debt Service	66,222	62,246	68,222	68,286	74,630	79,153	91,677	92,653	98,899	104,981	111,971	117,246	1,036,185
Interest	-	6,280	6,280	6,280	6,280	6,280	-	-	-	-	-	-	31,400
Principal repayment	-	13,508	13,508	13,508	13,508	13,508	-	-	-	-	-	-	67,540
Post debt service equity cash flows	66,222	42,458	48,434	54,842	59,365	59,365	91,677	92,653	98,899	104,981	111,971	117,246	937,245

Sensitivity analysis

The financial model has been stress tested to evaluate the resilience of the business model and also evaluate possible interventions that can be applied to make the project more successful.

We have considered three scenarios namely:

- a) Base Case Scenario (BCS): This is the baseline scenario that takes into account the current scenario surrounding the project
- b) Best Case Scenario (BCS): It assumes better outcomes that have positive impact on the project
- c) Worst Case Scenario (WCS): It assumes poor outcomes that adversely affect the project.

We evaluate the impact of each scenario on the project's NPV, IRR and Debt Repayment Period.

Base Case Scenario

The BCS assumes the following:

- Starting passenger numbers in year 1 of 197,288,160
- Cost of US \$ denominated loan of 11%
- Total cost of procurement of buses and Capex USD \$ 62,500,000
- Exemption of excise duty, clearance and VAT of the bus consignment

Based on the above assumptions, the project will post the outputs indicated in Table 18 below:

	Base Case Scenario
Passenger numbers, Year 1	197,288,160
Cost of debt (USD)	11%
Cost of procurement of buses + Capex (USD)	62,500,000
Outputs	
Cash inflows in US \$	80,372,116
Operating cost, Year 1	50,473,689
Debt repayment period in years	5
Net Present Value in US \$	29,898,427
IRR (%)	21.31%

Table 18: Sensitivity analysis results under Base Case Scenario

Worst Case Scenario

The WCS assumes the following:

- A 16% drop in starting passenger numbers in year 1 to 165,722,054
- A 2% increase in the cost of US \$ denominated loan to 13%
- A 10% increase in the total cost of procurement of buses+Capex 62,500,000
- Exemption of excise duty, clearance and VAT of the bus consignment

Based on the above assumptions, the project will post the outputs indicated in Table 19 below:

	Worst Case Scenario	
Passenger numbers, Year 1	Drop by 16%	165,722,054
Cost of debt (USD)	Increase by 2%	13%
Cost of procurement of buses (USD)	Cost increase by 10%	68,750,000
Outputs	Indicator	
Cash inflows in US \$	Drop by 16%	67,512,577
Operating cost, Year 1	Drop by 3%	48,959,478
Debt repayment period in years	Not viable	8
Net Present Value in US \$	Not viable	18,553,098
IRR (%)	Not viable	18%

Table 19: Sensitivity analysis results under the worst case scenario

Best Case Scenario

The BCS assumes the following:

- A 16% increase in starting passenger numbers in year 1 from the baseline numbers to stand at 228,854,265
- A 2% drop in the cost of US \$ denominated loan to 9%
- A 10% drop in the total cost of procurement of buses from the baseline cost to US \$ 56,250,000
- Exemption of excise duty, clearance and VAT of the bus consignment

Based on the above assumptions, the project will post the outputs indicated in Table 20 below:

	Best Case Scenario	
Passenger numbers, Year 1	Increase by 16%	228,854,265
Cost of debt (USD)	Reduce by 2%	9%
Cost of procurement of buses + Capex (USD)	Reduce by 10%	56,250,000
Outputs		
Cash inflows in US \$	Increase by 15%	92,427,933
Operating cost, Year 1	Increase by 3%	51,987,900
Debt repayment period in years	Reduction by 2 years	4
Net Present Value in US \$	Increase by	40,440,033
IRR (%)		38%

Table 20: Sensitivity analysis results under the worst case scenario

Analysis and conclusion based on sensitivity analysis

On the other hand, an increase in the passenger numbers has a significant impact on the viability of the business. From the findings, other factors held constant, a 16% increase in the passenger numbers will have a significant impact on the debt repayment period, NPV and IRR of the project.

From the results of the sensitivity analysis, it is clear that relying on the passenger numbers to compensate Mofat has to be carefully evaluated because the business is very sensitive to a drop in the baseline passenger numbers. A 16% drop in the passenger numbers will render the business not viable leading to the collapse and bankruptcy of Mofat.

In conclusion, should the government want to opt for the passenger compensation model, by supporting Mofat in other ways since having the Passenger's Guarantee seems to be mission Impossible. The Government may have Mofat exempted from all taxes in early years as they assess the business, this will helps Mofat in the loan repayments and meets its other daily obligations.

In addition, the exemption of the government taxes is very critical for the success of the business. Should this not be granted, the model will not be viable.

CHAPTER FOUR: RISK ALLOCATION AND MANAGEMENT

Background

The project is susceptible to a number of risks that might impact on the ability of Mofat to deliver the contractual service levels. For the project to be successful, it is important that a holistic view is done on the real and potential risks that might impact on the project during the tenure of the contract.

According to global best practices and analysis of the successful BRT projects across the globe, risks are allocated to the party that is best placed to manage the risk. This will enhance the efficiency in managing the risk thus ensuring the success of the project.

Table 21 below details the proposed risk allocation matrix together with suggestions for effective management of the said risks:

Risk	Definition	Management mechanism	Government	Mofat
Demand risk	Likelihood that the project will not attract sufficient passenger numbers if the Mofat is paid based on passenger numbers	Government to provide a Viability Gap Fund should the Passenger numbers fall below the baseline floor.	DART	
Price risk	Risk of the government prescribing a price that is below the baseline recommended rate	Consultation between Government and Mofat before adjusting the prices	DART	
Environmental risk	Likelihood of interference of the project as a result of environmental hazards like floods	Continuous review of the infrastructure design to ensure it is resilient to erratic weather patterns	DART	
Ineffective infrastructure	The inability of the infrastructure on the corridor to serve the BRT service i.e poor design of the trunk road, platforms, stations, bus yards etc	Continuous review and modification of the infrastructure to ensure effectively contributes to the success of the BRT service	DART	
Technology risk	Potential failure by the Bus Management Information System provided by Mofat to manage scheduling, routing and maintenance planning of the fleet	Deployment of top notch and tested systems that will guarantee quality service. Penalization of Mofat for failure to address the damages within an agreeable period.		Mofat
	Ticketing system hitches that might interfere with the loading and charging of the cards.	Thorough testing of the system before it can be approved for use. Tough penalties for system failures Having contingency plan should the main system fail		Mofat

	Failure of the BMIS and ticketing system due to lack of power in the stations	Having power backups to ensure uninterrupted supply of power to run the servers and supporting infrastructure	DART	
Terrorism risk	Disruption of the service and damage of the bus fleet and existing infrastructure by acts of terrorism	<ul style="list-style-type: none"> • Installing physical security and surveillance of the entire corridor to avert any acts of terrorism. • Having in place terrorism covers. 	DART	
Social risk	Disruption of the service and damage of the bus fleet and existing infrastructure by the public, aggrieved <i>dala dala</i> operators, unauthorized vehicles in the truck corridor	<ul style="list-style-type: none"> • Installing physical security and surveillance of the entire corridor to avert any acts by the public. • Taking insurance covers against public actions. 	DART	
Political risk	Interference of the smooth operations of the project due to action or inaction of government	<ul style="list-style-type: none"> • Having political guarantee in place provided by highly rated institutions like the Multilateral Investment Guarantee Agency (MIGA) of the World Bank to cushion the Mofat. • Ring-fencing the project against government decisions that might have an impact on the project i.e having blanket exceptions on tax changes that might adversely impact on the project. 	DART	

Forex risk	Risk of unfavorable forex fluctuations that might impact on the project especially where the project has to service the loan in a currency different from the currency of its cash inflows	<ul style="list-style-type: none"> • Having in place forex hedging solutions • Having price adjustment clauses that require government to adjust the fares/payments according to the forex movement. 	DART & Mofat	DART & Mofat
Social risk	Possibility that the project might adversely impact on the immediate community and business players along the route	<ul style="list-style-type: none"> • Having extensive stakeholder engagements to understand the affected parties' concerns and fears. 	DART	
Force majeure	Unforeseen events that might adversely affect the operations of the project	<ul style="list-style-type: none"> • Taking up insurance covers 	DART	
Capacity	Being the first PPP project by DART, there might be capacity challenges to effectively manage the Mofat and the project, adversely affecting the project	<ul style="list-style-type: none"> • Implement a training programme at both the Mofat and DART to ensure those in charge have the requisite skills to run the project • Engaging competent consultants to manage the project 	DART & Mofat	DART & Mofat

Financing	Inability by Mofat to raise the requisite financing to procure the buses and operate the project	<ul style="list-style-type: none"> • Effective structuring and modelling of the project to understand the financing requirement. • Having in place government support mechanisms to help the SPV close on financing. 	DART And Mofat	DART And Mofat
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Table 21: Risk Allocation Matrix

CHAPTER FIVE: SOCIAL AND ENVIRONMENTAL CONSIDERATIONS

Social consideration

The BRT service is a continuation of work that had been initiated by the TANROADS, Ministry of Transport and DART during the construction of the BRT corridor. Infrastructure projects such as this have significant positive and negative impact on the community. The project can either directly or indirectly impact on the citizens living in Dar es Salaam, the broader Tanzania and the world.

As a proponent of the BRT service, we are cognizant of this fact and we have taken various measures to ensure that we can enhance the positive impact that the project has on the people while trying to minimize the negative impacts that the project will have on the people.

Reduced travel time

The operation of the BRT service will significantly reduce the travel time of passengers using the route. It will eliminate the unnecessary loss of productive man hours that are currently lost due to the traffic congestion along the route.

Workers will be able to arrive to their work places on time, consequently enhancing productivity levels at their work.

Affordability

The proposed fare of TZS. 1,000 is relatively cheaper compared to what the passengers are currently paying to reach their homes and places of work. Some of the passengers have to have to pay more than 3,000 because they have to use multiple travel means before they reach their destinations, something that will be addressed by the introduction of the service.

Reduction of accidents

The introduction of the BRT service will significantly cut accidents along the route. Currently, dala dala operate in a haphazard manner endangering the lives of the passengers. Without BRT, passengers get on and off the vehicle on the side or in the middle of the road and often at random interval, which can cause danger to themselves and the surrounding traffic. With BRT, passengers will get on and off at terminals and stations, which decreases the risk of accidents with passing vehicles and significantly reduces boarding and alighting risk.

Job creation

The BRT project will create up to 2,000 direct jobs including drivers, cleaners, security officers, maintenance experts, human resource and managers. Additionally, it will create up to another 1,000 indirect jobs that will benefit locals in the city.

There is a program that DART and NIT College have in place, that all BRT drivers must attend a course at NIT college Mabibo Campus for safe driving, after graduating the course then they will start driving BRT buses. This process will help even dala dalas drivers to have an opportunity to work in the BRT.

Mofat will also work with DART in sensitizing dala dalas to form companies that can bid and operate the feeder network. This will minimize the job losses.

Stakeholder engagement sessions

Mofat appreciates the importance of engaging with the intended beneficiaries of the service so as to better understand their preferences, their concerns, interests and most importantly the challenges they face while commuting from their places of work to their homes.

Mofat in conjunction with DART will undertake a series of stakeholder engagement sessions with all the parties that are affected by the project either directly or indirectly. At the heart of the sessions will be the passengers of the BRT service. Attention will be to understand their acceptable fares, their expectation on the quality of service, and areas they think should be improved.

Collaboration with dala dala owners and operators

Another group would be the dala dala owners and operators from where we are going to draw drivers from. There is need to ensure that they are accommodated as partners in the last mile connectivity. Mofat will engage them early to ensure there is a spirit of working together to address the public transport challenge in the city.

Mofat will publish expressions of interest for drivers to apply for positions in the company. The information will be channeled through the dala dala association heads. All applicants will be treated fairly and based on merit.

Environmental benefits

Our proposition to use gas propelled buses will significantly reduce emissions to the environment. Currently most of the dala dalas along the route use poorly serviced diesel vehicles that emit carbon dioxide and other harmful gases to the environment.

In addition, the introduction of bigger capacity buses will transport many passengers thus cutting down the number of vehicle-kilometer travelled, leading to less emissions to the environment.

CHAPTER SIX: LEGAL DUE DILLIGENCE AND ANALYSIS

Legal framework

The proposed Public-Private Partnership (PPP) arrangement will be governed by the established PPP framework in the country that constitutes the PPP Act and the PPP Regulations 2020, PPP institutions and processes that define how PPP projects should be selected and managed in the country.

The PPP Centre and the PPP Committee are the focal centres created under the PPP framework that will oversee the review of the proposed transaction and ensure it conforms to the set regulatory requirements.

The PPP Acts will not be applied in isolation as there are other overarching legislations that will also apply. Being a public project, the Public Procurement Regulatory Authority (PPRA) has the powers to review the transaction and ensure that it offers value for money to the public. Additionally, the PPRA will monitor and supervise the activities of the DART to ensure it conducts the procurement effectively and in line with the public procurement laws.

Mofat Limited working with legal consultants have reviewed the regulatory framework in the country and identified the following laws that it has to conform with. Mofat will work with the consultant and those at the DART to ensure total conformity with all the laws of the land as listed in Table 22 below:

Ref.	Legal framework	Compliance by Mofat
1.0	Public Private Partnership Framework	The project will be procured through a PPP arrangement. The SPV will work with the consultants, PPP Centre, DART to ensure it complies with all the requirements as stipulated in the law.
1.1	Public Private Partnership Act (Cap. 103 R.E 2019)	
1.2	Public Private Partnership Regulations 2020	
2.0	Public Procurement Framework	The PPP Act has to be read and applied alongside the public procurement laws
2.1	Public Procurement Act (Cap. 410 R.E 2022)	
2.2	Public Procurement (Amendment) Regulations 2016	
3.0	Investment	
3.1	Tanzania Investment Act 2022	
4.0	Land	The provision of land that will host the trunk corridor, stations and depots is a responsibility of DART/Government of Tanzania. Mofat will require consent from DART to set up gas stations at the depots and also operating offices in the depots.
4.1	Land Act	
4.2	Village Land Act	
4.3	Land Acquisition Act	
4.4	Land Use Planning Act	
5.0	Local Authorities	

5.1	Local Government (Urban Authorities) Act	
5.2	Local Government Finance Act	
6.0	LATRA	The LATRA regulates all the land transport in Tanzania. Mofat will be required to ensure it complies with the requirements set out by LATRA including the setting of fares.
6.1	Land Transport Regulatory Authority Act, 2019	
6.2	Transport Licensing (Public Service Vehicles) Regulations, 2020	
6.3	Land Transport Regulatory Authority (Certification of Commercial Vehicle Drivers and Registration of Crew) Regulations, 2020	
7.0	Police	
7.1	Police Force and Auxiliary Services Act	
7.2	Fire Rescue Act, 2007	
8.0	Roads and Traffic	The Mofat will be required to comply with all the road use and traffic laws of Tanzania. All the drivers will be trained and undergo examination on their understanding of the road and traffic laws.
8.1	Roads Act, 2007	
8.2	Road Traffic Act, 1973	
8.3	Highway Code	
9.0	Transport	The Mofat will be required to be licensed to offer public transport. Additionally, all the drivers will have to be trained and licensed to drive the public buses.
9.1	Transport Licensing Act, 1973 and its amendments	
9.2	Transport Licensing (Road Passenger Vehicle) Regulations, 2007	The SPV will have to work closely with DART and LATRA to ensure all the requisite approvals are in place.
10	Fair Competition	The Mofat will ensure it does not engage in any activity, transactions or agreements that is interpreted as unfair competition in the market.
10.1	Fair Competition Act, 2003	
11	Corporate	The Mofat will be registered as a body corporate in Tanzania under the Companies Act. The legal entity will be required to comply with the requirements of the Act and all other interfacing laws.
11.1	Companies Act, 2002	
11.2	Capital Markets and Securities Act No. 5 of 1994	
12	Payments	
12.1	National Payment Systems Act, 2015	
12.2	Bank of Tanzania Act, 2006	
12.3	Foreign Exchange Act, 1992	
12.4	Foreign Exchange Regulations, 2022	
13	Environment	

13.1	Environment Management Act, 2004	DART has already undertaken the requisite environmental studies and acquired the environmental approvals to construct the corridor and the stations. The Mofat will have to operate the service in a manner that will not contravene the guidelines provided in the environmental approvals granted to DART.
14	Tax	The Mofat, a company that will be incorporated in Tanzania will be subjected to taxes at national and local authority level. Corporate tax will be applied to the Mofat at 30%, withholding fees at 5% for resident and 15% for non- resident, VAT at 18%. The Local Government Finance Act also empowers local authorities to charge fees for business entities operating in their jurisdictions.
14.1	Value Added Tax Act	
14.2	Income Tax Act	
14.3	Stamp Duty Act	
14.4	Tax Administration Act No. 10 of 2015	
14.5	East African Community Customs Management Act 2004	
14.6	Customs (Management and Tariff) Act	
15	Employment	The Mofat will employ up to 2,000 workers from Tanzania and abroad to run the project. The recruitment, compensation and dismissal of the employees has to be undertaken in line with the employment laws in Tanzania. The law sets out the rights and obligations of the Mofat and workers, the employment contract, wages, types of leave, holiday, probation, termination procedure, and trade unions, among others. The Mofat will strive to ensure they hire locals to operate the project. However, for skills that might not be available locally, the Mofat will contract the services of experts with a clear capacity building plan to empower locals. For foreign employees, the Mofat will seek their work and resident permits from the Ministry of Labour and Immigration Department and also adhere with the provisions of Non-Citizens Act.
15.1	Employment and Labour Relations Act	
15.2	Labour Institutions Act	
15.3	Non-Citizens (Employment Regulation) Act 2015	
16	ICT	In order to enhance connectivity and support digital solutions, the Mofat will invest in systems, servers, and digital platforms. The Mofat will ensure it does this in line with the ICT framework of the country.
16.1	e-Government Act No.10, 2019	
16.2	Data Protection Act, 2022	
16.3	The Cybercrimes Act, 2015	
16.4	The Electronic Transactions Act, 2015	
16.5	National ICT Policy, 2016	

		In addition, the Mofat will collect data of all the users during the registration of the bus cards. As such, Mofat will invest in technology to ensure protection of the data.
17	Oil and Gas	Mofat plans to use CNG powered buses. To efficiently fuel the buses, plans have been made to install gas stations at the depots. As such, the Mofat has to seek approval in line with the Petroleum Act to set up the stations. In addition, before the proposal is approved, Mofat has to demonstrate it has the requisite capacity to procure and source for gas required by all the buses. Additionally, the pricing of the gas procurement has to be done in line with the petroleum and gas regulations of Tanzania.
17.1	Petroleum Act, 2015	
17.2	Petroleum (Natural Gas Midstream and Downstream) General Regulations, 2020	
17.3	Petroleum (Natural Gas Pricing) Regulations, 2020	
18	Health and Safety	Mofat will ensure that its offices are duly registered as work places and that the necessary health and safety measures have been put in place to safeguard the safety of the workers and users of the service.
18.1	The Occupational Health and Safety Act, 2003	

Table 22: Legal framework in Tanzania

Registration, permits and licenses

On approval and award of the contract, the SPV will be required to apply for and acquire a number of permits and licenses in order to legally operate the service. Table 23 below indicates the permits and how the SPV will ensure their acquisition.

Registration/permit/ license	Definition and issuing party
Certificate of incorporation	Business Registration and Licensing Agency (BRELA). To be acquired within a month of award of the contract.
Business license	Business Registration and Licensing Agency (BRELA).
Land Transport Regulatory Authority (LATRA) license.	
Tax Identification Number	Tanzania Revenue Authority
VAT Certificate	Tanzania Revenue Authority
Workers' Compensation Fund Certificate	Workers Compensation Fund (WCF)
Social Security Registration	National Social Security Fund
Business and building permits	Dar es Salaam City Council
Work place registration	Occupational Safety and Health Authority (OSHA)
Compliance certificate	Occupational Safety and Health Authority (OSHA)
Fire safety certificate	Fire and Rescue Force
EIA Certificate	National Environmental and Management Council

Table 23: Permits and licenses

Dispute resolution and legal jurisdiction

Given the duration of the proposed contract duration, it is expected that disputes will arise. According to the PPP Act, disputes should be resolved through negotiation, mediation or arbitration by judicial bodies or other organs established in Tanzania and in accordance with laws of Tanzania.

In line with the amendments of the PPP Act, disputes that won't be solved through negotiation, by mutual agreement between the Mofat and DART will be submitted to arbitration. The seat of arbitration will be dictated by the lenders of the project in consultation with DART.

CHAPTER SEVEN: IMPLEMENTATION ROAD MAP

Mofat and partners have developed a robust plan that outlines the different activities that will be undertaken after the award of the contract.

Below are some of the key tasks

	Key Task	Party in charge
1	Submission of feasibility report	Mofat
2	Award of contract	DART
3	Incorporation of SPV	Mofat
4	Issuance of guarantees	Ministry of Finance/DART
5	Financial close	Mofat and partners
6	Manufacture and shipment of buses	Bus supplier
7	Testing and commissioning of buses	Mofat/DART
8	Set up of office, recruitment of staff	Mofat
9	Roll out of BRT service	Mofat/DART

Table 24: Key tasks to be undertaken

Table 25 in the next page is the proposed work plan for review with DART and the relevant government agencies:


Table 25: Roadmap of planned activities post award of contract

Activity	Party	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10
Submission of feasibility study	Mofat										
Review of feasibility study	PPP Centre & PPP Steering Committee										
Negotiation	Mofat, DART, PPP Centre & Committee										
Award of contract	DART/PPP Centre +Committee										
Inspection of corridor infrastructure	Mofat, DART										
Retrofit and completion of pending works	TANROADS, DART, Mofat										
Incorporation of project SPV	Mofat										
Application for permits and licenses	Mofat & DART										
Application and approval of Letter of Credit Facility	Mofat										
Application and issuance of guarantee	Ministry of Finance & DART										
Official order of BRT buses	Mofat										
Recruitment of management and operational staff	Mofat										
Training of staff	Mofat										
Recruitment of drivers	Mofat, DART										
Inspection and assessment of buses at factory	Mofat, DART										
Delivery of buses	Bus supplier, Mofat										
Testing and training of drivers	Mofat										
Commissioning of the project	DART, Mofat										
Project kick off	DART, Mofat										

APPENDICES

Appendix 1: Value Added Tax Registration Certificate

PROT 2018 CERTIFIED VAT 102


TANZANIA REVENUE AUTHORITY

**Certificate of Registration
for
Value Added Tax (VAT)**

(ISSUED UNDER SECTION 32(4) OF THE VALUE ADDED TAX ACT NO. 10 OF 2014)

**THIS IS TO CERTIFY THAT
MOFAT COMPANY LIMITED**

WHOSE TAXPAYER IDENTIFICATION NUMBER (TIN) IS
135-950-134


**HAS BEEN REGISTERED FOR VALUE ADDED TAX (VAT)
AND ASSIGNED VAT REGISTRATION NUMBER (VRN)**
40-030215-F


FOR BUSINESS LOCATED AT KWA JUMBE, KIGAMBE 1
DAK ES SALAAM

WITH EFFECT FROM 28 September 2018


GIVEN UNDER MY HAND

THIS 28th **DAY OF** September 2018


SILVANO U. NYANDU MBUYI
COMMISSIONER FOR VAT



FOR NATIONAL DEVELOPMENT

NOTE: THE REQUIREMENTS UNDER WHICH THIS CERTIFICATE IS ISSUED ARE STATED OVERLEAF


FOR NATIONAL DEVELOPMENT

Appendix 2: Tax Identification Certificate

CTIN: 1715362



TANZANIA REVENUE AUTHORITY

CERTIFICATE OF REGISTRATION
FOR
TAXPAYER IDENTIFICATION NUMBER (TIN)
ISSUED UNDER SECTION 23 OF THE TAX ADMINISTRATION ACT 2015

THIS IS TO CERTIFY THAT

MOFAT COMPANY LIMITED

HAS BEEN REGISTERED WITH THE TANZANIA REVENUE AUTHORITY
AND ASSIGNED THE TAXPAYER IDENTIFICATION NUMBER


136-950-134

WITH EFFECT FROM: 04 July 2018

TRA LOCATION: KINONDONI TAX OFFICE:

PHYSICAL LOCATION:

STREET / AREA: HOUSE NO. 1, KWA JUMBE, KIGAMB



ELISHA G. MWANDUMBIYA
COMMISSIONER FOR DOMESTIC REVENUE

NOTE THE REQUIREMENTS UNDER WHICH THIS OFFICIAL SEAL

Appendix 3: Certificate of Incorporation



TANZANIA



Register of Companies Detailed information

Information date and time: 31/01/2020 16:07:31
Registration date and time: 28/06/2018 07:46:10

1. Status:	Registered
2. Incorporation number:	136950134
3. Company:	MOFAT COMPANY LIMITED
4. Company type:	Private company Limited by shares
5. Registered office:	Region Dar Es Salaam, District Kigamboni, Ward Mjimwema, Postal code 17106, House No. 1, KWA JUMBE, KIGAMBONI DISTRICT COMMISSION OFFICE
6. Contacts:	Email: maktosh911505@gmail.com, Mob no/Tel no: 255713902200, P.O.Box 19875
7. Business activity:	4923 - Freight transport by road, Main activity 0150 - Mixed farming 0710 - Mining of iron ores
8. Directors / Directors in the country of origin:	MUHAMMAD ABDALLAH KASSIM, Tanzania FATHIYA ABOUD JUMBE, Tanzania
9. Company secretary / Company secretary in the country of origin:	MAHFOODH KOMBO MOHAMED, Tanzania
10. Authorised share capital:	100000 TZS
11. Class of shares:	Class Ordinary: 1000 shares, 1000 TZS/share, 1000000 TZS
12. Shareholders:	MUHAMMAD ABDALLAH KASSIM Class Ordinary 500 shares taken FATHIYA ABOUD JUMBE Class Ordinary 500 shares taken

Information ordered by: MUHAMMAD KASSIM

NOTE: Information printed from the Register of Company is true and complete as per extract generation date and time. Please be advised to refer to the Online Registration System at BRELA (ors.brela.go.tz) for an up-to-date information regarding given Company.



Princ. Asst. Registrar of Companies

Appendix 4: Business License



THE UNITED REPUBLIC OF TANZANIA

BUSINESS LICENCE

B.L. NO : BL01396912023-2400020791

The Business Licensing Act (Act No. 25 of 1972)

Issuing Office: KINONDONI MUNICIPAL COUNCIL

Tax Identification
No: 136-950-134

License Issued To : MOFAT COMPANY LIMITED

for the Business of : TRANSPORT(LIAISON OFFICE)

Business Location

Region : Dar es Salaam

Ward Msasani

Street Oysterbay

Principal/Branch : PRINCIPAL

Amount of Fee Paid : 80,000.00

Date Of Issue: 2023-10-19

Expiring Date : 2024-10-18



Appendix 5: Tax Clearance Certificate

 TANZANIA REVENUE AUTHORITY ISO 9001: 2015 CERTIFIED			
TAX CLEARANCE CERTIFICATE <i>(Issued Under Regulation 103 of Tax Administration (General) Regulations, 2016)</i>			
Licencing Authority; TIN : 100-252-295		Tax Certificate Number:	
STANBIC BANK TANZANIA LTD		141-0201-2847	
KINONDONI RD/ALI H. MWINYI RD		Issuing Office: Temeke	
72647		Telephone: 022-2861122	
DAR ES SALAAM		Date of issue: 18 April 2024	
		Expiry Date: 31 December 2024	
Taxpayer Name		MOFAT COMPANY LIMITED	
Trading Name			
Taxpayer Identification Number	138-860-134	Vat Registration Number	40-030216-F
Company Registration Number	860134		
Business Premises located at : REGION : DAR ES SALAAM, DISTRICT : TEMEKE, STREET : KWA JUMBE, KIGAMB			
This is to certify that the above registered Taxpayer has complied with tax laws and has been granted Tax Clearance Certificate with respect to the following business(es):			
1	Mining of iron ores		
2	Mixed farming		
3	Freight transport by road		
 Alfred T. Mregi COMMISSIONER FOR DOMESTIC REVENUE 18 April 2024			
			
Disclaimer :			
1. This certificate is issued free of charge			
2. This certificate should be tendered in its original form and it is valid only if it is embossed with QR Code			
3. This Tax Clearance Certificate shall not preclude the Commissioner General from demanding and recovering taxes established after issuance of this Certificate.			