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A CRITICAL ANALYSIS OF THE REGIONALLY COORDINATED INFRASTRUCTURAL PROJECTS IN THE EAST AFRICAN COMMUNITY (2000 - 2015)

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DECLARATION

I, the undersigned, declare that this project paper is my original work and has not been presented for the award of a degree in this University or any other institution of higher learning for examination.

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DEDICATION

I dedicate this thesis to my late Father, Ibrahim Roba who always encouraged me on all academic endeavours.

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LIST OF ABBREVIATIONS

AEC	African Economic Community
AfDB	African Development Bank
ARIA	Assessing Regional Integration in Africa
CCTTFA	Central Corridor Transit Transport Facilitation Agency
CHEC	China Harbour Engineering Company
CRBC	China Road and Bridge Corporation
DRC	Democratic Republic of Congo
EAC	East African Community
EACCM	East African Community Customs Management
ESIA	Environmental and Social Impact Assessment Report
ESM	Environmental and Social Management Plan
FDI	Foreign Direct Investment
FTA	Free Trade Area
GDP	Growth Domestic Product
ICT	Information Communication Technology
JICA	Japanese International Cooperation Agency
KAM	Kenya Association of Manufacturers
KMEAC	Kenyan Ministry of East African Community
KMFAIT	Kenyan Ministry of Foreign Affairs and International Trade
KNCCI	Kenya National Chamber of Commerce and Industry
KPA	Kenya Ports Authority
LAPSSET	Lamu - South Sudan – Ethiopia
MWAPORC	Mwambani Port and Railway Corridor

NCTA	Northern Corridor Transit Agreement
NCTTCA	Northern Corridor Transit Transport Coordination Authority
NTBs	Non-Tariff Barriers
OSBP	One Stop Border Post
RECs	Regional Economic Communities
RIEPA	Rwanda Investment and Export Promotion Agency
SID	Society for International Development
TPA	Tanzania Port Authority
UNCTAD	United Nations Conference on Trade and Development

LIST OF FIGURES

LIST OF TABLES

TABLE OF CONTENTS

ABSTRACT

Infrastructural development is one of the key facilitators of regional economic integration, as it lowers the cost of doing business, facilitates economic growth, and encourages Foreign Direct Investment attraction. The EAC has been considered as one of Africa's RECs with huge infrastructural ambitions through projects such as the development of the Lamu and Mwambani Corridors, to reduce the stress on the traditional Northern and Central Corridors. The sub-region also currently has the highest number of regionally coordinated infrastructural projects that are being implemented on the continent, in its five corridors. It has also completed the construction of its Arusha – Namanga – Athi River Road Project which links its traditional corridors with a considerable number of instant benefits. This study is a critical analysis of the EAC coordinated infrastructural projects. Its objectives include the interrogation of the various EAC coordinated infrastructural projects, assessment of the implementation of these infrastructural projects, and the investigation of the challenges facing infrastructural development in the EAC. In addition, it examines the funding dynamics of these projects and the impacts of the already completed projects. The study argues that: the identification of the EAC coordinated infrastructural projects has facilitated donor financing of such projects; the implementation of the regional infrastructural projects has recorded measurable progress; and that inadequate funding is a key challenge facing infrastructural development in the EAC. This study is based on the Modernization Theory of Development. It adopted a qualitative research methodology using both primary and secondary data. The researcher used interview guide to collect data from 25 key respondents. Secondary data were analyzed using content analysis.

CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

This chapter contains the introduction, background to the study, problem statement, objectives of the study, literature review, justification of the study, hypotheses, theoretical framework, research methodology and chapter outline.

1.2 Background to the Study

Scholars, researchers and international organizations have considered infrastructural expansion and development as one of the benefits and facilitators of regional economic integration. This is because infrastructure facilitates free movement of people, goods, services and capital. Infrastructure also facilitates economic growth, rapid integration of economies, reduces transaction costs to business and encourages Foreign Direct Investment (FDI) attraction for the maximization of economies of scale.[1] In any regional community where there is huge infrastructure gap, economic growth is slowed and regional economic integration is hampered.[2]

In the light of this, the African Economic Community (AEC) which was established through the Abuja Treaty in 1991, has infrastructural expansion as one of its core components needed to achieve its goals. These goals are the creation of Free Trade Area (FTA) by 2017, Customs Union, a Single Market (African Common Market) by 2013, a Central Bank, and a Common Currency by 2028.[3] The AEC has initiated several infrastructural projects across the continent

[1] B. Balassa (1967). *Trade Creation and Trade Diversion in the European Common Market*. The Economic Journal, vol. 77

[2] Rasul Shams (2005). *The Drive to Economic Integration in Africa*. Hamburgisches Welt-Wirtschafts-Archiv (HWWA) Hamburg Institute of International Economics

[3] UNECA (2012). *Assessing Regional Integration in Africa V: TOWARDS AN AFRICAN CONTINENTAL FREE TRADE AREA*. Addis Ababa: UNECA Documents Publishing Unit.

to facilitate the continent's economic integration. This has been majorly through its sub-regional economic blocs such as the CEN-SAD[4]; COMESA[5]; EAC[6]; ECCAS[7]; ECOWAS[8]; IGAD[9]; SADC[10] and UMA[11].[12] All these Regional Economic Communities (RECs) are all pursuing infrastructural expansion initiatives to facilitate trade and integration in their respective sub-regions.

The EAC is a pillar of AEC and currently comprises six partner states, namely, Kenya, Tanzania, Uganda, Rwanda, Burundi and South Sudan. Together, they cover an area of approximately 18 million km2, with a population of 133.5 million people, GDP of $74.5 billion and GDP per capita of $558.[13] While the trade bloc is made up of small economies and low per capita income, it is not left out in the pursuit of infrastructural expansion to facilitate trade and integration within the sub-region. Infrastructural projects have always topped the agenda of the EAC leaders' in each of their summits.[14] Identifying infrastructural gap as one of the challenges of successful regional economic integration, the EAC has made several infrastructural progress.

Retrieved on 22 July 2016, from http://www.uneca.org/publications/assessing-regional-integration-africa-v

[4] Community of Sahel-Saharan States

[5] Common Market for Eastern and Southern Africa

[6] East African Community

[7] Economic Community of Central African States

[8] Economic Community of West African States

[9] Intergovernmental Authority on Development

[10] Southern African Development Community

[11] Arab Maghreb Union

[12] UNECA (2012). *Assessing Regional Integration in Africa V: TOWARDS AN AFRICAN CONTINENTAL FREE TRADE AREA*. Addis Ababa: UNECA Documents Publishing Unit. Retrieved on 22 July 2016, from http://www.uneca.org/publications/assessing-regional-integration-africa-v

[13] Lijphart, Arend (2009). *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries*. New Haven, CT: Yale University Press

[14] Christabel Ligami (2015). *Infrastructure projects to top agenda at EAC leaders' summit*. The East African.
Retrieved on 22 July 2016, from http://www.theeastafrican.co.ke/news/Infrastructure-projects-to-top-agenda-at-EAC-leaders--summit--/2558-2623474-cajed8z/index.html

These include the modernization of the Northern and Central Corridors through the construction of several new roads and rails, as well as construction of new corridors such as the Lamu & Mwambani which contain ports, roads & railways to ease the pressure on the two traditional corridors. Most of these projects are ongoing and the Arusha–Namanga–Athi River Road Project has been completed.[15] There are further initiatives of the EAC in the development, modernization and expansion of ports, energy & railways.

1.3 Statement of the Research Problem

A considerable number of studies done by researchers such as Adero and Aligula[16] and organizations such as the United Nations Economic Commission for Africa[17], African Development Bank[18] and World Trade Organization[19] have identified poor infrastructure as a key obstacle to successful regional economic integration of African economies. Most of them have further analyzed the infrastructural progress of several African RECs including the EAC. However, none of them has adequately analyzed the EAC coordinated infrastructural projects as well the challenges that face infrastructural development in the sub-region; hence, the essence of this study to cover the gaps in these researches.

This study therefore seeks to critically analyze regionally coordinated infrastructural projects in the EAC. The study assesses the implementation of these projects in the EAC and finds out the challenges facing infrastructural development in the sub-region. In addition, the study

[15] Ibid
[16] Nashon Adero and Eric Aligula (2012). *CHALLENGES FACING TRANSPORT INFRASTRUCTURE IN THE EAST AFRICAN COMMUNITY*. Book Chapter in African Research and Resource Forum, Research Networking and Regional Development Policy-Making in the East Africa Community, Nairobi: ARRF. 90-113
[17] See the Organization's Assessing Regional Integration in Africa Reports I - VI
[18] African Development Bank (2015). *EASTERN AFRICA - REGIONAL INTEGRATION STRATEGY PAPER 2011 – 2015*. Regional Departments – EAST I & EAST II (OREA/OREB)
[19] World Trade Organization (2011). *Staff Working Paper ERSD-2011-14*. Economic Research and Statistics Division

attempts to offer coherent recommendations on ways that these challenges could be mitigated in order for the sub-region to expand its infrastructure and make regional economic gains.

In the light of this, the study attempts to answer the following questions:

i. What are the various EAC coordinated infrastructural projects for the development of the sub-region?

ii. How effective has the implementation of these infrastructural projects been?

iii. What are the challenges facing infrastructural development in the EAC?

iv. In what ways could these challenges be mitigated for the sub-region to facilitate economic progress and reap trade benefits?

1.4 Objectives of the Study

The main objective of this study is to analyse the EAC coordinated infrastructural projects for the sub-region's development.

More specifically, the study aims to:

i. To interrogate the various EAC coordinated infrastructural projects for the development of the sub-region.

ii. To assess the implementation of these infrastructural projects.

iii. To investigate the challenges facing infrastructural development in the EAC.

1.5 Literature Review

In this section, several studies done by other researchers on economic integration, regionally coordinated infrastructural projects in Africa, the performance of the EAC and EAC coordinated infrastructural projects are reviewed. This is an analytical review of the studies done by other researchers on these narratives. The aim of this section is to identify debates, from various studies that have been carried out in this area. This study then fills the gaps in literature reviewed.

1.5.1 Economic integration

The 2009 World Development Report states that regional integration aims to open up local markets not only to the region but also to the global consumers. When there is an effective REC, participating states have an opportunity to tap into the global scene where the benefits are wide and more rewarding given their magnitude and variety of goods on offer.[20]

Similarly, the DFID argues that economic integration is a very critical component in the current age of globalization as it facilitates trade between the relating countries. And as a result, increased trade among states results to increased production and enhanced growth.[21]

1.5.2 Economic Integration in Africa

Various researchers and organizations have carried out studies on Africa's economic integration.

[20] World Bank (2009). *World Development Report 2009 - Reshaping Economic Geography*
[21] DFID (2011). *Regional Integration and Trade in Sub-Saharan Africa: Trade and Investment Analytical Papers*, Topic 7 of 18. Department for Business Innovation and Skills

The UNECA's Report, "Assessing Regional Integration in Africa I (ARIA)" has been analyzing the challenges, prospects, and the institutional frameworks of Africa's economic integration agenda. The report shows updates on the progress of infrastructural projects being carried off by many African RECs. The last of ARIA was the 7th version which addressed the challenges of successful integration of African economies.[22]

Furthermore, several papers have interrogated the history of regional integration in Africa, and other challenges facing RECs in Africa.[23] Hartzenberg in his study explains how RECs' efforts by African governments are all characterized by ambitious targets, and a poor implementation record. He also pointed out other challenges of poor infrastructure, NTBs, lack of political commitment and sovereignty.[24]

1.5.3 The performance of the East African Regional Integration

Several studies carried out to assess the performance of East African regional integration, though having slightly varied results, also generally conclude that the experience of East Africa regional development has been that of a success when compared with its comparative RECs on the continent.[25] [26] Studies indicate that most East Africa's regional development schemes have been fully implemented as designed. However, internal trade barriers have not been completely eliminated, free movements of factors of production still remains a bottleneck while poor infrastructure and other constraints continue to ensure that intra-regional transactions costs remain very high. As such, East African regional integration has

[22] UNECA (2013). *Assessing Regional Integration in Africa VI: Harmonizing Policies To Transform The Trading Environment*. Addis Ababa: UNECA Documents Publishing Unit.
[23]Trudi Hartzenberg (2011). *Regional Integration in Africa*. World Trade Organization Economic Research and Statistics Division - Staff Working Paper ERSD-2011-14
[24] Ibid
[25] Makame, A. (2012). "The East African integration: Achievement and challenges". *Great Insights*. Vol 1 Issue 6.
[26] Mittelman, J. & Johnston, R. (2013). The globalization of organized crime the courtesan state and the corruption of civil society, *Global Governance*, vol. 5, no. 1, pp. 103–126.

not been able to entirely provide the citizens of the participating countries the full enjoyment and benefits of integration.

Contradictingly, Kenyoru argues that although East African regional integration which is expected to play a vital role in the socio-economic transformation of the East African economies and help alleviate poverty through sustained recovery and growth, there is the striking contradiction between general emphasis on the need for economic integration in East Africa and the scanty evidence of practical success.[27] Evidence tends to suggest that, to date, none of the regional integration has made any appreciable progress towards the all-engaging objective of creating a robust and competitive sub-regional economic market, let alone an economic community, despite the human and financial resources deployed. For example, no significant progress has as yet been made on industrial development and fiscal harmonization which are important objectives of the treaties establishing the institutions. Other challenges facing the deepening of the EAC integration include: persistence of Non-tariff barriers (NTB); lack of a common policy with regard to partner states' trade policies to non-partner states; the lack of standardised customs formalities; the lack of harmonised procedures; and different approaches to investment and export promotion.

1.5.4 EAC Regional Infrastructure

The EAC Partner States have identified the needed joint infrastructure investments aimed at overcoming the supply constraints which increases the transaction costs and thus induces profitability & productivity of investments.[28] The EAC has been coordinating and harmonizing transport and communication policies so as to improve the existing links and

[27] Kenyoru A, (2010). *Trade Policy in Kenya, Kenya Policies for Prosperity*. Oxford: Oxford University Press.
[28] Guillaumont, S., and Gunning, J.W. (2007). The Future of Lomé: Europe's Role, *The World Economy*, vol. 20, no.3, pp.285-306.

establish new ones. Results so far have been averagely encouraging because of the expansion of the region's largest port at Mombasa and the Kenya-Uganda railway line, Arusha – Namanga -Athi River, Mombasa and Dares Salaam ports and other facilities that connect the countries.[29] However, rigidities characterized by underdeveloped telecommunications and transport infrastructure bottlenecks, energy shortages, and trade restrictions are impediments to the free flow of goods and services within the region which reduces potential benefits. Despite current efforts to construct/rehabilitate roads and rails, transport is still a major bottleneck of regional trade and is affected by disjointed and unpaved links, inadequate and underperforming rail networks.[30]

The EAC transport network is composed of the two transport corridors; the northern and the central transport corridors.[31] The Northern Corridor has the port of Mombasa in Kenya serving as the lifeline for Uganda, Rwanda and Burundi, ending in the city of Bujumbura. The Central Corridor has the port of Dares Salaam as a major hub for imports, exports and trade for Rwanda, Burundi and the eastern part of the Democratic Republic of the Congo. The advantage with the Central Corridor is its two separate routes; one runs in Burundi through various key cities and towns, while the other in Rwanda goes through Kigali.[32]

[29] Williams, P. (2002), Cooperation Among Criminal Organizations, in: M. Berdal & M. Yu, Jiang and Allen E. Liska. 1993. "The Certainty of Punishment: A Reference Group Effect and its Functional Form." *Criminology* 31:447-464.
[30] Cohen. E. (2010). "Structural Covariates of Homicide Rates: Are There Any Invariances Across Time and Social Space?" *American Journal of Sociology* 95:922–63.
[31] Kenney, M. (2007), The Architecture of Drug Trafficking: Network Forms of Organisation in the Colombian Cocaine Trade, *Global Crime*, vol. 8, no. 3, pp. 233–259.
[32] Hall, T. (2012), The geography of transnational organized crime: spaces, networks and flows, in: F. Allum, S. Gilmour (eds.), Routledge Handbook of Transnational Organized Crime, London: Routledge, pp. 173-185.

Ogalo predicts that the traffic forecast for both the Northern and Central Corridors may overwhelm current capacity.[33] Demand on the major routes (highways, ports and railways) will increase by a factor of four from 24 million tons in 2015 to 100 million by 2030 at the ports. The roads will receive 80 per cent more traffic by 2015 and four times more by 2030. The railways will have to accommodate 6.5 million tons in 2015 and 18 million in 2030. According to the Society for International Development (SID) report on State of East Africa 2012, the region's total road network in 2008 was 183,178 km, of which 91 per cent was unpaved, while only 9 per cent was paved.[34]

The EAC, sub-Saharan Africa and low income countries exhibit similar trends showing low levels of scores.[35] This is because of the challenges such as cumbersome customs procedures, dilapidated infrastructure and poor logistics competence that slow the pace of economic development. ICT is critical towards socio-economic and political developments in the region. In addition, ICT is considered as a channel through which the EAC common market will improve global access of her people and competitiveness of goods and services from the region. Articles 89, 99 and 103 of the EAC Treaty highlight the EAC quest to improve ICT to foster efforts towards economic development.[36]

According to the African Development Bank, on the poor state of regional infrastructure in the EAC, inadequate and poor regional transport infrastructure network limit economic growth and trade expansion. Infrastructure bottlenecks such as poor road network and

[33] Ogalo, Informal Cross-Border Trade in EAC Implications for Regional Integration and Development , Nairobi: Cuts Africa Resource Center 2012.
[34] Roger Osborne (2013); *Civilization: A New History of the Western World,* High Tide Publishers, London.
[35] Campbell, H. (2008), Female Drug Smugglers on the U.S.-Mexico Border: Gender, Crime, and Empowerment, *Anthropological Quarterly*, vol. 81, no. 1, pp. 233– 267.
[36] Clarke, R. & Tilley, N. (eds.) (2010), *Situational Prevention of Organised Crime*, Cullompton, UK: Willan.

inefficient railway system must be proactively addressed if Eastern Africa is to integrate further and attain the competitiveness required to underpin substantial economic growth through trade expansion. The regional transport infrastructure is still weak and laced with missing links and incompatibilities in the regional systems. As a result, the different networks are not optimally utilized, thus limiting opportunities to achieve the economies of scale necessary to attract and sustain private investment to the networks.[37]

Furthermore, the regional bank reported that the railways system is burdened with aging tracks and lack of maintenance, a shortage of serviceable rolling stock limit operational performance, different gauges of tracks prevent seamless regional connectivity between Eastern & Southern Africa. Rail companies, which own the tracks, do not have the fiscal space to invest in upgrading existing or developing new rail networks. Poor road quality networks constitute an added cost disadvantage. Some roads also have incompatibility problems, with some designed for higher axle load limits than others. Cumbersome trade logistics and regional variations in technical standards constitute transit challenges. The major international seaports in the region (Mombasa and Dar es Salaam) face capacity constraints, resulting in congestion and berthing delays.[38]

1.5.5 EAC Protocols, Political Coordination and Harmonization

At the same time the East African Community partner states are calling for people centered and private sector driven integration.[39] Most importantly, the partner states seek to increase the market size – trade expansion and utilization of regional factors of production through regional economic integration. Furthermore, as the East African Community progresses

[37] African Development Bank (2011). Eastern Africa - Regional Integration Strategy Paper 2011 - 2015. Regional departments – East I & East II (OREA/OREB)
[38] Ibid
[39] Sezibera Richard, (2012). *EAC states endorse defence pact as part of integration*. www.ieee.es/.../2012/DIEEEI67-2012_ManiobrasMilitares.

towards other stages of integration, it will enable its position to bargain in an effective manner with other sub regional integration schemes, international organizations and non-state actors in the international arena.

Nevertheless, since the partner states relaunched the EAC in 1999, the treaty establishing the community has laid down several areas of cooperation and integration stages of which partner states undertake to establish among themselves. Ever since the community was re-established, the slow pace of implementation of protocols, resolutions and directives at the national level has been attributed to lack of functional regional structures capable of enforcing laws and policies under the EAC treaty.[40]

Nabudere asserts that integration by definition requires constant institutional arrangements and policy coordination mechanisms.[41] Wanyama maintained that coordination is the central nervous system of any regional economic community.[42] The initiatives in the coordination provide the pathways along which decisions flow. According to the EAC setting the secretariat is mandated to draft laws and forward these to the council of ministers which then forwards them to the East African Legislative Assembly. The final decisions are taken by Heads of State in the summit.

The EAC legislative powers lie effectively in the secretariat and the summit. The East African Community, sectorial committees on foreign policy coordination, trade, defence and

[40] Sallie Simba (2003). "Democratization processes in Uganda and their implication on East African integration." Report of workshop on deepening integration in East African Community. University of Dar es Salaam, *Department of Political Science and Public Administration*

[41] Nabudere, D. (2004). *The Fast-tracking of Federation and Constitutionalism in East Africa*, Dares Salaam

[42] Wanyama, L. (2013). *The economic diplomacy of Kenya's regional interests*. SAIIA Occasional Paper No 137.

security, among others, form the major link between the secretariat and national structures.[43] However, the coordination between EAC 22 sectoral committees and national structures are very weak between the layers of above and below. In light of the above, the EAC member states need to elaborate and finalize the role and mandate of their regional ministries of East African Cooperation, due to the fact that there is a misalignment in the structures and operational set ups of the ministries.[44]

In the meantime, the EAC secretariat has proposed that partner states establish the EAC national units to facilitate the coordination of community policies, programmes and projects at the national level.[45] Consequently, Hobbs and Dunnighan noted that it is therefore essential for national structures to collaborate in the process of policy design, implementation and assessment at the regional level.[46] In 2006, the council of ministers established a sectorial council of ministers responsible for the East African Community affairs in the partner states to facilitate the coordination of policies, positions and to discharge the functions of the council of ministers in the context of Article 14(3)(i) of the EAC treaty.[47]

[43] Lijphart Arend (2009). *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries*. New Haven, CT: Yale University Press
[44] Warner Andrew (2011). *EAC Foreign Service and Export Trade Promotion*. Milton Keynes: AuthorHouse, 2009, p. 20.
[45] Kleemans, E.R. (2011), Expanding the domain of human trafficking research: introduction to the special issue on human trafficking, *Trends in Organized Crime*, vol. 14, no. 2-3, pp. 9599.
[46] Hobbs, D. & Dunnighan, C. (2011), Glocal Organised Crime: Context and Pretext, in: V. Ruggiero, N. South, I. Taylor (eds.), *The New European Criminology: Crime and Social Order in Europe*, London: Routledge, pp. 289–302.
[47] Ellis, S. (2009), West Africa's International Drug Trade, *African Affairs*, vol. 108, no. 431, pp.171–196.

According to Decker and Chapman, states that are up to date partner states implement internal tariffs, but goods are not circulating freely within the region.[48] Bruinsma and Bernasco pointed out that the East African region cannot have a single customs territory unless barriers to integration and fears among the member themselves are fully addressed.[49] Andreas asserts that the lack of an agreed mechanism for collection and sharing of customs revenue as well as the harmonized domestic tax regimes has failed the EAC customs union.[50] He subsequently went on to argue that the harmonization of domestic tax collection on goods such as the excise duty and valued added tax in the East African region is the key to a fully-fledged customs union.

The Partner States of the East African Community signed a Common Market Protocol in November 2009 and its implementation began earnestly in July 2010.[51] The Protocol provides for four freedoms of movement for goods, people and labour, services and capital as well as two rights to reside or establish oneself or business venture anywhere within the boundaries of the Community. The stated objective of the EAC Common Market is to widen and deepen cooperation among the Partner States in the economic and social fields for the benefit of the Partner States.[52]

[48] Decker, S. & Chapman, M. (2008). *Drug Smugglers on Drug Smuggling: Lessons from the Inside*, Philadelphia, PA: Temple University Press.
[49] Bruinsma, G. & Bernasco, W. (2014), Criminal groups and transnational illegal markets: A more detailed examination on the basis of Social Network Theory, *Crime, Law and Social Change*, vol. 41, no. 1, pp. 79–94.
[50] Andreas, P. (2009). *Smuggling Wars: Law Enforcement and Law Evasion in a Changing World*, in: T. Farer (ed.), *Transnational Crime in the Americas: An Inter-American Dialogue Book*, New York: Routledge, pp. 85–98.
[51] Caulkins, P., Burnett, H. & Leslie, E. (2012). How illegal drugs enter an island country: insights from interviews with incarcerated smugglers, *Global Crime*, vol. 10, no. 1 & 2, pp. 66–93. *Contemporary Criminal Justice*, vol. 8, no. 1, pp. 1–10.
[52] Aniskiewicz, R. (2012), 'Portraits' in the world of organized crime, in: E.W. Plywaczewski (ed.), *Current Problems of the Penal Law and Criminology*, Warsaw: Wolters Kluwer Polska, pp. 19-31.

The specific objectives of the Common Market include to: accelerate economic growth and development of the Partner States through the attainment of free movement of goods, persons and labour, the rights of establishment and residence and the free movement of services and capital.[53] Strengthen, coordinate and regulate the economic and trade relations among the partner States in order to promote accelerated, harmonious and balanced development within the community. Sustain the expansion and integration of economic activities within the community, the benefit of which shall be equitably distributed among the partner states. Promote common understanding and cooperation among the nationals of the partner States for their economic and social development and enhance research and technological advancement to accelerate economic and social development.[54]

1.6 Justification of the Study

Analyzing the EAC coordinated infrastructural projects in the sub-region will be of great importance to EAC governments, development partners and policymakers in finding out the general progress made so far in the implementation of these projects and the challenges facing infrastructural development in the sub-region. In addition, this study offers recommendations through which some of these challenges would be mitigated.

To the academia, this study will add to the existing knowledge on this narrative and will serve as a source of secondary data for further researches.

[53] Içduygu, A. & Toktas, S. (2012). How do Smuggling and Trafficking Operate via Irregular Border Crossings in the Middle East? Evidence from Fieldwork in Turkey, *International Migration*, vol. 40, no. 6, pp. 25–54

[54] Mittelman, J. & Johnston, R. (2013). The globalization of organized crime the courtesan state and the corruption of civil society, *Global Governance*, vol. 5, no. 1, pp. 103–126.

To the general public, this study is expected to enhance knowledge on the regional infrastructural projects coordinated by the EAC.

1.7 Hypotheses

This study is guided by the following hypotheses:

1. The identification of the EAC coordinated infrastructural projects has facilitated donor financing of such projects.

2. The implementation of the regional infrastructural projects has recorded measurable progress.

3. Inadequate funding is a key challenge facing infrastructural development in the EAC.

1.8 Theoretical Framework

This study is based on the modernization theory of development. The theory helps to interrogate the theoretical background of the infrastructural aspirations and projects of countries and regional economic blocs. The theory has been used to explain the modernization process of societies. It refers to a model of a progressive transition from a 'traditional (often agricultural)' to a 'modern' society.[55] The theory looks at the internal factors of a country while assuming that, with assistance, "traditional" countries can be brought to development in the same manner more developed countries have. Modernization theory also attempts to identify variables such as infrastructural expansion and adaptation of new technologies as contributors to the development of societies.

[55] Diana Kendall, "Sociology in Our Times," 2007, p. 11

The theory maintains that traditional societies will develop as they adopt more modern practices such as developing and expanding infrastructure. Historians have linked modernization to the processes of infrastructuralization and industrialization, as well as to the spread of education.[56] Countries that are seen as modern are also seen as developed, and that means that they generally have modern infrastructure that facilitate businesses, economic growth and FDI attraction. Contributors to the theory include W. W. Rostow, David Apter, Seymour Martin Lipset and Edward.

Relevance to this study

The theory brings into effect the importance of regionally coordinated infrastructural projects to facilitate trade between countries in a trade region for increased trade relations, gains; and overall regional economic growth/development.[57] Without infrastructural modernization, development and expansion, countries within a sub-region would find it difficult to facilitate trade amongst themselves, which would impede the facilitation of their overall economic development. This theory explains why the EAC has been commissioning several infrastructural projects within the sub-region to facilitate intra-trade and regional development.

1.9 Research Methodology

This section entails the research design, target population, sample size & sampling procedures, data collection tools, and data analysis methods to be used in the analysis and presentation of data. The researcher used both primary and secondary data. The primary data was collected through interview guide while the secondary data was through researches already carried out on related areas.

[56] Walt W. Rostow, "Politics and the Stages of Growth," 1971
[57] Frankel, J. (2009). *The Regionalization of the World Economy*, Chicago, Chicago University Press

1.9.1 Research Design

This research used qualitative research design for data collection and data analysis. The study uses a case study approach of critically analyzing the EAC coordinated infrastructural projects for the development of the sub-region.

1.9.2 Data Collection

Primary data was collected through interviews with key concerned officials of the Kenyan Ministry of East African Community (KMEAC); Kenyan Ministry of Foreign Affairs & International Trade (KMFAIT); as well as diplomats at the Tanzanian and Ugandan embassies in Nairobi. The interview focused on the implementation of the EAC coordinated infrastructural projects for development and trade facilitation, as well as on the challenges facing infrastructural development in the sub-region. Purposive sampling was used to select the respondents. The sample was 25 respondents, divided within these institutions.

Secondary data was collected from review of existing literature on academic journals, policy documents, books, newspapers, periodicals, academic papers, magazines, TV documentaries about the narratives of this study. Data was also collected from the reports and websites such of the East African Community Secretariat, African Development Bank (AfDB), United National Economic Commission for Africa (UNECA) and World Bank.

1.9.3 Data Analysis

Collected data was analyzed using thematic, explanatory and descriptive analysis to analyze the EAC coordinated infrastructural projects for the development of the sub-region. Qualitative data was analyzed using thematic analysis and the task was to reduce a wide variety of items of information to a more limited set of attributes composing a variable.

Statistical tools such as graphs, charts and tables are used for better observation and comparison.

1.9.4 Ethics

Considerations such as professional practice - ensuring research instruments reliability & data validity and research ethics were adhered to by the researcher. The research used observer non-forceful respondent compliance, confidentiality and consent of the respondent. Research approval was obtained from the University of Nairobi.

1.10 Scope and Limitations of Study

Infrastructural projects refer to projects in transport, ports, communications and energy. However, this study only focuses on transport and port infrastructures. This is for the researcher to be able to closely examine them. In addition, it was not feasible to analyse all the infrastructural projects being recently implemented in the region.

1.11 Chapter Outline

The study is organized into five chapters:

Chapter one contains the introduction, background to the study, problem statement, objectives of the study, literature review, justification of the study, hypotheses, theoretical framework, research methodology and chapter outline.

Chapter two starts by interrogating the various EAC coordinated infrastructural projects for the development of the sub-region. It examines the purpose of these projects.

Chapter three starts by assessing the status of implementation of these infrastructural projects. Thereafter, it investigates the impacts of the few completed regional projects in the sub-region.

Chapter four starts by investigating the challenges facing infrastructural development in the EAC. Thereafter, is looks at the sources of financing of these projects and donor partnerships.

Chapter five contains the summary of the study findings, conclusions drawn from the study, policy implications emanating from the study and finally, suggestions on areas for further research.

CHAPTER TWO: AN OVERVIEW OF THE EAC COORDINATED INFRASTRUCTURAL PROJECTS

2.1 Introduction

East Africa has made an outstanding and unprecedented progress in the infrastructure construction industry. The industry witnessed a growth of over 13 percent between 2009 and 2013. The number of mega construction projects in East Africa grew by 12 percent in 2013 alone due to increased foreign investment from international construction firms. The surge in interest showcases the enormous potential the sub-region presents to foreign investors, specifically through the construction and expansion of sub-regional infrastructural projects to consolidate further economic growth, reduce poverty and amplify industrialization.

In line with the first objective of this study, this chapter starts by reviewing the various EAC coordinated infrastructural projects for the development of the sub-region. Thereafter, it examines the purpose of these projects. The data used has been collected from primary and secondary sources. Primary source was through interviews with 25 key concerned officials of the Kenyan Ministry of East African Community (KMEAC); Kenyan Ministry of Foreign Affairs & International Trade (KMFAIT); as well as diplomats at the Tanzanian and Ugandan embassies in Nairobi. Secondary source was through reliable sources such as scholarly papers; government departments such as KMFAIT, KMEAC; regional organizations such as the EAC, AfDB; and international organizations such as UNECA and World Bank.

2.2 Overview of the East African Community and state of its Infrastructure

The East African Community establishment treaty was signed on 30 November 1999 and entered into force on 7 July 2000 following ratification by the organization's three member states - Kenya, Tanzania and Uganda. Rwanda and Burundi acceded to the Treaty on 18 June

2007 and became full Members of the Community on 1 July 2007. South Sudan acceded to the Treaty on 15 April 2016. The East African Community is a regional economic organization with six East African countries including Burundi, Kenya, Rwanda, Tanzania, South Sudan and Uganda. The sub-region has a population of 158 million people (2015 estimate) and a combined GDP of $169.5 billion.[58]

Table 2.0 Transport Infrastructure Serving the East Africa Region

Country	Transport Corridors	Country	Transport Corridors
Burundi	1. Central Corridor (starting from Dar es salaam: Isaka-Kigali-Bujumbura) 2. Northern Corridor (starting from Mombasa)	Uganda	1. Northern Corridor (starting from Mombasa) ending at borders with Rwanda and DRC 2. Kampala-Gulu-Juba 3. Possible to benefit from the undeveloped Tanga-Arusha-Musoma transport corridor
Kenya	1. Northern Corridor (starting from Mombasa) 2. Nanyuki-Lokichogio-Juba 3. North-South Corridor (Cape Town to Cairo) 4. Moyale-Negale-Addis	Rwanda	1. Northern Corridor (starting from Mombasa) 2. Central: Isaka-Kigali-Bujumbura 3. Possible to benefit from the undeveloped Tanga-Arusha-Musoma transport corridor
Tanzania	1. North-South Corridor (Cape Town to Cairo) 2. Dar es salaam or Tazara Corridor 3. Central Corridor 4. Potential: Mtwara Corridor 5. Potential: Tanga-Arusha-Musoma transport corridor	Djibouti	Djibouti-Addis Ababa corridor
		Eritrea	Transport corridors linking Asmara with Ethiopia and Somaliland
		Sudan	1. Southern-Sudan: Juba to Northern Uganda-Gulu 2. Southern Sudan: Juba to Northern Kenya: Lokichogio-Lodwar-Marallel-Nanyuki
Ethiopia	1. Addis Ababa-Djibouti 2. Addis Ababa-Wendo-Negale-Moyale	Seychelles and Comoros	Sea and Air links with continental Eastern African cities

Source: AfDB, 2011

In 2004, the EAC signed its Customs Union which commenced on 1 January 2005. With this brought in the establishment of a free trade on goods & services among the partner states and

[58] EAC (2016). *Common Market*. Retrieved on 13 July 2016, from http://www.eac.int/integration-pillars/common-market

a Common External Tariff. Goods moving freely within the EAC must comply with the bloc's Rules of Origin and with some provisions of the Protocol for the establishment of the EAC Customs Union. In 2008, after negotiations with the Common Market of Eastern and Southern Africa and South African Development Community, the EAC agreed to a Tripartite Expanded FTA with the member states of all three organizations. The Tripartite is made up of 26 member countries.[59]

In 2010, the EAC launched its own common market within the sub-region.[60] This was for free movement of people, goods, services and capital within the sub-region.[61] In 2013, the EAC signed a protocol outlining its plans for launching a monetary union within 10 years.[62] In order to improve sub-regional competitiveness, attract FDI and boost economic growth, the EAC has been pursuing ambitious infrastructural projects.

Infrastructure was at the beginning regarded as an important element in any economy due to the catalytic role they play in the entire functioning of the economy. Infrastructure, which comprises of road transport, air and marine transport, has been given special attention by all the EAC Member States, and there have been regional efforts to improve the state of infrastructure in the region.[63] Energy and ICT have also received emphasis, both at national and regional level. Infrastructural development is crucial for stimulating investments in many

[59] EAC (2016). *COMESA-EAC-SADC Tripartite*. Retrieved on 13 July 2016, from http://www.eac.int/initiatives/comesa-eac-sadc-tripartite
[60] Reuters (2010). *FACTBOX-East African common market begins*. Retrieved on 2 February 2016, from http://af.reuters.com/article/kenyaNews/idAFLDE65T2AJ20100701?sp=true
[61] EAC (2016). *Common Market*. Retrieved on 13 July 2016, from http://www.eac.int/integration-pillars/common-market
[62] Reuters (2013). *East African trade bloc approves monetary union deal*. Retrieved on 2 February 2016, from http://www.reuters.com/article/us-africa-monetaryunion-idUSBRE9AT08O20131130?feedType=RSS&feedName=worldNews
[63] UNECA (2010). *Assessing Regional Integration in Africa IV: Towards An African Continental Free Trade Area*, UNECA Documents Publishing Unit, Addis Ababa.

parts of the sub-region whose potentials are yet to be exploited. This is important because it facilitates not only communication, but also ease the flow of goods and services as well as the movement of persons within the region. Currently, the poor state of infrastructure, particularly roads, remains a major constraint to the performance of the other key sectors in all the six East African Economies.

Table 2.1 Level of Access to Affordable and Reliable Infrastructure in the EAC (2007)

Sectoral Criteria	Kenya	Uganda	Tanzania	Rwanda	Burundi	Total average
Quality and cost of transport (roads, railways, air, sea)	24%	29%	46%	34%	28%	32%
Access to water	52%	65%	42%	48%	50%	51%
Access to affordable and reliable energy	33%	38%	38%	41%	25%	35%
Access to affordable and reliable ICT	53%	71%	62%	57%	38%	56%

Source: EABC Study, 2008

Table 2.2 Logistics Performance Indicators in Africa (2006)

Region	Quality of Infrastructure	Logistics Competence
1. East Africa	2.05	2.24
2. Western Africa	2.08	2.33
3. Central Africa	2.13	2.31
4. Northern Africa	2.36	2.83
5. Southern Africa	2.47	2.69
6. SSA Average	2.11	2.32
7. OECD Average	3.62	3.65

Source: World Bank, 2007

While oil discoveries in Kenya and Uganda and gas in Tanzania have made East Africa into an exploration hotspot for oil firms, the transport infrastructure in those countries has suffered from decades of under-investment. Infrastructure in the EAC has historically been amongst the Africa's and world's least developed (see table 2.2). However, the sub-region has now

attracted the attention of international construction firms looking to enter the African market. The EAC coordinated infrastructural projects encompass constructing/rejuvenating/expansion of roads, railways and ports. There are also projects in energy generation and communications.

Table 2.3 Logistics Performance Indicators (LPI) for EAC

Country/Region	LPI	Rank	Customs	Infrastructure	Logistics Competence
Uganda	2.82	66	2.84	2.35	2.59
Tanzania	2.60	95	2.42	2.00	2.38
Kenya	2.59	99	2.23	2.14	2.28
Rwanda	2.04	151	1.63	1.63	1.85
Burundi	-	-	-	-	-
East Africa (excluding Burundi)	2.51	-	2.28	2.03	2.28
Europe and Central Asia	2.74	1	2.35	2.41	2.60
Latin America and Caribbean	2.74	2	2.38	2.46	2.62
East Asia and Pacific	2.73	3	2.41	2.46	2.58
Middle East and Pacific	2.60	4	2.33	2.36	2.53
South Asia	2.49	5	2.22	2.13	2.33
Sub-Saharan Africa	2.42	6	2.18	2.05	2.28
High Income (OECD)	3.55	1	3.36	3.56	3.50
Upper Middle Income	2.82	2	2.49	2.54	2.71
Lower Middle Income	2.59	3	2.23	2.27	2.48
Low Income	2.43	4	2.19	2.06	2.25

Source: World Bank, 2010

As at 2008, table 2.1 shows the level of access to affordable and reliable infrastructure in the EAC. From the table, Tanzania has the highest percentage of 46 percent, followed by Rwanda (34 percent) down to Kenya (24 percent) on the quality and cost of transport (roads, railways, air and sea). Table 2.2 shows that on the continent, and as at 2007, East Africa had the least quality of infrastructure rated 2.05; followed by West Africa, 2.08; with Southern Africa having the highest rating of 2.47. Table 2.3 shows that Uganda has the highest LPI score in East Africa.

Although the EAC Member States scores were lower, Uganda had better customs procedures, logistics competence and infrastructure abilities at respectively 2.84, 2.35 and 2.59. On the other hand, of the EAC states whose data is available, Rwanda has the lowest scores in customs process, infrastructure quality and logistic competence as shown in table 2.3.

The EAC, SSA and low income countries exhibit similar trends showing low levels of scores. This is because of the challenges such as poor logistics competence, cumbersome customs procedures and dilapidated infrastructure slow the pace of economic development. The index also finds relatively low scores for the logistics competence for East Africa at 2.28 as compared to Northern Africa with 2.83 and High income countries' average of 3.50. However, the East African quality of customs processes score at 2.28 is higher compared to the Sub-Saharan region at 2.18 which reflects the achievements by the EAC common market. The quality of customs processes, infrastructure and logistics competence, in part, is likely to spur trade expansion, economic growth and development

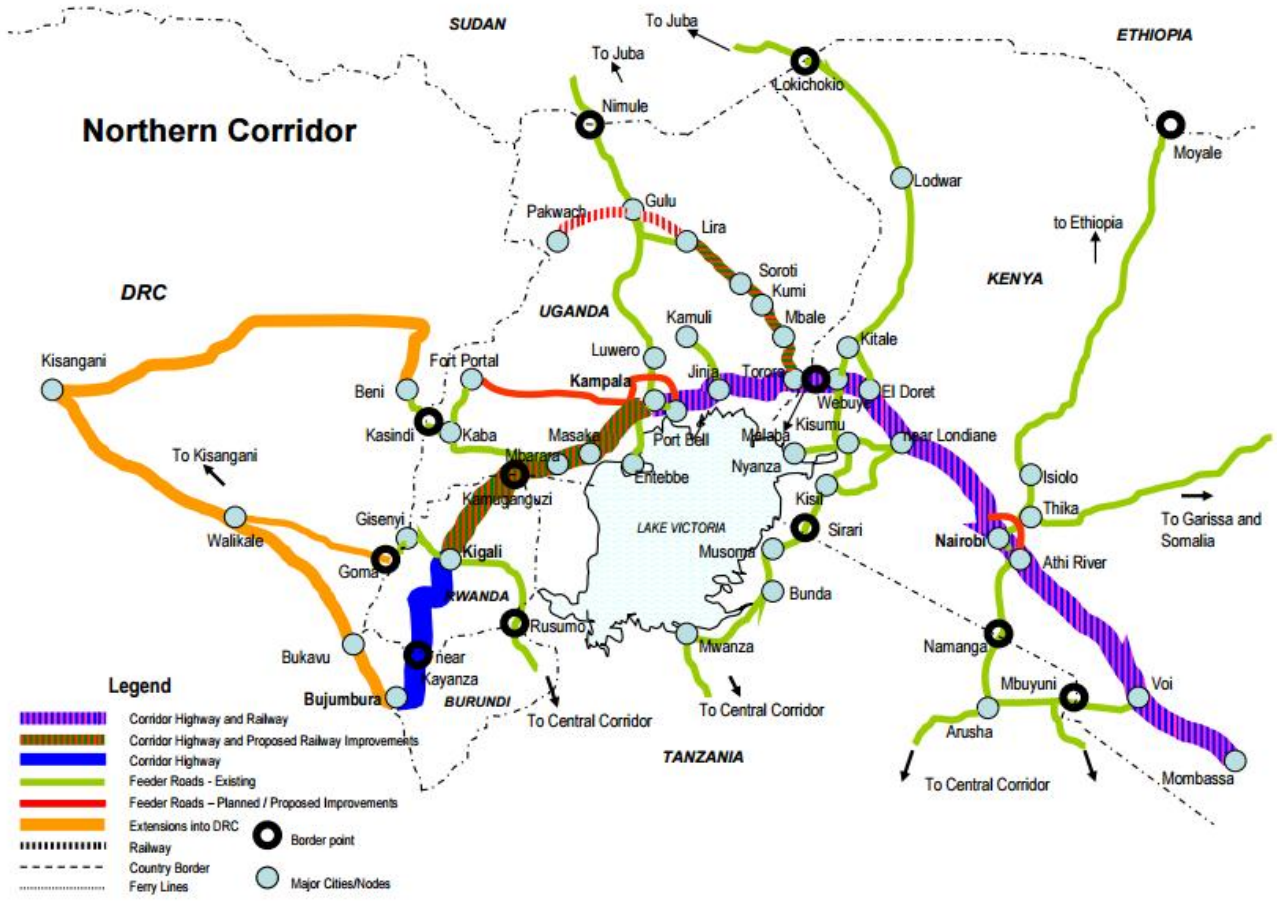
2.3 EAC coordinated infrastructural projects for the development of the sub-region

The infrastructural projects or transportation route in the sub-region has two major corridors, the Northern and Central (see figure 2.0). The Northern goes from Kenya to Burundi, starts from the Port of Mombasa and encompasses several railway and road projects along the route (see figure 2.1). The Central goes from Tanzania to DRC, starts from the Port of Dar es Salaam and encompasses several railway and road projects along the route (see figure 2.2). Table 2.0 shows the transport corridors on a country analysis while table 2.4 shows the 5 corridors (including the 3 new ones).

Figure 2.0 Main Connections of the Northern and Central Corridors

Source: EAC, 2011

Figure 2.1 Northern Corridor Roads and Rails



Source: Nathan Associates Inc., 2009

The Northern corridor was created to link the Mombasa Port to the landlocked countries of Burundi, DRC, Rwanda and Uganda. It also serves Ethiopia, Southern Sudan and Northern Tanzania. It is governed by the Northern Corridor Transit Agreement (NCTA), a multilateral agreement, signed by Burundi, Kenya, Rwanda and Uganda in 1985 and later by the Democratic Republic of the Congo in 1987.[64] Under the NCTA, the Northern Corridor is managed by the Northern Corridor Transit Transport Coordination Authority (NCTTCA). The NCTTCA's governing structure is made up of an authority, executive board and the secretariat. The secretariat is located in Mombasa and headed by an executive secretary. The

[64] UNECA (2010). *Assessing Regional Integration in Africa IV: Towards An African Continental Free Trade Area*, UNECA Documents Publishing Unit, Addis Ababa.

secretariat coordinates the implementation of the NCTA and any other decisions made by the authority and executive board.

The NCTTCA budget is self-financed by member states according to the following formula: Burundi - 10 per cent; Democratic Republic of the Congo - 20 per cent; Kenya - 30 per cent; Rwanda - 15 per cent; and Uganda - 25 per cent. Member States contribute either directly or by a tonnage levy. The levy is collected at the port of entry at Mombasa. In the case of non-member States (Tanzania, Sudan and Ethiopia) using the corridor, the secretariat proposes a levy to the Kenya government and the Kenya Ports Authority. Although not ideal, this funding mechanism has ensured the viability of the NCTTCA.[65]

The Central Corridor links the Port of Dar es Salaam to DRC. The Corridor is governed by the Central Corridor Transit Transport Facilitation Agency (CCTTFA), a multilateral agreement, which was signed by Burundi, DRC, Rwanda, the United Republic of Tanzania and Uganda in 2006.[66] The CCTTFA secretariat, which is based in Dar es Salaam and headed by an executive secretary who is responsible for coordinating the implementation of decisions of the CCTTFA's governing bodies. The AfDB provided the secretariat with a start-up grant of US$1.8 million over three years, starting from January 2007. The secretariat is developing its own self-financing mechanism.

[65] Ibid
[66] Ibid

Table 2.4 Major Transport Corridors in the East African Community

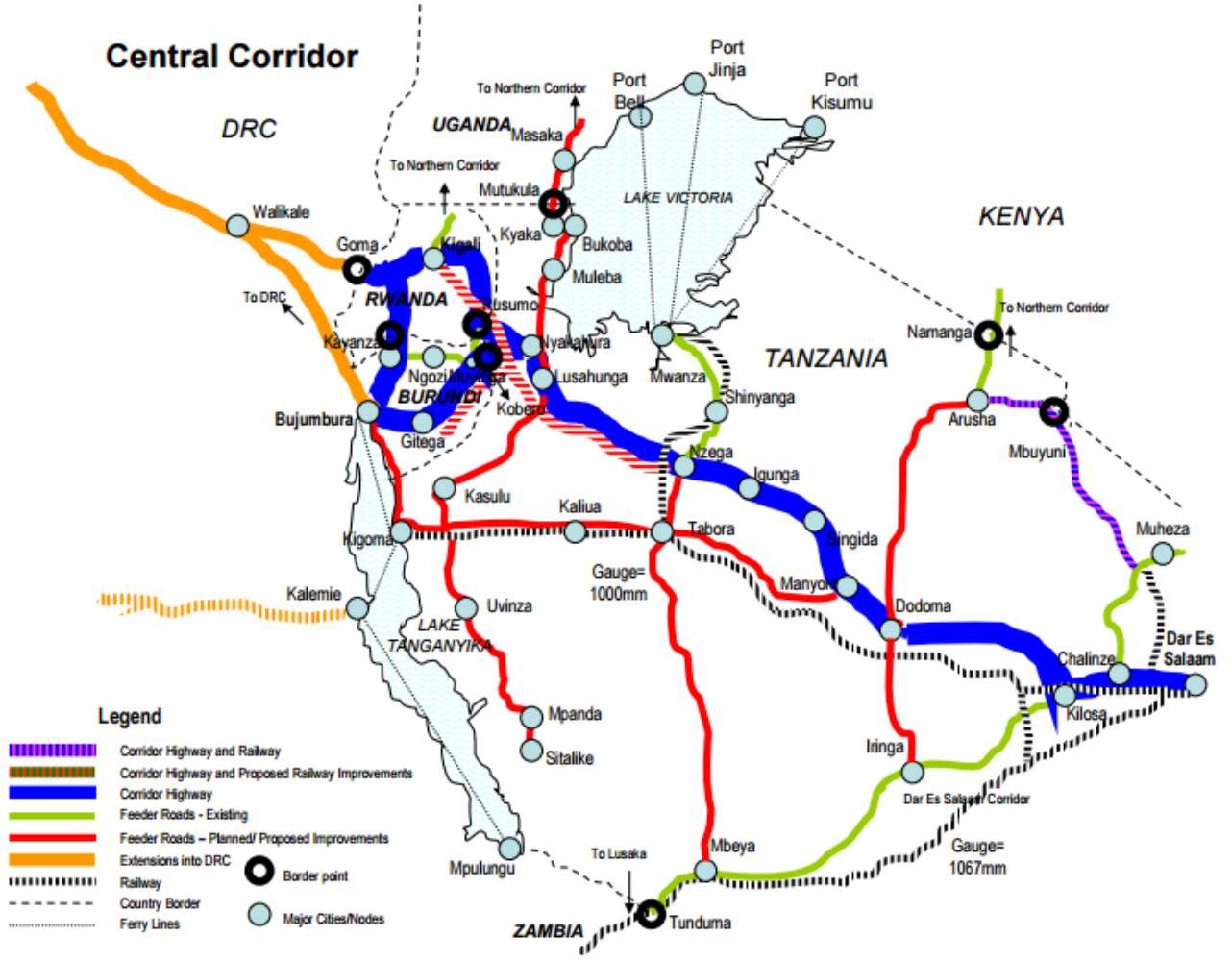
Corridor	Transport Route	Starting Point
Northern Corridor	Kenya to Burundi	Port of Mombasa
Central Corridor	Tanzania to DRC	Port of Dar es Salaam
Mwambani Corridor	Tanzania to DRC	Port of Mwambani
Lamu Corridor	Kenya to Ethiopia and South Sudan	Port of Lamu
5th Corridor	Tanzania to Ethiopia through Kenya.	Tunduma, Tanzania

Source: the Researcher

The corridors are connected through several points such as Arusha, Mwanza and Rusumo (see figure 2.1). Due to inefficiency and insufficient physical infrastructure, these corridors are characterized by high cost and long transit times. Freight costs per km are more than 50 percent higher than Europe, the USA and for the landlocked countries; transport costs can be as high as 75 per cent of the value of exports.[67] As such, the modernization of transport infrastructure and removal of NTBs along these corridors is considered critical for trade expansion and economic growth, which are key to the creation of wealth and poverty alleviation in the individual countries, and the success of regional integration.

[67] Nathan Associates Inc. (2011). *Corridor Diagnostic Study Of The Northern And Central Corridors Of East Africa - Action Plan*, Volume 2: Technical Papers. Retrieved on 3 September 2016, from http://pdf.usaid.gov/pdf_docs/PA00JC15.pdf

Figure 2.2 Central Corridor Roads and Rail



Source: Nathan Associates Inc., 2009

The EAC coordinated infrastructural projects have a legal background in the Chapter 15 of the Treaty establishing the East African Community of 1999 (the Community's founding document). The Chapter commits the EAC member states to implement expanded transport links and harmonized transport policies to integrate markets and facilitate trade.[68] Areas of co-operation include: harmonizing laws, procedures and standards and improving and integrating transport infrastructure.[69]

[68] EAC Treaty, 1999
[69] Ibid

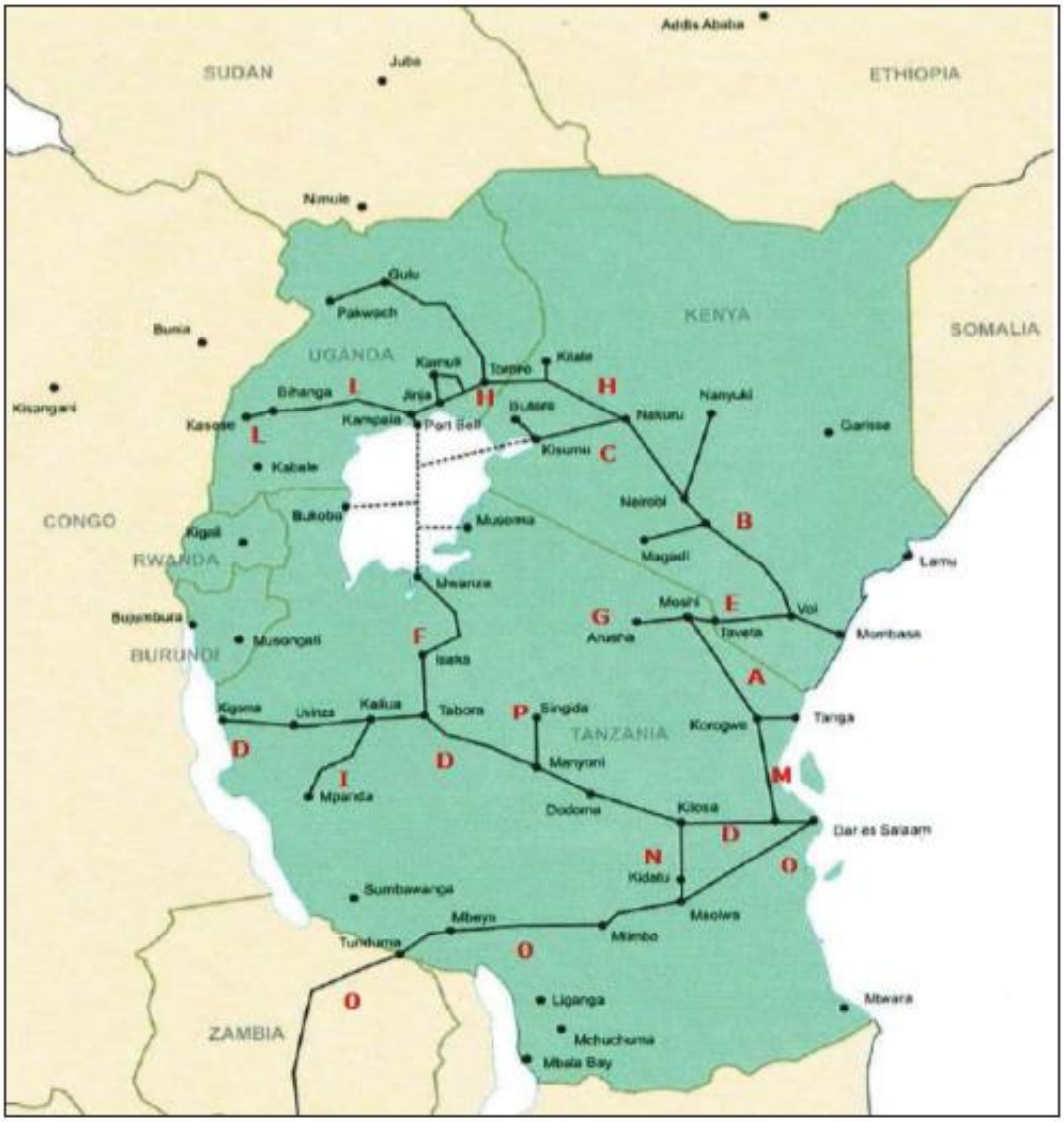
Specific articles deal with each mode separately, as well as multimodal transport, customs clearing, and freight forwarding and shipping agency. Specific commitments in the Treaty which potentially impact corridor operations are: under Road Transport (Harmonizing traffic laws, Common standards on facilitation road transit traffic, Harmonizing law on licensing of transport vehicle, Common rules on vehicle dimensions and load limits, Common standards of road network design and maintenance, Elimination of non-physical barriers to road transport, amongst others); under Railways (Common railway policies, Adoption of common safety rules, Promoting autonomous railway management, Harmonizing packing, marking and loading of goods, Joint utilization of facilities, amongst others); and under Maritime Transport and Ports (Commercialization and liberalization of port operations, Harmonization of maritime transport policies, Provision of access to land-locked states; Non-discriminatory tariffs for goods from other member states, amongst others).[70]

2.3.1 Rail Transport

The sub-region has a Railway Master Plan which is a proposal for modernizing existing railways (see figure 2.3) most of which serve Kenya, Tanzania, Uganda and extending them firstly to Burundi and Rwanda and eventually to South Sudan, Ethiopia and beyond.[71] The preparation of the Master Plan was a result of an issued Summit directive in 2004 following the near collapse of the railways system in the region. The master plan provides a template to the development of the railways transport sector in the region over the next 25 years. It recommends strategies for upgrading of the infrastructure so as to attract private sector investments in the sector. Proposed rail projects amount to 10,000 kilometers of railway.

[70] Ibid
[71] Zeddy Sambu (2008). *East Africa: Countries Move to Upgrade Railway Network*, Business Daily (South Africa). Retrieved on 2 September 2016, from http://www.afrika.no/Detailed/16610.html

Figure 2.3 East African Existing Rail Lines



A = Tanga-Moshi Mainline (1893-1911)	H = Kampala Mainline (1931)
B = Mombasa-Nairobi Mainline (1896-1899)	I = Mpanda Line (1949)
C = Kisumu Line (1901)	L = Kasese Line (1956)
D = Dar es Salaam -Kigoma Mainline (1904-1914)	M = Tanga Link Line (1963)
E = Moshi -Voi Link-line (1924)	N = Kidatu Line (1965)
F = Mwanza Line (1928)	O = TAZARA Dar-Kapiri Mposhi (1975)
G = Arusha line (1929)	P = Singida Line (1985)

Source: EAC, 2012

Table 2.5 – Proposed Railway Lines in the EAC and where they pass through

From	To	Passes Through
Mombasa	Bujumbura	Nairobi, Ringai, Tororo, Kampala[72]
Nairobi	Addis Ababa	Garissa
Nairobi	Kisumu	Rongai
Kampala	Kisangani	Kasese and Kigali
Tororo	Juba	Gulu
Kisumu	Juba	Rongai
Kampala	Juba	Tororo and Gulu
Juba	Addis Ababa	Garissa[73]

Source: the Researcher

The CPCS Transcom of Canada undertook a study in September 2007 which was completed in January 2009. The study completion facilitated development of a large number of feasibility studies, detailed designs and bankable railway projects that are identified in the Master Plan.[74] Some of the completed preliminary designs and feasibility studies cover sections of the Dar-es-Salaam - Isaka - Kigali / Keza - Musongati line (Central Corridor) as well as the Kenya - Uganda railway line [(Mombasa - Nairobi – Kampala), Northern Corridor] which had been identified as some of the key priorities for rehabilitation or

[72] Agence France-Presse (2014). *China To Build Railway Linking East Africa*, Aljazeera. Retrieved on 2 September 2016, from http://allafrica.com/stories/200904200007.html
[73] BBC News (2014). *Map of Proposed New East African Railway System*. Retrieved on 2 September
2016, from
http://news.bbcimg.co.uk/media/images/71415000/gif/_71415092_african_railway_624map.gif
[74] Interview 3

reconstruction and/or upgrading to standard gauge. The Kenyan – Uganda Railway line will increase transport capacity and allow the two countries to continue attracting economic activity to the region around the Northern Corridor.

2.3.2 Road Transport

In 2008, during the Strategic Retreat of the East African Community Ministers, it was reported that 52 per cent of the region's road network is in terrible condition, with poor level of service and maintenance.[75] This has increased the operating costs of business due to long turn-around times and long transit times, frequent lengthy clearance procedures among others. However, the EAC is committed to improving the road transport network. As at 2016, a lot of improvements for example on the Northern and the Central corridors have been made.[76] There are also efforts to carry out other on-transit facilitation activities such as the harmonisation of axle-load limits and overload control, simplification of customs documentation and procedures at border posts and ports, among others.

The sub-region has identified five main corridors within the Community (with a total length of about 12,000 km).[77] The corridors constitute a strategic priority and require upgrading and maintenance to complete the road network in the Community. First, is the Northern Corridor, which goes from Mombasa to Bujumbura. It is a part of the Transport African Highway (Mombasa – Lagos), while the Tunduma – Moyale road is part of the Cape to Cairo

[75] The East African Business Council (2014).*Infrastructure in the EAC*. Retrieved on3 September 2016, from http://www.eabc.info/policy/category/infrastructure
[76] Ibid
[77] The East African Community (2015). Infrastructure - EAC Roads Sector Projects. Retrieved on 2 September 2016, from http://www.eac.int/infrastructure/index.php?option=com_content&view=article&id=112&Itemid=133

Highway. Northern Corridor has a total distance of 1,700 km[78] and serves Kenya, Uganda, Rwanda, Burundi and Eastern DRC.

Figure 2.4 East African Community Road Network Project showing all the corridors

Source: EAC, 2011

[78] Ibid

Secondly is the Central Corridor. It has a distance of 1,300 km[79], starts at the port of Dar es Salaam and serves Tanzania, Zambia, Rwanda, Burundi and Eastern DRC. Other corridors include, Tunduma – Dodoma – Namanga – Isiolo – Moyale (from Central to Northern Corridor, see figures 2.1 and 2.2); Biharamulo – Sirari – Lodwar – Lokichogio; and Nyakanazi – Kasulu – Tunduma (see figure 2.4). The corridors encompass several internal road projects such as the Arusha – Holili – Taveta Road Project, and Malindi – Lunga Lunga and Tanga – Bagamoyo Road. In addition, there is the Arusha – Namanga – Athi River Road Project. The goal of the project was to construct a highway so as to boost regional trade and tourism and to reduce transportation costs. The road project is 240km long[80]. Construction on its Kenyan side started in November 2007 while on the Tanzanian side, the contractor was given possession of site in June 2008.[81]

Because of its heavier traffic, the Northern Corridor has continued to draw more development financing than its Central Corridor. This competition has created frictions between Tanzania and other East African countries along the Northern Corridor as Tanzania tries to catch up and position itself as a significant alternative to Kenya while Kenya scrambles for the financing to further develop its infrastructure and secure its traditional regional position.[82] Among transport routes in the EAC, the largest share of commodities pass through the Northern Corridor, which connects Mombasa, the Kenyan port city to Uganda, Rwanda, Burundi and Ituri province in the DRC. This route is a remnant of the colonial era, when the British colonialists sought to link the Great Lakes region to the Kenyan coast. The Central Corridor runs primarily through Tanzania.

[79] Ibid
[80] Ibid
[81] Ibid
[82] Interview 14

The Northern Corridor is primarily important as it passes through the most economically active area of East Africa. This is especially the area north of Lake Victoria, which is home to the main concentration of East African agriculture, still the biggest sector in the region by far. Recently, these factors have helped attract complementary investments along the route, further increasing its importance. In addition, the Northern Corridor accounts for more than twice the amount of goods of about 20 million tons per year as the Central Corridor.[83]

2.3.3 Port Facilities

The sub-region has 2 ports. One is in Dar es Salaam, run by the Tanzania Port Authority (TPA) and the second is in Mombasa, run by the Kenya Ports Authority (KPA). Albeit both ports experience challenges such as congestion and delays, both are committed to enhanced service and have incorporated a 24 hr/7 days a week service delivery. There are efforts to expand the terminal facilities, improve documentation and cargo clearance, carry out modernisation in terms of computerising of the container handling systems, cargo verification and scanning, among others. The KPA has representatives for each of the landlocked countries (Rwanda, Burundi, Uganda, DRC). They are allowed to participate in stakeholder meetings. On the other hand, the TPA intends to build 5 inland container depots, special treatment for cargo that needs swift clearance such as fuels, purchase of more equipment and plans are underway to extend the port to enable it handle 600, 000 TEU (topical capacity is 250,000 TEU).[84]

[83] The Market Oracle (2013). *East African Infrastructure Development - The Northern Corridor*. Retrieved on 2 September 2016, from http://www.marketoracle.co.uk/Article43135.html

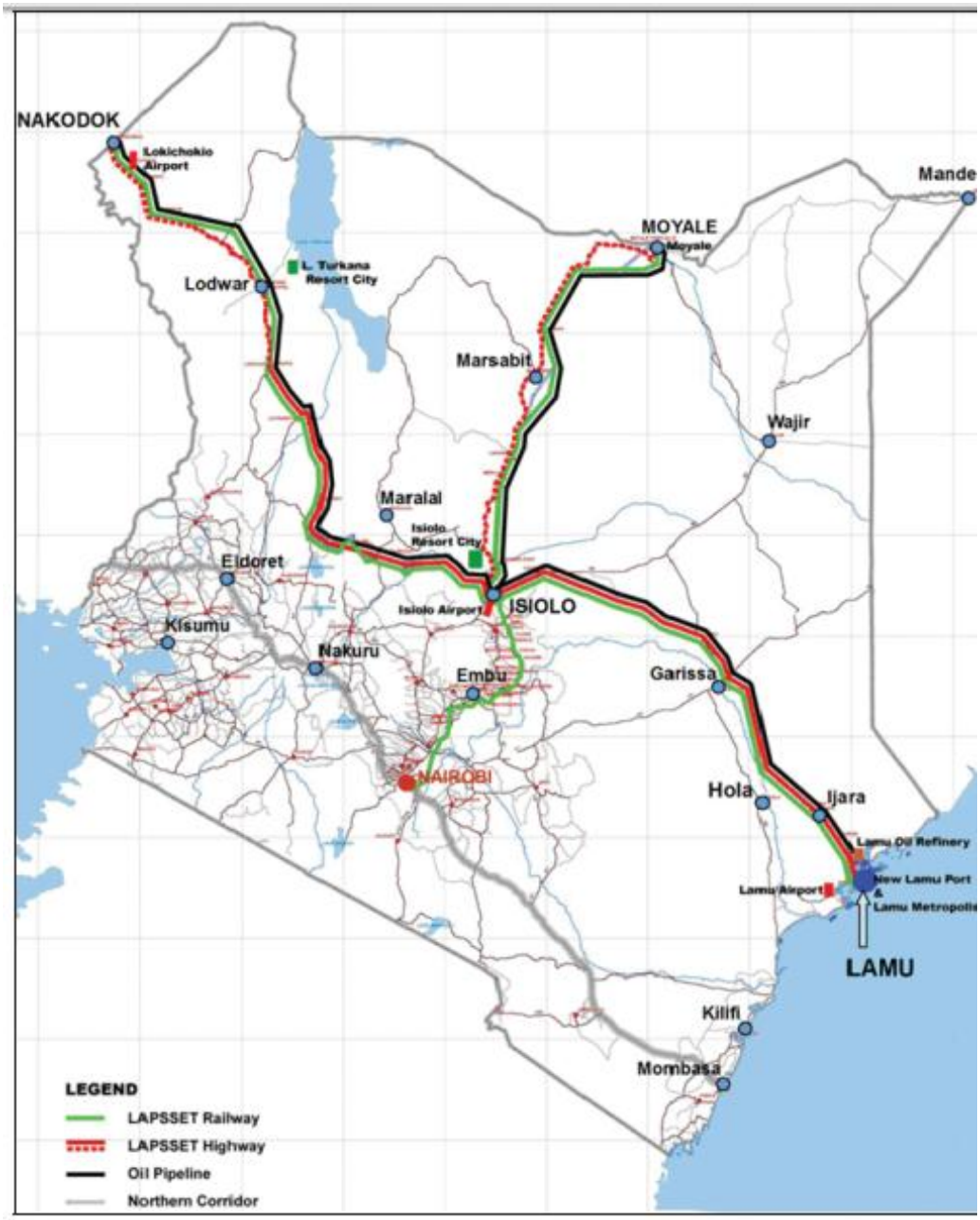
[84] The East African Business Council (2014).*Infrastructure in the EAC*. Retrieved on3 September 2016, from http://www.eabc.info/policy/category/infrastructure

In an effort to increase the number of ports in the sub-region, two additional ports are being constructed in Kenya and Tanzania. First, in 2013, the East African Community approved a construction of a deep-sea free port at Mwambani in Tanga Region of Tanzania.[85] The Mwambani Port and Railway Corridor (MWAPORC) includes a Port and Railway is supposed to link the Indian Ocean and Atlantic Ocean from Tanzania, via Uganda and DRC. On March 8, 2013, details of the modern, efficient and cost effective transport logistics corridor project were presented to the EAC Secretariat in a conference.[86]

It is expected that through the implementation of this huge project, Tanzania will be linked to the rich markets of east-central Africa, and this shall result in immense social-economic prosperity for Tanzania. It is also expected that Tanzania would enjoy a major economic boom because new railway, port and free port investments will stimulate agrodevelopment, real estate, and manufacturing, creating thousands of new jobs and careers.[87] As such, Tanzania will be made a hub port, enabling direct shipping from international ports and significantly reducing the cost of logistics to exporters and importers. The Secretariat of the EAC funded the construction of the sea port and a new heavy haul SGR at a tune of 53tr.[88]

[85] Global Observer Africa (2013). Tanzania: East African Community has approved construction a deep-sea free port at Mwambani in Tanga Region.
Retrieved on 2 September 2016, from http://globserver.cn/en/east-africa/press/east-african-community-has-approved-construction-deep-sea-free-port-mwambani-tanga
[86] Ibid
[87] Hellenic Shipping News (2013). *East Africa: EAC Approves Sh53 Trillion for Sea Port*.
Retrieved on 4 September 2016, from http://www.hellenicshippingnews.com/ef3eaa7f-4a4a-4ea9-98ec-50e6a07c8d93/
[88] Ibid

Figure 2.5 - Lamu - South Sudan – Ethiopia (LAPSSET) Transport Corridors



Source: International Peace Information Service and TransArms-Research, 2014

Secondly, is the Lamu Port on the Southern Sudan - Ethiopia Transport Corridor (see figure 2.5). The Kenyan government unveiled plans to construct a new port at Lamu in 2009. New roads and rail would then link the port to Ethiopia and South Sudan. More importantly an oil pipeline would be built to Lamu at the detriment of Port Sudan. The new corridor is expected to take some strain off Northern Corridor infrastructure. This would also allow some

diversification of road and rail transport within Kenya, but most importantly, the establishment of the port in the town of Lamu would relieve some of the pressure on the Port of Mombasa. Constructing specialized ports, with Lamu focusing on bulk cargoes while Mombasa focuses on container handling, is expected to increase efficiency in two ways: deeper berths at Lamu could allow Kenya to accommodate larger types of vessels, while moving bulk goods through Lamu would free up much-needed space in Mombasa to expand its container operations. The entire project has a hefty price tag in excess of $22 billion.

2.4 Conclusion

In consideration of the above findings, we have interrogated the EAC coordinated infrastructural projects in the sub-region. It is clear that the EAC has made giant strides in identifying its infrastructural gaps, and ways to address them for successful regional integration of the sub-region; and to facilitate economic growth and instant job creation. We have also examined several plans and aspirations of the sub-region to rehabilitate and modernize several roads, railways and ports.

CHAPTER THREE: ASSESSMENT OF THE IMPLEMENTATION OF THESE INFRASTRUCTURAL PROJECTS AND THEIR SOURCES OF FINANCING

3.1 Introduction

In the previous chapter, we analyzed the EAC coordinated infrastructural projects for the sub-region's development. The key lesson learnt was that the sub-region has two main corridors, the Northern and Central, through which the landlocked countries could access port facilities in Mombasa and Dar es Salaam. We also learnt that the corridors have several road and rail projects for free movement of people, goods and services and to reduce transportation cost to business. Ultimately, we learnt that the sub-region has the Lamu and Mwanbani corridors to relief the stress and pressure on the already two existing corridors.

In line with the second objective of this study, this chapter assesses the status of implementation of these infrastructural projects. Thereafter, the chapter looks at the impacts of the few coordinated infrastructural projects. The data used has been collected from primary and secondary sources. Primary source was through interviews with 25 key concerned officials of the Kenyan Ministry of East African Community (KMEAC); Kenyan Ministry of Foreign Affairs & International Trade (KMFAIT); as well as diplomats at the Tanzanian and Ugandan embassies in Nairobi. Secondary source was through reliable sources such as scholarly papers; government departments such as KMFAIT, KMEAC; regional organizations such as the EAC, AfDB; and international organizations such as UNECA and World Bank.

3.2 Assessment of the implementation of these infrastructural projects

3.2.1 Road Projects

3.2.1.1 Arusha – Namanga – Athi River Road

The Arusha – Namanga – Athi River Road has been completed. It links the Central Corridor to the Northern. The 240 km road links the Arusha Region of Tanzania from the city of Arusha to the border town with Kenya at Namanga.[89] It continues from Namanga to Athi River, through Kajiado and Machakos districts of Kenya. It was officially commissioned in November 2012.[90] It was widened and strengthened to a modern highway with some realignment to improve speed and visibility but without compromising safety. The rehabilitated road covers a 7.0m carriageway (an improvement on the previous 6.0m) and encompasses double surfaced 2m wide shoulders to enhance safety.[91] The total cost of the project was $156 million which include the construction of a One Stop Border Post at Namanga.[92]

The road was constructed to bitumen standard in 1967.[93] Its feasibility studies and design commenced in May 2004 after a two-year period of procurement and funding deliberations. This was completed in September 2006. The Arusha - Namanga section in Tanzania covers a distance of 105 km and continues flat to rolling terrain, including the Loliondo game control

[89] East African Community (2015). *Arusha-Namanga-Athi River Road*. Retrieved on 3 September 2015, from http://www.eac.int/infrastructure/index.php?option=com_content&view=article&id=50:arusha-athi&catid=45:featured
[90] Ibid
[91] Interview 1
[92] The East African Community (2015). Infrastructure - EAC Roads Sector Projects. Retrieved on 2 September 2016, from http://www.eac.int/infrastructure/index.php?option=com_content&view=article&id=112&Itemid=133
[93] Ibid

area. The road was narrow (about 5.5m on average) and deformed. Average speed was about 70 km/hr. Traffic on the Arusha side was about 2,800 vehicles per day and decreases to 450 vehicles per day towards Namanga. Pre its rehabilitation, the road had exceeded its design life and was urgently due for reconstruction.[94]

The Namanga - Athi River section in Kenya covers a distance of 135 km in rolling terrain. It received interventions (re-carpeting in 1995), the section was better but was still characterized by deformations and potholes. The section sustained quite heavy loading from the cement manufacturing and building industries in Athi River and Nairobi. Average speed was about 80 km/hr. Traffic was about 7,000 vehicles per day in Athi River and 1,000 vehicles per day in Namanga.[95]

Road Geometrics

The horizontal alignment of the rehabilitated road project was designed to follow the existing road closely with only little deviations to improve curves and widen the road at deep gorges. This was pre-designed to avoid displacement of population along the road corridor. In addition, where new bridges were proposed, the alignment shifts accordingly. The new alignment conforms to a design speed of 110 km/hr.[96] Upon Completion in 2012, a single surface dressing layer of stone chippings was provided on top of the running surface to improve skid resistance, primarily during wet conditions when accidents are most prone to occur.

[94] East African Community (2015). *Arusha-Namanga-Athi River Road*. Retrieved on 3 September 2015, from http://www.eac.int/infrastructure/index.php?option=com_content&view=article&id=50:arusha-athi&catid=45:featured
[95] Ibid
[96] Ibid

For both sections of the road, changes were made on the vertical alignment to improve visibility, primarily on its crests and thereby enhance safety. On steep sections, climbing lanes for slow vehicles have been constructed. On all major trading centres along the route, service roads have been constructed to separate domestic traffic, thereby reducing accidents. In addition, added were Non-Motorized Traffic (NMT) facilities for pedestrians, cyclists and hand carts at the trading centres. The need for numerous road bumps has been avoided with the provision of these measures. Provisions were also made for street lights at all urban centres to improve visibility at night especially of pedestrians at these locations.

Pavement Structure (Foundation)

The configuration of the pavement structure was measured based on the traffic loading expected over the life of the road. The Kenyan section of the road carries heavier traffic and hence has a thicker pavement. However, some sections received a Dense Bitumen Macadam and an Asphalt Concrete wearing course (bituminous overlay), placed directly on top of the existing surface. Cement improved gravel formed part of the pavement.

The Tanzanian section was reconstructed primarily because it has never had any major interventions for over 20 years.[97] The existing layer was reprocessed and two new cement improved gravel layers placed on top. The wearing course consists of a 50mm bituminous layer. The pavement has been designed to last for 2 decades but this can be prolonged if routine and periodic maintenance is established. The respective Road Fund Boards have given assurance of sufficient funding for maintenance.

[97] Ibid

Small Drainage Structures

On both sections of the road, there were over 300 pipe culverts crossing the road, of 600mm and 900mm diameter dimensions. All these were found to be silted and have been replaced with new culverts. There are also bigger diameter corrugated metal pipe culverts which were retained. As to cater for the increased width of the road, the retained culverts were lengthened.[98]

Large Drainage Structures

On the Kenyan Section, there are nine existing box culverts (bridges with flat, raft-like foundations) which were retained, and an additional eight were constructed. All the five bridges on this section were found to be unsound and were replaced with new structures. Similarly, on the Tanzanian Section, there are six existing box culverts which were structurally and hydraulically sound and they were expanded and retained. Ten new box culverts were constructed at various locations.[99]

Environmental and Social Impact Issues

A detailed Environmental and Social Impact Assessment Report for the Project was prepared before the road's rehabilitation. Very minimal displacement of persons occurred as the design followed the existing alignment. An Environmental and Social Management Plan was also prepared to outline mitigation measures for the few negative impacts that could arise out of the project implementation. These measures included the following: Carrying out sensitization and educational programs on health issues such as hygiene; Control of fuel wood use by contractors' personnel; Reducing the removal of vegetation cover and trees

[98] Interview 22
[99] Interview 24

planting along the road corridor; Reduction of noxious emissions and noise by contractors' plant; Provision of boreholes, water pans and valley dams to the local communities; and A good traffic management plan that will ensure that deviation roads are not a hazard to the road users.[100]

3.2.1.2 Roads in the Northern Corridor

Measurable progress on the Northern Corridor has been registered. Improvements of the road networks have been undertaken with most of the road sections rehabilitated, expanded or dualled. On the Mombasa – Kampala - Kigali road, most of the sections have been rehabilitated. Works are ongoing on the following sections:- Timboroa – Eldoret and Webuye – Malaba sections, Malaba/Busia - Bugiri, Jinja Bridge, Jinja - Kampala, Kampala - Mpigi, Mbarara - Katuna/Gatuna - Kigali.[101] In addition, a number of sections of the main Northern Corridor have been completed, including Kampala Northern Bypass (Phase I), Bugiri - Jinja, Masaka - Mbarara, Mpigi - Lukaya, Kabale - Kisoro, dualling of the Mombasa - Miritini (7km), Athi River – Rironi (56km) and Lanet – Njoro (14km).[102]

[100] Interview 25
[101] Interview 4
[102] The East African Community (2015). Infrastructure - EAC Roads Sector Projects. Retrieved on 2 September 2016, from http://www.eac.int/infrastructure/index.php?option=com_content&view=article&id=112&Itemid=133

Table 3.0 Northern Corridor Roads and Implementation Status

Road Sections	Implementation Status	Distance
Malaba – Bugiri	Ongoing	82.5km
Bugiri – Jinja	Completed	73km
Jinja – Kampala	Ongoing	81km
Kampala – Mpigi	Ongoing	37km
Masaka – Mbarara	Completed	152km
Mpigi – Lukaya	Completed	63km
Kabale - Kisoro	Completed	70km
Dualling of the Mombasa - Miritini	Completed	7km
Athi River – Rironi	Completed	56km
Lanet – Njoro	Completed	14km

Source: the Researcher

3.2.1.3 Arusha – Holili – Taveta Road Project

The comprehensive Engineering, Environmental and Social Impacts Analysis studies for the road were completed in December 2012 and the project took off by September 2013. Similarly, construction of a One Stop Border Post at Holili/Taveta is ongoing.[103]

[103] Interview 6

3.2.2 Railway Projects

The East African Community member states set March 2018 as the target for the upgrading of the regional railway network to SGR. On the Northern and Central Corridors, limited progress has been made on the construction of the railways:

3.2.2.1 Northern Corridor - Mombasa to Bujumbura Line

In November 2013, the Kenyan Government launched the Standard gauge rail line.[104] The first section connects the Kenyan port of Mombasa to the capital, Nairobi. It is expected to reduce the journey from 15 hours to approximately four. As Kenya's biggest infrastructure project since independence, the cost of the railway was estimated $5.2bn (£3.2bn) and the contract was given to the Chinese state-owned China Road and Bridge Corporation (CRBC).[105] In May 2014, the signing ceremony for funding of the construction of the rail line took place between the government of Kenya and the government of the People's Republic of China.[106] It is also hoped that the rail line will reduce congestion in Mombasa.

Upon the completion of the Nairobi section which is due in 2017, the rail line will be extended through Uganda, with branch lines west to Kisangani in the DRC, south through Rwanda to Burundi and north to South Sudan. Passenger trains will travel at a top speed of 120 km/h (75 mph). Similarly, freight trains will have a maximum speed of 80 km/h. The railway was one of the flagship projects Kenyan government's ambitious Vision 2030 as to improve much-neglected infrastructure.

[104] BBC News (2013). Kenya launches new railway to reach South Sudan and Burundi. Retrieved on 3 September 2016, from http://www.bbc.com/news/world-africa-25134276
[105] Ibid
[106] Daily Nation (2013). Sh319bn China funds to build high-speed railway to Burundi. Retrieved on 3 September 2016, from http://mobile.nation.co.ke/business/China+funds+to+build+high+speed+railway/-/1950106/1977446/-/format/xhtml/-/8hhuog/-/index.html

In August 2014, the government of Uganda awarded the contract of the construction of the Malaba–Kampala section of the SGR section to the Chinese firm, China Harbour Engineering Company (CHEC). The contract was worth an estimated $8 billion.[107] Part of the deal encompassed provisions that CHEC works closely with the UPDF Engineering Brigade and construct a polytechnic school in Uganda for continuous training of army officers in technical and engineering skills. In March 2015, the government of Uganda signed the contract with CHEC, to build SGR from Malaba to Kampala and from the latter to the Rwandese border. Contract included construction of Kampala to Kasese Railway Line. Not clear if Kampala to Nimule Line is included.[108]

3.2.2.2 Central Corridor – Dar es Salaam to DRC

In March 2015, Tanzanian government announced plans to construct a $14.2 billion rail network in the next five years to be financed with commercial loans.[109] The plan included the construction of a railroad from Rwanda and Burundi to Dar es Salam and from the capital to the northern and southern parts of the country. This was in a bid to upgrade existing rickety railways and roads to serve growing economies in the land-locked countries in the sub-region. The projects included the construction of a 2,561 km (1,536 miles) SGR connecting the port in Dar es Salaam, Tanzania's to the country's land-locked neighbours (Rwanda and

[107] David Lumu & Samuel Balagadde (2014). *Chinese firm CHEC given $8bn railway deal*, New Vision.
Retrieved on 3 September 2016, from
http://www.newvision.co.ug/new_vision/news/1308352/chinese-firm-chec-usd8bn-railway-deal

[108] Bloomberg News (2015). China's Xi Finds Eight Good Reasons to Host Uganda's President. Retrieved on 3 September 2016, from
http://www.bloomberg.com/news/articles/2015-04-01/china-s-xi-finds-eight-good-reasons-to-host-uganda-s-president

[109] Reuters (2015). *UPDATE 2-Tanzania to spend $14 bln on railways, eyes regional hub status*. Retrieved on 3 September 2016, from http://www.reuters.com/article/tanzania-railway-idUSL6N0WW2JC20150330

Burundi) at a cost of $7.6 billion.[110] There are also two addition lines to cost $6.6 billion, which would connect Dar es Salaam to the coal, iron ore and soda ash mining areas in the south and northern parts of the country.[111]

3.2.3 Port Facilities

The construction of the Lamu Port–South Sudan–Ethiopia Transport Corridor project was launched in March 2012 at the site of Lamu port in Kenya.[112] The initiative encompasses the Lamu Port; the Lamu Port–Southern Sudan–Ethiopia Transport Corridor Project railway; oil pipeline; the Lamu Port–Southern Sudan–Ethiopia Transport Corridor Project highway; oil refinery; resort cities; and Lamu Airport. The entire project has an estimated investment cost of $16.4 billion.[113] The detailed engineering designs for 3 berths and associated infrastructure have been completed for Lamu port and funds are available to start construction. Currently, about 365 km of the Lamu Port–Southern Sudan–Ethiopia Transport Corridor Project road in Kenya and Ethiopia has been completed; with work ongoing on several other sections. The construction of the Lamu Port–Southern Sudan–Ethiopia Transport Corridor Project railway is also ongoing and the railway's preliminary design and feasibility study have been completed. The Lamu Corridor is being financed by the Government of China.

3.3 Examination of the impacts of the few completed regional projects in the sub-region

Arusha – Namanga - Athi River Road Project

The completion of this road already has numerous impacts. The road's completion means the highway now has a uniform width of 7.0m and 2.0m wide shoulders, which provides a safe driving environment and reduces travel time between Nairobi and Arusha from 5 hours to 3

[110] Ibid
[111] Interview19
[112] Ibid
[112] UNECA (2010). *Assessing Regional Integration in Africa IV: Innovation, Competitiveness and Regional Integration*, UNECA Documents Publishing Unit, Addis Ababa.
[113] Ibid

hours.[114] In addition, the road is currently of strategic importance to the region, linking the two traditional corridors and forms part of the priority Corridor No. 5 of the EAC Regional Roads Network. The 5th Corridor spans from Tunduma in Southern Tanzania to Moyale in Northern Kenya, and continues to Addis Ababa, Ethiopia. The completion of the road project has also facilitated movement of traffic from Zambia, via Tanzania, Kenya to Ethiopia as well as Uganda and Sudan. The road has also improved import/export traffic from the port of Mombasa, which is the more convenient port for northern Tanzania on account of distance.[115] The road is also part of the tourist circuit serving the national parks of Amboseli and Tsavo in Kenya and Manyara, Ngorongoro and Kilimanjaro in Tanzania.

The significance of the road as a regional road network is in correlation with the development priorities of the two Governments and the AfDB's strategy for support to multinational programs which enhance regional integration among African states. According to an interviewee, through the improvements that have taken place on the road, cost of operations have come down, travel time has been reduced by almost 2 hours either way, passenger comfort has also improved, and the overall costs of our operations on the route has come down. The road has also helped to lower products costs by 20-25 percent, lowered the cost of doing business through lower maintenance costs, lower fuel consumption, amplify longer tyre replacement periods, and shorter dwell time at the respective border posts for transporters.

Finally, the constructed One Stop Border Post (OSBP) at Namanga has helped the region to realize the full benefits of the road, such as lower costs of vehicle operations and reduced transit times at the borders. The World Bank and the AfDB are jointly funding the East African Trade and Transport Facilitation (EATTF) Project. The main goal is to eliminate

[114] Interview 23
[115] Interview 7

non-tariff barriers to trade hence making the region more competitive.[116] One of the components in the EATTF Project is the creation OSBPs throughout the sub-region. The concept envisages border posts where officials from two countries share services under one roof. This is especially important for customs where inspection of goods would be done once and not twice as is the current practice.[117] The Namanga Border has been converted into such a facility under the programme. JICA has provided technical assistance support towards this end, in the form of training to customs officials on the concept. The OSBPs on either side of the Namanga Border started operations by the end of 2015.

3.4 Conclusion

In this chapter, we have assessed the implementation status of some of the EAC coordinated infrastructural projects. Through this, we have examined the implementation of several road, railway and port projects. We have also examined the impacts of the completed projects in the sub-region. We have found out that according to the first hypothesis of this study, the identification of the EAC coordinated infrastructural projects has facilitated donor financing of such projects. In addition, we have found out that the implementation of these projects has recorded measurable progress, with respect to the second hypothesis of this study.

[116] Interview 14
[117] Interview 5

CHAPTER FOUR: CHALLENGES FACING INFRASTRUCTURAL DEVELOPMENT IN THE EAC

4.1 Introduction

In the previous chapter, we assessed the implementation of the EAC coordinated infrastructural projects. The key lesson learnt was that the EAC has made significant progress in implementing these projects through completed projects such as the Arusha – Namanga – Athi River road project and several road projects in the Northern Corridor. The Mombasa – Nairobi rail line is nearing completion. The Community also has a considerable number of ongoing projects in the Northern and Central corridors as well as in the Lamu and Mwambani new Corridors. In addition, we examined the impacts of the already completed projects.

In line with the third objective of this study, this chapter starts by investigating the challenges facing infrastructural development in the EAC. Thereafter, it looks at these identified projects sources of financing and donor partnerships. The data used has been collected from primary and secondary sources. Primary source was through interviews with 25 key concerned officials of the Kenyan Ministry of East African Community (KMEAC); Kenyan Ministry of Foreign Affairs & International Trade (KMFAIT); as well as diplomats at the Tanzanian and Ugandan embassies in Nairobi. Secondary source was through reliable sources such as scholarly papers; government departments such as KMFAIT, KMEAC; regional organizations such as the EAC, AfDB; and international organizations such as UNECA and World Bank.

4.2 Investigation of the challenges facing regionally coordinated infrastructural development in the EAC

There are many challenges facing infrastructural development in the EAC. First, is financial challenges. 85 percent of the respondents agreed that this is the most serious challenge facing

infrastructural development in the EAC. Experts have estimated that the sub-region needs around US$100bn investment per year, over the next ten years to close its infrastructure gap and catch up with the rest of the world on basic requirements.[118] Albeit, since 2007, FDI projects in East Africa have grown at 19.9% a year, the strongest in Africa, the countries in the EAC and the Community's Secretariat still have financial challenges as to meet up with some of its deadlines, such as the 2018 deadline as the target for the upgrading of the regional railway network to SGR.[119] The projects on the Lamu Corridor were initially hampered by a hefty price tag of $22 billion for its financing and several political constraints.[120]

There is also a huge challenge in securing appropriate public and private financing models to raise the colossal resources required to finance the management and development of regional transport and port infrastructures. Government revenues which are too limited have been overstretched to effectively deliver projects and sustain operations and maintenance of completed infrastructure facilities. EAC governments have therefore turned to finding alternative financing methods by collaborating with the private sector in a model of Design, Build, Finance and Operate for infrastructure projects. The PPPs promise significant contribution to infrastructure capital with other benefits such as improved productivity and service performance outcomes.[121]

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[118] Andrew Ross (2016). East Africa on the way to plugging its infrastructure gap. How we made it in Africa.
Retrieved on 3 September 2016, from http://www.howwemadeitinafrica.com/opinion-east-africa-way-plugging-infrastructure-gap/

[119] Ibid

[120] The Market Oracle (2013). *East African Infrastructure Development - The Northern Corridor*. Retrieved on 2 September 2016, from http://www.marketoracle.co.uk/Article43135.html

[121] Nashon Adero and Eric Aligula (2012). *CHALLENGES FACING TRANSPORT INFRASTRUCTURE IN THE EAST AFRICAN COMMUNITY*, Kenya Institute for Public Policy Research and Analysis (KIPPRA)

The regional political instability is another challenge, with about 70% percent of the respondents identifying with this is the second most important obstacle to infrastructural development in the sub-region. Political instability can easily and drastically imperil efficiency gains. This was exemplified by the terrible performance on the indicator of customs efficiency in the year 2008, which coincided with Kenya's post-election violence. Kenya is a key hub for regional and international trade in the EAC. The ceaseless instability in South Sudan also poses a serious threat to the construction of proposed infrastructural projects that connects to the country.[122]

Thirdly, increase in the number of car ownership in the EAC calls for proactive policy mechanisms that encourage mass transit solutions. This is to cater for public transit in a more economical and environmentally friendly way. Tax incentives in favour of public transport in the region are as such important considerations.[123] Fourthly is the underperformance of important transport modes and sub-optimal modal mix. The Mombasa Port is critical to business operations in the EAC with respect to transport and logistics. Though it is currently undergoing modernization, and that the Lamu Port is being constructed to reduce congestion on it, Kenya must not relent in the plans to increase its capacity for handling trans-shipment functions, bigger vessels and cargo, and other measures to increase efficiency and expand regional operations. The Port of Dar es Salaam is also facing the threat of congestion due to limited capacity. Free port and dry port concepts, as well as privatisation of services, are all worth actualising for increased connectivity within the EAC to facilitate access to global markets.[124]

[122] Interview 12
[123] Interview 15
[124] Interview 18

Fifthly, is inadequate emergency preparedness. This remains critical to sustaining high quality transport infrastructure. Natural phenomena such as extreme and unpredictable weather events, complicated by climate change, destroy road and rail infrastructure. Such adverse effects take time to recover from especially with a lack of preparation.[125]

Sixthly are institutional challenges which revolve around policy and planning, financing/funding, management, data and statistics, institutional and regulatory frameworks as well as human capital development, acquisition and retention. Under policy and planning, challenges include linkages to regional and national development clusters, effective coordination of public expenditures, need for total network planning, dealing with potentially adverse national sentiment, and total transport logistics planning. Another key challenge is poor management and the low maintenance spirit which work against the preservation of existing infrastructure assets.

Seventhly are challenges associated with institutional and regulatory frameworks. Institutional challenges affect capital budget execution, resulting in substantial cost overruns. Low absorption rates of funds allocated for infrastructure development is a strong argument against increasing allocations to the development vote. Analysts have linked this poor outcome to lengthy and inefficient procurement procedures, slow feasibility studies, late exchequer releases, weak supervision and lethargic monitoring and evaluation.[126]

Eighthly, is human capital challenge. There continues to be missing or weak linkages between regional transport infrastructure development and human capital development interventions. Lastly, other challenges facing the rehabilitation of the rails include that the

[125] Interview 7
[126] Interview 11

new technology, and some skills required for their smooth operation are lacking. In addition, lack of stable electricity in East Africa could also disrupt the control system and affect train operations. For roads, challenges also include, the disconnect between regional programmes and national priorities; lack of applications of international road standards; disparities in transport regulation; limited private sector involvement in road infrastructure development; poor maintenance standards; insufficient resources to carry out feasibility and detailed design studies; complicated procurement systems leading to long gestation periods; poor road safety enforcement standards; lack of capacity of local contractors to design & deliver durable roads; and capacity of development loans.[127]

4.3 These projects sources of financing

It has been estimated that it would cost the EAC $29 billion to upgrade its whole railway network to standard gauge, while rehabilitating the existing narrow-gauge network would cost $4 billion.[128] Constructing a kilometer of railway costs $2 million-to-2.5 million; a road costs $1 million for the same distance.[129] A huge amount of $10 billion will be used on construction of 5,000 kilometers of new railway lines.[130] The EAC is funding these infrastructural projects through loans from bilateral arrangements with the Government of China, European Commission, the US, the UK; World Bank, China Export-Import Bank, AfDB, EAC Secretariat, JICA; and counterpart funding by the concerned countries, amongst others (see table 4.0).[131]

[127] East African Community (2010). "EAC Development Strategy (2011 - 2016)." East African Community Secretariat.
[128] Isaac Mwangi (2014). What Will Railway Infrastructure Projects Cost East Africa? AFKI Original. Retrieved on 4 September 2016, from http://afkinsider.com/37363/railway-infrastructure-projects-cost-east-africa/
[129] Ibid
[130] Ibid
[131] Interview 8

First, the Arusha - Athi river road project was co-financed by the AfDB and the Japanese International Cooperation Agency (JICA) as a multinational project and provided jointly, a loan totaling USD 156.3 million to cover civil works and construction supervision. The Kenyan and Tanzanian governments contributed counterpart funds to supplement the funds from AfDB and JICA to the tune of USD 8 million. AfDB financed the Athi River - Namanga Section in Kenya for an amount of USD 93.1 million while JICA financed the Arusha - Namanga Section in Tanzania for an amount of USD 63.2 million.[132]

Secondly, for the Kenya – Uganda rail line, Kenya has been able to secure a $3.75 billion loan from China. From the amount, $2.5 billion is for the construction of the railway and $1.25 billion is for locomotives and carriages. Part of the loan has been extended to Kenya on concessional terms and will attract interest rates of up to two per cent. A grace period on the loan's repayment will cover the construction period. Kenya will supplement the Chinese funds through an estimated Sh22 billion, which will be gotten through a 1.5 per cent import levy currently being implemented by the government.[133] The $8 billion Uganda – Malaba line is been financed by the Export-Import Bank of China through concessional loans.[134] Thirdly, For the Central Corridor, the Rwanda to Burundi to Isaka to DES Standard Gauge is being financed by the AfDB.

[132] East African Community (2015). *Arusha-Namanga-Athi River Road*. Retrieved on 3 September 2015, from http://www.eac.int/infrastructure/index.php?option=com_content&view=article&id=50:arusha-athi&catid=45:featured

[133] The Market Oracle (2013). *East African Infrastructure Development - The Northern Corridor*. Retrieved on 2 September 2016, from http://www.marketoracle.co.uk/Article43135.html

[134] Bloomberg News (2015). China's Xi Finds Eight Good Reasons to Host Uganda's President. Retrieved on 3 September 2016, from http://www.bloomberg.com/news/articles/2015-04-01/china-s-xi-finds-eight-good-reasons-to-host-uganda-s-president

Fourthly, the East African Development Bank (EADB) was established in 1980 with the mandate of funding of regional infrastructure and lending for commercial projects. By the end of September 2010, the Bank's gross portfolio was US$113 million and the profit for the three quarters was US$1.18 million.[135] The Bank has been playing a key role in co-financing some of the regional infrastructural projects. The bank's challenges include the unfavourable market environment, the cost of doing business and infrastructural inadequacies which constrained the ability of the banks clients to meet their obligations; and unresolved litigation between the Bank and Blue line Enterprise Limited continues to adversely affect the Bank.[136]

Table 4.0 Some of International/Regional donors and amounts they provided for EAC infrastructural projects

Donor	Amounts/Projects
World Bank	Several projects running into an investment value of $1 billion are currently under implementation in East Africa under the World Bank Regional Integration Strategy for Sub- Saharan Africa. They include: East Africa Trade and Transport Facilitation Project ($300 million); Regional Communications Infrastructure Project ($300 million); Geo-Thermal Energy Project, financed with Global Environmental Facility ($70 million); EAC Regional Financial Integration Project ($40 million); and Lake Victoria Environmental Management Project ($120 million). The World Bank is also a key partner in the Nile Basin Initiative (NBI) and its support has served as a catalyst for broad- based development of the region, running into more than $1 billion in the first round of investments.

[135] East African Community (2010). "EAC Development Strategy (2011 - 2016)." East African Community Secretariat.
[136] Interview 16

DFID	The organization has two major regional operations in Eastern Africa, namely, the East Africa Transit Improvement Program (focusing on trade facilitation) and Regional East Africa Program (focusing on Capacity Development Action Plan and Support for the CES Tripartite Process). Co-financed the Diagnostic Study on the Horn of Africa corridors with JICA and USAID
The EU Commission	Their regional operations in Eastern Africa are in three main areas: (i) Regional Economic Integration (80% of budget); (ii) Regional political cooperation (15%); and (iii) Other programs (5% of budget). They also lead the Horn of Africa Initiative, in which other partners, notably the World Bank and the AfDB, are also involved. The Initiative covers projects in the transport, energy and water sectors along the major corridors in the Horn of Africa.
JICA	JICA's support to Eastern Africa is in the area of regional trade facilitation. They are: Corridor Studies (Audit of 8 borders – Namanga, taveta-Holili, Lunga Lunga-Horo Horo, Mutukula, Rusumo, Kigoma, Tunduma, Nemba-Gasenyi) and missing links on central corridor to Burundi/Rwanda; Automation and its systems (RTMS) and Cargo control system for OSBP implementation; Support for the implementation of trade facilitation instruments in EAC and COMESA (Axle load study); OSBPs and integrated border management; Customs (master trainers program); Road infrastructure project design and development; and capacity building of private sector trade associations in corridor facilitation activities. JICA also co-financed the Diagnostic Study on the Horn of Africa corridors with DFID and USAID
AfDB	The AfDB's support to Eastern Africa focuses on transport corridors, cooperation on shared water resources (for food security, water and sanitation and environmental management), trade facilitation, Energy, and ICT. The Bank is also

	participating in the EC Horn of Africa Initiative. AfDB's ongoing projects in the region includes East African Trade and Facilitation Project, Arusha-Holili and Malindi-Lunga Mulitnational Roads Project, Mombasa-Nairobi- Addis Ababa Road corridor 1 and 2, Ethiopia-Djibouti Power Interconnection Project, and Regional Power System Master Plan and Grid Code. The Bank is also in the process of preparing the Lake Victoria Water and Sanitation Project.
TMEA	Trade Facilitation (OSBPs, Border Post Infrastructure, procedure mapping trade capacity building, procedures audit and EAC Customs Training Program), Corridors Observatories, Corridor Diagnostic Studies, and EAC Capacity Building Project.

Source: AfDB, 2011

4.4 Conclusion

Following our discussions in this chapter, we have looked at the challenges facing infrastructural development in the EAC. We have also examined these projects sources of financing & donor partnerships and learnt that China is one of the predominant partners of the EAC countries in this respect. Ultimately, our findings have shown that according to the last hypothesis of this study, insufficient funding is a key challenge facing infrastructural development in the EAC.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Following its objectives, this research has been conducted to analyse the EAC coordinated infrastructural projects for the development of the sub-region. In this light, this chapter summarizes what has been found out through the research, and provide the conclusion and recommendations of the study.

5.2 Summary

This study has examined regionally coordinated infrastructural projects in the EAC. In line with the first objective of this study, the study analysed the EAC coordinated infrastructural projects for the development of the sub-region. It was found out that the EAC has made giant strides in identifying its infrastructural gaps, and ways to address them for successful regional integration of the sub-region; and to springboard economic growth. Our analyses show that the sub-region has two main corridors, the Northern (Kenya - Uganda) and Central (Tanzania - DRC), with several proposed road and railway projects; as well as the Lamu and Mwanbani corridors to relief the stress and pressure on the already two existing corridors.

Furthermore, the study went ahead to assess the implementation of these infrastructural projects in line with its second objective. It was found out that the EAC has made a measurable progress in implementing these projects through completed projects such as the Arusha – Namanga – Athi River Road Project and several road projects on the Northern Corridor. The sub-region also has a considerable number of ongoing construction projects in the Northern and Central corridors as well as in the Lamu and Mwambani new Corridors. In addition, it was found out that China is one of the predominant partners of the EAC countries in the funding of these projects and that most of the projects are funded through international

loans. The findings also showed that according to the first hypothesis of this study, the identification of the EAC coordinated infrastructural projects has facilitated donor financing of such projects. Similarly, the implementation of these projects has recorded significant progress, with respect to the second hypothesis of this study.

Finally, in line with the last objective of this study, the study investigated the challenges facing infrastructural development in the EAC. It was found out that these challenges are limited funding, poor incentives for private sector participation in the funding, regional political instability, underperformance of important transport modes and sub-optimal modal mix, inadequate emergency preparedness, institutional and human capital deficit.

5.3 Conclusion

The EAC, when compared with other regional RECs in Africa, has made impressive progress in infrastructural development. Some of the political leaders of countries in the sub-region have shown sufficient political will in courting international funding and the implementation of regionally coordinated projects. Since 2007, FDI projects in the EAC have grown at 19.9% a year, the strongest in Africa. The study concludes that infrastructural expansion, rehabilitation and construction remain imperative key to successful regional integration and economic growth. This can be exemplified in the quick gains from the just completed Arusha – Namanga – Athi River Road Project. Such gains include, safe driving environment; gross reduction of travel time between Nairobi and Arusha from 5 hours to 3 hours; linking of the two traditional corridors; improved import/export traffic from the port of Mombasa, which is the more convenient port for northern Tanzania on account of distance; and brought down the cost of doing business.

5.4 Recommendations

With respect to the above findings, and in line with some of the challenges discussed in the section 4.2 of chapter four, this study makes some policy suggestions and recommendations for extensive and sustainable infrastructural development in the EAC.

First, the EAC needs to strengthen its geophysical exploration networks to hasten environmental monitoring. This is in view of the significant role of geophysical exploration in disclosing the early signals that inform sound infrastructure planning and emergency preparedness. The Kenya Institute for Public Policy Research and Analysis, a policy think tank has recommended investments in geophysical exploration networks. This is a sound idea for the EAC to use the rich and diverse research capacity in the region and invest in sound geophysical exploration networks.[137] Secondly, in line with the political instabilities in the sub-region which would disrupt infrastructural construction/rehabilitation or hamper the efficiency of already completed projects, the consistent and deliberate pursuit of peaceful political environment in the EAC is therefore critical.

Thirdly, the management of regional infrastructure projects and programmes needs to be re-engineered to safeguard swift and cost-effective delivery of transport infrastructure. Weak monitoring & evaluation practice and the challenge of trans-boundary project management call for maximalist supervision & management based on high and harmonised standards. Fourthly, there is a need for the creation of awareness and incentives so as to encourage the reception of fees meant to maintain transportation assets, which is an important driver of the EAC's regional competitiveness.

[137] Interview 20

Fifthly, there is a need for strong regulatory instruments and regional institutions for securing effective and affordable regional transport services. Institutional cooperation across the EAC and building sustainable institutional partnerships are a necessary condition for adequate capacity building and increased operational efficiency in the regional infrastructure sector. Finally, there is a need to close the data and information gap as to support regional infrastructure planning, construction, implementation and decommissioning.

For further study

This research suggests further studies on critical analysis of the EAC coordinated infrastructural projects, in communications and energy, for enhancement of knowledge, on the EAC infrastructural development.

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APPENDIXES

Appendix I: Letter of Introduction

Date ……./……../2016

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

REQUEST FOR COLLECTION OF DATA

My name is IBRAHIM ROBA, a Masters' student at the Institute of Diplomacy and International Studies, College of Humanities and Social Sciences, University of Nairobi.

I am conducting a research study titled "A CRITICAL ANALYSIS OF THE REGIONALLY COORDINATED INFRASTRUCTURAL PROJECTS IN THE EAST AFRICAN COMMUNITY (2000 - 2015)".

You have been selected to form part of this study.

Kindly assist by filling in the attached interview guide or questionnaire. The information given will be treated in strict confidence and will be purely used for academic purposes.

Your assistance and cooperation will be highly appreciated.

Yours Sincerely,

IBRAHIM ROBA,

R50/74662/2014

Appendix II – Consent Form

Title of the Study: "A CRITICAL ANALYSIS OF THE REGIONALLY COORDINATED INFRASTRUCTURAL PROJECTS IN THE EAST AFRICAN COMMUNITY (2000 - 2015)*"*

Institution: Institute of Diplomacy and International Studies, Faculty of Arts, College of Humanities and Social Sciences, University of Nairobi, P.O.BOX 30197-00400, Nairobi.

Investigator: Ibrahim Roba

Supervisor: Mr Gerrishon Ikiara

Ethical Approval: University of Nairobi Ethical and Research Committee.

Permission is requested from you to participate in this research study. With principles that You:

Voluntarily agree to participate in this study;

May wish to withdraw from the study at any point you deem fit;

May seek clarity to understand the nature and importance of this study

Purpose of the study: To analyse the the EAC coordinated infrastructural projects for the sub-region's development.

Procedures to be followed: With your cooperation, you will answer questions related to the objectives of this study. All information obtained will be handled with confidentiality.

Risks: There will be no risks involved in this study to you.

Benefits: There may be no direct benefits to you but the results of this study will be analysing the EAC coordinated infrastructural projects for the sub-region's development.

Assurance on confidentiality: All information obtained from you will be kept confidential and used for the purpose of this study only.

Contacts: You may wish to contact me with regards to issues concerning this study through any of the various addresses provided above.

I now request you to sign the consent form attached:

CONSENT FORM

"A CRITICAL ANALYSIS OF THE REGIONALLY COORDINATED INFRASTRUCTURAL PROJECTS IN THE EAST AFRICAN COMMUNITY (2000 - 2015)"

I_____ (respondent) give consent to the investigator to use the information that I will provide him as part of his study and that the nature of the study has been explained to me by the ……..

Signature_____ Date_____

I (field agent/researcher) confirm that I have explained the nature and effect of the study.

Signature_____ Date_____

Appendix III – Interview Guide for the officials of selected government ministries

Date _____/2016

QUESTIONS:

Tick and Fill as appropriate

SECTION A: DEMOGRAPHICS

1. *Gender Male [ ] Female [ ]*
2. *What is your age?* _____*Years*
3. *Name of organisation?* _____
4. *What is your area of specialisation?* _____
5. *What is your period of experience in the Ministry?* _____*Years*
6. *Highest Level of education?* _____

SECTION B: EAC COORDINATED INFRASTRUCTURAL PROJECTS

1) Name some of the EAC coordinated infrastructural projects in the sub-region?

_____

_____

_____

2) With respect to Q1, respectively, what are the purposes of these projects?

_____

_____

_____

3) With respect to Q1, respectively, what are these projects sources of financing?

_____

_____

_____

4) Do you think that having the EAC coordinated infrastructural projects have facilitated donor financing of such projects? Yes [ ] or No [ ]

   Explain:

   _____

   _____

   _____

5) By picking some of the projects:

   i) What is their status of implementation?

   _____

   _____

   _____

   ii). What are the key challenges facing their implementation?

   _____

   _____

   _____

6) What are the most important challenges facing infrastructural development in the EAC? Tick from a scale of 1 - 5:

   i). Lack of finance: 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

   ii). Regional political instability: 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

   iii). Poor institutional and regulatory frameworks: 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

   Others:

   _____

   _____

   _____

7) In what ways do you think that these challenges could be mitigated for effective implementation of infrastructural projects and development in the sub-region?

_____

_____

_____

8) By picking few of the completed projects such as the Arusha – Namanga – Athi River Road, what are their impacts in the sub-region?

_____

_____

_____