



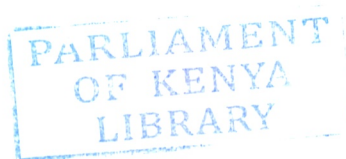
**EAST AFRICAN COMMUNITY  
EAST AFRICAN LEGISLATIVE ASSEMBLY**



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**REPORT OF THE COMMITTEE ON  
COMMUNICATION, TRADE AND INVESTMENTS ON THE  
OVERSIGHT OF RAILWAY INFRASTRUCTURE DEVELOPMENT IN  
EAST AFRICAN REGION**

*12<sup>TH</sup> - 15<sup>TH</sup> December, 2016, Nairobi - KENYA*



**Clerk's Chambers  
3<sup>rd</sup> Floor, EALA Wing  
EAC Headquarters' Building  
Arusha, TANZANIA**

**January 2017**

## **1.0 INTRODUCTION**

The Committee on Communications, Trade and Investment held an oversight activity from 12th - 15th December 2016 in Nairobi, Kenya to assess the status of implementation of the Railway infrastructure development in East African Community. As provided for under Article 91 of the Treaty for the establishment of East African Community, the Partner States agreed to establish and maintain co-ordinated railway services that would efficiently connect the Partner states within the Community and, where necessary, to construct additional railway connections. It is against this background that the EALA Committee on Communications, Trade and Investment undertook the oversight activity to assess the status of the railway infrastructure development in the region.

### **1.1 OBJECTIVES OF THE OVERSIGHT ACTIVITY**

The objectives of the workshop were to:

- (a) Understand the status of the Railways Master plan in the EAC;
- (b) Understand the status of EAC Specific Partner States' Railway Infrastructure development;
- (c) Come up with recommendations.

### **1.2 METHODOLOGY**

In carrying out this activity, the Committee employed various methods, which included the following:

- (a) Tour and on spot assessment of the Standard Gauge Railway (SGR) in Kenya;
- (b) Received presentations from the Partner States on their respective status of railway infrastructure development ; and
- (c) Held Plenary sessions for brainstorming, discussions, and clarifications about the EAC Financial Sector Integration matters.

## **2.0 SPECIFIC FINDINGS**

### **2.1 EAC SECRETARIAT**

The EAC Technical Expert/Adviser on Railways made a presentation at the meeting on the EAC Railway Master Plan as follows;

In April 2004, EAC Heads of State (HOS) directed that a Railways Master Plan be developed, and the directive was based on four Key issues:-

1. High transport cost adversely impacting economic growth, regional and international trade;
2. Low volumes and market share of railway mode;
3. Inadequate national and regional connectivity to support regional integration, spur trade and economic growth;
4. High renewal and maintenance cost of main roads due to overloading.

In July 12, 2007 EAC Secretariat engaged a Consultant to undertake EAC Railway Master Plan. The Master Plan has the following essential elements, which include;

- i. examining the current state of facility, infrastructure or service;
- ii. Identifying key issues such as vision which conceptualizes a long term desired state of transport system in terms of form: Utopia, World Class, best in industry/society;
- iii. determining and quantifying the gap between current and desired;
- iv. establishing strategic objectives, goals and desired outcomes;
- v. developing substance, action plans, programs, activities required to achieve the form;
- vi. estimating resource requirement and developing financing strategy and time frame;
- vii. establishing monitoring and evaluation framework.

### **2.1.1 Objectives and Scope of Railway Master Plan (RMP)**

The objective of study was to develop an EAC Railway Master Plan that would improve and/or develop railway transport in order to facilitate trade, enhance economic development and regional integration.

For the master plan to be implemented a number of activities were undertaken and these include; studies on Regional and Corridor business demand, a study High Level Option Analysis of hard infrastructure, and challenges, constraints and possible solution scenarios. A technical study was also carried out on existing network; gauge conversion, SGR and electrification, environmental, economic social impacts, indicative Cost estimates of Capital investment, Governance dimension in terms of Policy, legal, regulatory and institutional framework "soft infrastructure". The study further proposed recommendations on project packaging and financing strategy for implementing the Master Plan. This study was concluded in January 2009.

### 2.1.2 Key Findings of the Master Plan

- i. It was found that in 1970's railways had 70-80% of freight market share due to poor road conditions and vibrant integrated regional railway system under East African Railways.
- ii. Kenya Railway Corporation was best performing railway with max throughput of 4.5 min tons in 1981 then market share of 40% but started a steady decline.
- iii. Low axle loads 12-18 tons which was caused by weak sub-structure and superstructure hence limited haulage capacity
- iv. Poor horizontal track alignment due to the fact that construction was done 100 years ago leading to Low train speeds;
- v. Obsolete signaling, communication and train control leading to low line capacity and system efficiency;
- vi. Old and inadequate equipment due to lack of investment resulting to low freight volumes, high down time ;
- vii. Poor infrastructure maintenance as a result of inadequate revenue, No government funding poor management and this led to low speeds, high accident rates;
- viii. Overstaffing leading to high expenditure, low productivity, high tariff, less provision for capital investment;
- ix. Run down infrastructure and poor railway services caused by No funding. Complete neglect of the railways by Governments, while concentrating on road, hence low train speed, frequent accidents, high repair costs, loss of market share, high tariff.

### 2.1.3 Vision for a Transformed Railway Sub-sector in East African Community

It was highlighted that the vision for transforming the railway sector in East Africa identified a number of key issues with respective strategic objectives as follows;

**Key Issue 1: High cost of Transport making products expensive and international trade uncompetitive.** The strategic objective is to reduce transport cost by improving economic efficiency.

#### Activities/Interventions

For this objective to be achieved, the following interventions need to be undertaken

1. Equitable allocation of public resources to competing or complementary transport modes by use of scientific or rational methods of resource allocation (economic, socio/political, environment, financial);
2. Improve quality of existing Infrastructure, Rolling Stock and management systems through downtime-Rehabilitation and maintenance;
3. Build/install modern infrastructure, systems through investing in modern technology, maintenance mechanization, cargo tracking and apply appropriate management tools.



4. Undertake Life Cycle Costing to determine the most cost effective option to finance, procure/develop, operate, maintain and dispose including externalities such as environment, climate change, health/accidents;
5. Reform transport and railway industry to create competitive business environment;
6. Establish smart corridors with quality infrastructure and logistic facilities to facilitate trade through simplification of transport procedures and reduction of border crossing/transit impediments;
7. Develop human resource capacity to enhance training of railway staff and capacity building.

**Key Issue 2: Low freight volumes, reduced market share for railways, congestion and destruction of road.** The strategic objective for this issue is to increase freight volume and market share and improve Business and Financial Performance of railways.

### **Activities and Interventions**

The following interventions need to be undertaken in order to achieve the above objective;

1. Railways undertakers and Governments should develop framework for capital investment to improve condition of infrastructure and numbers and quality of equipment;
2. Restructure existing public railways or railway concessions within existing or amended legislative or contract agreement framework as may be necessary;
3. Upgrade existing railway mainlines into standard gauge (1435mm) on new right of way;
4. All new railway lines to be constructed in standard gauge (1435mm), with provision for future electrification when traffic level, power adequacy and reliability or environmental needs will justify;

**Key Issue 3: Weak Business Regulatory Environment (BRE) in transport sector and railway subsector**

The strategic objective is to develop/strengthen business regulatory, institutional and operating environment. For this objective to be achieved, the following activities need to be undertaken;

### **Activities and Interventions**

1. Develop transport and cross-cutting policies on Public Private Partnerships; Procurement; competition by Partner States and corresponding EAC policies to deal

with regional issues; significant progress achieved by most Partner States.

2. Review existing or develop new railway laws and establish/strengthen railway institutions. Only Tanzania has enacted new law (2002), while Kenya has engaged consultant to assist in process.
3. Partner States to establish appropriate independent regulatory/authorities: safety, economic, competition as provided in respective laws;
4. Establish Railway Coordination unit/Agency at EAC Secretariat to provide Partner States with technical support and coordinate activities on cross border issues and this unit will:
  - a. Develop EAC Railway legislation in respect of safety, interoperability, access management and non-discriminatory pricing in order to anchor and operationalize the provisions of the Treaty on cross border issues;
  - b. Develop Regulations/ common rules/methods for EAC common railway market for safety management, licensing and authorization, qualification and certification for cross border freight and passenger services;
  - c. Develop common technical standards for railway construction and maintenance, rolling stock, train signaling, communication operations, operator competences and qualifications, traffic management systems;
  - d. Collaborate with Transport Corridor Agencies in order to improve the efficiency of transport corridors.

At Institutional level governance is assessed based on the quality of the institutions and covers external relations with its principals, stakeholders and public, and internal institutional structure, systems and processes.

The nature and quality of governance in a country can be a deal breaker and discourage not only private sector investors and investment banks but also multi and bilateral development partners;

Where infrastructure has been developed like Standard Gauge Railway in EAC, their macro-economic impact can be significantly reduced by governance failures;

Enabling business environment is at three levels that are interrelated and these include; country or national level, sector level and institutional level.

#### **2.1.4 Challenges of weak Business Regulatory Environment (BRE) in transport sector and railway subsector**

The following challenges were identified;

- i. Non-existence or fragmented and uncoordinated sector policies;
- ii. Overlaps in roles and responsibilities of public institutions or No separation

- between institutions responsible for policy, regulation, implementation, operation and adjudication of disputes;
- iii. Gaps in legislation or outdated sector specific statutes;
  - iv. "Stranded policies" either with no clear objective or not translated into legislative, regulatory or administrative instrument hence not enforceable;
  - v. Inadequate or inconsistent regulations against which to determine accountability;
  - vi. Lack of or weak enforcement mechanisms.

**Key Issue 4: Unserved agricultural, commercial and industrial centers; prevalent social and economic inequality.**

The strategic objective is to promote inclusive growth, enhance community welfare and regional integration and increase productive base of the economy.

**Activities/Interventions**

1. Undertake feasibility study on 21 potential new railway links identified and determine technical, economic and financial feasibility.
2. Improve connectivity by developing economically feasible links.
3. Prioritization of links was based on a weighted criteria covering;
  - a. Number of countries linked;
  - b. Connections to new countries;
  - c. Bankability;
  - d. Positive societal impact in terms of poverty reduction, inclusivity, equity;
  - e. Trade corridor enhancement;
  - f. Other efficiency gains.
4. The study also considered the transaction packaging in manner of institutional structure of the railway companies and found that the structure of the business has a profound impact on economic and financial viability. In this regard separation of infrastructure maintenance from train operations enhanced the bankability of a railway development.

**2.1.5 REQUIRED STEPS/ACTIONS TO BE TAKEN**

For the EAC Railway Master Plan to be implemented, the following actions should be undertaken;

- (a) EAC Partner States need to provide strategic leadership, support and to champion;
- (b) Development/Review of national policies and laws on railway, Public Private

Partnerships and competition by Partner States that have not done so. Tanzania has a new Railway law. Kenya has engaged consultant to assist in developing railway law;

- (c) Development of regional policies, laws and regulations related to cross border railway operations and development of a common railway market including facilitation of stakeholder meetings and enactment of such laws and regulations to give effect and anchor the provisions of the EAC Treaty. This is a responsibility of the EAC Secretariat to support EAC common market;
- (d) Competitive procurement of operators and establishment of infrastructure management agencies and regulatory institutions sector specific or multi-sectoral in the Partner States to ensure that the railway industry develops on a firm foundation in order to contribute to an efficient transport system. This is responsibility of Partner States;
- (e) Follow on the establishment of railway fund to support development of railways. Kenya and Tanzania have established railway development fund. Uganda, Rwanda, and Burundi have not yet established. Partner States need to consider extending usage of funds to fund maintenance and renewal. Also follow on establish EAC infrastructure fund to support project preparation, structuring and marketing projects as regional projects;
- (f) Development of centers of excellence in railway capacity building (Human Resource), ICT and technology development (e.g. spare part manufacture);
- (g) The establishment of a Railway section/Agency based at EACS to support, monitor and coordinate issue of development of a common railway market and driving the development of regulations, standards, specification for regional integration and safety monitoring;

## **2.2 BURUNDI**

Under the EAC Railway Master Plan, Burundi is participating in two railway Projects, namely ; DAR ES SALAM-ISAKA- KIGALI/ KEZA – GITEGA – MUSONGATI, and UVINZA-MUSONGATI

It was observed that the Feasibility Study for the Isaka-Kigali/Keza-Musonagati Railway Project, was done in March 2009 including the Upgrade of the Dar es salaam - Isaka Railway Line.

DB-International (DBI) undertook a Phase I study that included a feasibility design and capital cost estimates for the Dar es Salaam-Isaka-Kigali/Keza-Musongati Railway line based on a standard gauge track and UIC (European) standards that focused primarily on the new line portion of the project and passenger services.

The preliminary field studies on the Dar es Salaam -Isaka line were also undertaken to determine the requirements for converting the existing meter gauge track to an AREMA-based (North American) standard gauge track and offered suggestions for reducing the estimated cost for the DB International designed a new line.

The study considered the project in the context of a broader, extensive expansion of east African railways and estimated costs at a conceptual level

## **1. DAR-ES-SALAAM-ISAKA-KIGALI/KEZA-GITEGA-MUSONGATI RAILWAY PROJECT**

This Project received financial assistance from the African Development Bank, and the current study (Phase II of the Dar es Salaam – Isaka – Kigali / Keza – Musongati Railway Project) was awarded to Canarail and GIBB Africa by the Rwanda Transport Development Agency (RTDA) as the representative of the three governments to commence work in February, 2012.

It was further mentioned that technical guidance has been provided to the consultant by the Joint Technical Management Committee (JTMC) comprising of technical experts from the three countries.

The current study has two main objectives, which include the identify the optimal technical design for the railway and to recommend an institutional and financial structuring for the project

Phase II study consists of traffic forecasting, operations planning and preliminary engineering design work, environmental and social impact analysis, economic and financial analyses, definition of private sector participation (PPP), and a complete institutional analysis

- i. Transaction advisory services for upgrading the Railway from Dar es salaam to Isaka and Construction of the Isaka-kigali/keza-musongati Railway (1673km) was awarded to CPCS Transcom International Ltd in association with AURECON (Global)- Africa, ITEC Engineering Ltd (Rwanda), Law Castles advocates (Tanzania) in August, 2014 ;
- ii. Another Contract for currying out Phase II of the Transaction Advisory services for

Dar es salaam-isaka-Kigali/keza-musongati Railway Project and Dar es salaam-Isaka basic design was signed in August, 2016;

- iii. Notification is being signed for allowing the consultant (CPCS, AURECON, ITEC Engineering, and Law Castles advocates) to start services.

## **2. UVINZA-MUSONGATI RAILWAY PROJECT**

For this railway project, the following were mentioned:-

- i. The Government of Burundi and Tanzania have agreed to construct a standard gauge railway line from Uvinza to Musongati;
- ii. The railway line from Musongati will ease the exportation of Nickel from Musongati via Uvinza to join the Tanzania central line to the Port of Dar es Salaam as a gateway to the foreign markets in the world;
- iii. The railway line will be mainly in Tanzania about 150Kms and makamba region 50Kms with total distance being about 200Kms built to preferably AREMA latest standard (inter-operability) mainly for freight (mining inputs/outputs, agricultural inputs/outputs, and other freights including passenger);
- iv. The railway line will allow for the following maximum speed: 120 km/h for design train speed for passenger and /or 80 km/h for freight trains;
- v. Further to the mining inputs and outputs, the line will link and give Burundi and neighboring DRC access to the port of Dar es Salaam and facilitate their imports and exports;
- vi. The Consultant Gauff Ingenieure has been awarded to conduct the feasibility study and preliminary design of this line;
- vii. Corridor Analysis Report is completed and presented in each Country;
- viii. Scoping Report Completed and submitted to Countries;
- ix. The traffic and market study report not yet submitted.

Burundi needs funds from the National Budget for paying the Consultants and following up the process of railway Projects. Burundi also needs capacity building for efficient technical monitoring during studies and construction of a railway line.



### 2.3 KENYA

The Kenya's status on the railway infrastructure development was presented as follows:-

Kenya is implementing the railway infrastructure as per the EAC Railway Master Plan whose objectives are:

1. Provide for efficient utilisation of EA Ports resources;
2. Contribute towards realisation of seamless rail transport facility in the region;
3. Realise efficiency and cost effectiveness in transportation;
4. Provide efficient platform for exchange of goods – particularly perishables;
5. Distribution of industries to the most effective production locations;
6. Environmental protection.

Kenya is constructing the Standard Gauge Railway (SGR) projects for Vision 2030, and these include;

1. Northern Corridor (Mombasa – Malaba SGR), which is phased as follows;
  - (a) Phase 1 = Mombasa – Nairobi
  - (b) Phase 2 = Nairobi – Malaba which is also sub phased as follows;
    - i. Phase 2A = Nairobi – Naivasha County/Suswa
    - ii. Phase 2B = Naivasha – Kisumu including developing the new high capacity Port at Kisumu
    - iii. Phase 2C = Kisumu – Malaba (development to be synchronised with Malaba – Kampala SGR section)
  - (c) Jomo Kenyatta International Airport Commuter Rail Service;
  - (d) Lake Region Commuter Rail Service;
  - (e) Voi -Taveta branch line

There are other SGR projects that are under development in Kenya, and these are LAPSSET Railways, which include;

- i. Lamu – Isiolo
- ii. Isiolo – Nakodok (for connection to South Sudan)
- iii. Isiolo – Moyale (for connection to Ethiopia)
- iv. Isiolo – Nairobi
- v. Lamu – Mariakani via Malindi, Kilifi and Mtwapa

**Kenya Railways plans for rolling out SGR Master Plan as follows in the table below:**

	<b>Section</b>	<b>Stage</b>	<b>Commissioning</b>
1.	Mombasa – Nairobi	Construction	01-06-16
2.	Nairobi – Naivasha	Mobilisation	31-12-19
3.	Naivasha – Kisumu – Kisumu Port – Malaba	Financing identification	30-06-20
4.	Lamu – Mombasa	Studies	30-07-19
5.	Lamu – Isiolo – Moyale	Studies	31-12-22
6.	Isiolo – Nakodok	Studies	31-12-25

**NB.** Completion of the Naivasha – Malaba section will be synchronised with the completion of Malaba – Kampala section.

### **Local content in Mombasa – Nairobi SGR projects**

With regard to the use of local content, it was pegged at 40% of the Civil Works Contract whereby so far KShs. 81billion is spent locally on the following:

- a. Supply of cement, sand, aggregates, transport equipment, earthmovers, hygiene and food items, general purpose steels, timber;
- b. Small contracts such as drainage works, slopes protection, labour contracts;
- c. Clearing and forwarding;
- d. Insurances;
- e. Transportation of special items from Mombasa to construction sites;
- f. Security;
- g. Electricity and water connection and supply.

### **2.3.1 Training and capacity building for Mombasa – Nairobi SGR operations**

- a. Kenya Railway plan: SGR will be operated by well trained and qualified locals
- b. Kenya Railway intends to have trained at least 1,200 locals in the various railway operation skills by end of 2017.

- c. Skills include:
  - i. Driving of trains
  - ii. Maintenance of the track, locomotives, rolling stock, electricity and water supply; signalling and communications;
  - iii. Operation of trains and other railway functions
- d. Training are undertaken locally at Railway Training Institute and also in China;

#### **Trainings undertaken in Kenya;**

- i. 107 students have completed classroom training and are in the field for hands-on experience; however, Chinese instructors locally supervise the training;
- ii. A second class of 115 will complete classroom training in February 2017;
- iii. A total of at least 1,200 students to be trained by end of 2017.

#### **Trainings In China**

- i. Full scholarship being offered to Kenyan students to pursue 4 – 5 years railway related engineering degree courses in China (electrical, mechanical and civil);
- ii. 25 students are at Beijing Jiatong University completing first semester this December of the 4-years engineering courses;
- iii. 35 students are being recruited to join the University in February 2017;
- iv. A total of 200 engineers to be trained graduated within the next eight (8) years.

The 13th Summit of the Northern Corridor Integrated Projects held in Kampala recognised the need to retain the engineering, procurement and construction (EPC) Contractor as the interim operator citing the following strengths:

- i. Partner states will have adequate time to train locals to take over operations after Interim Period;
  - ii. EPC Contractor to manage in totality all the teething problems associated with a new project taking full advantage of the “defects liability period”;
  - iii. There might be a challenge procuring and inducting a new operator causing delay to progressing the project to revenue generation stage;
  - iv. Lender prefers this model to protect loans repayment period.
- i. Kenya Railways in the process of “procuring” CRBC (the EPC Contractor) as the Operator

### **2.3.2 Standard Gauge Railway Operations**

- i. Preferred operating model is "Management Contract" with well spelt out Key Performance Indicators (KPIs)
- ii. Although passenger services are not expected to generate much revenue (and could in fact be loss making), they are the shop-window of operations and will attract strong KPIs to guarantee quality service delivery;
- iii. There is currently debate on appropriate length of the "Interim Period" of operation by the EPC Contractor – the longer period (10 years) appears to be gaining mileage considering the length of time required for locals to acquire high technology skills; and length of time for locals to get familiar with SGR maintenance and operations facilities;
- iv. Kenya Railways will maintain the "umbilical cord" relationship with the EPC Contractor even after taking over the operations to benefit from the well established and research supported railway support industries and technology in China.

### **Development of Phase 2A (Nairobi – Naivasha section)**

The Nairobi-Naivasha section is part of the Mombasa – Kampala – Kigali – Juba SGR. This section is steeped with challenges and controversies relating to corridor identification through the city of Nairobi. This section should be fast tracked to serve proposed Industrial Parks planned for locations within Navaisha Sub County and Narok County specifically Mai Mahiu and Suswa.

Industrial Parks are strategically located within geothermal steam fields and electricity generation. Locations targeting industries requiring large quantities of cheap steam and quality electricity supply (such as leather and textiles)

### **Phase 2A route Description**

The phase 2A route is described as follows:-

- i. Starts from the West end of the Nairobi South Hub (end point of the Mombasa – Nairobi SGR);
- ii. Turns south-westwards through the Nairobi National Park and west past Twala and Ongata Rongai Towns;
- iii. Crosses Magadi Road next to the Adventists University and Ngong Road at Embulbul;
- iv. Descends into Rift Valley through a tunnel located North-West of Ngong Hills;
- v. Proceeds North-West to the proposed Industrial Parks at Mai Mahiu and Suswa
- vi. Crosses B3 at Duka Moja;
- vii. This is the most difficult section of the Mombasa – Malaba SGR

### **2.3.3 Mitigations for crossing Nairobi National Park**

In order for SGR not to disrupt the operations of the National Park, the following mitigations were put in place:-

- i. SGR crosses the park on a single line bridge spanning the total width of the Park (6.0 Km);
- ii. Average height of the bridge above the ground = 18 metres – starting from 8 metres at the entrance into the Northern side of the Park and 41 metres at the exit Southern end of the Park;
- iii. Bridge ensures the Park remains undivided;
- iv. Clearance under the bridge considered adequate for smooth flow of Wildlife across the bridge and tourists traffic;
- v. The bridge is similar to that applied across the Tsavo River where there is evidence wildlife have already got used to passing under the bridge;
- vi. Bridge pillar foundations dug deep into the ground to reduce ground vibration during the operations;
- vii. Noise deflectors installed on the bridge to reduce noise from passing trains;
- viii. Bridge abutments to be outside the park to prevent human trespass and wildlife escaping;
- ix. Bridge colour to be chosen for blending with the environment;
- x. Bridge pillars to be at least 32 metres apart for unrestricted movement of wildlife in the Park. Bridge will be constructed in three (3) stages ensuring adequate space for wildlife and tourists traffic.

### **2.3.4 Emerging issues in Standard Gauge Railway development**

1. The slow pace of railway development in East Africa due to financing capacity and lack of railway support industries. The railway projects are expensive with limited financing options; case for development easier to argue when supporting local industries;
2. The new railway development will be complementary to the roads transport industry;
3. EXIM Bank of China is financing the railway projects sustainably through EPC (turn-key) contract development, however benchmarking with similar railway projects is paramount;
4. The metre gauge railway needs rehabilitation for the country to benefit from extensive penetration and network of branch lines and sidings; the existing MGR specifications restrict its freight and passenger haulage capacity;
5. The proposed Phase 2A of the SGR is not “passing through” Nairobi National Park but it is “passing over” on a viaduct designed for:

- i. Free passage of wildlife under the viaduct,
- ii. Minimum interference with wildlife life during construction,
- iii. Minimum noise during trains operations, and Minimum ground vibration.

## **2.4 TANZANIA**

It was mentioned that Reli Assets Holding Company (RAHCO) and Tanzania – Zambia Railways Authority (TAZARA), manage Railway infrastructure in Tanzania. The railway infrastructure managed by TAZARA has a total length of 1,860km, which runs from Dar es Salaam in Tanzania to Kapiri - Mposhi in Zambia, while the total railway network managed by RAHCO is 2,707km, of which 2,127km (79%) is operational, namely:

- i) Central Line from Dar Es Salaam to Kigoma via Tabora and Kaliua of 1,252km;
- ii) Mwanza Line from Tabora to Mwanza via Isaka of 379km;
- iii) Link-Line from Muruazi Junction to Ruvu Junction of 188km;
- iv) Tanga-Korogwe Line of 98km;
- v) Mpanda Line from Kaliua to Mpanda of 210km.

The United Republic of Tanzania has given priority to the Central Railway Line Network. The entire Central Railway Network planned for development to standard gauge is 2,561Km and the government of Tanzania has given priority to the following sections:

- i. Dar es Salaam-Isaka-Mwanza (1,219Km),
- ii. Tabora-Uvinza-Kigoma (411Km),
- iii. Kaliua-Mpanda-Karema (321Km),
- iv. Isaka-Rusumo (371Km),
- v. Keza-Ruvubu (36Km); and
- vi. Uvinza-Kalelema towards Musongati (203Km).

### **2.4.1 STATUS OF RAILWAY INFRASTRUCTURE**

In Financial Year 2016/17, the Government of Tanzania has set aside funds to build a Standard Gauge Central Railway line, which will be parallel to the existing meter gauge. The new line will be built into phases; phase one will be from Dar es Salaam to Mwanza (1,219km) whereby the tender documents for design and build for section one of phase I (Dar Es Salaam – Morogoro, 202km) have been opened in this December, 2016.

The second Phase will be from Isaka – Keza – Rusumo – Ruvubu; third phase is from Tabora - Kigoma whereby detail design is still ongoing and last phase from Kaliua - Mpanda-Karema and Uvinza - Musongati whereby feasibility study and preliminary



design is ongoing. All studies are expected to be complete before the end of financial year 2016/17.

### **Criteria for projects selection**

The Identification of the projects was based on the East Africa Railway Master Plan and also on Article 89 of the Treaty for the establishment of East African Community, which focuses on:

- i. Harmonization of standards and regulations;
- ii. Integrate roads, railways, airports, ports, and pipelines programmes in their territories;
- iii. Grant special treatment to land-locked Partner States;
- iv. Provide security in the transport corridors for smooth movement of goods and persons.

## **2.4.2 RAILWAY PROJECTS IN TANZANIA**

### **1. Northern or Tanga development corridor**

This proposed standard gauge railway line will traverse northern Tanzania corridor from Tanga to Arusha (438km) on existing Right of Way (RoW) to replace the existing meter gauge and then extend in a green field to Musoma port in Lake Victoria (about 670km) with spurs to Engaruka soda ash mine and Minjingu phosphate mine, the total length is about 1,108 Km.

Detailed Design of Tanga to Arusha has been completed and feasibility study and preliminary design of Arusha to Musoma section is still ongoing and scheduled for completion in June 2017.

### **2. Southern or Mtwara development corridor**

The Southern railways corridor is 1,000km, which will provide connectivity from Mtwara Port to Liganga Iron Ore fields located about 874km west of Mtwara Port.

In addition, the line will provide connectivity from Mtwara Port to Mchuchuma coalfields and construction will be of 120 pounds rails and concrete sleepers.

Feasibility study and preliminary design for construction of this railway line has been completed in February 2016, and it shows the project to be feasible.

### **2.4.3 Challenges**

In a bid to implement the railway projects in Tanzania, the following challenges were identified;

- a) Huge capital needed on investment of railway infrastructure;
- b) Coping with new technological advancements in the railway industry;
- c) Old and aged railway infrastructure.

## **2.5 UGANDA**

With regard to status of railway development in Uganda, It was mentioned that the Government of Uganda is fast tracking the development of Standard Gauge Railway (SGR) in order to significantly contribute to transforming the country to middle income status. The SGR project is being implemented as a regional project with Uganda's NCIP partner states of Kenya, Rwanda and South Sudan, and a total of 1,724Km will be constructed countywide in phases. The SGR will be a modern, efficient, reliable and affordable railway system in Uganda

### **2.5.1 SGR Implementation Progress**

It was mentioned that the development of the SGR will be phased starting with the Eastern Route and the construction is scheduled to commence early 2017.

#### **Progress on Eastern Route**

The engineering, procurement and construction (EPC) /Turkey contract signed with M/s China Harbour Engineering Co. Ltd. (CHEC) for development of the Eastern and Northern routes in March 2015. The Addendum to the EPC/Turnkey contract to prioritize Eastern Route ahead of the Northern Route signed whereby the feasibility study is complete and preliminary design ongoing.

The financing application was made to China EXIM bank in December 2015 and the financing negotiations are in advanced stages including land acquisition of 273.44km by 60m for development, which is substantially complete. Seismic and Mineralogy studies were completed and electricity connection plan from 132kV transmission lines to the

traction substations have been prepared.

The Government of Uganda and CHEC Ltd signed an Operation and Management Memorandum of Understanding (MoU) in addition to a bilateral agreement on Operations that was signed between Uganda and Kenya.

The process of harmonizing the SGR project with other infrastructure in Uganda continues, to enhance project viability, environmental analysis in terms of TOD (total oxygen demand) and COD (chemical oxygen demand) have been mainstreamed including) Railway industrial parks, Inland Container Depots and Grain silos

It was further highlighted that the development of common policy, legal and institutional framework across four Northern Corridor Infrastructure Projects (NCIP) Partner States is ongoing and it is spearheaded by Kenya. In addition, the local content for construction inputs was mainstreamed with 40% target and the capacity development plan has already been prepared.

### **PROGRESS ON OTHER ROUTES**

**Northern Route.** This is Tororo-Gulu-Nimule/Gulu-Pakwach-Vurra route with total route distance of 762Km, and it is part of the CHEC EPC/Turnkey contract. A bankable feasibility study by CHEC is already completed and the addendum to bankable feasibility Study for Pachwach-Vurra section is also being discussed as directed by the NCIP Summit. The environmental and social impact assessment (ESIA) for this project is also completed.

### **Western and South Western Routes**

These routes are Kampala-Kasese-Mpondwe-Hima, Bihanga-Mirama Hills and Muko with total route distance of 660Km. The MOU for EPC/Turnkey development was signed in June 2015 with CCECC of China and the Bankable Feasibility Study by CCECC was completed including the Environmental and Social Impact Assessment (ESIA).

## **Existing Uganda Meter Gauge Railway (MGR)**

With regard to the MGR, the concession to rift valley railway (RVR) was done in 2006 for 25 years Jointly by Uganda and Kenya, and the concession involved handing over (conceding) to RVR most Uganda Railway Corporation (URC) core assets. The whole network was concessioned but only 338km (27%) was taken over by RVR for operations at commencement

## **Expectations from RVR Concession**

The following were expectations from the concession to RVR:-

- i. Increased rail freight market share;
- ii. Attract private capital and expertise necessary to improve operational efficiency and quality of service;
- iii. Reduction in freight transport cost;
- iv. Reduction in congestion on the roads and emissions;
- v. Reduced Government financial support to railway sub-sector;
- vi. Generation of additional Government revenues through concession fees and taxes.

## **Performance of the concession**

Despite the above expectations from the concession to RVR, unfortunately by 2010, RVR had breached most of key concessionaire obligations, and the concession was restructured in August 2010 to avert collapse. To date, the concession performance remains unsatisfactory in spite of restructuring and the Government of Uganda has already served RVR with notices of default.

## **Future Plans (Northern MGR line)**

The following are future plans for the Northern Metre Gauge Railway line:

- i. European Union has agreed to partially fund upgrading/rehabilitation of northern line from Tororo to Gulu (373km);
- ii. Budget USD 30m (EU to provide USD 22.5m);
- iii. Scope of work includes stone ballasting plus essential repairs to earthworks, bridges, culverts, and station loops;
- iv. Construction to take two years: operations to commence in 2020;
- v. The Feasibility study is completed; and
- vi. Detailed design, tender documentation, cost estimation, Environmental and Social Impact Assessment, implementation plan and methodology are expected to commence soon.

### **3.0 GENERAL FINDINGS AND OBSERVATIONS**

1. It was observed that there is slow pace of railway development in East Africa due to lack of financing capacity and lack of railway support industries. The railway projects are expensive with limited financing options;
2. It was observed that there is no information sharing about the Standard Gauge Railway especially on the timelines by Partner States;
3. It was clearly observed that the construction of the Standard Gauge Railway among EAC Partner States is at different levels. Whereas some Partner States are in advanced stages, others are still lagging behind;
4. It was observed that there is minimal collaboration between the regional railway projects on the Central and Northern Corridors;
5. It was observed that there are limited skills and expertise in the railway infrastructure development in the East African Region;
6. It was highlighted that the existing metre gauge railways in Partner States are rundown and out-dated.


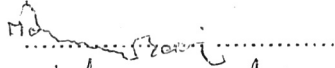
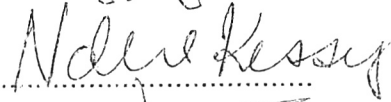
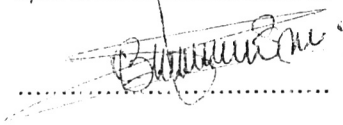
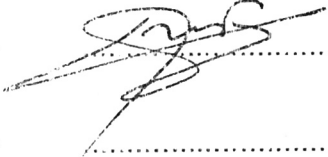

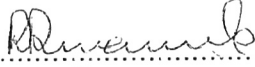

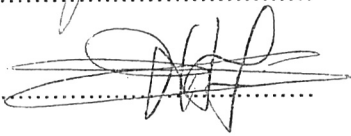
### **4.0 RECOMMENDATIONS**

1. The Committee recommends Partner States to set aside annual budgets to sustainably fund the implementation of railway projects in the region;
2. The Committee recommends that the East African Community should create an EAC infrastructure fund;
3. Partner States should continue with rehabilitation of the existing railway networks to complement new ones;
4. The Committee recommends to Partner States that the Railway projects on the central and northern corridors should be complementary to each other in terms sharing information, skills and expertise since they are all EAC regional projects;
5. The Committee recommends that training schools for railway technology should be established and improve on the already existing ones in the EAC to enhance the skills and expertise in the region;
6. The Committee recommends that Partner States should rehabilitate the existing metre gauge railways to enhance and improve extensive railway penetration and network.

**MEMBERS OF THE COMMITTEE ON COMMUNICATION, TRADE AND INVESTMENT**

**Report on Oversight of Railway Infrastructure in the EAC,**

**12<sup>th</sup> – 15<sup>th</sup> December 2016 – Nairobi, Kenya**

<b>NAME:</b>	<b>SIGNATURE</b>
1) Hon. Fred Mbidde Mukasa	- 
2) Hon. Abdullah Mwinyi	- .....
3) Hon. Argela Charles Kizigha	- .....
4) Hon. Bernard Mulengani	- .....
5) Hon. Dr. James Ndahiro	- 
6) Hon. Dr. Nderakindo P. Kessy	- 
7) Hon. Emerence Bucumi	- 
8) Hon. Frederic Ngenzebuhoro	- 
9) Hon. Joseph Ombasa Kiangoi	- .....
10) Hon. Nancy Abisai	- 
11) Hon. Nusura Tiperu	- .....
12) Hon. Patricia Hajabakiga	- 
13) Hon. Sara T. Bonaya	- 
14) Hon. Straton Ndikuryayo	- 
15) Hon. Yves Nsabimana	- .....