BRT DEVELOPMENT IN NAIROBI

George A. Makajuma - Infrastructure Specialist

GPSC and AfDB African Regional Workshop

Abidjan, Cote d'Ivoire – May 14-16, 2018

Presentation Outline

- Background
- Where the BRT story began
- Mass Rapid Transit Study (MRTS)
- MRTS Study Outcomes
- Where we are today
- The next steps (2018-2022)

Background

- As at 2015, the GDP of Kenya was estimated to be USD 67.4 billion;
- Conservative growth forecasts beyond 2019 estimates annual GDP growth of 5%—expected to lead to a doubling of the size of the national economy between 2015 and 2030;
- Notwithstanding on how this growth will be distributed, the implications for the transport sector are:
  - An increasing demand for private vehicle ownership,
  - Increased value of time leading to a different trade-off between price and time in the choice of mode, and
  - An increased ability to pay for transport.

Background - Continued

- Population forecast of Kenya in the 15-year period to 2030 is expected to rise by some 32%, and a further 33% in the period running up to 2050,
- The population structure is expected to change—the current predominantly (75%) rural population, will decrease to about 65% by 2030, and to drop to about half by 2050,
- The pre-eminence of Nairobi will be strengthened, as its population is expected to reach 10 million by 2030, and 14.3 million by 2050, representing up to 22% of the entire population of Kenya, and 64% of the urban population.
- The emerging scale of challenges affecting urban transport in Nairobi will be greater in the short-to-medium term.

Where the BRT Story Began

- Change in government in 2002 came with a renewed focus on infrastructure development.
- At this time transport in the greater Nairobi Metropolitan was (and is still) characterized by: poor public transport services, worsening congestion contributing to rising traffic accidents and air pollution.
- The commuter rail services remain skeletal with an estimated modal share of 3%, and while is economical in terms of fares, is shun by most commuters due to: poor safety record, lack of comfort, limited number of routes and services, limited inter-modal transfer facilities, and inaccessibility of the stations.
- The GoK having recognized the worsening congestion did request the AfDB to assist – the Bank then financed the MRTS Study.

Mass Rapid Transit Systems Study (MRTS)

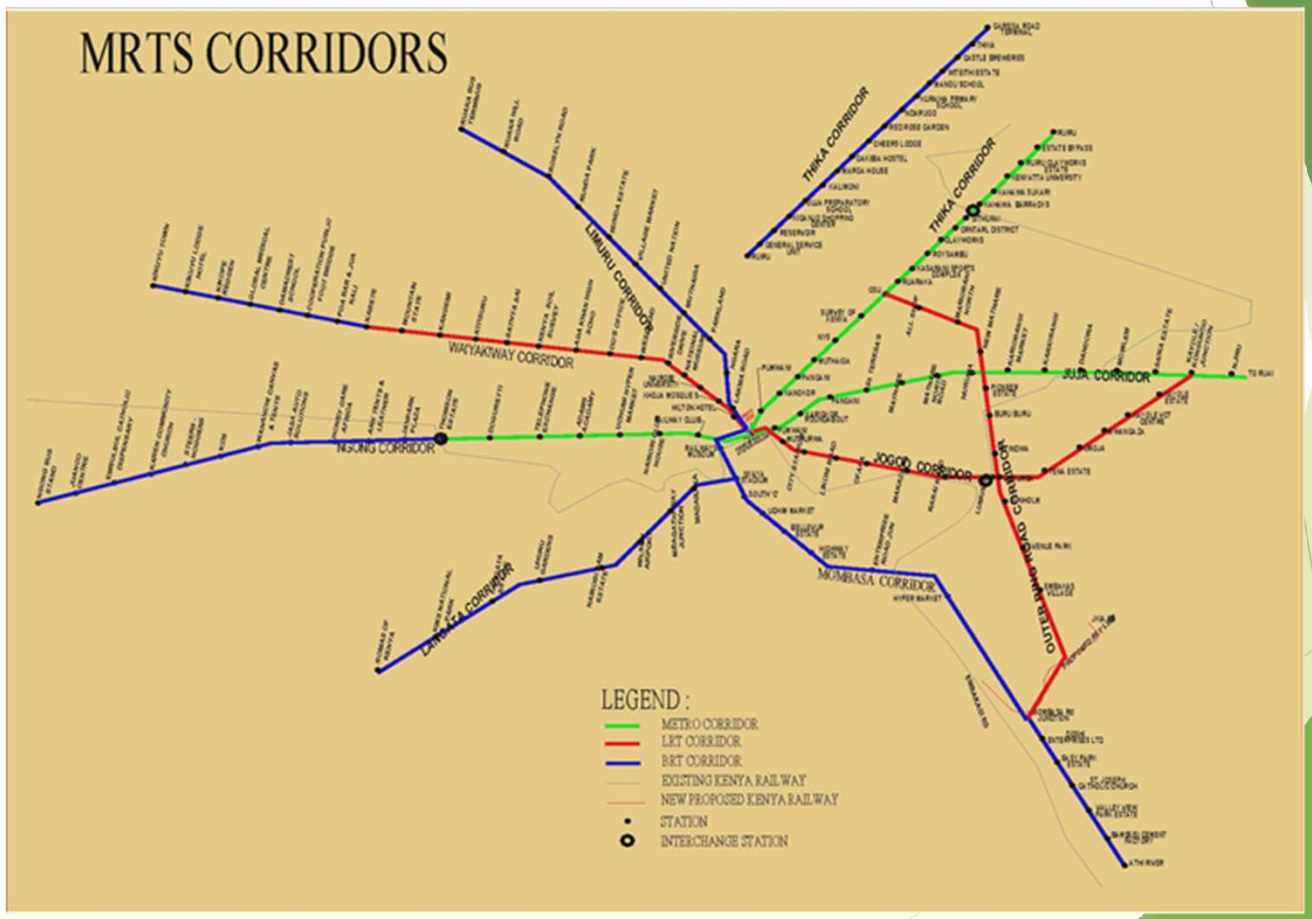
The Study objectives were two-fold:

- Assist the Government of Kenya in preparing a coherent public transport policy framework clearly outlining the distribution of urban transport responsibilities, and make recommendations for the legal, regulatory and institutional framework for operationalizing the policy; and
- Carry out pre-investment study of various options of mass transit systems taking into account key considerations of construction and operation costs, passenger capacity, integration with other modes of transport and long-term effects on poverty, land use and the environment.

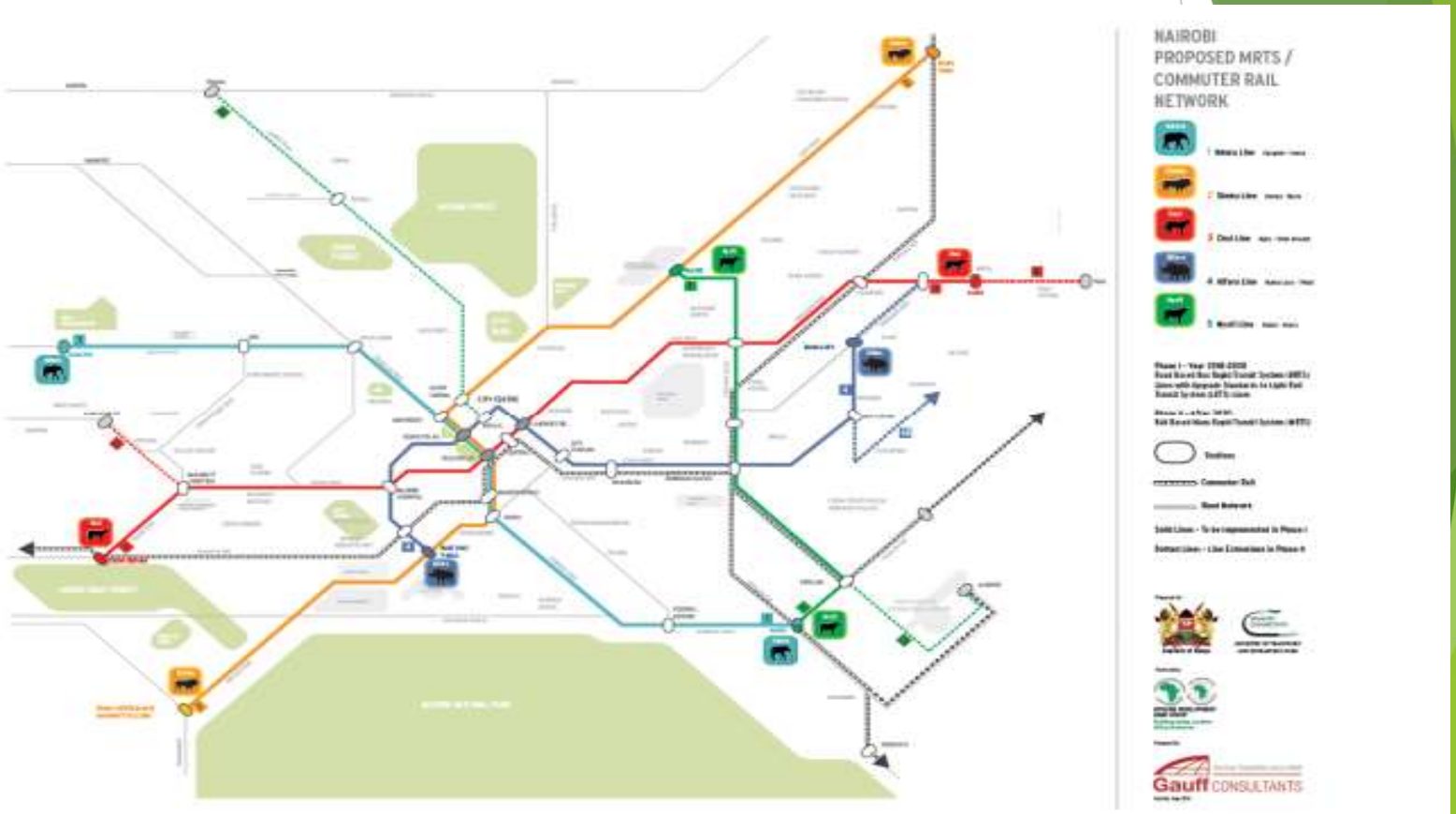
The Study Outcomes

- The outcome of the Part A of the study (2011) recommended the implementation to be considered along the 9 corridors leading to the CBD of Nairobi (see Fig. I).
- The demand forecasts in terms of peak hour peak direction traffic (PHPDT) determined the choice between these systems with high capacity Metro rail recommended for high flow corridors, while medium capacity modes such as BRT, LRT and Monorail would be considered for others.
- Part B: Harmonization Study (2014) – further defined MRTS network and the selection of BRT and Commuter Rail as the only modes in the period to 2030.
- The GoK then locked all the five (5) transit lines for BRT as a preferred mode based on initial investments requirements, timelines needed for implementation, and ease of scaling up later on (see Fig. II).

The Nairobi MRT Corridors (Figure I)



The BRT Corridors (Figure II)



Where We are Today

- NAMATA created in 2017 to coordinate planning and implementation of BRT in the Nairobi Metropolitan – Nairobi proper and the neighboring townships;
- Political challenges been encountered with the stakeholders based on voting rights and control of the envisaged investments;
- National government is committed and has commenced piloting on the Thika Super Highway;
- Constitution of the Management Board is ongoing albeit slow
- Awareness within the government circles has increased and development partners are responding positively

Video Clip – Minister for Transport, Kenya

The Next Steps (2018 – 2030)

The key issues emerging from the above are:

- Implementation of all 5 BRT lines by 2030 will not meet public transport needs without additional mass transit lines, probably of a higher capacity than BRT;
- The BRT plans will go nowhere without political will and institutional capacity to embrace and move them forward;
- One way to bring about institutional reforms is to tie loans and grants to forward-looking urban planning practices;
- Opportunities for linking land development (housing) and transport infrastructure should not be squandered – GoK's Big 4 Agenda: affordable housing, food security, universal healthcare, and revitalizing manufacturing;
- Kenya's technological advantage should be explored as a means to securing system integration – paratransit feeder service can be integrated with the BRT core system through a unified payment platform to ensure seamless passenger transfers across the two systems;