PUBLIC TRANSPORT IMPROVEMENT, PLANNING AND OPERATIONS.

THE CASE OF THE DAR ES SALAAM RAPID TRANSIT (DART) PROJECT

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PRESENTATION OUTLINE

1. Background information
2. BRT Planning and Designing
3. DART Operations
4. Institutional set up
5. Private sector involvement
6. Interim Service Provision
7. Advantage of DART System
8. Key success factors
9. Conclusion
BASIC INFORMATION

- **TANZANIA**
  - Area: 943,000 sq.kms,
  - Population – 45 million
  - Average Growth Rate - 2.9%

- **DAR ES SALAAM:**
  - Commercial city of Tanzania,
  - Generates about 80% of domestic revenue,
  - Has fastest growth of population and Vehicle ownership,
  - City population (2012) is 4.4M, growth rate is 5.6%.
One of the fastest-growing cities in the world (5.6% growth per year)

Dar es Salaam population (historical and projections)

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
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<tbody>
<tr>
<td>2002</td>
<td>2.5 mln</td>
</tr>
<tr>
<td>2012</td>
<td>4.4 mln</td>
</tr>
<tr>
<td>2030</td>
<td>6.0 mln</td>
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<tr>
<td>2050</td>
<td>10.0 mln</td>
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70% of the country’s GDP is produced in Dar es Salaam

Main transport hub and gateway of Tanzania

Dar es Salaam ranked by New York Times among Top 52 Places to Go in 2014

Great living environment
TRANSPORT MODAL SPLIT

Modal Split (2005)

Car Ownership in DSM metropolitan area.

74,000 private vehicles ownership (2005 study)

It was expected to increase to

171,000 by year 2015,

and near 515,000 by year 2030.

levels of vehicle ownership

25 cars per 1,000 persons in year 2007

89 cars per 1,000 persons by year 2030.
PUBLIC TRANSPORT IN DAR ES SALAAM

- Mostly informal sector
- Disparate modes with very little coordination:
  - Daladalas (mid-sized buses)
  - Bodabodas (motorbikes)
  - Bajajis (three-wheelers)
  - Taxis
  - Train
  - Ferry

- The system is starting to reach its limits:
  - Growing demand
  - Heavy congestion on the roads
  - Pollution

→ Need for a modern, efficient and environment-friendly public transportation system
Daladala routes follow spine roads, aggravate congestion condition
THE PLANNING PROCESS, who is involved

Government Institutions
- Give definitions of problems
- Guide prioritization
- Guide the planning and develop alternative plans

Practical steps: What we did
- Understanding the concept,
- Developing the Vision,
- Engaging decision makers
- Engaging communities
- Developing the integrated Plans

Associations and Private Sector
- Prioritize issue
- Give account of what the plan should contain going to happen,
- Provide information on how the project will affect them,
- Fulfil obligations,
- The driving force behind stakeholders initiatives is the challenges experienced and the need to find a solution

Major Achievements
- Stake holder Consensus,
- Integrated transport plans which include NMT design,
- Development of effective Institution,
- Financial resource Mobilization,
- Capacity Building,
- Existing Operators are organizing themselves,
- Positive interventions towards reforms
A radical decision was made, which mass transit?
To address the challenges the city of Dar es Salaam is implementing a Bus Rapid Transit (BRT) system, branded *Dar Rapid Transit (DART)*.

- It is a Bus-based Mass Transit system which operates on exclusive lanes, using high capacity buses (>140 pax).
- DART has been designed as a Trunk & Feeder system.
To have a modern public transport system at reasonable cost to users using high capacity buses that are environmentally friendly, operating on exclusive lanes and run on schedule.
OBJECTIVES OF DART

- To *increase the level of mobility* of majority of residents enhancing their participation in a wide range of activities,

- To *promote the use of Non-Motorized Transport (NMT)* by providing and improving relevant facilities,

- To *meet the continuous increase of travel demand* of the City, and

- *Improve quality of urban development*, landscape and proper land use plans along the BRT corridor.
DART - IMPLEMENTATION PHASES

- 130.3 km of DART corridors
- 18 terminals
- 228 stations

Key DART corridors phases:
- Phase 1 - 20.9 km
- Phase 2 - 19.3 km
- Phase 3 - 23.6 km
- Phase 4 - 16.1 km
- Phase 5 - 22.8 km
- Phase 6 - 27.6 km
MULTI-CRITERIA FOR SELECTION OF PILOT CORRIDOR

**Transport needs (51.7%)**
- Current demand in the public transport corridor (48.5%)
- Servicing low income areas (26.1%)
- Travel time impact (25.4%)

**Easy to build (27.7%)**
- Easiness for construction (34.3%)
- Financial viability (30.0%)
- Qty daladala routes cancelled (20.4%)
- Gen. costs benefits (15.2%)

**Environment Benefits -(20.6%)**
- Qty of Demolitions (24.4%)
- Air and sound pollution (22.4%)
- Promote development urban areas (31.7%)
- Impact during construction (21.5%)
THE PLAN FOR DEVELOPING THE DART PROJECT IN DAR ES SALAAM HAD TEN CROSS SECTIONS TO MINIMISE RELOCATIONS
DSM BRT CHARACTERISTICS

- Fully dedicated right of way (busway)
- Alignment in the center of the road (to avoid typical curb-side delays)
- Stations with off-board fare collection (to reduce boarding and alighting delay related to paying the driver)
- Station platforms level with the bus floor (to reduce boarding and alighting delay caused by steps)
- Redesigned intersections (to avoid intersection signal delay)
• 7 trunk routes, 2 express and 5 local services
• 13 feeder routes and 4 feeder stations and 3 integration stations
• Average travel for trunk fleet – 44,000km/day
• Average travel for feeder fleet – 25,400km/day
• Average frequency, 33 trunk buses/hr- peak hr and 10buses/hr off peak
• Average operating of 23km/hr for trunk and 17km/hr for feeder buses
• Expected demand 500,000 passengers per day
INSTITUTIONAL SET UP

MoF, MWTC → SUMATRA → TANROADS

PO-RALG → DCC

DART Agency

PRIVATE SECTOR

BUS OPERATORS

FARE COLLECTOR

FUNDS ADMINISTRATION
HOW IS LOCAL INVOLVEMENT HARNESSED?

- Existing operators (incl daladalas) have been providing public transport solutions to the residents of Dar es Salaam for the last 30 years and therefore are important stakeholders in the project.

- Exclusivity arranged through non-renewal of annual SUMATRA licenses

- Objectives of the existing operator transition policy:
  - Avoid duplication of services
  - Ensure the competitiveness of the DART system
  - Guarantee the expected demand
  - Reassign resources to fast-growing areas of the city not covered by the DART system
- Reallocation of affected existing operators to other fast-growing routes

- Facilitation of corporatisation, formalisation and modernisation of the industry

- Setup of a training programme for affected drivers so that they can secure a license for driving DART buses

- Inclusion of local content criteria in Service Provider procurement process (up to 10% weight)
DART INVESTMENT OPPORTUNITIES

• Fare collection business, related facilities and electronic gadgets,

• Bus operation business and related services within and around the bus depots,

• Fund management and banking opportunities,

• Hotels and restaurants investments along the corridor, terminals and depots,

• Shopping mall and parking facilities along the corridor and around terminals.

• Advertisements
DART contracted local bus operator company (UDART).

May 2016 Interim Service Provisions started

100% local company with huge operations success
## INTERIM SERVICE BUS DEPLOYMENT

<table>
<thead>
<tr>
<th>Bus Types</th>
<th>Number of Buses</th>
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<tr>
<td>18 m hybrid buses</td>
<td>39</td>
</tr>
<tr>
<td>12 m hybrid buses</td>
<td>57</td>
</tr>
<tr>
<td>12m standard buses (Feeder Service)</td>
<td>44</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>140</strong></td>
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BRTS Operational Hours 7 Days a Week From 05.00 hrs to 24.00hrs
ADVANTAGES OF THE DART SYSTEM

- IMPROVED ACCESSIBILITY AND MOBILITY
- CONVENIENT AND SAFE PUBLIC TRANSPORT
- ECO-FRIENDLY TRANSPORTATION:
  - EMISSION REDUCTION

- EFFICIENT USE OF URBAN SPACE
KEY SUCCESS FACTORS

- The Government of Tanzania is very much committed to implement the project, Political commitment is an important aspect for success.

- Inclusion of the DART Project in the Big Results Now has significantly improved the image and perception of the project.

- Stakeholders participation and effective communication are instrumental in sustaining the developed vision and mission.
CONCLUSION

1. Strong and Dedicated Support from National and Local Government Leaders
2. Expertise Recognized by all stakeholders
3. Coordination and Teamwork
4. Comprehensive Planning and Creativities
5. Public Participation/Involvement
6. Intensive Works on Promotion and Marketing
7. Patience & Determinations
THANK YOU.