Challenge faced During the Development Of Addis Ababa Light Railway Project – with Limited Budget, Land and Time constraint in the city of Addis Ababa, Ethiopia

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1. Overview

The Ethiopian Railways Sector

- Old Railways established before 100 yrs back which is Meter Gauge=Obsolete
- The Government of Ethiopian (FDRE) formed Ethiopian Railways Corporation in November 2007;
  - Missioned to build the National Railway Network and urban rail Network (5060 Km standard gauge) to provide Fright & Passenger Transport Service
  - Shouldered establishing & Capacitating the sector through;
    - performed lots of capacity Building activities in un-institutionalized manner (till 2012)
    - organized core division for the sector Technical capacity Building (since 2012)
    - To Build railway Academy (for Trialing and Research)
Ethiopian Railways Corporation

ERC’s Vision

To see the development of modern and electric railway infrastructure that integrates local development centers and links the nation with neighboring countries and to see the expansion of modern transport services all over the country

ERC’s Mission

To build railway infrastructure

To operate cargo & passenger railway transport service

To engage in other related business activities
General Overview of Addis Ababa

Addis Ababa:

- Addis Ababa is the capital city of Ethiopia
- Founded in 1887, and has expanded rapidly
- Now among the ten largest cities in Sub – Saharan Africa
- Over 159 diplomatic missions
- International bodies such as AU , UNECA & others are located
- Population size is above 3.5 million with annual growth rate of above 3.8%
- 80% of total country fleet is registered in Addis Ababa
- Addis Ababa serves as a transport hub of the nation
- On average 6.3 million trips per day are generated
- Expenditure on transport is 10%
Contextual conditions of Addis Ababa

- Addis Ababa, the capital of Ethiopia, a key political, cultural and commercial hub, is one of the fastest-growing cities.
- The population of the city rapidly grew.
- As the population grew, traffic increased with associated problems such as traffic jam, pollution, and accidents.
- This problem became very serious because of improper infrastructure management like poor drainage system and very narrow road stretches.
Addis Ababa’s Transport problems are diverse:

- Aged Fleet
- Chaotic movement
- Unacceptable emission
- Unsafe, Hazardous to life and property
- Weak traffic management system
There is a wide gap between demand and supply

Due to the economic growth:
- increasing transport demand
- growing mobility needs of people

Lack of transport infrastructure (limited connectivity)

✓ Modern and reliable railway system is needed:
  - To sustain the economic growth momentum of the country
  - By supporting the demand of passenger mobility
  - ERC sought an effective solution in the form of nonpolluting rail-based mass transit system
Key Futures of Addis Ababa LRT Project

Criteria
- Capacity
- Cost
- Impact
- Safety
- Reliability
- Comfort
- Environmental friendliness
- Efficiency
- Attractiveness
- Accessibility to the physically challenged

Light Rail Transit was selected for Addis Ababa
Urban railways (metro, light rail, tram, monorail & electric suburban railways) in Africa:

Cities in *italics* have urban rail systems under construction or planned.

External link

[Cities in Africa with urban rail systems](Wiki)
Key milestones of the Project

- EPC Turnkey Contract signed ...Sept, 2009
- Loan Agreement Signed...June, 2011
- The Project has commenced on Jan. 31, 2012

Project cost 475 Million USD,
Addis Ababa LRT Project……cont

Features of the Project

- Metropolitan electric railway
- Has a total length of 34.25 km
- Construction is at grade, elevated and underground
- 41 LRVs is deployed at initial stage
- High capacity
- 39 stations with average spacing of 800 m
3. Delivery Challenges

**Major challenges during construction**

- Project Financing

- Right of way and relocation of utility lines
  - 900 mm diameter water pipe...over 9 km length
  - High and medium voltage electric lines
  - Telecom cables
  - Delay in getting land for Depot construction

- Lack of data on existing utility lines along the corridor
- Lack of skilled human power
- Various construction interfaces and complicated surroundings
- Protracted design integration process with city roads authority
- Insufficient traffic diversion roads (absence of grid road network)
- Tight Construction Schedule
4. Discussion Question

Q1. How the right way problems can be managed for project implementation?

Q2. What kind of solution can be given to solve lack of skilled manpower in the sector?
Thank you

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