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Challenges and Opportunities for the Integration of Commuter Minibus Operators into the Dar es Salaam City BRT System

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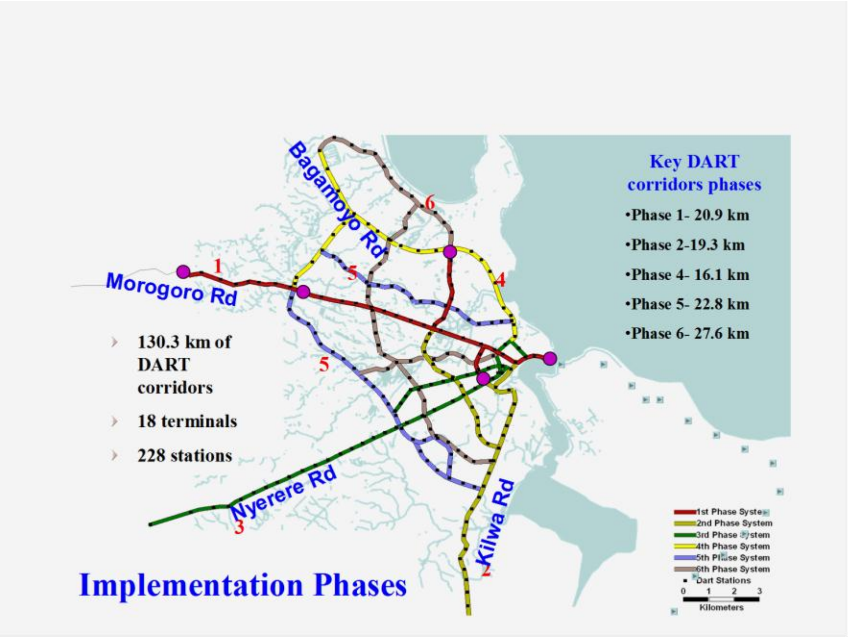
INTRODUCTION

Background to Dar es Salaam BRT System (DART)

- Dar es Salaam is the largest City in Tanzania with a population of about four million people. It covers an area of about 1,800 km^2.
- Public transport service in Dar es Salaam city has for many years been unsatisfactory.
- The public transport in the city is currently provided by about 5,000 licensed, small capacity and privately owned minibuses commonly known as 'Daladala'.
- The service offered is generally poor and unsafe, lacking professionalism, efficiency, quality and safety for the commuters.
- In 2003, DCC came up with the idea of introducing a BRT system in the city, currently being implemented by the Dar es Salaam Rapid Transit Agency (DART). The system is branded "DART".

- The project comprises of six phases which cover the six major corridors/ arterial roads.
- Phase one, currently under construction, will cover about 21 km of the main Morogoro road and the two branches



Operational Requirement for Phase I

Item	Articulated Buses	Feeder Buses
Fleet size (number)	145	221
Investment cost (US $ per bus)	275,000	70,000
Length of buses (m)	18	12
Capacity of buses (passengers)	140 - 160	50 - 60
Drivers	362	552
Conductors	-	552
Maintenance staff	72	110
Administrative staff	48	74
Depots (one per company)	2	
Companies (number)	2	

Significance of the Study

- Daladalas which currently operate along the proposed DART Phase I corridor will have to be integrated, re-routed or phased out
- Experience shows a lot of challenges emerge during implementation; from the former service providers and their employees
- A review of challenges will assist in avoiding/ mitigating the negative impacts of these changes to the system itself and stakeholders

REVIEW OF EXISTING PUBLIC TRANSPORT

Dar es Salaam Public Transport

- The present system is characterised by poor standards of comfort and safety, convenience and dignity for bus travellers
- Competitive behaviour by Daladala drivers (speeding, over-crowding and accidents)
- Most buses are second-hand and are likely to break down at any moment, causing interruption to ordinary traffic on roads
- The transport demand in Dar es Salaam is estimated at 2.9 million trips per day

- The modal share of public transport is 61% when “walk” trips are included and 82% when “walk” trips are excluded
- Daladalas carry ~1.4 million passengers per day
- The average travel time per trip is 77 minutes and waiting time mainly for transfer is 35 minutes.
- The average travel distance is 10 and 20 km
- The average travel speed of Daladala is 10 to 20 km/hr in peak hours
- Attitudinal surveys indicated that:
  - ~98% of Daladala passengers have no car and are captive to Daladala

- only 0.7% indicate a preference for Daladala over a car
- ~ 80% of passengers judge the current system as either unacceptable or at an unsatisfactory level

- There is a multiple of stakeholders that are in charge of urban transport:
  - Ministry of Transport in the area of transport policy and planning;
  - Tanzania Roads Agency (TANROADS) and Dar es Salaam City Council (DCC) in project implementation and road maintenance;
  - Traffic Police for traffic control and enforcement of the traffic regulations;
  - Surface and Marine Transport Authority (SUMATRA) for regulation of public transport.
- Each institution is faced with problems of lack of staff, lack of technical capacity, low funding, and little coordination between the institutions resulting in functional gaps.

Ownership of Daladalas

- There are 27 licensed commuter bus companies owning a total of 67 buses (~1% of the 5,000 currently licensed commuter buses)
- Most individual operators own less than 5 buses with the majority owning and operating a single bus
- ~85% of licensed commuter buses have a carrying capacity of less than 30 passengers

Management of Daladalas

- Daladala owners are required to submit legal contracts between them and the drivers to SUMATRA in order to get operating licences but this requirement is in most cases not complied by the owners.
- The majority of drivers work under a lease agreement where they have to pay the owner a fixed amount per day.
- Drivers and conductors work for up to 17 hours a day contrary to normal working hours. As a result, drivers and conductors have poor health resulting in safety problems and poor customer care.

Public Transport (Daladala) Routes

- The shortest registered route covers ~15 km and charges TZS 250 per trip for a tarmac road and 350 per trip for a rough road
- The longest trip is ~35 km charging TZS 450 for a tarmac road and 600 for a rough road
- About 775 km of the city’s roads are served by registered Daladalas. Daladalas operating in the registered routes are marked with specially coloured stripes that identify their origin and destination
- The remaining parts of the city, especially the suburbs, are served mainly by unregistered public transport like motorcycles, saloon cars and light trucks operating illegally

- Most unregistered routes begin where registered routes end, going farther into the interior mostly serving informal settlements
- Despite the poor road condition and the unsafe means of transport, the routes provide the much needed access to people in these areas
- Most buses operating in unregistered routes would not qualify for registration as Daladalas.

CHALLENGES TO THE INTEGRATION OF DALADALAS INTO BRT SYSTEM

- **Poor and Uncoordinated Institutional Setup**
  - Current PT institutional setup is neither clearly defined nor well coordinated
  - Each institution works independently resulting in gaps/overlap in responsibilities and ineffective management of the city PT
  - The situation makes the integration of Daladalas into the BRT system much more challenging
- **Fragmented Ownership of the Business**
  - Uniting Daladala operators for the purpose of forming companies becomes a daunting challenge

- **Capital Gap and Mistrust among Commuter Buses, Intercity Buses and Truck Operators**
  - Lack of adequate capital by Daladala owners and their resistance to include other transport operators makes the participation of locals difficult
- **Lack of Strategies by the Government to Empower Current Operators to Participate in DART Project**
- Despite the draft bidding documents specifying that foreign companies will have a maximum of 60% share in bus operation business (reserving 40% to locals), there are so far no efforts to empower current commuter service providers to participate in the DART project

- **Lack of Adequate Promotion of the Project and Awareness by Stakeholders**
  - About 60% of Daladala owners do not have enough information on the envisaged DART operations
  - Awareness among the public will also enhance support for and participation in the project
- **Lack of Knowledge on Formation of Companies and Experience in Operating PT Systems**
  - It is difficult for the operators to build a corporate structure suitable for operating the DART system without the cooperation of investors and international companies with proven experience on BRT systems
  - More than 90% of operators are not organised managementwise and are not transport professionals, making it difficult for them to understand the advantages of participating in the DART project

- **Lack of Professionalism**
  - Daladala operations are currently carried out by non-professionals
  - Anyone is allowed to get into the industry regardless of the expertise that is required, making integration into the BRT system or operation on feeder routes difficult
- **Prolonged Implementation of the DART Project**
  - The idea was conceived in 2003 and the long wait has made stakeholders lose confidence in the project
- **Taxes, Levies and Fees**
  - Import duty and VAT are charged on buses but not on trucks (considered to be capital goods although the investment is relatively lower)
  - The situation makes it difficult for existing operators, with a low capital base, to take part in the project through acquisition of buses

- **Poor Road condition**
  - As only 25% of the city roads are paved and most are in poor condition, resistance to relocation of Daladalas to alternative routes should be expected
  - Most of the roads that have been earmarked as feeder roads to DART Phase One are in poor condition and some do not have terminals/ bus stops
- **Loss of Jobs and Lack of Skills by Drivers and Conductors**
  - How new jobs will be created once 3,295 buses are replaced in Phase I
  - Most drivers and conductors lack skills to allow absoption into the new DART system or be deployed elsewhere

- **Old and Polluting Bus Fleet**
  - Only 10% of the fleet is less than ten years old.
  - Retaining the old fleet of vehicles through relocation to other routes, is not be environmentally preferable
- **Poorly Designed Network Routes**
  - Current operating routes are characterised by very long trips, too short routes and a duplication of parallel routes serving the same demand
  - The number of currently operating Daladalas does not reflect the actual demand; making relocation of affected Daladalas into other routes difficult since a clear picture of the balance between demand and supply does not emerge

- **Identifying Affected Drivers and Conductors**
  - Daladala drivers are changed so frequently that it is difficult to know who will finally be affected unless identified close to the start of DART system
- **Identifying Affected Owners**
  - Ownership of Daladalas changes so frequently with no formal change in the motor vehicle registration card. As a result, owners that appear in official documents are different from the actual owners, making identification of affected owners rather complicated
- **Potential for Lack of Interest by Financial Institutions**
  - Many financial institution are unlikely to participate in the scheme since BRT is an unknown field and it is difficult to predict the demand for transport and therefore income. This will negatively affect current Daladala operators who have very little capital

OPPORTUNITIES FOR INTEGRATION OF DALADALAS INTO BRT SYSTEM AND OTHER ALTERNATIVES

- **Availability of Routes for Re-routing Affected Daladalas**
  - There is an adequate number of routes where affected Daladalas from Phase I corridor could be re-routed to
- **Re-routing Daladalas to Unregistered Routes**
  - If the condition of the roads on unregistered routes were improved and the routes officially registered, the affected Daladalas could be shifted or relocated to the routes as a cost-effective option for dealing with the affected Daladalas
- **Scrapping the Current Old Fleet**
  - Given the current condition of the commuter bus fleet, consideration should be given to the option of scrapping the vehicles instead of re-routing them
  - If funding for scrapping could be found, the DART project presents a great opportunity for reducing pollution and enabling the participation of current operators

- **Improved Public Transport Network and Bus Sizes**
  - There is an opportunity for improving the existing PT through re-design of the network routes in line with the demand and introduction of buses of right sizes
- **Relatively Formal and Regulated PT**
  - Compared to most paratransit in the world, Daladalas are relatively more formalised and regulated i.e. are licensed, assigned routes and have an owners association making it easy for the Government to negotiate with them
- **Cooperative Alliances**
  - With the emergency of cooperative savings societies in Tanzania, there arises an opportunity for creating (through the operator association), cooperative alliances to consolidate operators into community groups or companies

CONCLUSION

- This paper has reviewed the challenges and opportunities for the participation of commuter minibus (Daladala) operators in Dar es Salaam city into the BRT (DART) system through integration into the system or by being offered equally promising alternative routes
- The review provides the basis for proper planning to make sure that existing operators are integrated or provided with alternative sources of income

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