



Addressing City Smartness Through Rapid Transit Solutions

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COEX CONTINENTAL HOTEL ,SEOUL KOREA

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Introduction

Smart City Objectives

Make use of innovation and technology to address urban challenges to enhance city management and improve quality of living, sustainability, efficiency, and safety;

- Enhance city attractiveness to business and talent; and
- Inspire continuous city innovation and sustainable economic development.

Guiding principles:

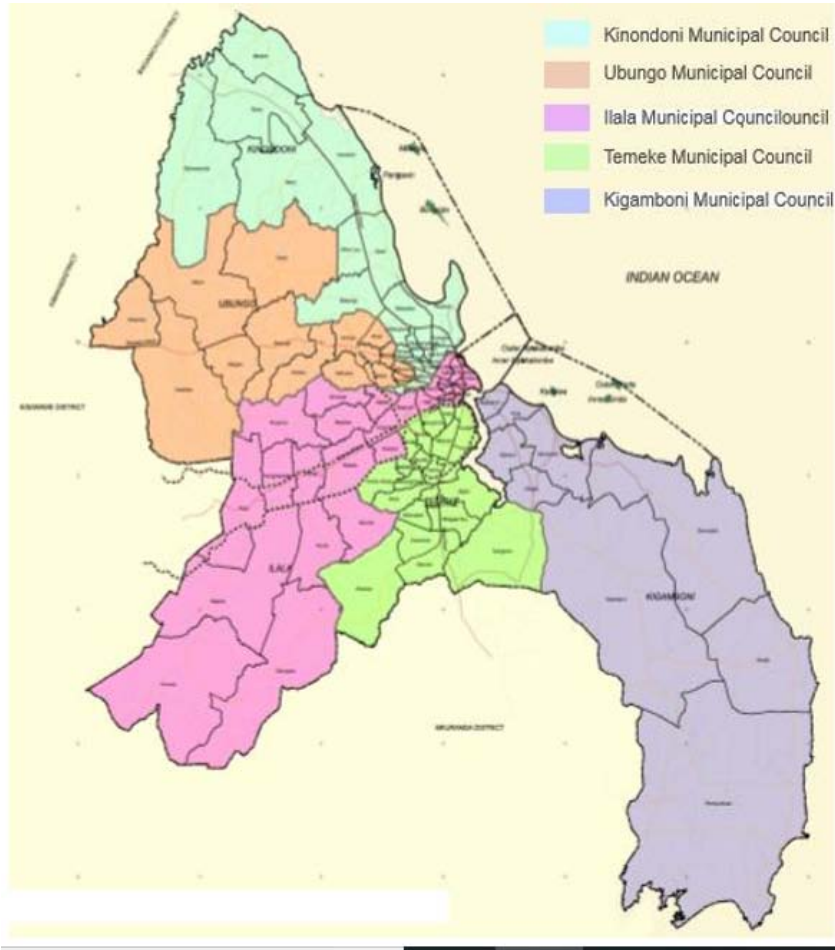
- People-centric
- High-level coordination
- Overall and long-term strategy
- Participation by all sectors
- Promotion of innovation and technology

Rapid Transit Solutions

- Enhance plans to boost the economy of Tanzania and also those of neighbouring landlocked countries
- Reduces travel time between cities, also between Cities and its periphery urban centers
- Help to de-congest the city
 - People work in the city but live in other remote areas
- Also reduces number of motor vehicles , leading to reduction in
 - Carbon emission
 - Road accidents



Dar es Salaam City Profile



- One of the fastest growing cities in the world. Average annual growth from 2002 to 2012 was 7.7%
- City's population is currently nearly 5 million.
- Dar es Salaam metropolitan area covers a large part of the city with a total area of 1,391 square kilometers and a population density of 3,133 per square kilometer.
- Economic growth in Dar es Salaam is estimated at 10% per annum, above the country average.
- Average Annual Vehicular Growth is around 19% per annum (2002-2015).

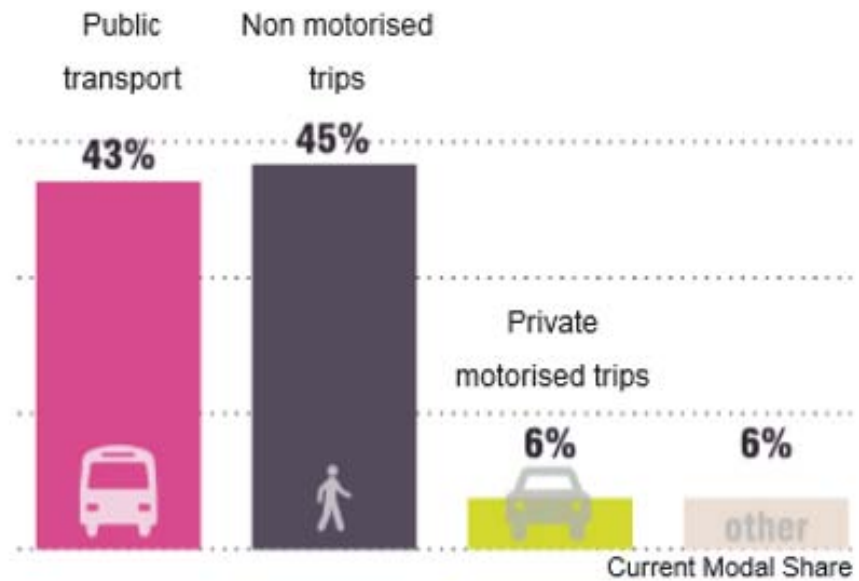
The history of Public Transport in DSM

Public Transport in Dar es Salaam(DSM) is dated back in 1949 with Dar es Salaam Motor Transport Company (DMT).

- DMT nationalized and UDA established in 1967.
- Private sector involved from 1983.
- Urban PT Challenges:
 - Poor roads and Insufficient infrastructure
 - Air quality and health issues.
 - Low capacity buses and no schedule services
 - Congestion



Current Public Transport In DSM



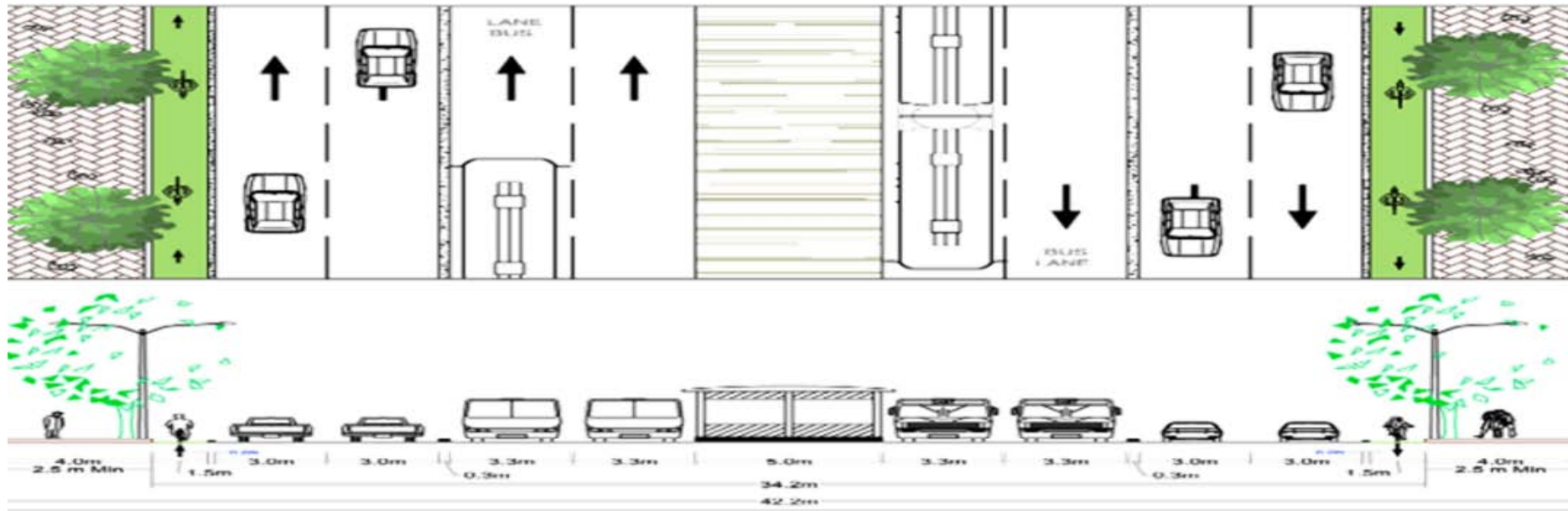
Current Public Transport Network

Rapid Transit Solutions in Tanzania



DART System - Characteristics

- Fully dedicated right of way (buses avoid traffic congestion) Alignment in the center of the road (to avoid typical curb-side delays - turnings, parking, slow moving vehicles)
- 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 delays)



Dart System Corridors

Six corridors with a total of 140.1 Km of Trunk lanes:

Phase 1: Morogoro Road, Kawawa Road North, Msimbazi Street, Kivukoni Front – 20.9 km

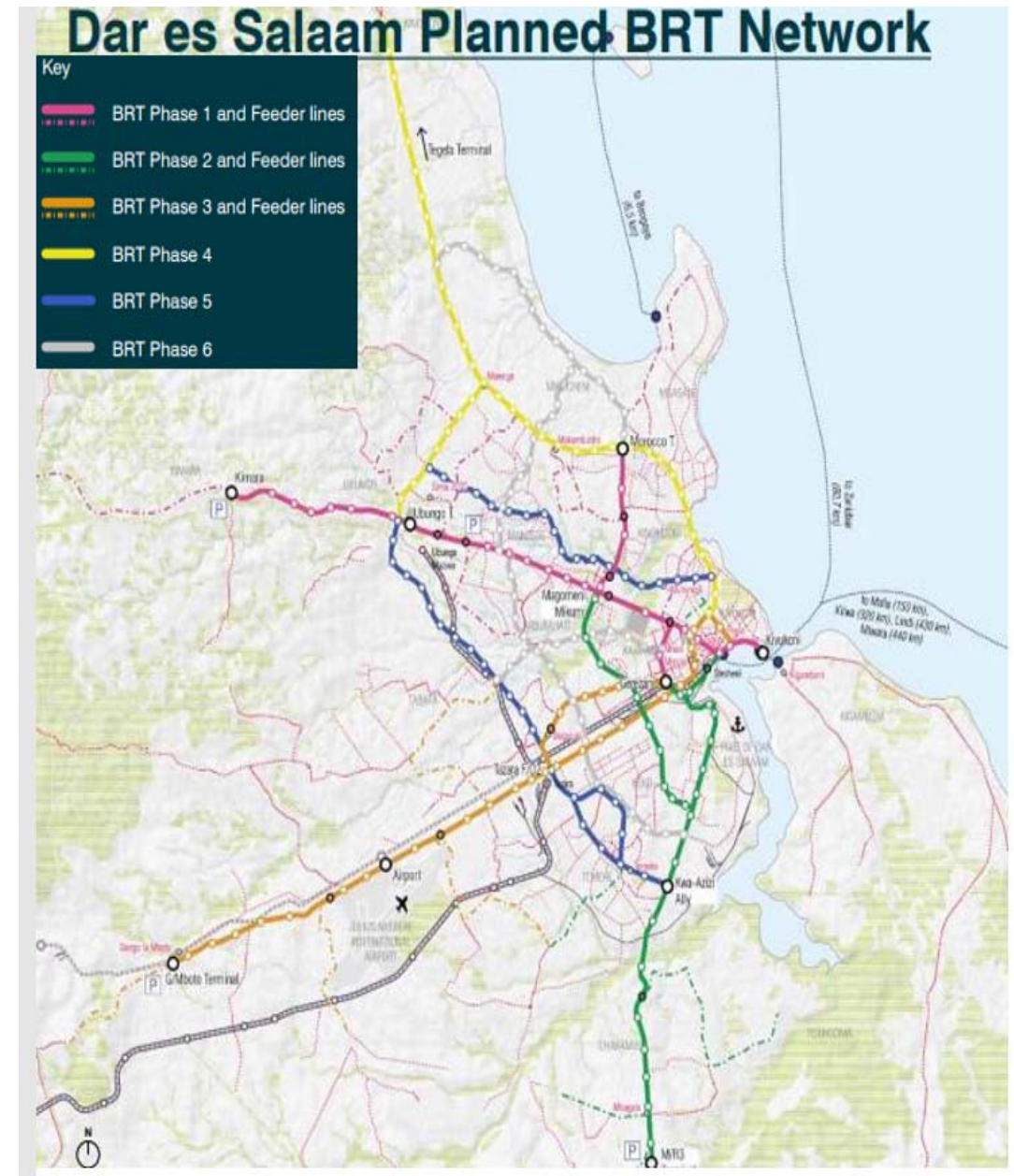
Phase 2: Kilwa Road, Kawawa Road South – 19.3 km

Phase 3: Uhuru Street, Nyerere Road, Bibi Titi Road, Azikiwe Street – 23.6 km

Phase 4: Bagamoyo Road, Sam Nujoma Road – 25.9 km

Phase 5: Mandela Road, New Road 1 – 22.8 km

Phase 6: Old Bagamoyo Road, New Road 2 and New Road 3 – 27.6 km

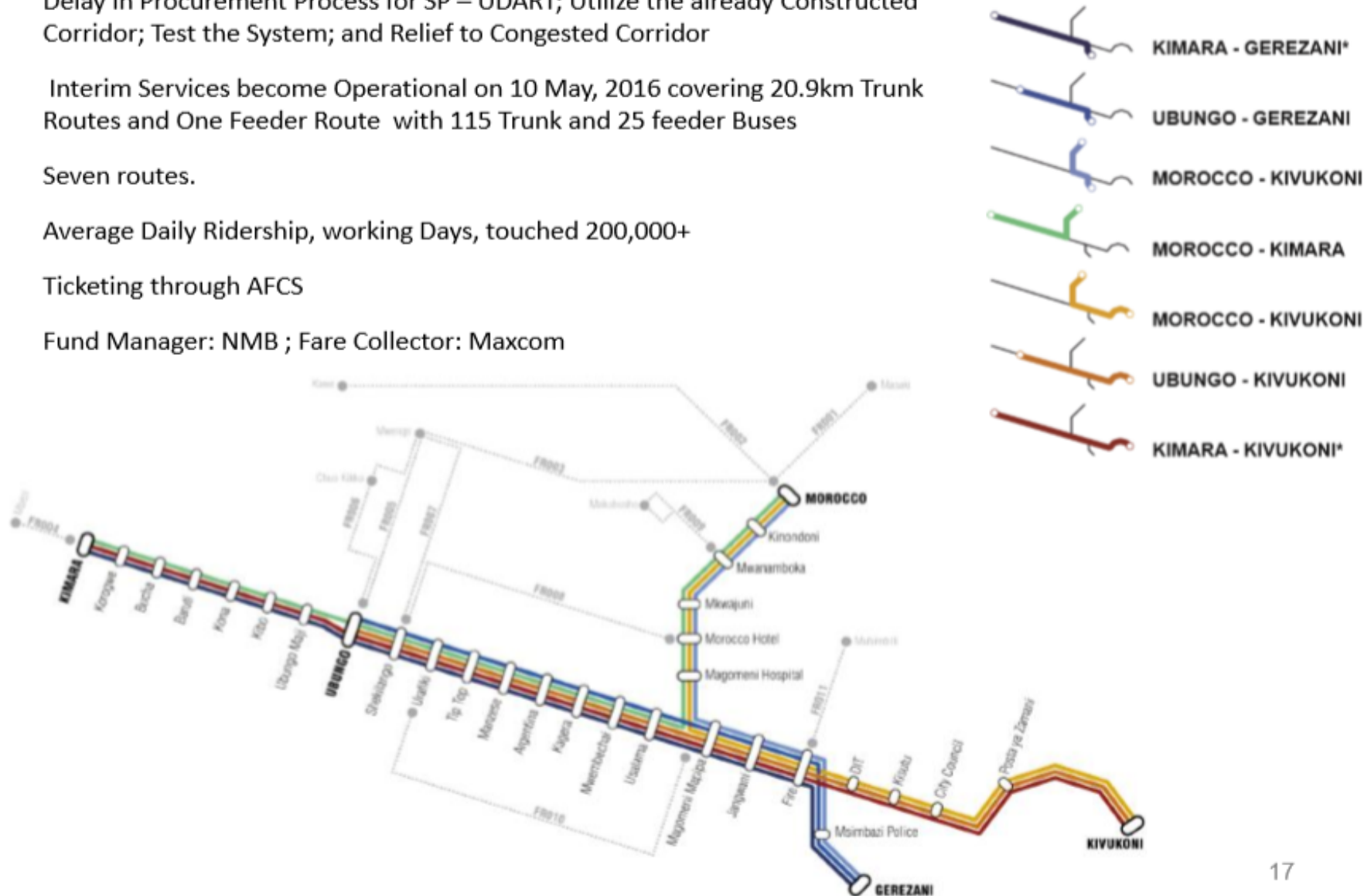


Phase One

DART System Phase 1 - Operations

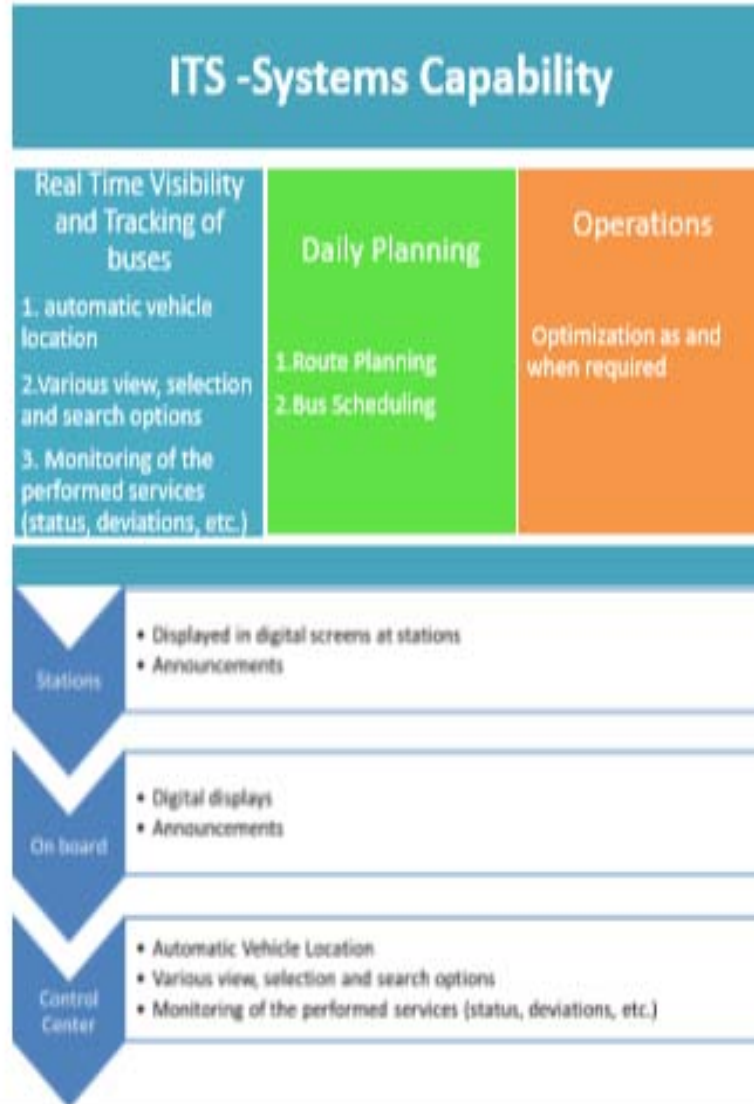
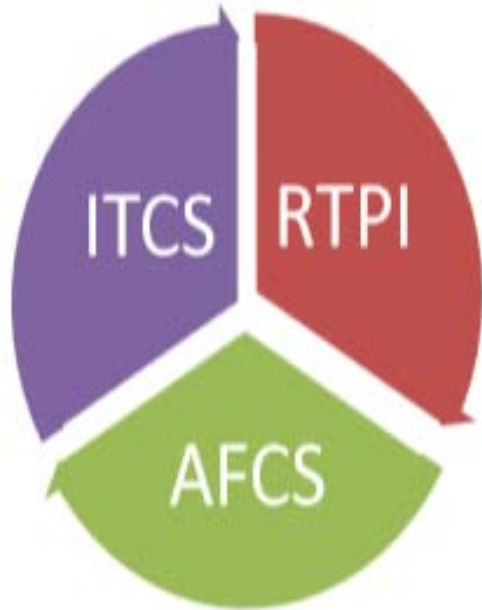
Interim Services (for 2 Years)

- Delay in Procurement Process for SP – UDART; Utilize the already Constructed Corridor; Test the System; and Relief to Congested Corridor
- Interim Services become Operational on 10 May, 2016 covering 20.9km Trunk Routes and One Feeder Route with 115 Trunk and 25 feeder Buses
- Seven routes.
- Average Daily Ridership, working Days, touched 200,000+
- Ticketing through AFCS
- Fund Manager: NMB ; Fare Collector: Maxcom



DART Technologies - ITS

One Single Software Platform



DART Technologies - ITCS



Operation and control centre:

- Real time visibility and tracking of buses.
- Daily Planning and bus scheduling.
- Operations optimization.

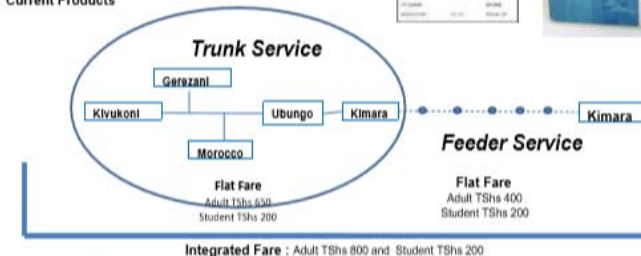


DART System - Pre-boarding Ticketing

Automatic Fare collection, clearing and settlement system

Ticketing Solution for Buses

- ❖ Barcode Tickets
 - ❖ Contactless Cards
- Current Products



Future Products

1. Intermodal Services i.e Use of one card for BRT and Ferries



Operation Services

With Full Operation Services:

- 305 buses
- 177 Articulated (18M) and 128 Feeder (12M) Buses
- Estimated Peak Hour Load 18,000 Passengers
- Estimated Daily Ridership 450,000-500,000 per day
- Expected Annual Ridership 130 Millions

Smart Railway System to meet Transport Challenges

Most effective mode to meet today's Urban challenges

- High density developments
- Congestion
- Long-distance commute
- Safety / Reliability / Punctuality and Environmentally friendly

Railway systems is the backbone of urban transport systems
Integration and peripherals with other modes to form the full public transport solution.

STANDARD GAUGE RAILWAY (SGR) TOTALLING (4,886km)

The Government of Tanzania is committed to develop a railway network totalling to 4,886km in phases. The network comprises of:

- ▶ Dar es Salaam – Isaka - Mwanza (km 1,219),
- ▶ Tabora - Uvinza-Kigoma (km 411),
- ▶ Kaliua - Mpanda-Karema (km 321),
- ▶ Isaka - Rusumo (km 371),
- ▶ Keza - Ruvubu (km 36); and
- ▶ Uvinza - Kalelema to Musongati (km 203).

Project Implementation

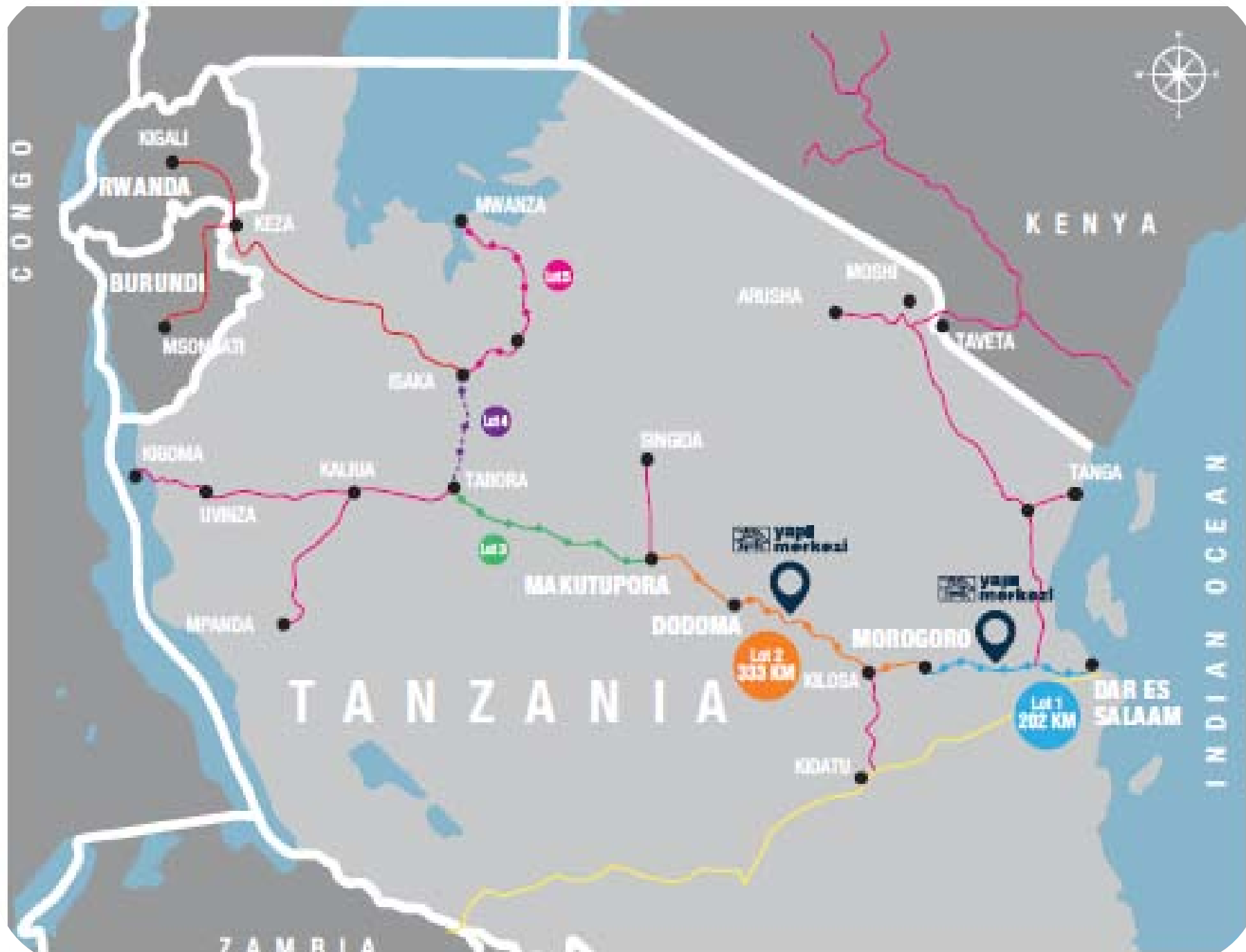
- Phase I implementation of the project from Dar es Salaam to Mwanza (1,219km) has started in phases.
- Contracts for Lot 1: Dar es Salaam to Morogoro (205km) and Lot 2: from Morogoro to Makutupora (336km) already signed.
- The contract for Lot 1 and 2 was signed on 3rd February and 29 September, 2017 respectively between Tanzania Railways Corporation (TRC) on behalf of the Government and the JV of Yapi Merkezi of Turkey
- The contract period is 30 and 36 months respectively
- The contract type is Design and Build
- The Total contract sum for both lots is US\$3,138,977,000
- The Supervising Consultant is KORAIL JV

Southern Corridor

- This covers 1,092km from Mtwara to Mbamba Bay with spurs to Liganga (iron ore deposit area) and Mchuchuma (coal deposit area)
 - Feasibility Study is in place
 - It is planned to be implemented under PPP arrangement

Northern Corridor

- This covers 1,233km from Tanga – Arusha to Musoma
- Feasibility Study is in place.



Construction of phase One – Location: Dar Es Salaam



Viaduct Works KM 1+564

Environmental and Spatial Information

Currently MLHSD is providing spatial information to support development of SGR for improved rail transportation by:

- Provision of base maps for planning/design of the infrastructure

- Satellite imagery for compensation valuation purposes

- Provision of geodetic control network for benchmarking the infrastructure and quality assurance during rail construction

Environmental and Social Issues

- TRC has engaged Ardhi University (ARU) to carry out all issues related to environment and social issues.
- In a course of action, valuation, compensation and re-settlement activities are on-going.
- The Government has been compensating Project Affected Persons at every stage when the Valuation Report is approved by the Government Chief Valuer.
- As of now, approximately US\$ 31 million has been approved for payment and the Government is currently compensating a total of 2,448 people from 39 villages.

Implementation Plan & Required Resources

- The Government of Tanzania is currently looking for investors, Banks and other Financing Institutions to support the Government efforts towards development of the remaining sections of the Central Railway Line from Makutupora to Tabora (294km), Tabora to Isaka (249km), Isaka to Mwanza (133km).
- Other priority areas to be connected first are from Tabora to Kigoma (411km) and Isaka to Kigali (521km) for regional connection to the Dar es Salaam Port.





*Thank
you*

Asante!

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